



## SOPAS Communication Interface Description



**CLV62x-65x**

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Erwin-Sick-Str. 1

79183 Waldkirch

Germany

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# 1. General

## 1.1. Introduction

This document describes the functional interfaces of the CLV62x device, V5.10. The CLV62x device is a SOPAS device. SOPAS devices have Variables, Methods and Events. Variables can always be read and in some cases be written by user.

## 1.2. User Level

Whether a Variable can be written by user depends on the least user level. Defined user levels are:

| ID | Name              | Description       |
|----|-------------------|-------------------|
| 0  | Always (Run)      | Always (Run)      |
| 1  | Operator          | Operator          |
| 2  | Maintenance       | Maintenance       |
| 3  | Authorised Client | Authorised Client |

Table 1: User Levels

## 1.3. Methods

Methods can be invoked by using certain parameters. The method will return with a structure of one or more return values. If a Method can be invoked depends as well on the least user level (see above).

## 1.4. Events

Events can be registered and will then be fired by the device to the registered client. Most Events have parameters which are the data coming with the Event.

## 1.5. Datatypes

All items of the interface have certain data elements. These are the Variables itself, the parameters of Methods and Events and the return values of the Methods.

The structure of the data elements can be one of the following BasicType(s), Structures or Arrays.

Basic Type

| Name  | Description                                 | Range of values                                     |
|-------|---|---|
| Bool  | boolean                                     | True(1), False(0)                                   |
| USInt | unsigned short (8 bit)                      | (0..255)  |
| UInt  | unsigned int (16 bit)                       | (0..65535)  |
| UDInt | unsigned double int (32 bit)                | (0..4294967295)                                     |
| SInt  | signed short (8 bit)                        | (-128..127)   |
| Int   | signed int (16 bit)                         | (-32768..32767)                                     |
| DInt  | signed double int (32 bit)                  | (-2147483648..2147483647)                           |
| LInt  | signed long int (64 bit)                    | (-9223372036854775808..9223372036854775807)         |
| Real  | IEEE-754 single precision (32 bit) (float)  | See specification in IEEE-754                       |
| LReal | IEEE-754 single precision (64 bit) (double) | See specification in IEEE-754                       |
| Enum8 | short enumeration (8 bit)                   | certain values defined in a list of choices (0-255) |



| Name       | Description  | Range of values  |
|------------|--|--|
| Enum16     | short enumeration (16 bit)   | certain values defined in a list of choices (0-65535)  |
| String     | array of visible characters (array of 8 bit)   | a character = an UInt with values between 0x20..0xFF   |
| FlexString | array of visible characters with preceding current length (UInt length) (array of 8 bit)   | See description of String and FlexArray  |
| Byte       | bitset definition (8 bit). Detailed specification of bits<br>UInt1..UInt16 = UInt (1..16 bit) Int1..Int16 = Int (1..16 bit) Enum1..Enum16 = Enum16 (1..16 bit) Bool = Bool (1 bit) | value is transferred as an array of UInt. See "XByte Serialisation" document for further details on bit ordering |
| Word       | bitset definition (16 bit), see description of Byte  | value is transferred as an array of UInt see "XByte Serialisation" document for further details on bit ordering. |
| DWord      | bitset definition (32 bit), see description of Byte  | value is transferred as an array of UInt see "XByte Serialisation" document for further details on bit ordering. |
| LWord      | bitset definition (64 bit), see description of Byte  | value is transferred as an array of UInt see "XByte Serialisation" document for further details on bit ordering. |
| XByte      | bitset definition (8,16,24,32,... bit) see description of Byte   | value is transferred as an array of UInt see "XByte Serialisation" document for further details on bit ordering. |

Table 2: Basic Datatypes

## Struct

A structure is a sequence of further types. These types can be of a BasicType, Structs again or an Array.

## Array

An Array is a repetition of a type. The length of the array is defined with each Array. The types can be of a BasicType, a Struct or an Array again (n- dimensional).

## Flex Array

A FlexArray is a repetition of a type with a variable length. The maximum length of the array is defined with each FlexArray. The current length of the FlexArray is transferred as a UInt preceding the Array itself. The types can be of a BasicType, a Struct or an Array again (n- dimensional).



## 2. Interfaces

### 2.1. Interface Block: S\_Standard

#### 2.1.1. Group: V100

##### 2.1.1.1. Variable: LocationName

The following section contains a detailed description of the variable LocationName.

#### Variable Overview

| Variable Name | Description                      |
|---------------|----------------------------------|
| LocationName  | Location of Device (set by user) |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 2 (fixed)   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | Maintenance, AuthorizedClient                           |

| FlexString     |        |
|----------------|--------|
| Length         | 0..64  |
| Initialisation | CLV6xx |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |                                  |
|------------------|--------------|--------|---------------|----------------------------------|
| sRN LocationName |              |        |               |                                  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name      |
| Command          | LocationName | String | 12            | Location of Device (set by user) |

| Read Variable Response: |              |            |               |                                  |
|-------------------------|--------------|------------|---------------|----------------------------------|
| sRA LocationName <data> |              |            |               |                                  |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                      |
| Command Type            | sRA          | String     | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | LocationName | String     | 12            | Location of Device (set by user) |
| Variable Data           | data         | FlexString | 64            |                                  |

| Write Variable:         |              |            |               |                                  |
|-------------------------|--------------|------------|---------------|----------------------------------|
| sWN LocationName <data> |              |            |               |                                  |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                      |
| Command Type            | sWN          | String     | 3             | Write SOPAS Variable by Name     |
| Command                 | LocationName | String     | 12            | Location of Device (set by user) |
| Variable Data           | data         | FlexString | 64            |                                  |



| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA LocationName         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | LocationName | String | 12            | Location of Device (set by user) |

## Variable Telegram Examples

| Example: Default Values                                     |                                      |
|---|--------------------------------------|
| Variable telegram examples with data set to default values. |                                      |
| <b>Read Variable:</b>                                       | [STX]sRN LocationName[ETX]           |
| <b>Read Variable Response:</b>                              | [STX]sRA LocationName 6 CLV6xx[ETX]  |
| <b>Write Variable:</b>                                      | [STX]sWN LocationName +6 CLV6xx[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA LocationName[ETX]           |

### 2.1.1.2. Method: SetAccessMode

The following section contains a detailed description of the method SetAccessMode.

#### Method Overview

| Method Name   | Description                                       |
|---------------|---|
| SetAccessMode | Change operation mode returns True, if successful |

|                   |           |
|-------------------|-----------|
| Sopas Index       | 0 (fixed) |
| Invocation Access | Always    |

| Parameters           |               |
|----------------------|---------------|
| NewMode              |               |
| <b>SInt</b>          |               |
| Value Range          | -128..127     |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |
| Password             | hash value    |
| <b>UDInt</b>         |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

| Return Values  |             |
|----------------|-------------|
| success        |             |
| <b>Bool</b>    |             |
| Value Range    | False, True |
| Initialisation | False       |



## Method Telegram Syntax

| Method Invocation:                     |               |        |               |   |
|--|---------------|--------|---------------|---|
| sMN SetAccessMode <NewMode> <Password> |               |        |               |   |
| Telegram Part                          | Telegram      | Type   | Length [Byte] | Description                                       |
| Command Type                           | sMN           | String | 3             | Request (SOPAS Method by Name)                    |
| Command                                | SetAccessMode | String | 13            | Change operation mode returns True, if successful |
| Parameter 1                            | NewMode       | SIInt  | 1             |   |
| Parameter 2                            | Password      | UDInt  | 4             | hash value  |

| Method Return Value:        |               |        |               |   |
|-----------------------------|---------------|--------|---------------|---|
| sAN SetAccessMode <success> |               |        |               |   |
| Telegram Part               | Telegram      | Type   | Length [Byte] | Description                                       |
| Command Type                | sAN           | String | 3             | Result (SOPAS Method Result)                      |
| Command                     | SetAccessMode | String | 13            | Change operation mode returns True, if successful |
| Return Value 1              | success       | Bool   | 1             |   |

## Method Telegram Examples

| Example: Default Values   |                                  |
|---|----------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                  |
| Method Invocation:  | [STX]sMN SetAccessMode +0 0[ETX] |
| Method Return Value:  | [STX]sAN SetAccessMode 0[ETX]    |

### 2.1.1.3. Method: GetAccessMode

The following section contains a detailed description of the method GetAccessMode.

#### Method Overview

| Method Name   | Description                   |
|---------------|-------------------------------|
| GetAccessMode | returns actual operation mode |

|                   |           |
|-------------------|-----------|
| Sopas Index       | 1 (fixed) |
| Invocation Access | Always    |

| Return Values        |           |
|----------------------|-----------|
| opmode               |           |
| SIInt                |           |
| Value Range          | -128..127 |
| Initialisation       |           |
| Physical Unit        |           |
| Physical Unit Factor | 0.0       |



## Method Telegram Syntax

| Method Invocation: |               |        |               |                                |
|--------------------|---------------|--------|---------------|--------------------------------|
| sMN GetAccessMode  |               |        |               |                                |
| Telegram Part      | Telegram      | Type   | Length [Byte] | Description                    |
| Command Type       | sMN           | String | 3             | Request (SOPAS Method by Name) |
| Command            | GetAccessMode | String | 13            | returns actual operation mode  |

| Method Return Value:       |               |        |               |                               |
|----------------------------|---------------|--------|---------------|-------------------------------|
| sAN GetAccessMode <opmode> |               |        |               |                               |
| Telegram Part              | Telegram      | Type   | Length [Byte] | Description                   |
| Command Type               | sAN           | String | 3             | Result (SOPAS Method Result)  |
| Command                    | GetAccessMode | String | 13            | returns actual operation mode |
| Return Value 1             | opmode        | SInt   | 1             |                               |

## Method Telegram Examples

| Example: Default Values   |                               |
|---|-------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                               |
| Method Invocation:  | [STX]sMN GetAccessMode[ETX]   |
| Method Return Value:  | [STX]sAN GetAccessMode 0[ETX] |

### 2.1.1.4. Method: Run

The following section contains a detailed description of the method Run.

#### Method Overview

| Method Name | Description                    |
|-------------|--------------------------------|
| Run         | Change operation mode to "Run" |

|                   |           |
|-------------------|-----------|
| Sopas Index       | 2 (fixed) |
| Invocation Access | Always    |

| Return Values  |             |
|----------------|-------------|
| success        |             |
| <b>Bool</b>    |             |
| Value Range    | False, True |
| Initialisation | False       |



## Method Telegram Syntax

| Method Invocation: |          |        |               |                                |
|--------------------|----------|--------|---------------|--------------------------------|
| sMN Run            |          |        |               |                                |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                    |
| Command Type       | sMN      | String | 3             | Request (SOPAS Method by Name) |
| Command            | Run      | String | 3             | Change operation mode to "Run" |

| Method Return Value: |          |        |               |                                |
|----------------------|----------|--------|---------------|--------------------------------|
| sAN Run <success>    |          |        |               |                                |
| Telegram Part        | Telegram | Type   | Length [Byte] | Description                    |
| Command Type         | sAN      | String | 3             | Result (SOPAS Method Result)   |
| Command              | Run      | String | 3             | Change operation mode to "Run" |
| Return Value 1       | success  | Bool   | 1             |                                |

## Method Telegram Examples

| Example: Default Values   |                     |
|---|---------------------|
| Method telegram examples with parameter data and return value data set to default values. |                     |
| Method Invocation:  | [STX]sMN Run[ETX]   |
| Method Return Value:  | [STX]sAN Run 0[ETX] |

### 2.1.1.5. Method: GetDescription

The following section contains a detailed description of the method GetDescription.

#### Method Overview

| Method Name    |  |
|----------------|--|
| GetDescription |  |

|                   |           |
|-------------------|-----------|
| Sopas Index       | 4 (fixed) |
| Invocation Access | Always    |

| Parameters    |       |          |             |
|---------------|-------|----------|-------------|
| eType         |       |          |             |
| Enum8         |       |          |             |
| Default Value |       | CID      |             |
|               | Value | Name     | Description |
|               | 1     | CID      |             |
|               | 2     | ShortUDD |             |
|               | 3     | PMD      |             |
|               | 4     | Jar      |             |



| Parameters           |          |
|----------------------|----------|
| uiSegmentNumber      |          |
| <b>UInt</b>          |          |
| Value Range          | 0..65535 |
| Initialisation       |          |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

| Return Values   |                      |          |                   |             |
|-----------------|----------------------|----------|-------------------|-------------|
| eState          |                      |          |                   |             |
|                 | Enum8                |          |                   |             |
|                 |                      | Value    | Name              | Description |
|                 |                      | 0        | TypeNotSupported  |             |
|                 |                      | 1        | SegmentOutOfRange |             |
|                 |                      | 2        | FirstSegment      |             |
|                 |                      | 3        | NormalSegment     |             |
|                 |                      | 4        | LastSegment       |             |
| uiSegmentNumber |                      |          |                   |             |
|                 | UInt                 |          |                   |             |
|                 | Value Range          | 0..65535 |                   |             |
|                 | Initialisation       |          |                   |             |
|                 | Physical Unit        |          |                   |             |
|                 | Physical Unit Factor | 0.0      |                   |             |
| aByteStream     |                      |          |                   |             |
|                 | Array                |          |                   |             |
|                 | Length               | 0..64    |                   |             |
|                 | USInt                |          |                   |             |
|                 | Value Range          | 0..255   |                   |             |
|                 | Initialisation       |          |                   |             |
|                 | Physical Unit        |          |                   |             |
|                 | Physical Unit Factor | 0.0      |                   |             |

## Method Telegram Syntax

| Method Invocation:                           |                 |        |               |                                |
|--|-----------------|--------|---------------|--------------------------------|
| sMN GetDescription <eType> <uiSegmentNumber> |                 |        |               |                                |
| Telegram Part                                | Telegram        | Type   | Length [Byte] | Description                    |
| Command Type                                 | sMN             | String | 3             | Request (SOPAS Method by Name) |
| Command                                      | GetDescription  | String | 14            |                                |
| Parameter 1                                  | eType           | Enum8  | 1             |                                |
| Parameter 2                                  | uiSegmentNumber | UInt   | 2             |                                |

| Method Return Value:  |                 |        |               |                              |
|---|-----------------|--------|---------------|------------------------------|
| sAN GetDescription <eState> <uiSegmentNumber> <aByteStream> |                 |        |               |                              |
| Telegram Part   | Telegram        | Type   | Length [Byte] | Description                  |
| Command Type  | sAN             | String | 3             | Result (SOPAS Method Result) |
| Command   | GetDescription  | String | 14            |                              |
| Return Value 1  | eState          | Enum8  | 1             |                              |
| Return Value 2  | uiSegmentNumber | UInt   | 2             |                              |
| Return Value 3  | aByteStream     | Array  | 64            |                              |





## Method Telegram Examples

| Example: Default Values   |                                    |
|---|------------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                    |
| Method Invocation:  | [STX]sMN GetDescription 1 0[ETX]   |
| Method Return Value:  | [STX]sAN GetDescription 0 0 0[ETX] |



## 2.1.2. Group: Optional

### 2.1.2.1. Method: SetPassword

The following section contains a detailed description of the method SetPassword.

#### Method Overview

| Method Name |  |
|-------------|--|
| SetPassword |  |

|                   |        |
|-------------------|--------|
| Sopas Index       | 3      |
| Invocation Access | Always |

| Parameters           |               |
|----------------------|---------------|
| siUserLevel          |               |
| <b>SInt</b>          |               |
| Value Range          | -128..127     |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |
| udiNewPassword       |               |
| <b>UDInt</b>         |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

| Return Values  |             |
|----------------|-------------|
| bSuccess       |             |
| <b>Bool</b>    |             |
| Value Range    | False, True |
| Initialisation | False       |

#### Method Telegram Syntax

| Method Invocation:                             |                |        |               |                                |
|--|----------------|--------|---------------|--------------------------------|
| sMN SetPassword <siUserLevel> <udiNewPassword> |                |        |               |                                |
| Telegram Part                                  | Telegram       | Type   | Length [Byte] | Description                    |
| Command Type                                   | sMN            | String | 3             | Request (SOPAS Method by Name) |
| Command  | SetPassword    | String | 11            |                                |
| Parameter 1                                    | siUserLevel    | SInt   | 1             |                                |
| Parameter 2                                    | udiNewPassword | UDInt  | 4             |                                |

| Method Return Value:       |             |        |               |                              |
|----------------------------|-------------|--------|---------------|------------------------------|
| sAN SetPassword <bSuccess> |             |        |               |                              |
| Telegram Part              | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type               | sAN         | String | 3             | Result (SOPAS Method Result) |
| Command                    | SetPassword | String | 11            |                              |



| Method Return Value:       |          |      |               |             |
|----------------------------|----------|------|---------------|-------------|
| sAN SetPassword <bSuccess> |          |      |               |             |
| Telegram Part              | Telegram | Type | Length [Byte] | Description |
| Return Value 1             | bSuccess | Bool | 1             |             |

## Method Telegram Examples

| Example: Default Values   |                                |
|---|--------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                |
| Method Invocation:  | [STX]sMN SetPassword +0 0[ETX] |
| Method Return Value:  | [STX]sAN SetPassword 0[ETX]    |

### 2.1.2.2. Method: CheckPassword

The following section contains a detailed description of the method CheckPassword.

#### Method Overview

| Method Name   |  |
|---------------|--|
| CheckPassword |  |

|                   |           |
|-------------------|-----------|
| Sopas Index       | 5 (fixed) |
| Invocation Access | Always    |

| Parameters           |               |
|----------------------|---------------|
| siUserLevel          |               |
| <b>SInt</b>          |               |
| Value Range          | -128..127     |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |
| udiPassword          |               |
| <b>UDInt</b>         |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

| Return Values  |             |
|----------------|-------------|
| bSuccess       |             |
| <b>Bool</b>    |             |
| Value Range    | False, True |
| Initialisation | False       |



## Method Telegram Syntax

| Method Invocation:                            |               |        |               |                                |
|---|---------------|--------|---------------|--------------------------------|
| sMN CheckPassword <siUserLevel> <udiPassword> |               |        |               |                                |
| Telegram Part                                 | Telegram      | Type   | Length [Byte] | Description                    |
| Command Type                                  | sMN           | String | 3             | Request (SOPAS Method by Name) |
| Command                                       | CheckPassword | String | 13            |                                |
| Parameter 1                                   | siUserLevel   | SIInt  | 1             |                                |
| Parameter 2                                   | udiPassword   | UDInt  | 4             |                                |

| Method Return Value:         |               |        |               |                              |
|------------------------------|---------------|--------|---------------|------------------------------|
| sAN CheckPassword <bSuccess> |               |        |               |                              |
| Telegram Part                | Telegram      | Type   | Length [Byte] | Description                  |
| Command Type                 | sAN           | String | 3             | Result (SOPAS Method Result) |
| Command                      | CheckPassword | String | 13            |                              |
| Return Value 1               | bSuccess      | Bool   | 1             |                              |

## Method Telegram Examples

| Example: Default Values   |                                  |
|---|----------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                  |
| Method Invocation:  | [STX]sMN CheckPassword +0 0[ETX] |
| Method Return Value:  | [STX]sAN CheckPassword 0[ETX]    |



## 2.1.3. Group: fileMethods

### 2.1.3.1. Method: GenOpenFile

The following section contains a detailed description of the method GenOpenFile.

#### Method Overview

| Method Name | Description        |
|-------------|--------------------|
| GenOpenFile | Open selected file |

|                    |            |
|--------------------|------------|
| Communication Name | OpenFile   |
| Sopas Index        | 10 (fixed) |
| Invocation Access  | Always     |

| Parameters     |        |
|----------------|--------|
| Name           |        |
| FlexString     |        |
| Length         | 0..256 |
| Initialisation |        |
| Mode           |        |
| FlexString     |        |
| Length         | 0..5   |
| Initialisation |        |

| Return Values        |               |
|----------------------|---------------|
| State                |               |
| Int                  |               |
| Value Range          | -32768..32767 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |
| FileHandle           |               |
| UDInt                |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |



## Method Telegram Syntax

| Method Invocation:         |          |            |               |                                |
|----------------------------|----------|------------|---------------|--------------------------------|
| sMN OpenFile <Name> <Mode> |          |            |               |                                |
| Telegram Part              | Telegram | Type       | Length [Byte] | Description                    |
| Command Type               | sMN      | String     | 3             | Request (SOPAS Method by Name) |
| Command                    | OpenFile | String     | 8             | Open selected file             |
| Parameter 1                | Name     | FlexString | 256           |                                |
| Parameter 2                | Mode     | FlexString | 5             |                                |

| Method Return Value:              |            |        |               |                              |
|-----------------------------------|------------|--------|---------------|------------------------------|
| sAN OpenFile <State> <FileHandle> |            |        |               |                              |
| Telegram Part                     | Telegram   | Type   | Length [Byte] | Description                  |
| Command Type                      | sAN        | String | 3             | Result (SOPAS Method Result) |
| Command                           | OpenFile   | String | 8             | Open selected file           |
| Return Value 1                    | State      | Int    | 2             |                              |
| Return Value 2                    | FileHandle | UDInt  | 4             |                              |

## Method Telegram Examples

| Example: Default Values   |                                  |
|---|----------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                  |
| Method Invocation:  | [STX]sMN OpenFile +0 0 +0 0[ETX] |
| Method Return Value:  | [STX]sAN OpenFile 0 0[ETX]       |

### 2.1.3.2. Method: GenCloseFile

The following section contains a detailed description of the method GenCloseFile.

#### Method Overview

| Method Name  | Description         |
|--------------|---------------------|
| GenCloseFile | Close selected file |

|                    |            |
|--------------------|------------|
| Communication Name | CloseFile  |
| Sopas Index        | 11 (fixed) |
| Invocation Access  | Always     |

| Parameters           |               |
|----------------------|---------------|
| FileHandle           |               |
| UDInt                |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |



| Return Values        |               |
|----------------------|---------------|
| State                |               |
| Int                  |               |
| Value Range          | -32768..32767 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

## Method Telegram Syntax

| Method Invocation:         |            |        |               |                                |
|----------------------------|------------|--------|---------------|--------------------------------|
| sMN CloseFile <FileHandle> |            |        |               |                                |
| Telegram Part              | Telegram   | Type   | Length [Byte] | Description                    |
| Command Type               | sMN        | String | 3             | Request (SOPAS Method by Name) |
| Command                    | CloseFile  | String | 9             | Close selected file            |
| Parameter 1                | FileHandle | UDInt  | 4             |                                |

| Method Return Value:  |           |        |               |                              |
|-----------------------|-----------|--------|---------------|------------------------------|
| sAN CloseFile <State> |           |        |               |                              |
| Telegram Part         | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type          | sAN       | String | 3             | Result (SOPAS Method Result) |
| Command               | CloseFile | String | 9             | Close selected file          |
| Return Value 1        | State     | Int    | 2             |                              |

## Method Telegram Examples

| Example: Default Values   |                           |
|---|---------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                           |
| Method Invocation:  | [STX]sMN CloseFile 0[ETX] |
| Method Return Value:  | [STX]sAN CloseFile 0[ETX] |

### 2.1.3.3. Method: GenReadFile

The following section contains a detailed description of the method GenReadFile.

#### Method Overview

| Method Name | Description        |
|-------------|--------------------|
| GenReadFile | Read selected file |

  

|                    |            |
|--------------------|------------|
| Communication Name | ReadFile   |
| Sopas Index        | 13 (fixed) |
| Invocation Access  | Always     |



| Parameters     |                           |
|----------------|---------------------------|
| FileHandle     |                           |
|                | <b>UDInt</b>              |
|                | Value Range 0..4294967295 |
|                | Initialisation            |
|                | Physical Unit             |
|                | Physical Unit Factor 0.0  |
| SequenceNumber |                           |
|                | <b>UDInt</b>              |
|                | Value Range 0..4294967295 |
|                | Initialisation            |
|                | Physical Unit             |
|                | Physical Unit Factor 0.0  |

| Return Values |                           |
|---------------|---------------------------|
| State         |                           |
|               | <b>Int</b>                |
|               | Value Range -32768..32767 |
|               | Initialisation            |
|               | Physical Unit             |
|               | Physical Unit Factor 0.0  |
| Data          |                           |
|               | <b>Array</b>              |
|               | Length 0..64              |
|               | <b>USInt</b>              |
|               | Value Range 0..255        |
|               | Initialisation            |
|               | Physical Unit             |
|               | Physical Unit Factor 0.0  |

## Method Telegram Syntax

| Method Invocation:                         |                |        |               |                                |
|--|----------------|--------|---------------|--------------------------------|
| sMN ReadFile <FileHandle> <SequenceNumber> |                |        |               |                                |
| Telegram Part                              | Telegram       | Type   | Length [Byte] | Description                    |
| Command Type                               | sMN            | String | 3             | Request (SOPAS Method by Name) |
| Command                                    | ReadFile       | String | 8             | Read selected file             |
| Parameter 1                                | FileHandle     | UDInt  | 4             |                                |
| Parameter 2                                | SequenceNumber | UDInt  | 4             |                                |

| Method Return Value:        |          |        |               |                              |
|-----------------------------|----------|--------|---------------|------------------------------|
| sAN ReadFile <State> <Data> |          |        |               |                              |
| Telegram Part               | Telegram | Type   | Length [Byte] | Description                  |
| Command Type                | sAN      | String | 3             | Result (SOPAS Method Result) |
| Command                     | ReadFile | String | 8             | Read selected file           |
| Return Value 1              | State    | Int    | 2             |                              |
| Return Value 2              | Data     | Array  | 64            |                              |





## Method Telegram Examples

| Example: Default Values   |                            |
|---|----------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                            |
| Method Invocation:  | [STX]sMN ReadFile 0 0[ETX] |
| Method Return Value:  | [STX]sAN ReadFile 0 0[ETX] |

### 2.1.3.4. Method: GenWriteFile

The following section contains a detailed description of the method GenWriteFile.

#### Method Overview

| Method Name  | Description         |
|--------------|---------------------|
| GenWriteFile | Write selected file |

|                    |            |
|--------------------|------------|
| Communication Name | WriteFile  |
| Sopas Index        | 14 (fixed) |
| Invocation Access  | Always     |

| Parameters     |                           |
|----------------|---------------------------|
| FileHandle     |                           |
|                | <b>UDInt</b>              |
|                | Value Range 0..4294967295 |
|                | Initialisation            |
|                | Physical Unit             |
|                | Physical Unit Factor 0.0  |
| Data           |                           |
|                | <b>Array</b>              |
|                | Length 0..64              |
|                | <b>USInt</b>              |
|                | Value Range 0..255        |
|                | Initialisation            |
| SequenceNumber | Physical Unit             |
|                | Physical Unit Factor 0.0  |
|                | <b>UDInt</b>              |
|                | Value Range 0..4294967295 |
|                | Initialisation            |
|                | Physical Unit             |



| Return Values |                      |
|---------------|----------------------|
| State         |                      |
|               | <b>Int</b>           |
|               | Value Range          |
|               | -32768..32767        |
|               | Initialisation       |
|               |                      |
|               | Physical Unit        |
|               |                      |
|               | Physical Unit Factor |
|               | 0.0                  |

## Method Telegram Syntax

| Method Invocation:                                 |                |        |               |                                |
|--|----------------|--------|---------------|--------------------------------|
| sMN WriteFile <FileHandle> <Data> <SequenceNumber> |                |        |               |                                |
| Telegram Part                                      | Telegram       | Type   | Length [Byte] | Description                    |
| Command Type                                       | sMN            | String | 3             | Request (SOPAS Method by Name) |
| Command  | WriteFile      | String | 9             | Write selected file            |
| Parameter 1  | FileHandle     | UDInt  | 4             |                                |
| Parameter 2  | Data           | Array  | 64            |                                |
| Parameter 3  | SequenceNumber | UDInt  | 4             |                                |

| Method Return Value:  |           |        |               |                              |
|-----------------------|-----------|--------|---------------|------------------------------|
| sAN WriteFile <State> |           |        |               |                              |
| Telegram Part         | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type          | sAN       | String | 3             | Result (SOPAS Method Result) |
| Command               | WriteFile | String | 9             | Write selected file          |
| Return Value 1        | State     | Int    | 2             |                              |

## Method Telegram Examples

| Example: Default Values   |                                |
|---|--------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                |
| Method Invocation:  | [STX]sMN WriteFile 0 +0 0[ETX] |
| Method Return Value:  | [STX]sAN WriteFile 0[ETX]      |



### 2.1.3.5. Method: GetFileSyncValue

The following section contains a detailed description of the method GetFileSyncValue.

#### Method Overview

| Method Name      | Description             |
|------------------|-------------------------|
| GetFileSyncValue | get Sync Value for file |

|                   |            |
|-------------------|------------|
| Sopas Index       | 15 (fixed) |
| Invocation Access | Always     |

| Parameters     |        |
|----------------|--------|
| Name           |        |
| FlexString     |        |
| Length         | 0..256 |
| Initialisation |        |

| Return Values        |               |
|----------------------|---------------|
| HashValue            |               |
| UDInt                |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

#### Method Telegram Syntax

| Method Invocation:          |                  |            |               |                                |
|-----------------------------|------------------|------------|---------------|--------------------------------|
| sMN GetFileSyncValue <Name> |                  |            |               |                                |
| Telegram Part               | Telegram         | Type       | Length [Byte] | Description                    |
| Command Type                | sMN              | String     | 3             | Request (SOPAS Method by Name) |
| Command                     | GetFileSyncValue | String     | 16            | get Sync Value for file        |
| Parameter 1                 | Name             | FlexString | 256           |                                |

| Method Return Value:             |                  |        |               |                              |
|----------------------------------|------------------|--------|---------------|------------------------------|
| sAN GetFileSyncValue <HashValue> |                  |        |               |                              |
| Telegram Part                    | Telegram         | Type   | Length [Byte] | Description                  |
| Command Type                     | sAN              | String | 3             | Result (SOPAS Method Result) |
| Command                          | GetFileSyncValue | String | 16            | get Sync Value for file      |
| Return Value 1                   | HashValue        | UDInt  | 4             |                              |



## Method Telegram Examples

| Example: Default Values   |                                     |
|---|-------------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                     |
| Method Invocation:  | [STX]sMN GetFileSyncValue +0 0[ETX] |
| Method Return Value:  | [STX]sAN GetFileSyncValue 0[ETX]    |

## 2.2. Interface Block: GeneralCfgBase

### 2.2.1. Group: EEprom

#### 2.2.1.1. Method: ReadEeprom

The following section contains a detailed description of the method ReadEeprom.

##### Method Overview

| Method Name | Description  |
|-------------|--|
| ReadEeprom  | Method reads all permanent parameters from the ParamEEprom into the mirror |

|                    |                  |
|--------------------|------------------|
| Communication Name | mEEreadall       |
| Sopas Index        | 6                |
| Invocation Access  | AuthorizedClient |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
| <b>Bool</b>    |             |
| Value Range    | False, True |
| Initialisation | False       |

##### Method Telegram Syntax

| Method Invocation: |            |        |               |  |
|--------------------|------------|--------|---------------|--|
| sMN mEEreadall     |            |        |               |  |
| Telegram Part      | Telegram   | Type   | Length [Byte] | Description  |
| Command Type       | sMN        | String | 3             | Request (SOPAS Method by Name)   |
| Command            | mEEreadall | String | 10            | Method reads all permanent parameters from the ParamEEprom into the mirror |

| Method Return Value:     |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sAN mEEreadall <Success> |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description  |
| Command Type             | sAN        | String | 3             | Result (SOPAS Method Result)   |
| Command                  | mEEreadall | String | 10            | Method reads all permanent parameters from the ParamEEprom into the mirror |
| Return Value 1           | Success    | Bool   | 1             |  |

## Method Telegram Examples

| Example: Default Values   |                            |
|---|----------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                            |
| <b>Method Invocation:</b>   | [STX]sMN mEEreadall[ETX]   |
| <b>Method Return Value:</b>   | [STX]sAN mEEreadall 0[ETX] |

### 2.2.1.2. Method: WriteEeprom

The following section contains a detailed description of the method WriteEeprom.

#### Method Overview

| Method Name | Description   |
|-------------|---|
| WriteEeprom | Method writes all permanent parameters from the SOPAS mirror to the ParamEEprom |

|                    |                  |
|--------------------|------------------|
| Communication Name | mEEwriteall      |
| Sopas Index        | 7                |
| Invocation Access  | AuthorizedClient |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
| <b>Bool</b>    |             |
| Value Range    | False, True |
| Initialisation | False       |

#### Method Telegram Syntax

| Method Invocation: |             |        |               |   |
|--------------------|-------------|--------|---------------|---|
| sMN mEEwriteall    |             |        |               |   |
| Telegram Part      | Telegram    | Type   | Length [Byte] | Description   |
| Command Type       | sMN         | String | 3             | Request (SOPAS Method by Name)  |
| Command            | mEEwriteall | String | 11            | Method writes all permanent parameters from the SOPAS mirror to the ParamEEprom |

| Method Return Value:      |             |        |               |   |
|---------------------------|-------------|--------|---------------|---|
| sAN mEEwriteall <Success> |             |        |               |   |
| Telegram Part             | Telegram    | Type   | Length [Byte] | Description   |
| Command Type              | sAN         | String | 3             | Result (SOPAS Method Result)  |
| Command                   | mEEwriteall | String | 11            | Method writes all permanent parameters from the SOPAS mirror to the ParamEEprom |
| Return Value 1            | Success     | Bool   | 1             |   |



## Method Telegram Examples

| Example: Default Values   |                             |
|---|-----------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                             |
| Method Invocation:  | [STX]SMN mEEwriteall[ETX]   |
| Method Return Value:  | [STX]sAN mEEwriteall 0[ETX] |



## 2.2.2. Group: SystemControl

### 2.2.2.1. Variable: SCTimeFormat

The following section contains a detailed description of the variable SCTimeFormat.

#### Variable Overview

| Variable Name | Description             |
|---------------|-------------------------|
| SCTimeFormat  | Defines the time format |

|                       |   |
|-----------------------|---|
| Communication Name    | SCtimeformat  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 12  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | AuthorizedClient  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |          |             |
|---------------|-------|----------|-------------|
| Default Value |       | 0        |             |
|               | Value | Name     | Description |
|               | 0     | OpHours  |             |
|               | 1     | RealTime |             |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |                             |
|------------------|--------------|--------|---------------|-----------------------------|
| sRN SCTimeformat |              |        |               |                             |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                 |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name |
| Command          | SCTimeformat | String | 12            | Defines the time format     |

| Read Variable Response: |              |        |               |                                 |
|-------------------------|--------------|--------|---------------|---------------------------------|
| sRA SCTimeformat <data> |              |        |               |                                 |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | SCTimeformat | String | 12            | Defines the time format         |
| Variable Data           | data         | Enum8  | 1             |                                 |

| Write Variable:         |              |        |               |                              |
|-------------------------|--------------|--------|---------------|------------------------------|
| sWN SCTimeformat <data> |              |        |               |                              |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                  |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name |
| Command                 | SCTimeformat | String | 12            | Defines the time format      |
| Variable Data           | data         | Enum8  | 1             |                              |





| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA Sctimeformat         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | Sctimeformat | String | 12            | Defines the time format          |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN Sctimeformat[ETX]   |
| Read Variable Response:                                     | [STX]sRA Sctimeformat 0[ETX] |
| Write Variable:   | [STX]sWN Sctimeformat 0[ETX] |
| Write Variable Response:                                    | [STX]sWA Sctimeformat[ETX]   |

### 2.2.2.2. Variable: SCUserInterfaceVariant

The following section contains a detailed description of the variable SCUserInterfaceVariant.

#### Variable Overview

| Variable Name          | Description   |
|------------------------|---|
| SCUserInterfaceVariant | Defines which kind of User interface has been used for parametrization. Variable may be set by the OnDeviceAdded-Hook |

|                       |   |
|-----------------------|---|
| Communication Name    | SCUIVers  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 14  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | Always  |

| Enum8         |       |                      |             |
|---------------|-------|----------------------|-------------|
| Default Value |       | 0                    |             |
|               | Value | Name                 | Description |
|               | 0     | TX_NOT_DEFINED       |             |
|               | 1     | TX_SOPAS_ET_STANDARD |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN SCUIVers   |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name   |
| Command        | SCUIVers | String | 8             | Defines which kind of User interface has been used for parametrization. Variable may be set by the OnDeviceAdded-Hook |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA SCUIVers <data>     |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description   |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | SCUIVers | String | 8             | Defines which kind of User interface has been used for parametrization. Variable may be set by the OnDeviceAdded-Hook |
| Variable Data           | data     | Enum8  | 1             |   |

| Write Variable:     |          |        |               |   |
|---------------------|----------|--------|---------------|---|
| sWN SCUIVers <data> |          |        |               |   |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description   |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name  |
| Command             | SCUIVers | String | 8             | Defines which kind of User interface has been used for parametrization. Variable may be set by the OnDeviceAdded-Hook |
| Variable Data       | data     | Enum8  | 1             |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA SCUIVers             |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description   |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | SCUIVers | String | 8             | Defines which kind of User interface has been used for parametrization. Variable may be set by the OnDeviceAdded-Hook |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN SCUIVers[ETX]   |
| Read Variable Response:                                     | [STX]sRA SCUIVers 0[ETX] |
| Write Variable:   | [STX]sWN SCUIVers 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SCUIVers[ETX]   |



### 2.2.2.3. Method: SoftReset

The following section contains a detailed description of the method SoftReset.

#### Method Overview

| Method Name | Description                                    |
|-------------|--|
| SoftReset   | Method executes a software reset on the device |

|                    |                  |
|--------------------|------------------|
| Communication Name | mSCsoftreset     |
| Sopas Index        | 17               |
| Invocation Access  | AuthorizedClient |

| Parameters           |          |
|----------------------|----------|
| ProcessorNbr         |          |
| <b>UInt</b>          |          |
| Value Range          | 0..65535 |
| Initialisation       |          |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

#### Method Telegram Syntax

| Method Invocation:              |              |        |               |  |
|---------------------------------|--------------|--------|---------------|--|
| sMN mSCsoftreset <ProcessorNbr> |              |        |               |  |
| Telegram Part                   | Telegram     | Type   | Length [Byte] | Description                                    |
| Command Type                    | sMN          | String | 3             | Request (SOPAS Method by Name)                 |
| Command                         | mSCsoftreset | String | 12            | Method executes a software reset on the device |
| Parameter 1                     | ProcessorNbr | UInt   | 2             |  |

| Method Return Value: |              |        |               |  |
|----------------------|--------------|--------|---------------|--|
| sAN mSCsoftreset     |              |        |               |  |
| Telegram Part        | Telegram     | Type   | Length [Byte] | Description                                    |
| Command Type         | sAN          | String | 3             | Result (SOPAS Method Result)                   |
| Command              | mSCsoftreset | String | 12            | Method executes a software reset on the device |

#### Method Telegram Examples

| Example: Default Values   |                              |
|---|------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                              |
| Method Invocation:  | [STX]sMN mSCsoftreset 0[ETX] |
| Method Return Value:  | [STX]sAN mSCsoftreset[ETX]   |

## 2.2.2.4. Method: RebootDevice

The following section contains a detailed description of the method RebootDevice.

### Method Overview

| Method Name  | Description   |
|--------------|---|
| RebootDevice | Method shuts the device down but saves the parameter before shutdown ist executed |

|                    |                  |
|--------------------|------------------|
| Communication Name | mSCreboot        |
| Sopas Index        | 18               |
| Invocation Access  | AuthorizedClient |

### Method Telegram Syntax

| Method Invocation: |           |        |               |   |
|--------------------|-----------|--------|---------------|---|
| sMN mSCreboot      |           |        |               |   |
| Telegram Part      | Telegram  | Type   | Length [Byte] | Description   |
| Command Type       | sMN       | String | 3             | Request (SOPAS Method by Name)  |
| Command            | mSCreboot | String | 9             | Method shuts the device down but saves the parameter before shutdown ist executed |

| Method Return Value: |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sAN mSCreboot        |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description   |
| Command Type         | sAN       | String | 3             | Result (SOPAS Method Result)  |
| Command              | mSCreboot | String | 9             | Method shuts the device down but saves the parameter before shutdown ist executed |

### Method Telegram Examples

| Example: Default Values   |                         |
|---|-------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                         |
| Method Invocation:  | [STX]sMN mSCreboot[ETX] |
| Method Return Value:  | [STX]sAN mSCreboot[ETX] |



### 2.2.2.5. Method: LoadFactoryDefaults

The following section contains a detailed description of the method LoadFactoryDefaults.

#### Method Overview

| Method Name         | Description   |
|---------------------|---|
| LoadFactoryDefaults | The method resets all variables to their default value. |

|                    |                  |
|--------------------|------------------|
| Communication Name | mSCloadfacdef    |
| Sopas Index        | 19               |
| Invocation Access  | AuthorizedClient |

#### Method Telegram Syntax

| Method Invocation: |               |        |               |   |
|--------------------|---------------|--------|---------------|---|
| sMN mSCloadfacdef  |               |        |               |   |
| Telegram Part      | Telegram      | Type   | Length [Byte] | Description   |
| Command Type       | sMN           | String | 3             | Request (SOPAS Method by Name)                          |
| Command            | mSCloadfacdef | String | 13            | The method resets all variables to their default value. |

| Method Return Value: |               |        |               |   |
|----------------------|---------------|--------|---------------|---|
| sAN mSCloadfacdef    |               |        |               |   |
| Telegram Part        | Telegram      | Type   | Length [Byte] | Description   |
| Command Type         | sAN           | String | 3             | Result (SOPAS Method Result)                            |
| Command              | mSCloadfacdef | String | 13            | The method resets all variables to their default value. |

#### Method Telegram Examples

| Example: Default Values   |                             |
|---|-----------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                             |
| Method Invocation:  | [STX]sMN mSCloadfacdef[ETX] |
| Method Return Value:  | [STX]sAN mSCloadfacdef[ETX] |



### 2.2.2.6. Method: LoadApplicationDefaults

The following section contains a detailed description of the method LoadApplicationDefaults.

#### Method Overview

| Method Name             | Description   |
|-------------------------|---|
| LoadApplicationDefaults | The method resets all application relevant variables to their default value |

|                    |                  |
|--------------------|------------------|
| Communication Name | mSCloadappdef    |
| Sopas Index        | 20               |
| Invocation Access  | AuthorizedClient |

#### Method Telegram Syntax

| Method Invocation: |               |        |               |   |
|--------------------|---------------|--------|---------------|---|
| sMN mSCloadappdef  |               |        |               |   |
| Telegram Part      | Telegram      | Type   | Length [Byte] | Description   |
| Command Type       | sMN           | String | 3             | Request (SOPAS Method by Name)  |
| Command            | mSCloadappdef | String | 13            | The method resets all application relevant variables to their default value |

| Method Return Value: |               |        |               |   |
|----------------------|---------------|--------|---------------|---|
| sAN mSCloadappdef    |               |        |               |   |
| Telegram Part        | Telegram      | Type   | Length [Byte] | Description   |
| Command Type         | sAN           | String | 3             | Result (SOPAS Method Result)  |
| Command              | mSCloadappdef | String | 13            | The method resets all application relevant variables to their default value |

#### Method Telegram Examples

| Example: Default Values   |                             |
|---|-----------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                             |
| Method Invocation:  | [STX]sMN mSCloadappdef[ETX] |
| Method Return Value:  | [STX]sAN mSCloadappdef[ETX] |

### 2.2.2.7. Method: SelfTest

The following section contains a detailed description of the method SelfTest.

#### Method Overview

| Method Name | Description  |
|-------------|--|
| SelfTest    | The method forces the device to execute a self test. Return value 0 means self test was successful |

|                    |             |
|--------------------|-------------|
| Communication Name | mSCselftest |
| Sopas Index        | 23          |
| Invocation Access  | Always      |

| Return Values        |               |
|----------------------|---------------|
| ErrorCode            |               |
| UDInt                |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

#### Method Telegram Syntax

| Method Invocation: |             |        |               |  |
|--------------------|-------------|--------|---------------|--|
| sMN mSCselftest    |             |        |               |  |
| Telegram Part      | Telegram    | Type   | Length [Byte] | Description  |
| Command Type       | sMN         | String | 3             | Request (SOPAS Method by Name)   |
| Command            | mSCselftest | String | 11            | The method forces the device to execute a self test. Return value 0 means self test was successful |

| Method Response: |             |        |               |  |
|------------------|-------------|--------|---------------|--|
| sMA mSCselftest  |             |        |               |  |
| Telegram Part    | Telegram    | Type   | Length [Byte] | Description  |
| Command Type     | sMA         | String | 3             | Response (SOPAS Method Acknowledge)  |
| Command          | mSCselftest | String | 11            | The method forces the device to execute a self test. Return value 0 means self test was successful |

| Method Return Value:        |             |        |               |  |
|-----------------------------|-------------|--------|---------------|--|
| sAN mSCselftest <ErrorCode> |             |        |               |  |
| Telegram Part               | Telegram    | Type   | Length [Byte] | Description  |
| Command Type                | sAN         | String | 3             | Result (SOPAS Method Result)   |
| Command                     | mSCselftest | String | 11            | The method forces the device to execute a self test. Return value 0 means self test was successful |
| Return Value 1              | ErrorCode   | UDInt  | 4             |  |



## Method Telegram Examples

| Example: Default Values   |                             |
|---|-----------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                             |
| Method Invocation:  | [STX]sMN mSCselftest[ETX]   |
| Method Response:  | [STX]sMA mSCselftest[ETX]   |
| Method Return Value:  | [STX]sAN mSCselftest 0[ETX] |

### 2.2.2.8. Method: ClearCMC

The following section contains a detailed description of the method ClearCMC.

#### Method Overview

| Method Name | Description  |
|-------------|--|
| ClearCMC    | The method forces the device to clear parameter set in a connected CMC |

|                    |                  |
|--------------------|------------------|
| Communication Name | mSCclearCMC      |
| Sopas Index        | 24               |
| Invocation Access  | AuthorizedClient |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |

#### Method Telegram Syntax

| Method Invocation: |             |        |               |  |
|--------------------|-------------|--------|---------------|--|
| sMN mSCclearCMC    |             |        |               |  |
| Telegram Part      | Telegram    | Type   | Length [Byte] | Description  |
| Command Type       | sMN         | String | 3             | Request (SOPAS Method by Name)   |
| Command            | mSCclearCMC | String | 11            | The method forces the device to clear parameter set in a connected CMC |

| Method Return Value:      |             |        |               |  |
|---------------------------|-------------|--------|---------------|--|
| sAN mSCclearCMC <Success> |             |        |               |  |
| Telegram Part             | Telegram    | Type   | Length [Byte] | Description  |
| Command Type              | sAN         | String | 3             | Result (SOPAS Method Result)   |
| Command                   | mSCclearCMC | String | 11            | The method forces the device to clear parameter set in a connected CMC |
| Return Value 1            | Success     | Bool   | 1             |  |





## Method Telegram Examples

| Example: Default Values   |                             |
|---|-----------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                             |
| Method Invocation:  | [STX]sMN mSCclearCMC[ETX]   |
| Method Return Value:  | [STX]sAN mSCclearCMC 0[ETX] |

### 2.2.2.9. Method: ClearSDCard

The following section contains a detailed description of the method ClearSDCard.

#### Method Overview

| Method Name | Description   |
|-------------|---|
| ClearSDCard | The method forces the device to clear parameter set on MMC card |

|                    |                  |
|--------------------|------------------|
| Communication Name | mSCclearSDCard   |
| Sopas Index        | 25               |
| Invocation Access  | AuthorizedClient |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
|                |             |
|                |             |
|                |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |

#### Method Telegram Syntax

| Method Invocation: |                |        |               |   |
|--------------------|----------------|--------|---------------|---|
| sMN mSCclearSDCard |                |        |               |   |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description   |
| Command Type       | sMN            | String | 3             | Request (SOPAS Method by Name)                                  |
| Command            | mSCclearSDCard | String | 14            | The method forces the device to clear parameter set on MMC card |

| Method Return Value:         |                |        |               |   |
|------------------------------|----------------|--------|---------------|---|
| sAN mSCclearSDCard <Success> |                |        |               |   |
| Telegram Part                | Telegram       | Type   | Length [Byte] | Description   |
| Command Type                 | sAN            | String | 3             | Result (SOPAS Method Result)                                    |
| Command                      | mSCclearSDCard | String | 14            | The method forces the device to clear parameter set on MMC card |
| Return Value 1               | Success        | Bool   | 1             |   |



## Method Telegram Examples

| Example: Default Values   |                                |
|---|--------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                |
| Method Invocation:  | [STX]sMN mSCclearSDCard[ETX]   |
| Method Return Value:  | [STX]sAN mSCclearSDCard 0[ETX] |

### 2.2.2.10. Method: ClearAllExtPara

The following section contains a detailed description of the method ClearAllExtPara.

#### Method Overview

| Method Name     | Description  |
|-----------------|--|
| ClearAllExtPara | The method forces the device to clear parameters in all connected external parameter devices |

|                    |                    |
|--------------------|--------------------|
| Communication Name | mSCclearAllExtPara |
| Sopas Index        | 26                 |
| Invocation Access  | AuthorizedClient   |

| Return Values |                      |
|---------------|----------------------|
| ErrorCode     |                      |
|               | USInt                |
|               | Value Range          |
|               | 0..255               |
|               | Initialisation       |
|               |                      |
|               | Physical Unit        |
|               |                      |
|               | Physical Unit Factor |
|               | 0.0                  |

#### Method Telegram Syntax

| Method Invocation:     |                    |        |               |  |
|------------------------|--------------------|--------|---------------|--|
| sMN mSCclearAllExtPara |                    |        |               |  |
| Telegram Part          | Telegram           | Type   | Length [Byte] | Description  |
| Command Type           | sMN                | String | 3             | Request (SOPAS Method by Name)   |
| Command                | mSCclearAllExtPara | String | 18            | The method forces the device to clear parameters in all connected external parameter devices |

| Method Return Value:               |                    |        |               |  |
|------------------------------------|--------------------|--------|---------------|--|
| sAN mSCclearAllExtPara <ErrorCode> |                    |        |               |  |
| Telegram Part                      | Telegram           | Type   | Length [Byte] | Description  |
| Command Type                       | sAN                | String | 3             | Result (SOPAS Method Result)   |
| Command                            | mSCclearAllExtPara | String | 18            | The method forces the device to clear parameters in all connected external parameter devices |
| Return Value 1                     | ErrorCode          | USInt  | 1             |  |



## Method Telegram Examples

| Example: Default Values   |                                    |
|---|------------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                    |
| Method Invocation:  | [STX]sMN mSCclearAllExtPara[ETX]   |
| Method Return Value:  | [STX]sAN mSCclearAllExtPara 0[ETX] |

## 2.2.3. Group: FirmwareDownload2nd

### 2.2.3.1. Method: WriteSignature

The following section contains a detailed description of the method WriteSignature.

#### Method Overview

| Method Name    | Description                    |
|----------------|--------------------------------|
| WriteSignature | Encrypted writing of signature |

|                    |                  |
|--------------------|------------------|
| Communication Name | mFDwrtsig        |
| Sopas Index        | 33               |
| Invocation Access  | AuthorizedClient |

| Parameters         |       |
|--------------------|-------|
| EncryptedSignature |       |
| <b>FlexString</b>  |       |
| Length             | 0..18 |
| Initialisation     |       |

| Return Values  |             |
|----------------|-------------|
| bSuccess       |             |
| <b>Bool</b>    |             |
| Value Range    | False, True |
| Initialisation | False       |

#### Method Telegram Syntax

| Method Invocation:                 |                    |            |               |                                |
|------------------------------------|--------------------|------------|---------------|--------------------------------|
| sMN mFDwrtsig <EncryptedSignature> |                    |            |               |                                |
| Telegram Part                      | Telegram           | Type       | Length [Byte] | Description                    |
| Command Type                       | sMN                | String     | 3             | Request (SOPAS Method by Name) |
| Command                            | mFDwrtsig          | String     | 9             | Encrypted writing of signature |
| Parameter 1                        | EncryptedSignature | FlexString | 18            |                                |

| Method Return Value:     |           |        |               |                                |
|--------------------------|-----------|--------|---------------|--------------------------------|
| sAN mFDwrtsig <bSuccess> |           |        |               |                                |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                    |
| Command Type             | sAN       | String | 3             | Result (SOPAS Method Result)   |
| Command                  | mFDwrtsig | String | 9             | Encrypted writing of signature |
| Return Value 1           | bSuccess  | Bool   | 1             |                                |



## Method Telegram Examples

| Example: Default Values   |                              |
|---|------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                              |
| Method Invocation:  | [STX]SMN mFDwrtsig +0 0[ETX] |
| Method Return Value:  | [STX]sAN mFDwrtsig 0[ETX]    |

## 2.3. Interface Block: DiagBase

### 2.3.1. Group: DeviceInformationBase

#### 2.3.1.1. Variable: LastMaintenance

The following section contains a detailed description of the variable LastMaintenance.

##### Variable Overview

| Variable Name   | Description              |
|-----------------|--------------------------|
| LastMaintenance | Date of last maintenance |

|                       |   |
|-----------------------|---|
| Communication Name    | Dllstmt   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 30  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |            |
|----------------|------------|
| Length         | 0..10      |
| Initialisation | DD.MM.YYYY |

##### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN Dllstmt    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | Dllstmt  | String | 7             | Date of last maintenance    |

| Read Variable Response: |          |            |               |                                 |
|-------------------------|----------|------------|---------------|---------------------------------|
| sRA Dllstmt <data>      |          |            |               |                                 |
| Telegram Part           | Telegram | Type       | Length [Byte] | Description                     |
| Command Type            | sRA      | String     | 3             | SOPAS Variable Read Acknowledge |
| Command                 | Dllstmt  | String     | 7             | Date of last maintenance        |
| Variable Data           | data     | FlexString | 10            |                                 |

| Write Variable:    |          |            |               |                              |
|--------------------|----------|------------|---------------|------------------------------|
| sWN Dllstmt <data> |          |            |               |                              |
| Telegram Part      | Telegram | Type       | Length [Byte] | Description                  |
| Command Type       | sWN      | String     | 3             | Write SOPAS Variable by Name |
| Command            | Dllstmt  | String     | 7             | Date of last maintenance     |
| Variable Data      | data     | FlexString | 10            |                              |



| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DIlstmt              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DIlstmt  | String | 7             | Date of last maintenance         |

### Variable Telegram Examples

| Example: Default Values                                     |                                      |
|---|--------------------------------------|
| Variable telegram examples with data set to default values. |                                      |
| <b>Read Variable:</b>                                       | [STX]sRN DIlstmt[ETX]                |
| <b>Read Variable Response:</b>                              | [STX]sRA DIlstmt A DD.MM.YYYY[ETX]   |
| <b>Write Variable:</b>                                      | [STX]sWN DIlstmt +10 DD.MM.YYYY[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DIlstmt[ETX]                |

### 2.3.1.2. Variable: NextMaintenance

The following section contains a detailed description of the variable NextMaintenance.

#### Variable Overview

| Variable Name   | Description              |
|-----------------|--------------------------|
| NextMaintenance | Date of Next maintenance |

|                       |   |
|-----------------------|---|
| Communication Name    | Dlnxtmt   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 31  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| String         |            |
|----------------|------------|
| Length         | 10         |
| Initialisation | DD.MM.YYYY |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN DInxtmt    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | DInxtmt  | String | 7             | Date of Next maintenance    |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DInxtmt <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DInxtmt  | String | 7             | Date of Next maintenance        |
| Variable Data           | data     | String | 10            |                                 |

| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN DInxtmt <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | DInxtmt  | String | 7             | Date of Next maintenance     |
| Variable Data      | data     | String | 10            |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DInxtmt              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DInxtmt  | String | 7             | Date of Next maintenance         |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN DInxtmt[ETX]            |
| Read Variable Response:                                     | [STX]sRA DInxtmt DD.MM.YYYY[ETX] |
| Write Variable:   | [STX]sWN DInxtmt DD.MM.YYYY[ETX] |
| Write Variable Response:                                    | [STX]sWA DInxtmt[ETX]            |





### 2.3.1.3. Method: SetLastUser

The following section contains a detailed description of the method SetLastUser.

#### Method Overview

| Method Name | Description   |
|-------------|---|
| SetLastUser | Method defines the last user and last date parameters |

|                    |                  |
|--------------------|------------------|
| Communication Name | mDIsetlast       |
| Sopas Index        | 36               |
| Invocation Access  | AuthorizedClient |

| Parameters     |       |
|----------------|-------|
| LastUser       |       |
| FlexString     |       |
| Length         | 0..18 |
| Initialisation |       |
| LastParaDate   |       |
| FlexString     |       |
| Length         | 0..10 |
| Initialisation |       |
| LastParaTime   |       |
| FlexString     |       |
| Length         | 0..5  |
| Initialisation |       |

#### Method Telegram Syntax

| Method Invocation:                                      |              |            |               |   |
|---|--------------|------------|---------------|---|
| sMN mDIsetlast <LastUser> <LastParaDate> <LastParaTime> |              |            |               |   |
| Telegram Part   | Telegram     | Type       | Length [Byte] | Description   |
| Command Type  | sMN          | String     | 3             | Request (SOPAS Method by Name)                        |
| Command   | mDIsetlast   | String     | 10            | Method defines the last user and last date parameters |
| Parameter 1   | LastUser     | FlexString | 18            |   |
| Parameter 2   | LastParaDate | FlexString | 10            |   |
| Parameter 3   | LastParaTime | FlexString | 5             |   |

| Method Return Value: |            |        |               |   |
|----------------------|------------|--------|---------------|---|
| sAN mDIsetlast       |            |        |               |   |
| Telegram Part        | Telegram   | Type   | Length [Byte] | Description   |
| Command Type         | sAN        | String | 3             | Result (SOPAS Method Result)                          |
| Command              | mDIsetlast | String | 10            | Method defines the last user and last date parameters |



## Method Telegram Examples

| Example: Default Values   |   |
|---|---|
| Method telegram examples with parameter data and return value data set to default values. |   |
| Method Invocation:  | [STX]sMN mDisetlast +0 0 +0 0 +0 0[ETX] |
| Method Return Value:  | [STX]sAN mDisetlast[ETX]                |

## 2.4. Interface Block: GeneralCfgDebugBase

### 2.4.1. Group: LogDebugBase

#### 2.4.1.1. Method: ExecuteStimuliFile

The following section contains a detailed description of the method ExecuteStimuliFile.

##### Method Overview

| Method Name        | Description               |
|--------------------|---------------------------|
| ExecuteStimuliFile | Execute stimuli from file |

|                    |                   |
|--------------------|-------------------|
| Communication Name | mDBExeStimuliFile |
| Sopas Index        | 51                |
| Invocation Access  | Always            |

| Parameters        |       |
|-------------------|-------|
| FileName          |       |
| <b>FlexString</b> |       |
| Length            | 0..32 |
| Initialisation    |       |

| Return Values  |             |
|----------------|-------------|
| Result         |             |
| <b>Bool</b>    |             |
| Value Range    | False, True |
| Initialisation | False       |

##### Method Telegram Syntax

| Method Invocation:               |                   |            |               |                                |
|----------------------------------|-------------------|------------|---------------|--------------------------------|
| sMN mDBExeStimuliFile <FileName> |                   |            |               |                                |
| Telegram Part                    | Telegram          | Type       | Length [Byte] | Description                    |
| Command Type                     | sMN               | String     | 3             | Request (SOPAS Method by Name) |
| Command                          | mDBExeStimuliFile | String     | 17            | Execute stimuli from file      |
| Parameter 1                      | FileName          | FlexString | 32            |                                |

| Method Return Value:           |                   |        |               |                              |
|--------------------------------|-------------------|--------|---------------|------------------------------|
| sAN mDBExeStimuliFile <Result> |                   |        |               |                              |
| Telegram Part                  | Telegram          | Type   | Length [Byte] | Description                  |
| Command Type                   | sAN               | String | 3             | Result (SOPAS Method Result) |
| Command                        | mDBExeStimuliFile | String | 17            | Execute stimuli from file    |
| Return Value 1                 | Result            | Bool   | 1             |                              |



## Method Telegram Examples

| Example: Default Values   |                                      |
|---|--------------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                      |
| Method Invocation:  | [STX]sMN mDBExeStimuliFile +0 0[ETX] |
| Method Return Value:  | [STX]sAN mDBExeStimuliFile 0[ETX]    |

### 2.4.1.2. Method: ExecuteStimuliCmd

The following section contains a detailed description of the method ExecuteStimuliCmd.

#### Method Overview

| Method Name       | Description                  |
|-------------------|------------------------------|
| ExecuteStimuliCmd | Execute stimuli from command |

|                    |                  |
|--------------------|------------------|
| Communication Name | mDBExeStimuliCmd |
| Sopas Index        | 52               |
| Invocation Access  | Always           |

| Parameters |                   |
|------------|-------------------|
| Command    |                   |
|            | <b>FlexString</b> |
|            | Length 0..2048    |
|            | Initialisation    |

| Return Values |                         |
|---------------|-------------------------|
| Result        |                         |
|               | <b>Bool</b>             |
|               | Value Range False, True |
|               | Initialisation False    |



## Method Telegram Syntax

| Method Invocation:             |                  |            |               |                                |
|--------------------------------|------------------|------------|---------------|--------------------------------|
| sMN mDBExeStimuliCmd <Command> |                  |            |               |                                |
| Telegram Part                  | Telegram         | Type       | Length [Byte] | Description                    |
| Command Type                   | sMN              | String     | 3             | Request (SOPAS Method by Name) |
| Command                        | mDBExeStimuliCmd | String     | 16            | Execute stimuli from command   |
| Parameter 1                    | Command          | FlexString | 2048          |                                |

| Method Return Value:          |                  |        |               |                              |
|-------------------------------|------------------|--------|---------------|------------------------------|
| sAN mDBExeStimuliCmd <Result> |                  |        |               |                              |
| Telegram Part                 | Telegram         | Type   | Length [Byte] | Description                  |
| Command Type                  | sAN              | String | 3             | Result (SOPAS Method Result) |
| Command                       | mDBExeStimuliCmd | String | 16            | Execute stimuli from command |
| Return Value 1                | Result           | Bool   | 1             |                              |

## Method Telegram Examples

| Example: Default Values   |                                     |
|---|-------------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                     |
| Method Invocation:  | [STX]sMN mDBExeStimuliCmd +0 0[ETX] |
| Method Return Value:  | [STX]sAN mDBExeStimuliCmd 0[ETX]    |

### 2.4.1.3. Method: StopStimuliExecution

The following section contains a detailed description of the method StopStimuliExecution.

#### Method Overview

| Method Name          | Description                |
|----------------------|----------------------------|
| StopStimuliExecution | Stop the stimuli execution |

|                    |                   |
|--------------------|-------------------|
| Communication Name | mDBStopStimuliExe |
| Sopas Index        | 53                |
| Invocation Access  | Always            |

| Return Values  |             |
|----------------|-------------|
| Result         |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |



## Method Telegram Syntax

| Method Invocation:    |                   |        |               |                                |
|-----------------------|-------------------|--------|---------------|--------------------------------|
| sMN mDBStopStimuliExe |                   |        |               |                                |
| Telegram Part         | Telegram          | Type   | Length [Byte] | Description                    |
| Command Type          | sMN               | String | 3             | Request (SOPAS Method by Name) |
| Command               | mDBStopStimuliExe | String | 17            | Stop the stimuli execution     |

| Method Return Value:           |                   |        |               |                              |
|--------------------------------|-------------------|--------|---------------|------------------------------|
| sAN mDBStopStimuliExe <Result> |                   |        |               |                              |
| Telegram Part                  | Telegram          | Type   | Length [Byte] | Description                  |
| Command Type                   | sAN               | String | 3             | Result (SOPAS Method Result) |
| Command                        | mDBStopStimuliExe | String | 17            | Stop the stimuli execution   |
| Return Value 1                 | Result            | Bool   | 1             |                              |

## Method Telegram Examples

| Example: Default Values   |                                   |
|---|-----------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                   |
| Method Invocation:  | [STX]sMN mDBStopStimuliExe[ETX]   |
| Method Return Value:  | [STX]sAN mDBStopStimuliExe 0[ETX] |



## 2.4.2. Group: TrackingDebugBase

### 2.4.2.1. Event: TrackingData

The following section contains a detailed description of the event TrackingData.

#### Event Overview

| Event Name   | Description                        |
|--------------|------------------------------------|
| TrackingData | Diagnosis information for Tracking |

|                    |                 |
|--------------------|-----------------|
| Communication Name | eCCTrackingData |
| Sopas Index        | 14              |
| Queue Length       | 1               |

| Parameters |                   |
|------------|-------------------|
| Data       |                   |
|            |                   |
|            |                   |
|            | <b>FlexString</b> |
| Length     | 0..2048           |



### 2.4.3. Group: OutputDebugBase

#### 2.4.3.1. Event: DebugString

The following section contains a detailed description of the event DebugString.

##### Event Overview

| Event Name  | Description                         |
|-------------|-------------------------------------|
| DebugString | Diagnosis information for Debugging |

|                    |                |
|--------------------|----------------|
| Communication Name | eCCDebugString |
| Sopas Index        | 15             |
| Queue Length       | 1              |

| Parameters |                   |
|------------|-------------------|
| Data       |                   |
|            | <b>FlexString</b> |
|            | Length 0..2048    |

#### 2.4.3.2. Event: PerfData

The following section contains a detailed description of the event PerfData.

##### Event Overview

| Event Name | Description                           |
|------------|---------------------------------------|
| PerfData   | Diagnosis information for Performance |

|                    |             |
|--------------------|-------------|
| Communication Name | eCCPerfData |
| Sopas Index        | 16          |
| Queue Length       | 1           |

| Parameters |                   |
|------------|-------------------|
| Data       |                   |
|            | <b>FlexString</b> |
|            | Length 0..128     |





## 2.5. Interface Block: GeneralCfglOBase

### 2.5.1. Group: DigitalOutputsBase

#### 2.5.1.1. Variable: Out1Func

The following section contains a detailed description of the variable Out1Func.

#### Variable Overview

| Variable Name | Description          |
|---------------|----------------------|
| Out1Func      | Function of Output 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | DO1Fnc  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 57  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                   |             |
|---------------|-------|-------------------|-------------|
| Default Value |       | 2                 |             |
|               | Value | Name              | Description |
|               | 0     | TX_NO_FUNCTION    |             |
|               | 1     | TX_COMMAND        |             |
|               | 2     | TX_DEVICE_READY   |             |
|               | 3     | TX_GOOD_READ      |             |
|               | 4     | TX_NO_READ        |             |
|               | 5     | TX_SYSTEM_READY   |             |
|               | 6     | TX_TEACH1_SUCCESS |             |
|               | 7     | TX_TEACH1_FAIL    |             |
|               | 8     | TX_TEACH2_SUCCESS |             |
|               | 9     | TX_TEACH2_FAIL    |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN DO1Fnc     |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | DO1Fnc   | String | 6             | Function of Output 1        |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DO1Fnc <data>       |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DO1Fnc   | String | 6             | Function of Output 1            |
| Variable Data           | data     | Enum8  | 1             |                                 |



| Write Variable:   |          |        |               |                              |
|-------------------|----------|--------|---------------|------------------------------|
| sWN DO1Fnc <data> |          |        |               |                              |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description                  |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command           | DO1Fnc   | String | 6             | Function of Output 1         |
| Variable Data     | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DO1Fnc               |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DO1Fnc   | String | 6             | Function of Output 1             |

## Variable Telegram Examples

| Example: Default Values                                     |                        |
|---|------------------------|
| Variable telegram examples with data set to default values. |                        |
| Read Variable:  | [STX]sRN DO1Fnc[ETX]   |
| Read Variable Response:                                     | [STX]sRA DO1Fnc 2[ETX] |
| Write Variable:   | [STX]sWN DO1Fnc 2[ETX] |
| Write Variable Response:                                    | [STX]sWA DO1Fnc[ETX]   |

### 2.5.1.2. Variable: Out1FuncEvCndExt

The following section contains a detailed description of the variable Out1FuncEvCndExt.

#### Variable Overview

| Variable Name    | Description                              |
|------------------|--|
| Out1FuncEvCndExt | Function of Output 1, EvalCond extension |

|                       |   |
|-----------------------|---|
| Communication Name    | DO1FncEvExt   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 58  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..18       |
| Initialisation |             |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |  |
|-----------------|-------------|--------|---------------|--|
| sRN DO1FncEvExt |             |        |               |  |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name              |
| Command         | DO1FncEvExt | String | 11            | Function of Output 1, EvalCond extension |

| Read Variable Response:                      |               |            |               |  |
|--|---------------|------------|---------------|--|
| sRA DO1FncEvExt <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                                | Telegram      | Type       | Length [Byte] | Description                              |
| Command Type                                 | sRA           | String     | 3             | SOPAS Variable Read Acknowledge          |
| Command                                      | DO1FncEvExt   | String     | 11            | Function of Output 1, EvalCond extension |
| Variable Data 1                              | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                              | ExtraValue    | FlexString | 18            |  |

| Write Variable:                              |               |            |               |  |
|--|---------------|------------|---------------|--|
| sWN DO1FncEvExt <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                                | Telegram      | Type       | Length [Byte] | Description                              |
| Command Type                                 | sWN           | String     | 3             | Write SOPAS Variable by Name             |
| Command                                      | DO1FncEvExt   | String     | 11            | Function of Output 1, EvalCond extension |
| Variable Data 1                              | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                              | ExtraValue    | FlexString | 18            |  |

| Write Variable Response: |             |        |               |  |
|--------------------------|-------------|--------|---------------|--|
| sWA DO1FncEvExt          |             |        |               |  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | DO1FncEvExt | String | 11            | Function of Output 1, EvalCond extension |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN DO1FncEvExt[ETX]        |
| Read Variable Response:                                     | [STX]sRA DO1FncEvExt 0 0[ETX]    |
| Write Variable:   | [STX]sWN DO1FncEvExt 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DO1FncEvExt[ETX]        |

### 2.5.1.3. Variable: Out1FuncEvCndEvalTime

The following section contains a detailed description of the variable Out1FuncEvCndEvalTime.

#### Variable Overview

| Variable Name         | Description                               |
|-----------------------|---|
| Out1FuncEvCndEvalTime | Function of Output 1, EvalCond eval. time |

|                       |   |
|-----------------------|---|
| Communication Name    | DO1FncEvTm  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 59  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                   |             |
|---------------|-------|-------------------|-------------|
| Default Value |       | TX_OBJECT_RELEASE |             |
|               | Value | Name              | Description |
|               | 0     | TX_ASAP           |             |
|               | 1     | TX_OBJECT_RELEASE |             |
|               | 2     | TX_OBJECT_PUBLISH |             |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN DO1FncEvTm |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name               |
| Command        | DO1FncEvTm | String | 10            | Function of Output 1, EvalCond eval. time |

| Read Variable Response: |            |        |               |   |
|-------------------------|------------|--------|---------------|---|
| sRA DO1FncEvTm <data>   |            |        |               |   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                 | DO1FncEvTm | String | 10            | Function of Output 1, EvalCond eval. time |
| Variable Data           | data       | Enum8  | 1             |   |

| Write Variable:       |            |        |               |   |
|-----------------------|------------|--------|---------------|---|
| sWN DO1FncEvTm <data> |            |        |               |   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name              |
| Command               | DO1FncEvTm | String | 10            | Function of Output 1, EvalCond eval. time |
| Variable Data         | data       | Enum8  | 1             |   |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DO1FncEvTm           |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA DO1FncEvTm           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                               |
| Command                  | DO1FncEvTm | String | 10            | Function of Output 1, EvalCond eval. time |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DO1FncEvTm[ETX]   |
| Read Variable Response:                                     | [STX]sRA DO1FncEvTm 1[ETX] |
| Write Variable:   | [STX]sWN DO1FncEvTm 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DO1FncEvTm[ETX]   |

### 2.5.1.4. Variable: Out1OffFunc

The following section contains a detailed description of the variable Out1OffFunc.

#### Variable Overview

| Variable Name | Description               |
|---------------|---------------------------|
| Out1OffFunc   | Off-Function for output 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | DO1OffFnc   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 60  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                      |             |
|---------------|-------|----------------------|-------------|
| Default Value |       | 0                    |             |
|               | Value | Name                 | Description |
|               | 0     | TX_TIMER_TRACKING    |             |
|               | 1     | TX_NEXT_READING_GATE |             |
|               | 2     | TX_COMMAND           |             |
|               | 3     | TX_GOOD_READ         |             |
|               | 4     | TX_NO_READ           |             |
|               | 5     | TX_TEACH1_START      |             |
|               | 6     | TX_TEACH2_START      |             |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN DO1OffFnc  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | DO1OffFnc | String | 9             | Off-Function for output 1   |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DO1OffFnc <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DO1OffFnc | String | 9             | Off-Function for output 1       |
| Variable Data           | data      | Enum8  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN DO1OffFnc <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | DO1OffFnc | String | 9             | Off-Function for output 1    |
| Variable Data        | data      | Enum8  | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA DO1OffFnc            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DO1OffFnc | String | 9             | Off-Function for output 1        |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DO1OffFnc[ETX]   |
| Read Variable Response:                                     | [STX]sRA DO1OffFnc 0[ETX] |
| Write Variable:   | [STX]sWN DO1OffFnc 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DO1OffFnc[ETX]   |

### 2.5.1.5. Variable: Out1OffFuncEvCndExt

The following section contains a detailed description of the variable Out1OffFuncEvCndExt.

#### Variable Overview

| Variable Name       | Description                 |
|---------------------|-----------------------------|
| Out1OffFuncEvCndExt | Extension of List for EvCnd |

|                       |   |
|-----------------------|---|
| Communication Name    | DO1OffFncEvExt  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 61  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct            |             |
|-------------------|-------------|
| UseExtraValue     |             |
| <b>Bool</b>       |             |
| Value Range       | False, True |
| Initialisation    | False       |
| ExtraValue        |             |
| <b>FlexString</b> |             |
| Length            | 0..18       |
| Initialisation    |             |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |                             |
|--------------------|----------------|--------|---------------|-----------------------------|
| sRN DO1OffFncEvExt |                |        |               |                             |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                 |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name |
| Command            | DO1OffFncEvExt | String | 14            | Extension of List for EvCnd |

| Read Variable Response:                         |                |            |               |                                 |
|---|----------------|------------|---------------|---------------------------------|
| sRA DO1OffFncEvExt <UseExtraValue> <ExtraValue> |                |            |               |                                 |
| Telegram Part                                   | Telegram       | Type       | Length [Byte] | Description                     |
| Command Type                                    | sRA            | String     | 3             | SOPAS Variable Read Acknowledge |
| Command   | DO1OffFncEvExt | String     | 14            | Extension of List for EvCnd     |
| Variable Data 1                                 | UseExtraValue  | Bool       | 1             |                                 |
| Variable Data 2                                 | ExtraValue     | FlexString | 18            |                                 |

| Write Variable:                                 |                |            |               |                              |
|---|----------------|------------|---------------|------------------------------|
| sWN DO1OffFncEvExt <UseExtraValue> <ExtraValue> |                |            |               |                              |
| Telegram Part                                   | Telegram       | Type       | Length [Byte] | Description                  |
| Command Type                                    | sWN            | String     | 3             | Write SOPAS Variable by Name |
| Command   | DO1OffFncEvExt | String     | 14            | Extension of List for EvCnd  |
| Variable Data 1                                 | UseExtraValue  | Bool       | 1             |                              |
| Variable Data 2                                 | ExtraValue     | FlexString | 18            |                              |



| Write Variable Response: |                |        |               |                                  |
|--------------------------|----------------|--------|---------------|----------------------------------|
| sWA DO1OffFncEvExt       |                |        |               |                                  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                      |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DO1OffFncEvExt | String | 14            | Extension of List for EvCnd      |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| Read Variable:  | [STX]sRN DO1OffFncEvExt[ETX]        |
| Read Variable Response:                                     | [STX]sRA DO1OffFncEvExt 0 0[ETX]    |
| Write Variable:   | [STX]sWN DO1OffFncEvExt 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DO1OffFncEvExt[ETX]        |

### 2.5.1.6. Variable: Out1OffFuncEvCndEvalTime

The following section contains a detailed description of the variable Out1OffFuncEvCndEvalTime.

#### Variable Overview

| Variable Name            | Description                               |
|--------------------------|---|
| Out1OffFuncEvCndEvalTime | Function of Output 1, EvalCond eval. time |

|                       |   |
|-----------------------|---|
| Communication Name    | DO1OffFncEvTm   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 62  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                   |             |
|---------------|-------|-------------------|-------------|
| Default Value |       | TX_OBJECT_RELEASE |             |
|               | Value | Name              | Description |
|               | 0     | TX_ASAP           |             |
|               | 1     | TX_OBJECT_RELEASE |             |
|               | 2     | TX_OBJECT_PUBLISH |             |





## Variable Telegram Syntax

| Read Variable:    |               |        |               |   |
|-------------------|---------------|--------|---------------|---|
| sRN DO1OffFncEvTm |               |        |               |   |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                               |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name               |
| Command           | DO1OffFncEvTm | String | 13            | Function of Output 1, EvalCond eval. time |

| Read Variable Response:  |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sRA DO1OffFncEvTm <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                               |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                  | DO1OffFncEvTm | String | 13            | Function of Output 1, EvalCond eval. time |
| Variable Data            | data          | Enum8  | 1             |   |

| Write Variable:          |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWN DO1OffFncEvTm <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                               |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name              |
| Command                  | DO1OffFncEvTm | String | 13            | Function of Output 1, EvalCond eval. time |
| Variable Data            | data          | Enum8  | 1             |   |

| Write Variable Response: |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWA DO1OffFncEvTm        |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                               |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge          |
| Command                  | DO1OffFncEvTm | String | 13            | Function of Output 1, EvalCond eval. time |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN DO1OffFncEvTm[ETX]   |
| Read Variable Response:                                     | [STX]sRA DO1OffFncEvTm 1[ETX] |
| Write Variable:   | [STX]sWN DO1OffFncEvTm 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DO1OffFncEvTm[ETX]   |



### 2.5.1.7. Variable: Out1Logic

The following section contains a detailed description of the variable Out1Logic.

#### Variable Overview

| Variable Name | Description                           |
|---------------|---------------------------------------|
| Out1Logic     | True if Output 1 Function is inverted |

|                       |   |
|-----------------------|---|
| Communication Name    | DO1Logic  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 63  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_ACTIVE_HIGH |             |
|               | 1     | TX_ACTIVE_LOW  |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                                       |
|----------------|----------|--------|---------------|---------------------------------------|
| sRN DO1Logic   |          |        |               |                                       |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                           |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name           |
| Command        | DO1Logic | String | 8             | True if Output 1 Function is inverted |

| Read Variable Response: |          |        |               |                                       |
|-------------------------|----------|--------|---------------|---------------------------------------|
| sRA DO1Logic <data>     |          |        |               |                                       |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                           |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | DO1Logic | String | 8             | True if Output 1 Function is inverted |
| Variable Data           | data     | Enum8  | 1             |                                       |

| Write Variable:     |          |        |               |                                       |
|---------------------|----------|--------|---------------|---------------------------------------|
| sWN DO1Logic <data> |          |        |               |                                       |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                           |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name          |
| Command             | DO1Logic | String | 8             | True if Output 1 Function is inverted |
| Variable Data       | data     | Enum8  | 1             |                                       |

| Write Variable Response: |          |        |               |                                       |
|--------------------------|----------|--------|---------------|---------------------------------------|
| sWA DO1Logic             |          |        |               |                                       |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                           |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | DO1Logic | String | 8             | True if Output 1 Function is inverted |



## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN DO1Logic[ETX]   |
| Read Variable Response:                                     | [STX]sRA DO1Logic 0[ETX] |
| Write Variable:   | [STX]sWN DO1Logic 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DO1Logic[ETX]   |

### 2.5.1.8. Variable: Out1DurTime

The following section contains a detailed description of the variable Out1DurTime.

#### Variable Overview

| Variable Name | Description                             |
|---------------|---|
| Out1DurTime   | Duration of Output 1 if time controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | DO1DurTm  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 64  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |           |
|----------------------|-----------|
| Value Range          | 10..10000 |
| Initialisation       | 100       |
| Physical Unit        | ms        |
| Physical Unit Factor | 0.0       |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN DO1DurTm   |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                             |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name             |
| Command        | DO1DurTm | String | 8             | Duration of Output 1 if time controlled |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA DO1DurTm <data>     |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                             |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | DO1DurTm | String | 8             | Duration of Output 1 if time controlled |
| Variable Data           | data     | UInt   | 2             |   |



| Write Variable:     |          |        |               |   |
|---------------------|----------|--------|---------------|---|
| sWN DO1DurTm <data> |          |        |               |   |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                             |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name            |
| Command             | DO1DurTm | String | 8             | Duration of Output 1 if time controlled |
| Variable Data       | data     | UInt   | 2             |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA DO1DurTm             |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                             |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | DO1DurTm | String | 8             | Duration of Output 1 if time controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DO1DurTm[ETX]    |
| Read Variable Response:                                     | [STX]sRA DO1DurTm 64[ETX] |
| Write Variable:   | [STX]sWN DO1DurTm 64[ETX] |
| Write Variable Response:                                    | [STX]sWA DO1DurTm[ETX]    |

### 2.5.1.9. Variable: Out1DurTrack

The following section contains a detailed description of the variable Out1DurTrack.

#### Variable Overview

| Variable Name | Description                              |
|---------------|--|
| Out1DurTrack  | Duration of Output 1 if track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | Do1DurTrk   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 65  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 1..10000 |
| Initialisation       | 100      |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN Do1DurTrk  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name              |
| Command        | Do1DurTrk | String | 9             | Duration of Output 1 if track controlled |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA Do1DurTrk <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge          |
| Command                 | Do1DurTrk | String | 9             | Duration of Output 1 if track controlled |
| Variable Data           | data      | UInt   | 2             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN Do1DurTrk <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name             |
| Command              | Do1DurTrk | String | 9             | Duration of Output 1 if track controlled |
| Variable Data        | data      | UInt   | 2             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA Do1DurTrk            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | Do1DurTrk | String | 9             | Duration of Output 1 if track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN Do1DurTrk[ETX]    |
| Read Variable Response:                                     | [STX]sRA Do1DurTrk 64[ETX] |
| Write Variable:   | [STX]sWN Do1DurTrk 64[ETX] |
| Write Variable Response:                                    | [STX]sWA Do1DurTrk[ETX]    |

### 2.5.1.10. Variable: Out1Control

The following section contains a detailed description of the variable Out1Control.

#### Variable Overview

| Variable Name | Description  |
|---------------|--|
| Out1Control   | Switch wether output 1 is time or track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | DO1Control  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 66  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_TIME_BASED  |             |
|               | 1     | TX_TRACK_BASED |             |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN DO1Control |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description  |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                        |
| Command        | DO1Control | String | 10            | Switch wether output 1 is time or track controlled |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA DO1Control <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description  |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                    |
| Command                 | DO1Control | String | 10            | Switch wether output 1 is time or track controlled |
| Variable Data           | data       | Enum8  | 1             |  |

| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN DO1Control <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                       |
| Command               | DO1Control | String | 10            | Switch wether output 1 is time or track controlled |
| Variable Data         | data       | Enum8  | 1             |  |

| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA DO1Control           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description  |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                   |
| Command                  | DO1Control | String | 10            | Switch wether output 1 is time or track controlled |



## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DO1Control[ETX]   |
| Read Variable Response:                                     | [STX]sRA DO1Control 0[ETX] |
| Write Variable:   | [STX]sWN DO1Control 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DO1Control[ETX]   |

### 2.5.1.11. Variable: Out2Func

The following section contains a detailed description of the variable Out2Func.

#### Variable Overview

| Variable Name | Description          |
|---------------|----------------------|
| Out2Func      | Function of Output 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | DO2Fnc  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 67  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                   |             |
|---------------|-------|-------------------|-------------|
| Default Value |       | 3                 |             |
|               | Value | Name              | Description |
|               | 0     | TX_NO_FUNCTION    |             |
|               | 1     | TX_COMMAND        |             |
|               | 2     | TX_DEVICE_READY   |             |
|               | 3     | TX_GOOD_READ      |             |
|               | 4     | TX_NO_READ        |             |
|               | 5     | TX_SYSTEM_READY   |             |
|               | 6     | TX_TEACH1_SUCCESS |             |
|               | 7     | TX_TEACH1_FAIL    |             |
|               | 8     | TX_TEACH2_SUCCESS |             |
|               | 9     | TX_TEACH2_FAIL    |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN DO2Fnc     |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | DO2Fnc   | String | 6             | Function of Output 2        |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DO2Fnc <data>       |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DO2Fnc   | String | 6             | Function of Output 2            |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:   |          |        |               |                              |
|-------------------|----------|--------|---------------|------------------------------|
| sWN DO2Fnc <data> |          |        |               |                              |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description                  |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command           | DO2Fnc   | String | 6             | Function of Output 2         |
| Variable Data     | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DO2Fnc               |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DO2Fnc   | String | 6             | Function of Output 2             |

## Variable Telegram Examples

| Example: Default Values                                     |                        |
|---|------------------------|
| Variable telegram examples with data set to default values. |                        |
| Read Variable:  | [STX]sRN DO2Fnc[ETX]   |
| Read Variable Response:                                     | [STX]sRA DO2Fnc 3[ETX] |
| Write Variable:   | [STX]sWN DO2Fnc 3[ETX] |
| Write Variable Response:                                    | [STX]sWA DO2Fnc[ETX]   |



### 2.5.1.12. Variable: Out2FuncEvCndExt

The following section contains a detailed description of the variable Out2FuncEvCndExt.

#### Variable Overview

| Variable Name    | Description                              |
|------------------|--|
| Out2FuncEvCndExt | Function of Output 2, EvalCond extension |

|                       |   |
|-----------------------|---|
| Communication Name    | DO2FncEvExt   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 68  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct            |             |
|-------------------|-------------|
| UseExtraValue     |             |
| <b>Bool</b>       |             |
| Value Range       | False, True |
| Initialisation    | False       |
| ExtraValue        |             |
| <b>FlexString</b> |             |
| Length            | 0..18       |
| Initialisation    |             |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |  |
|-----------------|-------------|--------|---------------|--|
| sRN DO2FncEvExt |             |        |               |  |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name              |
| Command         | DO2FncEvExt | String | 11            | Function of Output 2, EvalCond extension |

| Read Variable Response:                      |               |            |               |  |
|--|---------------|------------|---------------|--|
| sRA DO2FncEvExt <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                                | Telegram      | Type       | Length [Byte] | Description                              |
| Command Type                                 | sRA           | String     | 3             | SOPAS Variable Read Acknowledge          |
| Command                                      | DO2FncEvExt   | String     | 11            | Function of Output 2, EvalCond extension |
| Variable Data 1                              | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                              | ExtraValue    | FlexString | 18            |  |

| Write Variable:                              |               |            |               |  |
|--|---------------|------------|---------------|--|
| sWN DO2FncEvExt <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                                | Telegram      | Type       | Length [Byte] | Description                              |
| Command Type                                 | sWN           | String     | 3             | Write SOPAS Variable by Name             |
| Command                                      | DO2FncEvExt   | String     | 11            | Function of Output 2, EvalCond extension |
| Variable Data 1                              | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                              | ExtraValue    | FlexString | 18            |  |



| Write Variable Response: |             |        |               |  |
|--------------------------|-------------|--------|---------------|--|
| sWA DO2FncEvExt          |             |        |               |  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | DO2FncEvExt | String | 11            | Function of Output 2, EvalCond extension |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN DO2FncEvExt[ETX]        |
| Read Variable Response:                                     | [STX]sRA DO2FncEvExt 0 0[ETX]    |
| Write Variable:   | [STX]sWN DO2FncEvExt 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DO2FncEvExt[ETX]        |

### 2.5.1.13. Variable: Out2FuncEvCndEvalTime

The following section contains a detailed description of the variable Out2FuncEvCndEvalTime.

#### Variable Overview

| Variable Name         | Description                               |
|-----------------------|---|
| Out2FuncEvCndEvalTime | Function of Output 2, EvalCond eval. time |

|                       |   |
|-----------------------|---|
| Communication Name    | DO2FncEvTm  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 69  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                   |             |
|---------------|-------|-------------------|-------------|
| Default Value |       | TX_OBJECT_RELEASE |             |
|               | Value | Name              | Description |
|               | 0     | TX_ASAP           |             |
|               | 1     | TX_OBJECT_RELEASE |             |
|               | 2     | TX_OBJECT_PUBLISH |             |



## Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN DO2FncEvTm |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name               |
| Command        | DO2FncEvTm | String | 10            | Function of Output 2, EvalCond eval. time |

| Read Variable Response: |            |        |               |   |
|-------------------------|------------|--------|---------------|---|
| sRA DO2FncEvTm <data>   |            |        |               |   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                 | DO2FncEvTm | String | 10            | Function of Output 2, EvalCond eval. time |
| Variable Data           | data       | Enum8  | 1             |   |

| Write Variable:       |            |        |               |   |
|-----------------------|------------|--------|---------------|---|
| sWN DO2FncEvTm <data> |            |        |               |   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name              |
| Command               | DO2FncEvTm | String | 10            | Function of Output 2, EvalCond eval. time |
| Variable Data         | data       | Enum8  | 1             |   |

| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA DO2FncEvTm           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge          |
| Command                  | DO2FncEvTm | String | 10            | Function of Output 2, EvalCond eval. time |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DO2FncEvTm[ETX]   |
| Read Variable Response:                                     | [STX]sRA DO2FncEvTm 1[ETX] |
| Write Variable:   | [STX]sWN DO2FncEvTm 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DO2FncEvTm[ETX]   |



### 2.5.1.14. Variable: Out2OffFunc

The following section contains a detailed description of the variable Out2OffFunc.

#### Variable Overview

| Variable Name | Description               |
|---------------|---------------------------|
| Out2OffFunc   | Off-Function for output 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | DO2OffFnc   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 70  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                      |             |
|---------------|-------|----------------------|-------------|
| Default Value |       | 0                    |             |
|               | Value | Name                 | Description |
|               | 0     | TX_TIMER_TRACKING    |             |
|               | 1     | TX_NEXT_READING_GATE |             |
|               | 2     | TX_COMMAND           |             |
|               | 3     | TX_GOOD_READ         |             |
|               | 4     | TX_NO_READ           |             |
|               | 5     | TX_TEACH1_START      |             |
|               | 6     | TX_TEACH2_START      |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN DO2OffFnc  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | DO2OffFnc | String | 9             | Off-Function for output 2   |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DO2OffFnc <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DO2OffFnc | String | 9             | Off-Function for output 2       |
| Variable Data           | data      | Enum8  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN DO2OffFnc <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | DO2OffFnc | String | 9             | Off-Function for output 2    |
| Variable Data        | data      | Enum8  | 1             |                              |



| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA DO2OffFnc            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DO2OffFnc | String | 9             | Off-Function for output 2        |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DO2OffFnc[ETX]   |
| Read Variable Response:                                     | [STX]sRA DO2OffFnc 0[ETX] |
| Write Variable:   | [STX]sWN DO2OffFnc 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DO2OffFnc[ETX]   |

### 2.5.1.15. Variable: Out2OffFuncEvCndExt

The following section contains a detailed description of the variable Out2OffFuncEvCndExt.

#### Variable Overview

| Variable Name       | Description                 |
|---------------------|-----------------------------|
| Out2OffFuncEvCndExt | Extension of List for EvCnd |

|                       |   |
|-----------------------|---|
| Communication Name    | DO2OffFncEvExt  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 71  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..18       |
| Initialisation |             |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |                             |
|--------------------|----------------|--------|---------------|-----------------------------|
| sRN DO2OffFncEvExt |                |        |               |                             |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                 |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name |
| Command            | DO2OffFncEvExt | String | 14            | Extension of List for EvCnd |

| Read Variable Response:                         |                |            |               |                                 |
|---|----------------|------------|---------------|---------------------------------|
| sRA DO2OffFncEvExt <UseExtraValue> <ExtraValue> |                |            |               |                                 |
| Telegram Part                                   | Telegram       | Type       | Length [Byte] | Description                     |
| Command Type                                    | sRA            | String     | 3             | SOPAS Variable Read Acknowledge |
| Command   | DO2OffFncEvExt | String     | 14            | Extension of List for EvCnd     |
| Variable Data 1                                 | UseExtraValue  | Bool       | 1             |                                 |
| Variable Data 2                                 | ExtraValue     | FlexString | 18            |                                 |

| Write Variable:                                 |                |            |               |                              |
|---|----------------|------------|---------------|------------------------------|
| sWN DO2OffFncEvExt <UseExtraValue> <ExtraValue> |                |            |               |                              |
| Telegram Part                                   | Telegram       | Type       | Length [Byte] | Description                  |
| Command Type                                    | sWN            | String     | 3             | Write SOPAS Variable by Name |
| Command   | DO2OffFncEvExt | String     | 14            | Extension of List for EvCnd  |
| Variable Data 1                                 | UseExtraValue  | Bool       | 1             |                              |
| Variable Data 2                                 | ExtraValue     | FlexString | 18            |                              |

| Write Variable Response: |                |        |               |                                  |
|--------------------------|----------------|--------|---------------|----------------------------------|
| sWA DO2OffFncEvExt       |                |        |               |                                  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                      |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DO2OffFncEvExt | String | 14            | Extension of List for EvCnd      |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| Read Variable:  | [STX]sRN DO2OffFncEvExt[ETX]        |
| Read Variable Response:                                     | [STX]sRA DO2OffFncEvExt 0 0[ETX]    |
| Write Variable:   | [STX]sWN DO2OffFncEvExt 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DO2OffFncEvExt[ETX]        |

### 2.5.1.16. Variable: Out2OffFuncEvCndEvalTime

The following section contains a detailed description of the variable Out2OffFuncEvCndEvalTime.

#### Variable Overview

| Variable Name            | Description                               |
|--------------------------|---|
| Out2OffFuncEvCndEvalTime | Function of Output 2, EvalCond eval. time |

|                       |   |
|-----------------------|---|
| Communication Name    | DO2OffFncEvTm   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 72  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                   |             |
|---------------|-------|-------------------|-------------|
| Default Value |       | TX_OBJECT_RELEASE |             |
|               | Value | Name              | Description |
|               | 0     | TX_ASAP           |             |
|               | 1     | TX_OBJECT_RELEASE |             |
|               | 2     | TX_OBJECT_PUBLISH |             |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |   |
|-------------------|---------------|--------|---------------|---|
| sRN DO2OffFncEvTm |               |        |               |   |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                               |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name               |
| Command           | DO2OffFncEvTm | String | 13            | Function of Output 2, EvalCond eval. time |

| Read Variable Response:  |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sRA DO2OffFncEvTm <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                               |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                  | DO2OffFncEvTm | String | 13            | Function of Output 2, EvalCond eval. time |
| Variable Data            | data          | Enum8  | 1             |   |

| Write Variable:          |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWN DO2OffFncEvTm <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                               |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name              |
| Command                  | DO2OffFncEvTm | String | 13            | Function of Output 2, EvalCond eval. time |
| Variable Data            | data          | Enum8  | 1             |   |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DO2OffFncEvTm        |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWA DO2OffFncEvTm        |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                               |
| Command                  | DO2OffFncEvTm | String | 13            | Function of Output 2, EvalCond eval. time |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| <b>Read Variable:</b>                                       | [STX]sRN DO2OffFncEvTm[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA DO2OffFncEvTm 1[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DO2OffFncEvTm 1[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DO2OffFncEvTm[ETX]   |

### 2.5.1.17. Variable: Out2Logic

The following section contains a detailed description of the variable Out2Logic.

#### Variable Overview

| Variable Name | Description                           |
|---------------|---------------------------------------|
| Out2Logic     | True if Output 2 Function is inverted |

|                       |   |
|-----------------------|---|
| Communication Name    | DO2Logic  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 73  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_ACTIVE_HIGH |             |
|               | 1     | TX_ACTIVE_LOW  |             |





## Variable Telegram Syntax

| Read Variable: |          |        |               |                                       |
|----------------|----------|--------|---------------|---------------------------------------|
| sRN DO2Logic   |          |        |               |                                       |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                           |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name           |
| Command        | DO2Logic | String | 8             | True if Output 2 Function is inverted |

| Read Variable Response: |          |        |               |                                       |
|-------------------------|----------|--------|---------------|---------------------------------------|
| sRA DO2Logic <data>     |          |        |               |                                       |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                           |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | DO2Logic | String | 8             | True if Output 2 Function is inverted |
| Variable Data           | data     | Enum8  | 1             |                                       |

| Write Variable:     |          |        |               |                                       |
|---------------------|----------|--------|---------------|---------------------------------------|
| sWN DO2Logic <data> |          |        |               |                                       |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                           |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name          |
| Command             | DO2Logic | String | 8             | True if Output 2 Function is inverted |
| Variable Data       | data     | Enum8  | 1             |                                       |

| Write Variable Response: |          |        |               |                                       |
|--------------------------|----------|--------|---------------|---------------------------------------|
| sWA DO2Logic             |          |        |               |                                       |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                           |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | DO2Logic | String | 8             | True if Output 2 Function is inverted |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN DO2Logic[ETX]   |
| Read Variable Response:                                     | [STX]sRA DO2Logic 0[ETX] |
| Write Variable:   | [STX]sWN DO2Logic 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DO2Logic[ETX]   |

### 2.5.1.18. Variable: Out2DurTime

The following section contains a detailed description of the variable Out2DurTime.

#### Variable Overview

| Variable Name | Description                             |
|---------------|---|
| Out2DurTime   | Duration of Output 2 if time controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | DO2DurTm  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 74  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |           |
|----------------------|-----------|
| Value Range          | 10..10000 |
| Initialisation       | 100       |
| Physical Unit        | ms        |
| Physical Unit Factor | 0.0       |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN DO2DurTm   |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                             |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name             |
| Command        | DO2DurTm | String | 8             | Duration of Output 2 if time controlled |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA DO2DurTm <data>     |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                             |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | DO2DurTm | String | 8             | Duration of Output 2 if time controlled |
| Variable Data           | data     | UInt   | 2             |   |

| Write Variable:     |          |        |               |   |
|---------------------|----------|--------|---------------|---|
| sWN DO2DurTm <data> |          |        |               |   |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                             |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name            |
| Command             | DO2DurTm | String | 8             | Duration of Output 2 if time controlled |
| Variable Data       | data     | UInt   | 2             |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA DO2DurTm             |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                             |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | DO2DurTm | String | 8             | Duration of Output 2 if time controlled |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DO2DurTm[ETX]    |
| Read Variable Response:                                     | [STX]sRA DO2DurTm 64[ETX] |
| Write Variable:   | [STX]sWN DO2DurTm 64[ETX] |
| Write Variable Response:                                    | [STX]sWA DO2DurTm[ETX]    |

### 2.5.1.19. Variable: Out2DurTrack

The following section contains a detailed description of the variable Out2DurTrack.

#### Variable Overview

| Variable Name | Description                              |
|---------------|--|
| Out2DurTrack  | Duration of Output 2 if track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | DO2DurTrk   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 75  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 1..10000 |
| Initialisation       | 100      |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN DO2DurTrk  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name              |
| Command        | DO2DurTrk | String | 9             | Duration of Output 2 if track controlled |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA DO2DurTrk <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge          |
| Command                 | DO2DurTrk | String | 9             | Duration of Output 2 if track controlled |
| Variable Data           | data      | UInt   | 2             |  |



| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN DO2DurTrk <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name             |
| Command              | DO2DurTrk | String | 9             | Duration of Output 2 if track controlled |
| Variable Data        | data      | UInt   | 2             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA DO2DurTrk            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | DO2DurTrk | String | 9             | Duration of Output 2 if track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DO2DurTrk[ETX]    |
| Read Variable Response:                                     | [STX]sRA DO2DurTrk 64[ETX] |
| Write Variable:   | [STX]sWN DO2DurTrk 64[ETX] |
| Write Variable Response:                                    | [STX]sWA DO2DurTrk[ETX]    |

### 2.5.1.20. Variable: Out2Control

The following section contains a detailed description of the variable Out2Control.

#### Variable Overview

| Variable Name | Description  |
|---------------|--|
| Out2Control   | Switch wether output 2 is time or track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | DO2Control  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 76  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_TIME_BASED  |             |
|               | 1     | TX_TRACK_BASED |             |



## Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN DO2Control |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description  |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                        |
| Command        | DO2Control | String | 10            | Switch wether output 2 is time or track controlled |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA DO2Control <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description  |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                    |
| Command                 | DO2Control | String | 10            | Switch wether output 2 is time or track controlled |
| Variable Data           | data       | Enum8  | 1             |  |

| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN DO2Control <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                       |
| Command               | DO2Control | String | 10            | Switch wether output 2 is time or track controlled |
| Variable Data         | data       | Enum8  | 1             |  |

| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA DO2Control           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description  |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                   |
| Command                  | DO2Control | String | 10            | Switch wether output 2 is time or track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DO2Control[ETX]   |
| Read Variable Response:                                     | [STX]sRA DO2Control 0[ETX] |
| Write Variable:   | [STX]sWN DO2Control 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DO2Control[ETX]   |

### 2.5.1.21. Method: SetOutput

The following section contains a detailed description of the method SetOutput.

#### Method Overview

| Method Name | Description               |
|-------------|---------------------------|
| SetOutput   | sets the specified output |

|                    |              |
|--------------------|--------------|
| Communication Name | mDOSetOutput |
| Sopas Index        | 58           |
| Invocation Access  | Always       |

| Parameters           |        |
|----------------------|--------|
| Output               |        |
| <b>USInt</b>         |        |
| Value Range          | 0..255 |
| Initialisation       |        |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |
| Value                |        |
| <b>USInt</b>         |        |
| Value Range          | 0..255 |
| Initialisation       |        |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
| <b>Bool</b>    |             |
| Value Range    | False, True |
| Initialisation | False       |

#### Method Telegram Syntax

| Method Invocation:                |              |        |               |                                |
|-----------------------------------|--------------|--------|---------------|--------------------------------|
| sMN mDOSetOutput <Output> <Value> |              |        |               |                                |
| Telegram Part                     | Telegram     | Type   | Length [Byte] | Description                    |
| Command Type                      | sMN          | String | 3             | Request (SOPAS Method by Name) |
| Command                           | mDOSetOutput | String | 12            | sets the specified output      |
| Parameter 1                       | Output       | USInt  | 1             |                                |
| Parameter 2                       | Value        | USInt  | 1             |                                |

| Method Return Value:       |              |        |               |                              |
|----------------------------|--------------|--------|---------------|------------------------------|
| sAN mDOSetOutput <Success> |              |        |               |                              |
| Telegram Part              | Telegram     | Type   | Length [Byte] | Description                  |
| Command Type               | sAN          | String | 3             | Result (SOPAS Method Result) |
| Command                    | mDOSetOutput | String | 12            | sets the specified output    |
| Return Value 1             | Success      | Bool   | 1             |                              |



## Method Telegram Examples

| Example: Default Values   |                                |
|---|--------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                |
| Method Invocation:  | [STX]SMN mDOSetOutput 0 0[ETX] |
| Method Return Value:  | [STX]sAN mDOSetOutput 0[ETX]   |



## 2.5.2. Group: DigitalInputsBase

### 2.5.2.1. Variable: Sensor1Sensitivity

The following section contains a detailed description of the variable Sensor1Sensitivity.

#### Variable Overview

| Variable Name      | Description             |
|--------------------|-------------------------|
| Sensor1Sensitivity | Sensitivity of sensor 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | DI1Sens   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 77  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |          |             |
|---------------|-------|----------|-------------|
| Default Value |       | 0        |             |
|               | Value | Name     | Description |
|               | 0     | TX_EDGE  |             |
|               | 1     | TX_LEVEL |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN DI1Sens    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | DI1Sens  | String | 7             | Sensitivity of sensor 1     |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DI1Sens <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DI1Sens  | String | 7             | Sensitivity of sensor 1         |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN DI1Sens <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | DI1Sens  | String | 7             | Sensitivity of sensor 1      |
| Variable Data      | data     | Enum8  | 1             |                              |





| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DI1Sens              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DI1Sens  | String | 7             | Sensitivity of sensor 1          |

### Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN DI1Sens[ETX]   |
| Read Variable Response:                                     | [STX]sRA DI1Sens 0[ETX] |
| Write Variable:   | [STX]sWN DI1Sens 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DI1Sens[ETX]   |

### 2.5.2.2. Variable: Sensor1Logic

The following section contains a detailed description of the variable Sensor1Logic.

#### Variable Overview

| Variable Name | Description          |
|---------------|----------------------|
| Sensor1Logic  | Sensor 1 is inverted |

|                       |   |
|-----------------------|---|
| Communication Name    | DI1Logic  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 78  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_ACTIVE_HIGH |             |
|               | 1     | TX_ACTIVE_LOW  |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN DI1Logic   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | DI1Logic | String | 8             | Sensor 1 is inverted        |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DI1Logic <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DI1Logic | String | 8             | Sensor 1 is inverted            |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN DI1Logic <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | DI1Logic | String | 8             | Sensor 1 is inverted         |
| Variable Data       | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DI1Logic             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DI1Logic | String | 8             | Sensor 1 is inverted             |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN DI1Logic[ETX]   |
| Read Variable Response:                                     | [STX]sRA DI1Logic 0[ETX] |
| Write Variable:   | [STX]sWN DI1Logic 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DI1Logic[ETX]   |

### 2.5.2.3. Variable: Sensor1DebounceTime

The following section contains a detailed description of the variable Sensor1DebounceTime.

#### Variable Overview

| Variable Name       | Description                                |
|---------------------|--|
| Sensor1DebounceTime | Time controlled Debounce value of sensor 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | DI1DebTim   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 79  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..10000 |
| Initialisation       | 10       |
| Physical Unit        | ms       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN DI1DebTim  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                                |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                |
| Command        | DI1DebTim | String | 9             | Time controlled Debounce value of sensor 1 |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA DI1DebTim <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                                |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge            |
| Command                 | DI1DebTim | String | 9             | Time controlled Debounce value of sensor 1 |
| Variable Data           | data      | UInt   | 2             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN DI1DebTim <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                                |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name               |
| Command              | DI1DebTim | String | 9             | Time controlled Debounce value of sensor 1 |
| Variable Data        | data      | UInt   | 2             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA DI1DebTim            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                                |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge           |
| Command                  | DI1DebTim | String | 9             | Time controlled Debounce value of sensor 1 |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DI1DebTim[ETX]   |
| Read Variable Response:                                     | [STX]sRA DI1DebTim A[ETX] |
| Write Variable:   | [STX]sWN DI1DebTim A[ETX] |
| Write Variable Response:                                    | [STX]sWA DI1DebTim[ETX]   |

### 2.5.2.4. Variable: Sensor1DebounceTrack

The following section contains a detailed description of the variable Sensor1DebounceTrack.

#### Variable Overview

| Variable Name        | Description                                 |
|----------------------|---|
| Sensor1DebounceTrack | Track controlled Debounce value of sensor 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | DI1DebTrk   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 80  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..10000 |
| Initialisation       | 10       |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN DI1DebTrk  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                 |
| Command        | DI1DebTrk | String | 9             | Track controlled Debounce value of sensor 1 |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA DI1DebTrk <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                                 |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge             |
| Command                 | DI1DebTrk | String | 9             | Track controlled Debounce value of sensor 1 |
| Variable Data           | data      | UInt   | 2             |   |



| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN DI1DebTrk <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                                 |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                |
| Command              | DI1DebTrk | String | 9             | Track controlled Debounce value of sensor 1 |
| Variable Data        | data      | UInt   | 2             |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA DI1DebTrk            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                                 |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge            |
| Command                  | DI1DebTrk | String | 9             | Track controlled Debounce value of sensor 1 |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DI1DebTrk[ETX]   |
| Read Variable Response:                                     | [STX]sRA DI1DebTrk A[ETX] |
| Write Variable:   | [STX]sWN DI1DebTrk A[ETX] |
| Write Variable Response:                                    | [STX]sWA DI1DebTrk[ETX]   |

### 2.5.2.5. Variable: Sensor1Control

The following section contains a detailed description of the variable Sensor1Control.

#### Variable Overview

| Variable Name  | Description  |
|----------------|--|
| Sensor1Control | Switch wether sensor 1 is time or track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | DI1Control  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 81  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_TIME_BASED  |             |
|               | 1     | TX_TRACK_BASED |             |



## Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN DI1Control |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description  |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                        |
| Command        | DI1Control | String | 10            | Switch wether sensor 1 is time or track controlled |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA DI1Control <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description  |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                    |
| Command                 | DI1Control | String | 10            | Switch wether sensor 1 is time or track controlled |
| Variable Data           | data       | Enum8  | 1             |  |

| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN DI1Control <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                       |
| Command               | DI1Control | String | 10            | Switch wether sensor 1 is time or track controlled |
| Variable Data         | data       | Enum8  | 1             |  |

| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA DI1Control           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description  |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                   |
| Command                  | DI1Control | String | 10            | Switch wether sensor 1 is time or track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DI1Control[ETX]   |
| Read Variable Response:                                     | [STX]sRA DI1Control 0[ETX] |
| Write Variable:   | [STX]sWN DI1Control 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DI1Control[ETX]   |

### 2.5.2.6. Variable: Sensor2Sensitivity

The following section contains a detailed description of the variable Sensor2Sensitivity.

#### Variable Overview

| Variable Name      | Description             |
|--------------------|-------------------------|
| Sensor2Sensitivity | Sensitivity of sensor 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | DI2Sens   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 82  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |          |             |
|---------------|-------|----------|-------------|
| Default Value |       | 0        |             |
|               | Value | Name     | Description |
|               | 0     | TX_EDGE  |             |
|               | 1     | TX_LEVEL |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN DI2Sens    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | DI2Sens  | String | 7             | Sensitivity of sensor 2     |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DI2Sens <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DI2Sens  | String | 7             | Sensitivity of sensor 2         |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN DI2Sens <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | DI2Sens  | String | 7             | Sensitivity of sensor 2      |
| Variable Data      | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DI2Sens              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DI2Sens  | String | 7             | Sensitivity of sensor 2          |



## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN DI2Sens[ETX]   |
| Read Variable Response:                                     | [STX]sRA DI2Sens 0[ETX] |
| Write Variable:   | [STX]sWN DI2Sens 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DI2Sens[ETX]   |

### 2.5.2.7. Variable: Sensor2Logic

The following section contains a detailed description of the variable Sensor2Logic.

#### Variable Overview

| Variable Name | Description          |
|---------------|----------------------|
| Sensor2Logic  | Sensor 2 is inverted |

|                       |   |
|-----------------------|---|
| Communication Name    | DI2Logic  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 83  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_ACTIVE_HIGH |             |
|               | 1     | TX_ACTIVE_LOW  |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN DI2Logic   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | DI2Logic | String | 8             | Sensor 2 is inverted        |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DI2Logic <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DI2Logic | String | 8             | Sensor 2 is inverted            |
| Variable Data           | data     | Enum8  | 1             |                                 |





| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN DI2Logic <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | DI2Logic | String | 8             | Sensor 2 is inverted         |
| Variable Data       | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DI2Logic             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DI2Logic | String | 8             | Sensor 2 is inverted             |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN DI2Logic[ETX]   |
| Read Variable Response:                                     | [STX]sRA DI2Logic 0[ETX] |
| Write Variable:   | [STX]sWN DI2Logic 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DI2Logic[ETX]   |

### 2.5.2.8. Variable: Sensor2DebounceTime

The following section contains a detailed description of the variable Sensor2DebounceTime.

#### Variable Overview

| Variable Name       | Description                                |
|---------------------|--|
| Sensor2DebounceTime | Time controlled Debounce value of sensor 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | DI2DebTim   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 84  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..10000 |
| Initialisation       | 10       |
| Physical Unit        | ms       |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN DI2DebTim  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                                |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                |
| Command        | DI2DebTim | String | 9             | Time controlled Debounce value of sensor 2 |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA DI2DebTim <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                                |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge            |
| Command                 | DI2DebTim | String | 9             | Time controlled Debounce value of sensor 2 |
| Variable Data           | data      | UInt   | 2             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN DI2DebTim <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                                |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name               |
| Command              | DI2DebTim | String | 9             | Time controlled Debounce value of sensor 2 |
| Variable Data        | data      | UInt   | 2             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA DI2DebTim            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                                |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge           |
| Command                  | DI2DebTim | String | 9             | Time controlled Debounce value of sensor 2 |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DI2DebTim[ETX]   |
| Read Variable Response:                                     | [STX]sRA DI2DebTim A[ETX] |
| Write Variable:   | [STX]sWN DI2DebTim A[ETX] |
| Write Variable Response:                                    | [STX]sWA DI2DebTim[ETX]   |



### 2.5.2.9. Variable: Sensor2DebounceTrack

The following section contains a detailed description of the variable Sensor2DebounceTrack.

#### Variable Overview

| Variable Name        | Description                                 |
|----------------------|---|
| Sensor2DebounceTrack | Track controlled Debounce value of sensor 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | DI2DebTrk   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 85  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..10000 |
| Initialisation       | 10       |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN DI2DebTrk  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                 |
| Command        | DI2DebTrk | String | 9             | Track controlled Debounce value of sensor 2 |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA DI2DebTrk <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                                 |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge             |
| Command                 | DI2DebTrk | String | 9             | Track controlled Debounce value of sensor 2 |
| Variable Data           | data      | UInt   | 2             |   |

| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN DI2DebTrk <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                                 |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                |
| Command              | DI2DebTrk | String | 9             | Track controlled Debounce value of sensor 2 |
| Variable Data        | data      | UInt   | 2             |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA DI2DebTrk            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                                 |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge            |
| Command                  | DI2DebTrk | String | 9             | Track controlled Debounce value of sensor 2 |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DI2DebTrk[ETX]   |
| Read Variable Response:                                     | [STX]sRA DI2DebTrk A[ETX] |
| Write Variable:   | [STX]sWN DI2DebTrk A[ETX] |
| Write Variable Response:                                    | [STX]sWA DI2DebTrk[ETX]   |

### 2.5.2.10. Variable: Sensor2Control

The following section contains a detailed description of the variable Sensor2Control.

#### Variable Overview

| Variable Name  | Description  |
|----------------|--|
| Sensor2Control | Switch wether sensor 2 is time or track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | DI2Control  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 86  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_TIME_BASED  |             |
|               | 1     | TX_TRACK_BASED |             |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN DI2Control |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description  |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                        |
| Command        | DI2Control | String | 10            | Switch wether sensor 2 is time or track controlled |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA DI2Control <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description  |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                    |
| Command                 | DI2Control | String | 10            | Switch wether sensor 2 is time or track controlled |
| Variable Data           | data       | Enum8  | 1             |  |



| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN DI2Control <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                       |
| Command               | DI2Control | String | 10            | Switch wether sensor 2 is time or track controlled |
| Variable Data         | data       | Enum8  | 1             |  |

| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA DI2Control           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description  |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                   |
| Command                  | DI2Control | String | 10            | Switch wether sensor 2 is time or track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DI2Control[ETX]   |
| Read Variable Response:                                     | [STX]sRA DI2Control 0[ETX] |
| Write Variable:   | [STX]sWN DI2Control 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DI2Control[ETX]   |

### 2.5.2.11. Method: ReadInput

The following section contains a detailed description of the method ReadInput.

#### Method Overview

| Method Name | Description                     |
|-------------|---------------------------------|
| ReadInput   | reads the specified input state |

|                    |              |
|--------------------|--------------|
| Communication Name | mDIReadInput |
| Sopas Index        | 59           |
| Invocation Access  | Always       |

| Parameters |                      |
|------------|----------------------|
| Input      |                      |
|            | <b>USInt</b>         |
|            | Value Range          |
|            | 0..255               |
|            | Initialisation       |
|            |                      |
|            | Physical Unit        |
|            |                      |
|            | Physical Unit Factor |
|            | 0.0                  |



| Return Values        |        |
|----------------------|--------|
| Value                |        |
| <b>USInt</b>         |        |
| Value Range          | 0..255 |
| Initialisation       |        |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

## Method Telegram Syntax

| Method Invocation:       |              |        |               |                                 |
|--------------------------|--------------|--------|---------------|---------------------------------|
| sMN mDIReadInput <Input> |              |        |               |                                 |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type             | sMN          | String | 3             | Request (SOPAS Method by Name)  |
| Command                  | mDIReadInput | String | 12            | reads the specified input state |
| Parameter 1              | Input        | USInt  | 1             |                                 |

| Method Return Value:     |              |        |               |                                 |
|--------------------------|--------------|--------|---------------|---------------------------------|
| sAN mDIReadInput <Value> |              |        |               |                                 |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type             | sAN          | String | 3             | Result (SOPAS Method Result)    |
| Command                  | mDIReadInput | String | 12            | reads the specified input state |
| Return Value 1           | Value        | USInt  | 1             |                                 |

## Method Telegram Examples

| Example: Default Values   |                              |
|---|------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                              |
| Method Invocation:  | [STX]sMN mDIReadInput 0[ETX] |
| Method Return Value:  | [STX]sAN mDIReadInput 0[ETX] |

## 2.6. Interface Block: GeneralCfgExtIOBase

### 2.6.1. Group: ExternalOutputsBase

#### 2.6.1.1. Variable: ExtOut1Func

The following section contains a detailed description of the variable ExtOut1Func.

#### Variable Overview

| Variable Name | Description                   |
|---------------|-------------------------------|
| ExtOut1Func   | Function of external Output 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | EO1Fnc  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 87  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                    |             |
|---------------|-------|--------------------|-------------|
| Default Value |       | 0                  |             |
|               | Value | Name               | Description |
|               | 0     | TX_NO_FUNCTION     |             |
|               | 1     | TX_COMMAND         |             |
|               | 2     | TX_DEVICE_READY    |             |
|               | 3     | TX_GOOD_READ       |             |
|               | 4     | TX_NO_READ         |             |
|               | 5     | TX_CDF600_FIELDBUS |             |
|               | 6     | TX_SYSTEM_READY    |             |
|               | 7     | TX_TEACH1_SUCCESS  |             |
|               | 8     | TX_TEACH1_FAIL     |             |
|               | 9     | TX_TEACH2_SUCCESS  |             |
|               | 10    | TX_TEACH2_FAIL     |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                               |
|----------------|----------|--------|---------------|-------------------------------|
| sRN EO1Fnc     |          |        |               |                               |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name   |
| Command        | EO1Fnc   | String | 6             | Function of external Output 1 |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA EO1Fnc <data>       |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | EO1Fnc   | String | 6             | Function of external Output 1   |
| Variable Data           | data     | Enum8  | 1             |                                 |



| Write Variable:   |          |        |               |                               |
|-------------------|----------|--------|---------------|-------------------------------|
| sWN EO1Fnc <data> |          |        |               |                               |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description                   |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name  |
| Command           | EO1Fnc   | String | 6             | Function of external Output 1 |
| Variable Data     | data     | Enum8  | 1             |                               |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EO1Fnc               |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EO1Fnc   | String | 6             | Function of external Output 1    |

## Variable Telegram Examples

| Example: Default Values                                     |                        |
|---|------------------------|
| Variable telegram examples with data set to default values. |                        |
| Read Variable:  | [STX]sRN EO1Fnc[ETX]   |
| Read Variable Response:                                     | [STX]sRA EO1Fnc 0[ETX] |
| Write Variable:   | [STX]sWN EO1Fnc 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EO1Fnc[ETX]   |

### 2.6.1.2. Variable: ExtOut1FuncEvCndExt

The following section contains a detailed description of the variable ExtOut1FuncEvCndExt.

#### Variable Overview

| Variable Name       | Description                                       |
|---------------------|---|
| ExtOut1FuncEvCndExt | Function of external Output 1, EvalCond extension |

|                       |   |
|-----------------------|---|
| Communication Name    | EO1FncEvExt   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 88  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..18       |
| Initialisation |             |





## Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN EO1FncEvExt |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                       |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                       |
| Command         | EO1FncEvExt | String | 11            | Function of external Output 1, EvalCond extension |

| Read Variable Response:                      |               |            |               |   |
|--|---------------|------------|---------------|---|
| sRA EO1FncEvExt <UseExtraValue> <ExtraValue> |               |            |               |   |
| Telegram Part                                | Telegram      | Type       | Length [Byte] | Description                                       |
| Command Type                                 | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                   |
| Command                                      | EO1FncEvExt   | String     | 11            | Function of external Output 1, EvalCond extension |
| Variable Data 1                              | UseExtraValue | Bool       | 1             |   |
| Variable Data 2                              | ExtraValue    | FlexString | 18            |   |

| Write Variable:                              |               |            |               |   |
|--|---------------|------------|---------------|---|
| sWN EO1FncEvExt <UseExtraValue> <ExtraValue> |               |            |               |   |
| Telegram Part                                | Telegram      | Type       | Length [Byte] | Description                                       |
| Command Type                                 | sWN           | String     | 3             | Write SOPAS Variable by Name                      |
| Command                                      | EO1FncEvExt   | String     | 11            | Function of external Output 1, EvalCond extension |
| Variable Data 1                              | UseExtraValue | Bool       | 1             |   |
| Variable Data 2                              | ExtraValue    | FlexString | 18            |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA EO1FncEvExt          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                       |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge                  |
| Command                  | EO1FncEvExt | String | 11            | Function of external Output 1, EvalCond extension |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN EO1FncEvExt[ETX]        |
| Read Variable Response:                                     | [STX]sRA EO1FncEvExt 0 0[ETX]    |
| Write Variable:   | [STX]sWN EO1FncEvExt 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EO1FncEvExt[ETX]        |



### 2.6.1.3. Variable: ExtOut1FuncEvCndEvalTime

The following section contains a detailed description of the variable ExtOut1FuncEvCndEvalTime.

#### Variable Overview

| Variable Name            | Description                               |
|--------------------------|---|
| ExtOut1FuncEvCndEvalTime | Function of Output 1, EvalCond eval. time |

|                       |   |
|-----------------------|---|
| Communication Name    | EO1FncEvTm  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 89  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                   |             |
|---------------|-------|-------------------|-------------|
| Default Value |       | TX_OBJECT_RELEASE |             |
|               | Value | Name              | Description |
|               | 0     | TX_ASAP           |             |
|               | 1     | TX_OBJECT_RELEASE |             |
|               | 2     | TX_OBJECT_PUBLISH |             |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN EO1FncEvTm |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name               |
| Command        | EO1FncEvTm | String | 10            | Function of Output 1, EvalCond eval. time |

| Read Variable Response: |            |        |               |   |
|-------------------------|------------|--------|---------------|---|
| sRA EO1FncEvTm <data>   |            |        |               |   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                 | EO1FncEvTm | String | 10            | Function of Output 1, EvalCond eval. time |
| Variable Data           | data       | Enum8  | 1             |   |

| Write Variable:       |            |        |               |   |
|-----------------------|------------|--------|---------------|---|
| sWN EO1FncEvTm <data> |            |        |               |   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name              |
| Command               | EO1FncEvTm | String | 10            | Function of Output 1, EvalCond eval. time |
| Variable Data         | data       | Enum8  | 1             |   |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EO1FncEvTm           |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA EO1FncEvTm           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                               |
| Command                  | EO1FncEvTm | String | 10            | Function of Output 1, EvalCond eval. time |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN EO1FncEvTm[ETX]   |
| Read Variable Response:                                     | [STX]sRA EO1FncEvTm 1[ETX] |
| Write Variable:   | [STX]sWN EO1FncEvTm 1[ETX] |
| Write Variable Response:                                    | [STX]sWA EO1FncEvTm[ETX]   |

### 2.6.1.4. Variable: ExtOut1OffFunc

The following section contains a detailed description of the variable ExtOut1OffFunc.

#### Variable Overview

| Variable Name  | Description                  |
|----------------|------------------------------|
| ExtOut1OffFunc | Off-Function for ext. out. 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | EO1OffFnc   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 90  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                      |             |
|---------------|-------|----------------------|-------------|
| Default Value |       | 0                    |             |
|               | Value | Name                 | Description |
|               | 0     | TX_TIMER_TRACKING    |             |
|               | 1     | TX_NEXT_READING_GATE |             |
|               | 2     | TX_COMMAND           |             |
|               | 3     | TX_GOOD_READ         |             |
|               | 4     | TX_NO_READ           |             |
|               | 5     | TX_TEACH1_START      |             |
|               | 6     | TX_TEACH2_START      |             |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                              |
|----------------|-----------|--------|---------------|------------------------------|
| sRN EO1OffFnc  |           |        |               |                              |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name  |
| Command        | EO1OffFnc | String | 9             | Off-Function for ext. out. 1 |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA EO1OffFnc <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | EO1OffFnc | String | 9             | Off-Function for ext. out. 1    |
| Variable Data           | data      | Enum8  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN EO1OffFnc <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | EO1OffFnc | String | 9             | Off-Function for ext. out. 1 |
| Variable Data        | data      | Enum8  | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA EO1OffFnc            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EO1OffFnc | String | 9             | Off-Function for ext. out. 1     |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN EO1OffFnc[ETX]   |
| Read Variable Response:                                     | [STX]sRA EO1OffFnc 0[ETX] |
| Write Variable:   | [STX]sWN EO1OffFnc 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EO1OffFnc[ETX]   |

### 2.6.1.5. Variable: ExtOut1OffFuncEvCndExt

The following section contains a detailed description of the variable ExtOut1OffFuncEvCndExt.

#### Variable Overview

| Variable Name          | Description                 |
|------------------------|-----------------------------|
| ExtOut1OffFuncEvCndExt | Extension of List for EvCnd |

|                       |   |
|-----------------------|---|
| Communication Name    | EO1OffFncEvExt  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 91  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct            |             |
|-------------------|-------------|
| UseExtraValue     |             |
| <b>Bool</b>       |             |
| Value Range       | False, True |
| Initialisation    | False       |
| ExtraValue        |             |
| <b>FlexString</b> |             |
| Length            | 0..18       |
| Initialisation    |             |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |                             |
|--------------------|----------------|--------|---------------|-----------------------------|
| sRN EO1OffFncEvExt |                |        |               |                             |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                 |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name |
| Command            | EO1OffFncEvExt | String | 14            | Extension of List for EvCnd |

| Read Variable Response:                         |                |            |               |                                 |
|---|----------------|------------|---------------|---------------------------------|
| sRA EO1OffFncEvExt <UseExtraValue> <ExtraValue> |                |            |               |                                 |
| Telegram Part                                   | Telegram       | Type       | Length [Byte] | Description                     |
| Command Type                                    | sRA            | String     | 3             | SOPAS Variable Read Acknowledge |
| Command   | EO1OffFncEvExt | String     | 14            | Extension of List for EvCnd     |
| Variable Data 1                                 | UseExtraValue  | Bool       | 1             |                                 |
| Variable Data 2                                 | ExtraValue     | FlexString | 18            |                                 |

| Write Variable:                                 |                |            |               |                              |
|---|----------------|------------|---------------|------------------------------|
| sWN EO1OffFncEvExt <UseExtraValue> <ExtraValue> |                |            |               |                              |
| Telegram Part                                   | Telegram       | Type       | Length [Byte] | Description                  |
| Command Type                                    | sWN            | String     | 3             | Write SOPAS Variable by Name |
| Command   | EO1OffFncEvExt | String     | 14            | Extension of List for EvCnd  |
| Variable Data 1                                 | UseExtraValue  | Bool       | 1             |                              |
| Variable Data 2                                 | ExtraValue     | FlexString | 18            |                              |



| Write Variable Response: |                |        |               |                                  |
|--------------------------|----------------|--------|---------------|----------------------------------|
| sWA EO1OffFncEvExt       |                |        |               |                                  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                      |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EO1OffFncEvExt | String | 14            | Extension of List for EvCnd      |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| Read Variable:  | [STX]sRN EO1OffFncEvExt[ETX]        |
| Read Variable Response:                                     | [STX]sRA EO1OffFncEvExt 0 0[ETX]    |
| Write Variable:   | [STX]sWN EO1OffFncEvExt 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EO1OffFncEvExt[ETX]        |

### 2.6.1.6. Variable: ExtOut1OffFuncEvCndEvalTime

The following section contains a detailed description of the variable ExtOut1OffFuncEvCndEvalTime.

#### Variable Overview

| Variable Name               | Description                               |
|-----------------------------|---|
| ExtOut1OffFuncEvCndEvalTime | Function of Output 1, EvalCond eval. time |

|                       |   |
|-----------------------|---|
| Communication Name    | EO1OffFncEvTm   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 92  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                   |             |
|---------------|-------|-------------------|-------------|
| Default Value |       | TX_OBJECT_RELEASE |             |
|               | Value | Name              | Description |
|               | 0     | TX_ASAP           |             |
|               | 1     | TX_OBJECT_RELEASE |             |
|               | 2     | TX_OBJECT_PUBLISH |             |



## Variable Telegram Syntax

| Read Variable:    |               |        |               |   |
|-------------------|---------------|--------|---------------|---|
| sRN EO1OffFncEvTm |               |        |               |   |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                               |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name               |
| Command           | EO1OffFncEvTm | String | 13            | Function of Output 1, EvalCond eval. time |

| Read Variable Response:  |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sRA EO1OffFncEvTm <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                               |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                  | EO1OffFncEvTm | String | 13            | Function of Output 1, EvalCond eval. time |
| Variable Data            | data          | Enum8  | 1             |   |

| Write Variable:          |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWN EO1OffFncEvTm <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                               |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name              |
| Command                  | EO1OffFncEvTm | String | 13            | Function of Output 1, EvalCond eval. time |
| Variable Data            | data          | Enum8  | 1             |   |

| Write Variable Response: |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWA EO1OffFncEvTm        |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                               |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge          |
| Command                  | EO1OffFncEvTm | String | 13            | Function of Output 1, EvalCond eval. time |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN EO1OffFncEvTm[ETX]   |
| Read Variable Response:                                     | [STX]sRA EO1OffFncEvTm 1[ETX] |
| Write Variable:   | [STX]sWN EO1OffFncEvTm 1[ETX] |
| Write Variable Response:                                    | [STX]sWA EO1OffFncEvTm[ETX]   |

### 2.6.1.7. Variable: ExtOut1Logic

The following section contains a detailed description of the variable ExtOut1Logic.

#### Variable Overview

| Variable Name | Description                                    |
|---------------|--|
| ExtOut1Logic  | True if external Output 1 Function is inverted |

|                       |   |
|-----------------------|---|
| Communication Name    | EO1Logic  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 93  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_ACTIVE_HIGH |             |
|               | 1     | TX_ACTIVE_LOW  |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN EO1Logic   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                                    |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                    |
| Command        | EO1Logic | String | 8             | True if external Output 1 Function is inverted |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA EO1Logic <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                                    |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                |
| Command                 | EO1Logic | String | 8             | True if external Output 1 Function is inverted |
| Variable Data           | data     | Enum8  | 1             |  |

| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN EO1Logic <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                                    |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                   |
| Command             | EO1Logic | String | 8             | True if external Output 1 Function is inverted |
| Variable Data       | data     | Enum8  | 1             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA EO1Logic             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                                    |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge               |
| Command                  | EO1Logic | String | 8             | True if external Output 1 Function is inverted |





## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN EO1Logic[ETX]   |
| Read Variable Response:                                     | [STX]sRA EO1Logic 0[ETX] |
| Write Variable:   | [STX]sWN EO1Logic 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EO1Logic[ETX]   |

### 2.6.1.8. Variable: ExtOut1DurTime

The following section contains a detailed description of the variable ExtOut1DurTime.

#### Variable Overview

| Variable Name  | Description                                      |
|----------------|--|
| ExtOut1DurTime | Duration of external Output 1 if time controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | EO1DurTm  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 94  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |           |
|----------------------|-----------|
| Value Range          | 10..10000 |
| Initialisation       | 100       |
| Physical Unit        | ms        |
| Physical Unit Factor | 0.0       |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN EO1DurTm   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                                      |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                      |
| Command        | EO1DurTm | String | 8             | Duration of external Output 1 if time controlled |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA EO1DurTm <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                                      |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                  |
| Command                 | EO1DurTm | String | 8             | Duration of external Output 1 if time controlled |
| Variable Data           | data     | UInt   | 2             |  |



| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN EO1DurTm <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                                      |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                     |
| Command             | EO1DurTm | String | 8             | Duration of external Output 1 if time controlled |
| Variable Data       | data     | UInt   | 2             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA EO1DurTm             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                 |
| Command                  | EO1DurTm | String | 8             | Duration of external Output 1 if time controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN EO1DurTm[ETX]    |
| Read Variable Response:                                     | [STX]sRA EO1DurTm 64[ETX] |
| Write Variable:   | [STX]sWN EO1DurTm 64[ETX] |
| Write Variable Response:                                    | [STX]sWA EO1DurTm[ETX]    |

### 2.6.1.9. Variable: ExtOut1DurTrack

The following section contains a detailed description of the variable ExtOut1DurTrack.

#### Variable Overview

| Variable Name   | Description                                       |
|-----------------|---|
| ExtOut1DurTrack | Duration of external Output 1 if track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | EO1DurTrk   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 95  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 1..10000 |
| Initialisation       | 100      |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN EO1DurTrk  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                                       |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                       |
| Command        | EO1DurTrk | String | 9             | Duration of external Output 1 if track controlled |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA EO1DurTrk <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                                       |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                   |
| Command                 | EO1DurTrk | String | 9             | Duration of external Output 1 if track controlled |
| Variable Data           | data      | UInt   | 2             |   |

| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN EO1DurTrk <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                                       |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                      |
| Command              | EO1DurTrk | String | 9             | Duration of external Output 1 if track controlled |
| Variable Data        | data      | UInt   | 2             |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA EO1DurTrk            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                                       |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                  |
| Command                  | EO1DurTrk | String | 9             | Duration of external Output 1 if track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN EO1DurTrk[ETX]    |
| Read Variable Response:                                     | [STX]sRA EO1DurTrk 64[ETX] |
| Write Variable:   | [STX]sWN EO1DurTrk 64[ETX] |
| Write Variable Response:                                    | [STX]sWA EO1DurTrk[ETX]    |

### 2.6.1.10. Variable: ExtOut1Control

The following section contains a detailed description of the variable ExtOut1Control.

#### Variable Overview

| Variable Name  | Description   |
|----------------|---|
| ExtOut1Control | Switch wether external output 1 is time or track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | EO1Control  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 96  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_TIME_BASED  |             |
|               | 1     | TX_TRACK_BASED |             |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN EO1Control |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description   |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                                 |
| Command        | EO1Control | String | 10            | Switch wether external output 1 is time or track controlled |

| Read Variable Response: |            |        |               |   |
|-------------------------|------------|--------|---------------|---|
| sRA EO1Control <data>   |            |        |               |   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description   |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                             |
| Command                 | EO1Control | String | 10            | Switch wether external output 1 is time or track controlled |
| Variable Data           | data       | Enum8  | 1             |   |

| Write Variable:       |            |        |               |   |
|-----------------------|------------|--------|---------------|---|
| sWN EO1Control <data> |            |        |               |   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description   |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                                |
| Command               | EO1Control | String | 10            | Switch wether external output 1 is time or track controlled |
| Variable Data         | data       | Enum8  | 1             |   |



| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA EO1Control           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description   |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                            |
| Command                  | EO1Control | String | 10            | Switch wether external output 1 is time or track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN EO1Control[ETX]   |
| Read Variable Response:                                     | [STX]sRA EO1Control 0[ETX] |
| Write Variable:   | [STX]sWN EO1Control 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EO1Control[ETX]   |

### 2.6.1.11. Variable: ExtOut2Func

The following section contains a detailed description of the variable ExtOut2Func.

#### Variable Overview

| Variable Name | Description                   |
|---------------|-------------------------------|
| ExtOut2Func   | Function of external Output 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | EO2Fnc  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 97  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                    |             |
|---------------|-------|--------------------|-------------|
| Default Value |       | 0                  |             |
|               | Value | Name               | Description |
|               | 0     | TX_NO_FUNCTION     |             |
|               | 1     | TX_COMMAND         |             |
|               | 2     | TX_DEVICE_READY    |             |
|               | 3     | TX_GOOD_READ       |             |
|               | 4     | TX_NO_READ         |             |
|               | 5     | TX_CDF600_FIELDBUS |             |
|               | 6     | TX_SYSTEM_READY    |             |
|               | 7     | TX_TEACH1_SUCCESS  |             |
|               | 8     | TX_TEACH1_FAIL     |             |
|               | 9     | TX_TEACH2_SUCCESS  |             |
|               | 10    | TX_TEACH2_FAIL     |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                               |
|----------------|----------|--------|---------------|-------------------------------|
| sRN EO2Fnc     |          |        |               |                               |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name   |
| Command        | EO2Fnc   | String | 6             | Function of external Output 2 |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA EO2Fnc <data>       |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | EO2Fnc   | String | 6             | Function of external Output 2   |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:   |          |        |               |                               |
|-------------------|----------|--------|---------------|-------------------------------|
| sWN EO2Fnc <data> |          |        |               |                               |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description                   |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name  |
| Command           | EO2Fnc   | String | 6             | Function of external Output 2 |
| Variable Data     | data     | Enum8  | 1             |                               |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EO2Fnc               |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EO2Fnc   | String | 6             | Function of external Output 2    |

## Variable Telegram Examples

| Example: Default Values                                     |                        |
|---|------------------------|
| Variable telegram examples with data set to default values. |                        |
| Read Variable:  | [STX]sRN EO2Fnc[ETX]   |
| Read Variable Response:                                     | [STX]sRA EO2Fnc 0[ETX] |
| Write Variable:   | [STX]sWN EO2Fnc 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EO2Fnc[ETX]   |

### 2.6.1.12. Variable: ExtOut2FuncEvCndExt

The following section contains a detailed description of the variable ExtOut2FuncEvCndExt.

#### Variable Overview

| Variable Name       | Description                                       |
|---------------------|---|
| ExtOut2FuncEvCndExt | Function of external Output 2, EvalCond extension |

|                       |   |
|-----------------------|---|
| Communication Name    | EO2FncEvExt   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 98  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct            |             |
|-------------------|-------------|
| UseExtraValue     |             |
| <b>Bool</b>       |             |
| Value Range       | False, True |
| Initialisation    | False       |
| ExtraValue        |             |
| <b>FlexString</b> |             |
| Length            | 0..18       |
| Initialisation    |             |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN EO2FncEvExt |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                       |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                       |
| Command         | EO2FncEvExt | String | 11            | Function of external Output 2, EvalCond extension |

| Read Variable Response:                      |               |            |               |   |
|--|---------------|------------|---------------|---|
| sRA EO2FncEvExt <UseExtraValue> <ExtraValue> |               |            |               |   |
| Telegram Part                                | Telegram      | Type       | Length [Byte] | Description                                       |
| Command Type                                 | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                   |
| Command                                      | EO2FncEvExt   | String     | 11            | Function of external Output 2, EvalCond extension |
| Variable Data 1                              | UseExtraValue | Bool       | 1             |   |
| Variable Data 2                              | ExtraValue    | FlexString | 18            |   |

| Write Variable:                              |               |            |               |   |
|--|---------------|------------|---------------|---|
| sWN EO2FncEvExt <UseExtraValue> <ExtraValue> |               |            |               |   |
| Telegram Part                                | Telegram      | Type       | Length [Byte] | Description                                       |
| Command Type                                 | sWN           | String     | 3             | Write SOPAS Variable by Name                      |
| Command                                      | EO2FncEvExt   | String     | 11            | Function of external Output 2, EvalCond extension |
| Variable Data 1                              | UseExtraValue | Bool       | 1             |   |
| Variable Data 2                              | ExtraValue    | FlexString | 18            |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA EO2FncEvExt          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                       |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge                  |
| Command                  | EO2FncEvExt | String | 11            | Function of external Output 2, EvalCond extension |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| <b>Read Variable:</b>                                       | [STX]sRN EO2FncEvExt[ETX]        |
| <b>Read Variable Response:</b>                              | [STX]sRA EO2FncEvExt 0 0[ETX]    |
| <b>Write Variable:</b>                                      | [STX]sWN EO2FncEvExt 0 +0 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA EO2FncEvExt[ETX]        |

### 2.6.1.13. Variable: ExtOut2FuncEvCndEvalTime

The following section contains a detailed description of the variable ExtOut2FuncEvCndEvalTime.

#### Variable Overview

| Variable Name            | Description                               |
|--------------------------|---|
| ExtOut2FuncEvCndEvalTime | Function of Output 2, EvalCond eval. time |

|                       |   |
|-----------------------|---|
| Communication Name    | EO2FncEvTm  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 99  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                   |             |
|---------------|-------|-------------------|-------------|
| Default Value |       | TX_OBJECT_RELEASE |             |
|               | Value | Name              | Description |
|               | 0     | TX_ASAP           |             |
|               | 1     | TX_OBJECT_RELEASE |             |
|               | 2     | TX_OBJECT_PUBLISH |             |





## Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN EO2FncEvTm |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name               |
| Command        | EO2FncEvTm | String | 10            | Function of Output 2, EvalCond eval. time |

| Read Variable Response: |            |        |               |   |
|-------------------------|------------|--------|---------------|---|
| sRA EO2FncEvTm <data>   |            |        |               |   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                 | EO2FncEvTm | String | 10            | Function of Output 2, EvalCond eval. time |
| Variable Data           | data       | Enum8  | 1             |   |

| Write Variable:       |            |        |               |   |
|-----------------------|------------|--------|---------------|---|
| sWN EO2FncEvTm <data> |            |        |               |   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name              |
| Command               | EO2FncEvTm | String | 10            | Function of Output 2, EvalCond eval. time |
| Variable Data         | data       | Enum8  | 1             |   |

| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA EO2FncEvTm           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge          |
| Command                  | EO2FncEvTm | String | 10            | Function of Output 2, EvalCond eval. time |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN EO2FncEvTm[ETX]   |
| Read Variable Response:                                     | [STX]sRA EO2FncEvTm 1[ETX] |
| Write Variable:   | [STX]sWN EO2FncEvTm 1[ETX] |
| Write Variable Response:                                    | [STX]sWA EO2FncEvTm[ETX]   |

### 2.6.1.14. Variable: ExtOut2OffFunc

The following section contains a detailed description of the variable ExtOut2OffFunc.

#### Variable Overview

| Variable Name  | Description                  |
|----------------|------------------------------|
| ExtOut2OffFunc | Off-Function for ext. out. 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | EO2OffFnc   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 100   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                      |             |
|---------------|-------|----------------------|-------------|
| Default Value |       | 0                    |             |
|               | Value | Name                 | Description |
|               | 0     | TX_TIMER_TRACKING    |             |
|               | 1     | TX_NEXT_READING_GATE |             |
|               | 2     | TX_COMMAND           |             |
|               | 3     | TX_GOOD_READ         |             |
|               | 4     | TX_NO_READ           |             |
|               | 5     | TX_TEACH1_START      |             |
|               | 6     | TX_TEACH2_START      |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                              |
|----------------|-----------|--------|---------------|------------------------------|
| sRN EO2OffFnc  |           |        |               |                              |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name  |
| Command        | EO2OffFnc | String | 9             | Off-Function for ext. out. 2 |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA EO2OffFnc <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | EO2OffFnc | String | 9             | Off-Function for ext. out. 2    |
| Variable Data           | data      | Enum8  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN EO2OffFnc <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | EO2OffFnc | String | 9             | Off-Function for ext. out. 2 |
| Variable Data        | data      | Enum8  | 1             |                              |



| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA EO2OffFnc            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EO2OffFnc | String | 9             | Off-Function for ext. out. 2     |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN EO2OffFnc[ETX]   |
| Read Variable Response:                                     | [STX]sRA EO2OffFnc 0[ETX] |
| Write Variable:   | [STX]sWN EO2OffFnc 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EO2OffFnc[ETX]   |

### 2.6.1.15. Variable: ExtOut2OffFuncEvCndExt

The following section contains a detailed description of the variable ExtOut2OffFuncEvCndExt.

#### Variable Overview

| Variable Name          | Description                 |
|------------------------|-----------------------------|
| ExtOut2OffFuncEvCndExt | Extension of List for EvCnd |

|                       |   |
|-----------------------|---|
| Communication Name    | EO2OffFncEvExt  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 101   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..18       |
| Initialisation |             |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |                             |
|--------------------|----------------|--------|---------------|-----------------------------|
| sRN EO2OffFncEvExt |                |        |               |                             |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                 |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name |
| Command            | EO2OffFncEvExt | String | 14            | Extension of List for EvCnd |

| Read Variable Response:                         |                |            |               |                                 |
|---|----------------|------------|---------------|---------------------------------|
| sRA EO2OffFncEvExt <UseExtraValue> <ExtraValue> |                |            |               |                                 |
| Telegram Part                                   | Telegram       | Type       | Length [Byte] | Description                     |
| Command Type                                    | sRA            | String     | 3             | SOPAS Variable Read Acknowledge |
| Command   | EO2OffFncEvExt | String     | 14            | Extension of List for EvCnd     |
| Variable Data 1                                 | UseExtraValue  | Bool       | 1             |                                 |
| Variable Data 2                                 | ExtraValue     | FlexString | 18            |                                 |

| Write Variable:                                 |                |            |               |                              |
|---|----------------|------------|---------------|------------------------------|
| sWN EO2OffFncEvExt <UseExtraValue> <ExtraValue> |                |            |               |                              |
| Telegram Part                                   | Telegram       | Type       | Length [Byte] | Description                  |
| Command Type                                    | sWN            | String     | 3             | Write SOPAS Variable by Name |
| Command   | EO2OffFncEvExt | String     | 14            | Extension of List for EvCnd  |
| Variable Data 1                                 | UseExtraValue  | Bool       | 1             |                              |
| Variable Data 2                                 | ExtraValue     | FlexString | 18            |                              |

| Write Variable Response: |                |        |               |                                  |
|--------------------------|----------------|--------|---------------|----------------------------------|
| sWA EO2OffFncEvExt       |                |        |               |                                  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                      |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EO2OffFncEvExt | String | 14            | Extension of List for EvCnd      |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| Read Variable:  | [STX]sRN EO2OffFncEvExt[ETX]        |
| Read Variable Response:                                     | [STX]sRA EO2OffFncEvExt 0 0[ETX]    |
| Write Variable:   | [STX]sWN EO2OffFncEvExt 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EO2OffFncEvExt[ETX]        |

### 2.6.1.16. Variable: ExtOut2OffFuncEvCndEvalTime

The following section contains a detailed description of the variable ExtOut2OffFuncEvCndEvalTime.

#### Variable Overview

| Variable Name               | Description                               |
|-----------------------------|---|
| ExtOut2OffFuncEvCndEvalTime | Function of Output 2, EvalCond eval. time |

|                       |   |
|-----------------------|---|
| Communication Name    | EO2OffFncEvTm   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 102   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |                   |                   |  |
|---------------|-------------------|-------------------|--|
| Default Value |                   | TX_OBJECT_RELEASE |  |
| Value         | Name              | Description       |  |
| 0             | TX_ASAP           |                   |  |
| 1             | TX_OBJECT_RELEASE |                   |  |
| 2             | TX_OBJECT_PUBLISH |                   |  |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |   |
|-------------------|---------------|--------|---------------|---|
| sRN EO2OffFncEvTm |               |        |               |   |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                               |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name               |
| Command           | EO2OffFncEvTm | String | 13            | Function of Output 2, EvalCond eval. time |

| Read Variable Response:  |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sRA EO2OffFncEvTm <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                               |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                  | EO2OffFncEvTm | String | 13            | Function of Output 2, EvalCond eval. time |
| Variable Data            | data          | Enum8  | 1             |   |

| Write Variable:          |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWN EO2OffFncEvTm <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                               |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name              |
| Command                  | EO2OffFncEvTm | String | 13            | Function of Output 2, EvalCond eval. time |
| Variable Data            | data          | Enum8  | 1             |   |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EO2OffFncEvTm        |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWA EO2OffFncEvTm        |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                               |
| Command                  | EO2OffFncEvTm | String | 13            | Function of Output 2, EvalCond eval. time |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN EO2OffFncEvTm[ETX]   |
| Read Variable Response:                                     | [STX]sRA EO2OffFncEvTm 1[ETX] |
| Write Variable:   | [STX]sWN EO2OffFncEvTm 1[ETX] |
| Write Variable Response:                                    | [STX]sWA EO2OffFncEvTm[ETX]   |

### 2.6.1.17. Variable: ExtOut2Logic

The following section contains a detailed description of the variable ExtOut2Logic.

#### Variable Overview

| Variable Name | Description                                    |
|---------------|--|
| ExtOut2Logic  | True if external Output 2 Function is inverted |

|                       |   |
|-----------------------|---|
| Communication Name    | EO2Logic  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 103   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_ACTIVE_HIGH |             |
|               | 1     | TX_ACTIVE_LOW  |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN EO2Logic   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                                    |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                    |
| Command        | EO2Logic | String | 8             | True if external Output 2 Function is inverted |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA EO2Logic <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                                    |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                |
| Command                 | EO2Logic | String | 8             | True if external Output 2 Function is inverted |
| Variable Data           | data     | Enum8  | 1             |  |

| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN EO2Logic <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                                    |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                   |
| Command             | EO2Logic | String | 8             | True if external Output 2 Function is inverted |
| Variable Data       | data     | Enum8  | 1             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA EO2Logic             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                                    |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge               |
| Command                  | EO2Logic | String | 8             | True if external Output 2 Function is inverted |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN EO2Logic[ETX]   |
| Read Variable Response:                                     | [STX]sRA EO2Logic 0[ETX] |
| Write Variable:   | [STX]sWN EO2Logic 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EO2Logic[ETX]   |

### 2.6.1.18. Variable: ExtOut2DurTime

The following section contains a detailed description of the variable ExtOut2DurTime.

#### Variable Overview

| Variable Name  | Description                                      |
|----------------|--|
| ExtOut2DurTime | Duration of external Output 2 if time controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | EO2DurTm  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 104   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |           |
|----------------------|-----------|
| Value Range          | 10..10000 |
| Initialisation       | 100       |
| Physical Unit        | ms        |
| Physical Unit Factor | 0.0       |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN EO2DurTm   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                                      |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                      |
| Command        | EO2DurTm | String | 8             | Duration of external Output 2 if time controlled |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA EO2DurTm <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                                      |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                  |
| Command                 | EO2DurTm | String | 8             | Duration of external Output 2 if time controlled |
| Variable Data           | data     | UInt   | 2             |  |

| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN EO2DurTm <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                                      |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                     |
| Command             | EO2DurTm | String | 8             | Duration of external Output 2 if time controlled |
| Variable Data       | data     | UInt   | 2             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA EO2DurTm             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                 |
| Command                  | EO2DurTm | String | 8             | Duration of external Output 2 if time controlled |





## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN EO2DurTm[ETX]    |
| Read Variable Response:                                     | [STX]sRA EO2DurTm 64[ETX] |
| Write Variable:   | [STX]sWN EO2DurTm 64[ETX] |
| Write Variable Response:                                    | [STX]sWA EO2DurTm[ETX]    |

### 2.6.1.19. Variable: ExtOut2DurTrack

The following section contains a detailed description of the variable ExtOut2DurTrack.

#### Variable Overview

| Variable Name   | Description                                       |
|-----------------|---|
| ExtOut2DurTrack | Duration of external Output 2 if track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | EO2DurTrk   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 105   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 1..10000 |
| Initialisation       | 100      |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN EO2DurTrk  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                                       |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                       |
| Command        | EO2DurTrk | String | 9             | Duration of external Output 2 if track controlled |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA EO2DurTrk <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                                       |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                   |
| Command                 | EO2DurTrk | String | 9             | Duration of external Output 2 if track controlled |
| Variable Data           | data      | UInt   | 2             |   |



| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN EO2DurTrk <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                                       |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                      |
| Command              | EO2DurTrk | String | 9             | Duration of external Output 2 if track controlled |
| Variable Data        | data      | UInt   | 2             |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA EO2DurTrk            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                                       |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                  |
| Command                  | EO2DurTrk | String | 9             | Duration of external Output 2 if track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN EO2DurTrk[ETX]    |
| Read Variable Response:                                     | [STX]sRA EO2DurTrk 64[ETX] |
| Write Variable:   | [STX]sWN EO2DurTrk 64[ETX] |
| Write Variable Response:                                    | [STX]sWA EO2DurTrk[ETX]    |

### 2.6.1.20. Variable: ExtOut2Control

The following section contains a detailed description of the variable ExtOut2Control.

#### Variable Overview

| Variable Name  | Description  |
|----------------|--|
| ExtOut2Control | Switch whether external output 2 is time or track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | EO2Control  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 106   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_TIME_BASED  |             |
|               | 1     | TX_TRACK_BASED |             |



## Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN EO2Control |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description   |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                                 |
| Command        | EO2Control | String | 10            | Switch wether external output 2 is time or track controlled |

| Read Variable Response: |            |        |               |   |
|-------------------------|------------|--------|---------------|---|
| sRA EO2Control <data>   |            |        |               |   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description   |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                             |
| Command                 | EO2Control | String | 10            | Switch wether external output 2 is time or track controlled |
| Variable Data           | data       | Enum8  | 1             |   |

| Write Variable:       |            |        |               |   |
|-----------------------|------------|--------|---------------|---|
| sWN EO2Control <data> |            |        |               |   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description   |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                                |
| Command               | EO2Control | String | 10            | Switch wether external output 2 is time or track controlled |
| Variable Data         | data       | Enum8  | 1             |   |

| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA EO2Control           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description   |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                            |
| Command                  | EO2Control | String | 10            | Switch wether external output 2 is time or track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN EO2Control[ETX]   |
| Read Variable Response:                                     | [STX]sRA EO2Control 0[ETX] |
| Write Variable:   | [STX]sWN EO2Control 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EO2Control[ETX]   |



### 2.6.1.21. Method: SetExtOutput

The following section contains a detailed description of the method SetExtOutput.

#### Method Overview

| Method Name  | Description                        |
|--------------|------------------------------------|
| SetExtOutput | sets the specified external output |

|                    |              |
|--------------------|--------------|
| Communication Name | mEOSetOutput |
| Sopas Index        | 60           |
| Invocation Access  | Always       |

| Parameters           |        |
|----------------------|--------|
| Output               |        |
| USInt                |        |
| Value Range          | 0..255 |
| Initialisation       |        |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |
| Value                |        |
| USInt                |        |
| Value Range          | 0..255 |
| Initialisation       |        |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |

#### Method Telegram Syntax

| Method Invocation:                |              |        |               |                                    |
|-----------------------------------|--------------|--------|---------------|------------------------------------|
| sMN mEOSetOutput <Output> <Value> |              |        |               |                                    |
| Telegram Part                     | Telegram     | Type   | Length [Byte] | Description                        |
| Command Type                      | sMN          | String | 3             | Request (SOPAS Method by Name)     |
| Command                           | mEOSetOutput | String | 12            | sets the specified external output |
| Parameter 1                       | Output       | USInt  | 1             |                                    |
| Parameter 2                       | Value        | USInt  | 1             |                                    |

| Method Return Value:       |              |        |               |                                    |
|----------------------------|--------------|--------|---------------|------------------------------------|
| sAN mEOSetOutput <Success> |              |        |               |                                    |
| Telegram Part              | Telegram     | Type   | Length [Byte] | Description                        |
| Command Type               | sAN          | String | 3             | Result (SOPAS Method Result)       |
| Command                    | mEOSetOutput | String | 12            | sets the specified external output |
| Return Value 1             | Success      | Bool   | 1             |                                    |



## Method Telegram Examples

| Example: Default Values   |                                |
|---|--------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                |
| Method Invocation:  | [STX]sMN mEOSetOutput 0 0[ETX] |
| Method Return Value:  | [STX]sAN mEOSetOutput 0[ETX]   |



## 2.6.2. Group: ExternalInputsBase

### 2.6.2.1. Variable: ExtSensor1Sensitivity

The following section contains a detailed description of the variable ExtSensor1Sensitivity.

#### Variable Overview

| Variable Name         | Description                      |
|-----------------------|----------------------------------|
| ExtSensor1Sensitivity | Sensitivity of external sensor 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | EI1Sens   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 107   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |          |             |
|---------------|-------|----------|-------------|
| Default Value |       | 0        |             |
|               | Value | Name     | Description |
|               | 0     | TX_EDGE  |             |
|               | 1     | TX_LEVEL |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                                  |
|----------------|----------|--------|---------------|----------------------------------|
| sRN EI1Sens    |          |        |               |                                  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                      |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name      |
| Command        | EI1Sens  | String | 7             | Sensitivity of external sensor 1 |

| Read Variable Response: |          |        |               |                                  |
|-------------------------|----------|--------|---------------|----------------------------------|
| sRA EI1Sens <data>      |          |        |               |                                  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                      |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | EI1Sens  | String | 7             | Sensitivity of external sensor 1 |
| Variable Data           | data     | Enum8  | 1             |                                  |

| Write Variable:    |          |        |               |                                  |
|--------------------|----------|--------|---------------|----------------------------------|
| sWN EI1Sens <data> |          |        |               |                                  |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                      |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name     |
| Command            | EI1Sens  | String | 7             | Sensitivity of external sensor 1 |
| Variable Data      | data     | Enum8  | 1             |                                  |



| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EI1Sens              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EI1Sens  | String | 7             | Sensitivity of external sensor 1 |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN EI1Sens[ETX]   |
| Read Variable Response:                                     | [STX]sRA EI1Sens 0[ETX] |
| Write Variable:   | [STX]sWN EI1Sens 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EI1Sens[ETX]   |

### 2.6.2.2. Variable: ExtSensor1Logic

The following section contains a detailed description of the variable ExtSensor1Logic.

#### Variable Overview

| Variable Name   | Description                   |
|-----------------|-------------------------------|
| ExtSensor1Logic | External Sensor 1 is inverted |

|                       |   |
|-----------------------|---|
| Communication Name    | EI1Logic  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 108   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_ACTIVE_HIGH |             |
|               | 1     | TX_ACTIVE_LOW  |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                               |
|----------------|----------|--------|---------------|-------------------------------|
| sRN EIlLogic   |          |        |               |                               |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name   |
| Command        | EI1Logic | String | 8             | External Sensor 1 is inverted |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA EIlLogic <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | EI1Logic | String | 8             | External Sensor 1 is inverted   |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:     |          |        |               |                               |
|---------------------|----------|--------|---------------|-------------------------------|
| sWN EIlLogic <data> |          |        |               |                               |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                   |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name  |
| Command             | EI1Logic | String | 8             | External Sensor 1 is inverted |
| Variable Data       | data     | Enum8  | 1             |                               |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EIlLogic             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EI1Logic | String | 8             | External Sensor 1 is inverted    |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN EIlLogic[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIlLogic 0[ETX] |
| Write Variable:   | [STX]sWN EIlLogic 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIlLogic[ETX]   |





### 2.6.2.3. Variable: ExtSensor1DebounceTime

The following section contains a detailed description of the variable ExtSensor1DebounceTime.

#### Variable Overview

| Variable Name          | Description   |
|------------------------|---|
| ExtSensor1DebounceTime | Time controlled Debounce value of external sensor 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | EI1DebTim   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 109   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |         |
|----------------------|---------|
| Value Range          | 0..2000 |
| Initialisation       | 10      |
| Physical Unit        | ms      |
| Physical Unit Factor | 0.0     |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN EI1DebTim  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                         |
| Command        | EI1DebTim | String | 9             | Time controlled Debounce value of external sensor 1 |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA EI1DebTim <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description   |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                     |
| Command                 | EI1DebTim | String | 9             | Time controlled Debounce value of external sensor 1 |
| Variable Data           | data      | UInt   | 2             |   |

| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN EI1DebTim <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description   |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                        |
| Command              | EI1DebTim | String | 9             | Time controlled Debounce value of external sensor 1 |
| Variable Data        | data      | UInt   | 2             |   |



| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA EI1DebTim            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                    |
| Command                  | EI1DebTim | String | 9             | Time controlled Debounce value of external sensor 1 |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN EI1DebTim[ETX]   |
| Read Variable Response:                                     | [STX]sRA EI1DebTim A[ETX] |
| Write Variable:   | [STX]sWN EI1DebTim A[ETX] |
| Write Variable Response:                                    | [STX]sWA EI1DebTim[ETX]   |

### 2.6.2.4. Variable: ExtSensor1DebounceTrack

The following section contains a detailed description of the variable ExtSensor1DebounceTrack.

#### Variable Overview

| Variable Name           | Description  |
|-------------------------|--|
| ExtSensor1DebounceTrack | Track controlled Debounce value of external sensor 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | EI1DebTrk   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 110   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |         |
|----------------------|---------|
| Value Range          | 0..2000 |
| Initialisation       | 10      |
| Physical Unit        | mm      |
| Physical Unit Factor | 0.0     |



## Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN EI1DebTrk  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                          |
| Command        | EI1DebTrk | String | 9             | Track controlled Debounce value of external sensor 1 |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA EI1DebTrk <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description  |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                      |
| Command                 | EI1DebTrk | String | 9             | Track controlled Debounce value of external sensor 1 |
| Variable Data           | data      | UInt   | 2             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN EI1DebTrk <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                         |
| Command              | EI1DebTrk | String | 9             | Track controlled Debounce value of external sensor 1 |
| Variable Data        | data      | UInt   | 2             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA EI1DebTrk            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description  |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                     |
| Command                  | EI1DebTrk | String | 9             | Track controlled Debounce value of external sensor 1 |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN EI1DebTrk[ETX]   |
| Read Variable Response:                                     | [STX]sRA EI1DebTrk A[ETX] |
| Write Variable:   | [STX]sWN EI1DebTrk A[ETX] |
| Write Variable Response:                                    | [STX]sWA EI1DebTrk[ETX]   |

### 2.6.2.5. Variable: ExtSensor1Control

The following section contains a detailed description of the variable ExtSensor1Control.

#### Variable Overview

| Variable Name     | Description   |
|-------------------|---|
| ExtSensor1Control | Switch wether external sensor 1 is time or track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | EI1Control  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 111   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_TIME_BASED  |             |
|               | 1     | TX_TRACK_BASED |             |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN EI1Control |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description   |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                                 |
| Command        | EI1Control | String | 10            | Switch wether external sensor 1 is time or track controlled |

| Read Variable Response: |            |        |               |   |
|-------------------------|------------|--------|---------------|---|
| sRA EI1Control <data>   |            |        |               |   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description   |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                             |
| Command                 | EI1Control | String | 10            | Switch wether external sensor 1 is time or track controlled |
| Variable Data           | data       | Enum8  | 1             |   |

| Write Variable:       |            |        |               |   |
|-----------------------|------------|--------|---------------|---|
| sWN EI1Control <data> |            |        |               |   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description   |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                                |
| Command               | EI1Control | String | 10            | Switch wether external sensor 1 is time or track controlled |
| Variable Data         | data       | Enum8  | 1             |   |



| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA EIlControl           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description   |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                            |
| Command                  | EI1Control | String | 10            | Switch wether external sensor 1 is time or track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN EIlControl[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIlControl 0[ETX] |
| Write Variable:   | [STX]sWN EIlControl 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIlControl[ETX]   |

### 2.6.2.6. Variable: ExtSensor2Sensitivity

The following section contains a detailed description of the variable ExtSensor2Sensitivity.

#### Variable Overview

| Variable Name         | Description                      |
|-----------------------|----------------------------------|
| ExtSensor2Sensitivity | Sensitivity of external sensor 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | EI2Sens   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 112   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |          |             |
|---------------|-------|----------|-------------|
| Default Value |       | 0        |             |
|               | Value | Name     | Description |
|               | 0     | TX_EDGE  |             |
|               | 1     | TX_LEVEL |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                                  |
|----------------|----------|--------|---------------|----------------------------------|
| sRN EI2Sens    |          |        |               |                                  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                      |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name      |
| Command        | EI2Sens  | String | 7             | Sensitivity of external sensor 2 |

| Read Variable Response: |          |        |               |                                  |
|-------------------------|----------|--------|---------------|----------------------------------|
| sRA EI2Sens <data>      |          |        |               |                                  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                      |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | EI2Sens  | String | 7             | Sensitivity of external sensor 2 |
| Variable Data           | data     | Enum8  | 1             |                                  |

| Write Variable:    |          |        |               |                                  |
|--------------------|----------|--------|---------------|----------------------------------|
| sWN EI2Sens <data> |          |        |               |                                  |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                      |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name     |
| Command            | EI2Sens  | String | 7             | Sensitivity of external sensor 2 |
| Variable Data      | data     | Enum8  | 1             |                                  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EI2Sens              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EI2Sens  | String | 7             | Sensitivity of external sensor 2 |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN EI2Sens[ETX]   |
| Read Variable Response:                                     | [STX]sRA EI2Sens 0[ETX] |
| Write Variable:   | [STX]sWN EI2Sens 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EI2Sens[ETX]   |

### 2.6.2.7. Variable: ExtSensor2Logic

The following section contains a detailed description of the variable ExtSensor2Logic.

#### Variable Overview

| Variable Name   | Description                   |
|-----------------|-------------------------------|
| ExtSensor2Logic | External Sensor 2 is inverted |

|                       |   |
|-----------------------|---|
| Communication Name    | EI2Logic  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 113   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_ACTIVE_HIGH |             |
|               | 1     | TX_ACTIVE_LOW  |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                               |
|----------------|----------|--------|---------------|-------------------------------|
| sRN EI2Logic   |          |        |               |                               |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name   |
| Command        | EI2Logic | String | 8             | External Sensor 2 is inverted |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA EI2Logic <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | EI2Logic | String | 8             | External Sensor 2 is inverted   |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:     |          |        |               |                               |
|---------------------|----------|--------|---------------|-------------------------------|
| sWN EI2Logic <data> |          |        |               |                               |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                   |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name  |
| Command             | EI2Logic | String | 8             | External Sensor 2 is inverted |
| Variable Data       | data     | Enum8  | 1             |                               |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EI2Logic             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EI2Logic | String | 8             | External Sensor 2 is inverted    |



## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN EI2Logic[ETX]   |
| Read Variable Response:                                     | [STX]sRA EI2Logic 0[ETX] |
| Write Variable:   | [STX]sWN EI2Logic 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EI2Logic[ETX]   |

### 2.6.2.8. Variable: ExtSensor2DebounceTime

The following section contains a detailed description of the variable ExtSensor2DebounceTime.

#### Variable Overview

| Variable Name          | Description   |
|------------------------|---|
| ExtSensor2DebounceTime | Time controlled Debounce value of external sensor 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | EI2DebTim   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 114   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |         |
|----------------------|---------|
| Value Range          | 0..2000 |
| Initialisation       | 10      |
| Physical Unit        | ms      |
| Physical Unit Factor | 0.0     |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN EI2DebTim  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                         |
| Command        | EI2DebTim | String | 9             | Time controlled Debounce value of external sensor 2 |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA EI2DebTim <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description   |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                     |
| Command                 | EI2DebTim | String | 9             | Time controlled Debounce value of external sensor 2 |
| Variable Data           | data      | UInt   | 2             |   |





| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN EI2DebTim <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description   |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                        |
| Command              | EI2DebTim | String | 9             | Time controlled Debounce value of external sensor 2 |
| Variable Data        | data      | UInt   | 2             |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA EI2DebTim            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                    |
| Command                  | EI2DebTim | String | 9             | Time controlled Debounce value of external sensor 2 |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN EI2DebTim[ETX]   |
| Read Variable Response:                                     | [STX]sRA EI2DebTim A[ETX] |
| Write Variable:   | [STX]sWN EI2DebTim A[ETX] |
| Write Variable Response:                                    | [STX]sWA EI2DebTim[ETX]   |

### 2.6.2.9. Variable: ExtSensor2DebounceTrack

The following section contains a detailed description of the variable ExtSensor2DebounceTrack.

#### Variable Overview

| Variable Name           | Description  |
|-------------------------|--|
| ExtSensor2DebounceTrack | Track controlled Debounce value of external sensor 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | EI2DebTrk   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 115   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |         |
|----------------------|---------|
| Value Range          | 0..2000 |
| Initialisation       | 10      |
| Physical Unit        | mm      |
| Physical Unit Factor | 0.0     |



## Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN EI2DebTrk  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                          |
| Command        | EI2DebTrk | String | 9             | Track controlled Debounce value of external sensor 2 |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA EI2DebTrk <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description  |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                      |
| Command                 | EI2DebTrk | String | 9             | Track controlled Debounce value of external sensor 2 |
| Variable Data           | data      | UInt   | 2             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN EI2DebTrk <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                         |
| Command              | EI2DebTrk | String | 9             | Track controlled Debounce value of external sensor 2 |
| Variable Data        | data      | UInt   | 2             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA EI2DebTrk            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description  |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                     |
| Command                  | EI2DebTrk | String | 9             | Track controlled Debounce value of external sensor 2 |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN EI2DebTrk[ETX]   |
| Read Variable Response:                                     | [STX]sRA EI2DebTrk A[ETX] |
| Write Variable:   | [STX]sWN EI2DebTrk A[ETX] |
| Write Variable Response:                                    | [STX]sWA EI2DebTrk[ETX]   |

### 2.6.2.10. Variable: ExtSensor2Control

The following section contains a detailed description of the variable ExtSensor2Control.

#### Variable Overview

| Variable Name     | Description   |
|-------------------|---|
| ExtSensor2Control | Switch wether external sensor 2 is time or track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | EI2Control  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 116   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_TIME_BASED  |             |
|               | 1     | TX_TRACK_BASED |             |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN EI2Control |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description   |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                                 |
| Command        | EI2Control | String | 10            | Switch wether external sensor 2 is time or track controlled |

| Read Variable Response: |            |        |               |   |
|-------------------------|------------|--------|---------------|---|
| sRA EI2Control <data>   |            |        |               |   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description   |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                             |
| Command                 | EI2Control | String | 10            | Switch wether external sensor 2 is time or track controlled |
| Variable Data           | data       | Enum8  | 1             |   |

| Write Variable:       |            |        |               |   |
|-----------------------|------------|--------|---------------|---|
| sWN EI2Control <data> |            |        |               |   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description   |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                                |
| Command               | EI2Control | String | 10            | Switch wether external sensor 2 is time or track controlled |
| Variable Data         | data       | Enum8  | 1             |   |



| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA EI2Control           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description   |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                            |
| Command                  | EI2Control | String | 10            | Switch wether external sensor 2 is time or track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN EI2Control[ETX]   |
| Read Variable Response:                                     | [STX]sRA EI2Control 0[ETX] |
| Write Variable:   | [STX]sWN EI2Control 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EI2Control[ETX]   |

### 2.6.2.11. Method: ReadExtInput

The following section contains a detailed description of the method ReadExtInput.

#### Method Overview

| Method Name  | Description                              |
|--------------|--|
| ReadExtInput | reads the specified external input state |

|                    |              |
|--------------------|--------------|
| Communication Name | mEIReadInput |
| Sopas Index        | 61           |
| Invocation Access  | Always       |

| Parameters |                          |
|------------|--------------------------|
| Input      |                          |
|            | <b>USInt</b>             |
|            | Value Range 0..255       |
|            | Initialisation           |
|            | Physical Unit            |
|            | Physical Unit Factor 0.0 |

| Return Values |                          |
|---------------|--------------------------|
| Value         |                          |
|               | <b>USInt</b>             |
|               | Value Range 0..255       |
|               | Initialisation           |
|               | Physical Unit            |
|               | Physical Unit Factor 0.0 |



## Method Telegram Syntax

| Method Invocation:      |             |        |               |  |
|-------------------------|-------------|--------|---------------|--|
| sMN mEReadInput <Input> |             |        |               |  |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type            | sMN         | String | 3             | Request (SOPAS Method by Name)           |
| Command                 | mEReadInput | String | 12            | reads the specified external input state |
| Parameter 1             | Input       | USInt  | 1             |  |

| Method Return Value:    |             |        |               |  |
|-------------------------|-------------|--------|---------------|--|
| sAN mEReadInput <Value> |             |        |               |  |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type            | sAN         | String | 3             | Result (SOPAS Method Result)             |
| Command                 | mEReadInput | String | 12            | reads the specified external input state |
| Return Value 1          | Value       | USInt  | 1             |  |

## Method Telegram Examples

| Example: Default Values   |                             |
|---|-----------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                             |
| Method Invocation:  | [STX]sMN mEReadInput 0[ETX] |
| Method Return Value:  | [STX]sAN mEReadInput 0[ETX] |

## 2.7. Interface Block: GeneralCfgDecoding1DBase

### 2.7.1. Group: Decoding1DBase

#### 2.7.1.1. Variable: CBARActive

The following section contains a detailed description of the variable CBARActive.

#### Variable Overview

| Variable Name | Description               |
|---------------|---------------------------|
| CBARActive    | Activates Codabar Decoder |

|                       |   |
|-----------------------|---|
| Communication Name    | DCCBARAct   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 117   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN DCCBARAct  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | DCCBARAct | String | 9             | Activates Codabar Decoder   |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DCCBARAct <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCCBARAct | String | 9             | Activates Codabar Decoder       |
| Variable Data           | data      | Bool   | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN DCCBARAct <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | DCCBARAct | String | 9             | Activates Codabar Decoder    |
| Variable Data        | data      | Bool   | 1             |                              |



| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA DCCBARAct            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCCBARAct | String | 9             | Activates Codabar Decoder        |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCCBARAct[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCCBARAct 0[ETX] |
| Write Variable:   | [STX]sWN DCCBARAct 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCCBARAct[ETX]   |

### 2.7.1.2. Variable: CBARMultiRead

The following section contains a detailed description of the variable CBARMultiRead.

#### Variable Overview

| Variable Name | Description          |
|---------------|----------------------|
| CBARMultiRead | Multiread of Codabar |

|                       |   |
|-----------------------|---|
| Communication Name    | DCCBARMr  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 118   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..100 |
| Initialisation       | 3      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN DCCBARMr   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | DCCBARMr | String | 8             | Multiread of Codabar        |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DCCBARMr <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCCBARMr | String | 8             | Multiread of Codabar            |
| Variable Data           | data     | UInt   | 2             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN DCCBARMr <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | DCCBARMr | String | 8             | Multiread of Codabar         |
| Variable Data       | data     | UInt   | 2             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCCBARMr             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCCBARMr | String | 8             | Multiread of Codabar             |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCCBARMr [ETX]   |
| Read Variable Response:                                     | [STX]sRA DCCBARMr 3 [ETX] |
| Write Variable:   | [STX]sWN DCCBARMr 3 [ETX] |
| Write Variable Response:                                    | [STX]sWA DCCBARMr [ETX]   |



### 2.7.1.3. Variable: CBarStaStIdent

The following section contains a detailed description of the variable CBarStaStIdent.

#### Variable Overview

| Variable Name  | Description                  |
|----------------|------------------------------|
| CBarStaStIdent | Start/Stop identical Codabar |

|                       |   |
|-----------------------|---|
| Communication Name    | DCCBARStId  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 119   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                              |
|----------------|------------|--------|---------------|------------------------------|
| sRN DCCBARStId |            |        |               |                              |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                  |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name  |
| Command        | DCCBARStId | String | 10            | Start/Stop identical Codabar |

| Read Variable Response: |            |        |               |                                 |
|-------------------------|------------|--------|---------------|---------------------------------|
| sRA DCCBARStId <data>   |            |        |               |                                 |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCCBARStId | String | 10            | Start/Stop identical Codabar    |
| Variable Data           | data       | Bool   | 1             |                                 |

| Write Variable:       |            |        |               |                              |
|-----------------------|------------|--------|---------------|------------------------------|
| sWN DCCBARStId <data> |            |        |               |                              |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name |
| Command               | DCCBARStId | String | 10            | Start/Stop identical Codabar |
| Variable Data         | data       | Bool   | 1             |                              |

| Write Variable Response: |            |        |               |                                  |
|--------------------------|------------|--------|---------------|----------------------------------|
| sWA DCCBARStId           |            |        |               |                                  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCCBARStId | String | 10            | Start/Stop identical Codabar     |



## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DCCBARStId[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCCBARStId 0[ETX] |
| Write Variable:   | [STX]sWN DCCBARStId 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCCBARStId[ETX]   |

### 2.7.1.4. Variable: CBarStaStoTransmit

The following section contains a detailed description of the variable CBarStaStoTransmit.

#### Variable Overview

| Variable Name      | Description                 |
|--------------------|-----------------------------|
| CBarStaStoTransmit | Start/Stop transmit Codabar |

|                       |   |
|-----------------------|---|
| Communication Name    | DCCBARStTx  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 120   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                             |
|----------------|------------|--------|---------------|-----------------------------|
| sRN DCCBARStTx |            |        |               |                             |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                 |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name |
| Command        | DCCBARStTx | String | 10            | Start/Stop transmit Codabar |

| Read Variable Response: |            |        |               |                                 |
|-------------------------|------------|--------|---------------|---------------------------------|
| sRA DCCBARStTx <data>   |            |        |               |                                 |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCCBARStTx | String | 10            | Start/Stop transmit Codabar     |
| Variable Data           | data       | Bool   | 1             |                                 |



| Write Variable:       |            |        |               |                              |
|-----------------------|------------|--------|---------------|------------------------------|
| sWN DCCBARStTx <data> |            |        |               |                              |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name |
| Command               | DCCBARStTx | String | 10            | Start/Stop transmit Codabar  |
| Variable Data         | data       | Bool   | 1             |                              |

| Write Variable Response: |            |        |               |                                  |
|--------------------------|------------|--------|---------------|----------------------------------|
| sWA DCCBARStTx           |            |        |               |                                  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCCBARStTx | String | 10            | Start/Stop transmit Codabar      |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| <b>Read Variable:</b>                                       | [STX]sRN DCCBARStTx[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA DCCBARStTx 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DCCBARStTx 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DCCBARStTx[ETX]   |

### 2.7.1.5. Variable: CBARCheckDigitTest

The following section contains a detailed description of the variable CBARCheckDigitTest.

#### Variable Overview

| Variable Name      | Description                  |
|--------------------|------------------------------|
| CBARCheckDigitTest | Check Digit Test for Codabar |

|                       |   |
|-----------------------|---|
| Communication Name    | DCCBARCdTst   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 121   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |              |             |
|---------------|-------|--------------|-------------|
| Default Value |       | 0            |             |
|               | Value | Name         | Description |
|               | 0     | TX_None      |             |
|               | 1     | TX_Modulo_10 |             |
|               | 2     | TX_7DR       |             |
|               | 3     | TX_Modulo_16 |             |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                              |
|-----------------|-------------|--------|---------------|------------------------------|
| sRN DCCBARCdTst |             |        |               |                              |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name  |
| Command         | DCCBARCdTst | String | 11            | Check Digit Test for Codabar |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA DCCBARCdTst <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCCBARCdTst | String | 11            | Check Digit Test for Codabar    |
| Variable Data           | data        | Enum8  | 1             |                                 |

| Write Variable:        |             |        |               |                              |
|------------------------|-------------|--------|---------------|------------------------------|
| sWN DCCBARCdTst <data> |             |        |               |                              |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name |
| Command                | DCCBARCdTst | String | 11            | Check Digit Test for Codabar |
| Variable Data          | data        | Enum8  | 1             |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DCCBARCdTst          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCCBARCdTst | String | 11            | Check Digit Test for Codabar     |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN DCCBARCdTst[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCCBARCdTst 0[ETX] |
| Write Variable:   | [STX]sWN DCCBARCdTst 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCCBARCdTst[ETX]   |



### 2.7.1.6. Variable: CBarLengthMode

The following section contains a detailed description of the variable CBarLengthMode.

#### Variable Overview

| Variable Name  | Description                |
|----------------|----------------------------|
| CBarLengthMode | Codelength mode of Codabar |

|                       |   |
|-----------------------|---|
| Communication Name    | DCCBARLenMode   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 122   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_Free     |             |
|               | 1     | TX_Interval |             |
|               | 2     | TX_Fix      |             |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |                             |
|-------------------|---------------|--------|---------------|-----------------------------|
| sRN DCCBARLenMode |               |        |               |                             |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                 |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name |
| Command           | DCCBARLenMode | String | 13            | Codelength mode of Codabar  |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA DCCBARLenMode <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | DCCBARLenMode | String | 13            | Codelength mode of Codabar      |
| Variable Data            | data          | Enum8  | 1             |                                 |

| Write Variable:          |               |        |               |                              |
|--------------------------|---------------|--------|---------------|------------------------------|
| sWN DCCBARLenMode <data> |               |        |               |                              |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                  |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name |
| Command                  | DCCBARLenMode | String | 13            | Codelength mode of Codabar   |
| Variable Data            | data          | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCCBARLenMode        |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |               |        |               |                            |
|--------------------------|---------------|--------|---------------|----------------------------|
| sWA DCCBARLenMode        |               |        |               |                            |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                |
| Command                  | DCCBARLenMode | String | 13            | Codelength mode of Codabar |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN DCCBARLenMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCCBARLenMode 0[ETX] |
| Write Variable:   | [STX]sWN DCCBARLenMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCCBARLenMode[ETX]   |

### 2.7.1.7. Variable: CBarFixLenList

The following section contains a detailed description of the variable CBarFixLenList.

#### Variable Overview

| Variable Name  | Description              |
|----------------|--------------------------|
| CBarFixLenList | List of fix code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCCBARFixLen  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 123   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |       |
|--------|----------------------|-------|
| Length |                      | 5     |
|        | UDInt                |       |
|        | Value Range          | 0..50 |
|        | Initialisation       | 0     |
|        | Physical Unit        |       |
|        | Physical Unit Factor | 0.0   |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |                             |
|------------------|--------------|--------|---------------|-----------------------------|
| sRN DCCBARFixLen |              |        |               |                             |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                 |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name |
| Command          | DCCBARFixLen | String | 12            | List of fix code lengths    |

| Read Variable Response: |              |        |               |                                 |
|-------------------------|--------------|--------|---------------|---------------------------------|
| sRA DCCBARFixLen <data> |              |        |               |                                 |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCCBARFixLen | String | 12            | List of fix code lengths        |
| Variable Data           | data         | Array  | 20            |                                 |

| Write Variable:         |              |        |               |                              |
|-------------------------|--------------|--------|---------------|------------------------------|
| sWN DCCBARFixLen <data> |              |        |               |                              |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                  |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name |
| Command                 | DCCBARFixLen | String | 12            | List of fix code lengths     |
| Variable Data           | data         | Array  | 20            |                              |

| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA DCCBARFixLen         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCCBARFixLen | String | 12            | List of fix code lengths         |

## Variable Telegram Examples

| Example: Default Values                                     |                                      |
|---|--------------------------------------|
| Variable telegram examples with data set to default values. |                                      |
| Read Variable:  | [STX]sRN DCCBARFixLen[ETX]           |
| Read Variable Response:                                     | [STX]sRA DCCBARFixLen 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN DCCBARFixLen 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCCBARFixLen[ETX]           |

### 2.7.1.8. Variable: CBarIntLenList

The following section contains a detailed description of the variable CBarIntLenList.

#### Variable Overview

| Variable Name  | Description                   |
|----------------|-------------------------------|
| CBarIntLenList | List of interval code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCCBARIntLen  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 124   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |       |
|----------------------|-------|
| Length               | 2     |
| <b>UDInt</b>         |       |
| Value Range          | 0..50 |
| Initialisation       | 0     |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |                               |
|------------------|--------------|--------|---------------|-------------------------------|
| sRN DCCBARIntLen |              |        |               |                               |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                   |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name   |
| Command          | DCCBARIntLen | String | 12            | List of interval code lengths |

| Read Variable Response: |              |        |               |                                 |
|-------------------------|--------------|--------|---------------|---------------------------------|
| sRA DCCBARIntLen <data> |              |        |               |                                 |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCCBARIntLen | String | 12            | List of interval code lengths   |
| Variable Data           | data         | Array  | 8             |                                 |

| Write Variable:         |              |        |               |                               |
|-------------------------|--------------|--------|---------------|-------------------------------|
| sWN DCCBARIntLen <data> |              |        |               |                               |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                   |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name  |
| Command                 | DCCBARIntLen | String | 12            | List of interval code lengths |
| Variable Data           | data         | Array  | 8             |                               |





| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA DCCBARIntLen         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCCBARIntLen | String | 12            | List of interval code lengths    |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN DCCBARIntLen[ETX]     |
| Read Variable Response:                                     | [STX]sRA DCCBARIntLen 0 0[ETX] |
| Write Variable:   | [STX]sWN DCCBARIntLen 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCCBARIntLen[ETX]     |

### 2.7.1.9. Variable: CBARAllowIncomplete

The following section contains a detailed description of the variable CBARAllowIncomplete.

#### Variable Overview

| Variable Name       | Description                                |
|---------------------|--|
| CBARAllowIncomplete | Allows reading of incomplete codabar codes |

|                       |   |
|-----------------------|---|
| Communication Name    | DCCBARIncmp   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 125   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |  |
|-----------------|-------------|--------|---------------|--|
| sRN DCCBARIncmp |             |        |               |  |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                |
| Command         | DCCBARIncmp | String | 11            | Allows reading of incomplete codabar codes |

| Read Variable Response: |             |        |               |  |
|-------------------------|-------------|--------|---------------|--|
| sRA DCCBARIncmp <data>  |             |        |               |  |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge            |
| Command                 | DCCBARIncmp | String | 11            | Allows reading of incomplete codabar codes |
| Variable Data           | data        | Bool   | 1             |  |

| Write Variable:        |             |        |               |  |
|------------------------|-------------|--------|---------------|--|
| sWN DCCBARIncmp <data> |             |        |               |  |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name               |
| Command                | DCCBARIncmp | String | 11            | Allows reading of incomplete codabar codes |
| Variable Data          | data        | Bool   | 1             |  |

| Write Variable Response: |             |        |               |  |
|--------------------------|-------------|--------|---------------|--|
| sWA DCCBARIncmp          |             |        |               |  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge           |
| Command                  | DCCBARIncmp | String | 11            | Allows reading of incomplete codabar codes |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN DCCBARIncmp[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCCBARIncmp 0[ETX] |
| Write Variable:   | [STX]sWN DCCBARIncmp 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCCBARIncmp[ETX]   |

### 2.7.1.10. Variable: CBARMinCharsIncomplete

The following section contains a detailed description of the variable CBARMinCharsIncomplete.

#### Variable Overview

| Variable Name          | Description   |
|------------------------|---|
| CBARMinCharsIncomplete | Minimum number of charactes If incomplete codabar codes are allowed |

|                       |   |
|-----------------------|---|
| Communication Name    | DCCBARMinIncmp  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 126   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |       |
|----------------------|-------|
| Value Range          | 2..50 |
| Initialisation       | 5     |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |   |
|--------------------|----------------|--------|---------------|---|
| sRN DCCBARMinIncmp |                |        |               |   |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description   |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name   |
| Command            | DCCBARMinIncmp | String | 14            | Minimum number of charactes If incomplete codabar codes are allowed |

| Read Variable Response:   |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sRA DCCBARMinIncmp <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description   |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge                                     |
| Command                   | DCCBARMinIncmp | String | 14            | Minimum number of charactes If incomplete codabar codes are allowed |
| Variable Data             | data           | UInt   | 2             |   |

| Write Variable:           |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sWN DCCBARMinIncmp <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description   |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name  |
| Command                   | DCCBARMinIncmp | String | 14            | Minimum number of charactes If incomplete codabar codes are allowed |
| Variable Data             | data           | UInt   | 2             |   |



| Write Variable Response: |                |        |               |   |
|--------------------------|----------------|--------|---------------|---|
| sWA DCCBARMinIncmp       |                |        |               |   |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description   |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge                                    |
| Command                  | DCCBARMinIncmp | String | 14            | Minimum number of charactes If incomplete codabar codes are allowed |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN DCCBARMinIncmp[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCCBARMinIncmp 5[ETX] |
| Write Variable:   | [STX]sWN DCCBARMinIncmp 5[ETX] |
| Write Variable Response:                                    | [STX]sWA DCCBARMinIncmp[ETX]   |

### 2.7.1.11. Variable: CBARTransmitCheckDigit

The following section contains a detailed description of the variable CBARTransmitCheckDigit.

#### Variable Overview

| Variable Name          | Description                      |
|------------------------|----------------------------------|
| CBARTransmitCheckDigit | Transmit Check Digit for Codabar |

|                       |   |
|-----------------------|---|
| Communication Name    | DCCBARTrCd  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 127   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |



## Variable Telegram Syntax

| Read Variable: |            |        |               |                                  |
|----------------|------------|--------|---------------|----------------------------------|
| sRN DCCBARTrCd |            |        |               |                                  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name      |
| Command        | DCCBARTrCd | String | 10            | Transmit Check Digit for Codabar |

| Read Variable Response: |            |        |               |                                  |
|-------------------------|------------|--------|---------------|----------------------------------|
| sRA DCCBARTrCd <data>   |            |        |               |                                  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | DCCBARTrCd | String | 10            | Transmit Check Digit for Codabar |
| Variable Data           | data       | Bool   | 1             |                                  |

| Write Variable:       |            |        |               |                                  |
|-----------------------|------------|--------|---------------|----------------------------------|
| sWN DCCBARTrCd <data> |            |        |               |                                  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name     |
| Command               | DCCBARTrCd | String | 10            | Transmit Check Digit for Codabar |
| Variable Data         | data       | Bool   | 1             |                                  |

| Write Variable Response: |            |        |               |                                  |
|--------------------------|------------|--------|---------------|----------------------------------|
| sWA DCCBARTrCd           |            |        |               |                                  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCCBARTrCd | String | 10            | Transmit Check Digit for Codabar |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DCCBARTrCd[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCCBARTrCd 1[ETX] |
| Write Variable:   | [STX]sWN DCCBARTrCd 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DCCBARTrCd[ETX]   |



### 2.7.1.12. Variable: C39Active

The following section contains a detailed description of the variable C39Active.

#### Variable Overview

| Variable Name | Description               |
|---------------|---------------------------|
| C39Active     | Activates Code 39 Decoder |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39Act  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 128   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN DCC39Act   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | DCC39Act | String | 8             | Activates Code 39 Decoder   |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DCC39Act <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC39Act | String | 8             | Activates Code 39 Decoder       |
| Variable Data           | data     | Bool   | 1             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN DCC39Act <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | DCC39Act | String | 8             | Activates Code 39 Decoder    |
| Variable Data       | data     | Bool   | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCC39Act             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC39Act | String | 8             | Activates Code 39 Decoder        |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| <b>Read Variable:</b>                                       | [STX]sRN DCC39Act [ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA DCC39Act 1 [ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DCC39Act 1 [ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DCC39Act [ETX]   |

### 2.7.1.13. Variable: C39MultiRead

The following section contains a detailed description of the variable C39MultiRead.

#### Variable Overview

| Variable Name | Description          |
|---------------|----------------------|
| C39MultiRead  | Multiread of Code 39 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39Mr   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 129   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..100 |
| Initialisation       | 3      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN DCC39Mr    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | DCC39Mr  | String | 7             | Multiread of Code 39        |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DCC39Mr <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC39Mr  | String | 7             | Multiread of Code 39            |
| Variable Data           | data     | UInt   | 2             |                                 |



| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN DCC39Mr <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | DCC39Mr  | String | 7             | Multiread of Code 39         |
| Variable Data      | data     | UInt   | 2             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCC39Mr              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC39Mr  | String | 7             | Multiread of Code 39             |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN DCC39Mr[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC39Mr 3[ETX] |
| Write Variable:   | [STX]sWN DCC39Mr 3[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC39Mr[ETX]   |

### 2.7.1.14. Variable: C39MultiReadL2

The following section contains a detailed description of the variable C39MultiReadL2.

#### Variable Overview

| Variable Name  | Description                   |
|----------------|-------------------------------|
| C39MultiReadL2 | Multiread of Code 39 Length 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39MrL2   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 130   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..100 |
| Initialisation       | 3      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |





## Variable Telegram Syntax

| Read Variable: |           |        |               |                               |
|----------------|-----------|--------|---------------|-------------------------------|
| sRN DCC39MrL2  |           |        |               |                               |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name   |
| Command        | DCC39MrL2 | String | 9             | Multiread of Code 39 Length 2 |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DCC39MrL2 <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC39MrL2 | String | 9             | Multiread of Code 39 Length 2   |
| Variable Data           | data      | UInt   | 2             |                                 |

| Write Variable:      |           |        |               |                               |
|----------------------|-----------|--------|---------------|-------------------------------|
| sWN DCC39MrL2 <data> |           |        |               |                               |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                   |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name  |
| Command              | DCC39MrL2 | String | 9             | Multiread of Code 39 Length 2 |
| Variable Data        | data      | UInt   | 2             |                               |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA DCC39MrL2            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC39MrL2 | String | 9             | Multiread of Code 39 Length 2    |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCC39MrL2[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC39MrL2 3[ETX] |
| Write Variable:   | [STX]sWN DCC39MrL2 3[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC39MrL2[ETX]   |

### 2.7.1.15. Variable: C39MultiReadL3

The following section contains a detailed description of the variable C39MultiReadL3.

#### Variable Overview

| Variable Name  | Description                   |
|----------------|-------------------------------|
| C39MultiReadL3 | Multiread of Code 39 Length 3 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39MrL3   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 131   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..100 |
| Initialisation       | 3      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                               |
|----------------|-----------|--------|---------------|-------------------------------|
| sRN DCC39MrL3  |           |        |               |                               |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name   |
| Command        | DCC39MrL3 | String | 9             | Multiread of Code 39 Length 3 |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DCC39MrL3 <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC39MrL3 | String | 9             | Multiread of Code 39 Length 3   |
| Variable Data           | data      | UInt   | 2             |                                 |

| Write Variable:      |           |        |               |                               |
|----------------------|-----------|--------|---------------|-------------------------------|
| sWN DCC39MrL3 <data> |           |        |               |                               |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                   |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name  |
| Command              | DCC39MrL3 | String | 9             | Multiread of Code 39 Length 3 |
| Variable Data        | data      | UInt   | 2             |                               |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA DCC39MrL3            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC39MrL3 | String | 9             | Multiread of Code 39 Length 3    |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| <b>Read Variable:</b>                                       | [STX]sRN DCC39MrL3[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA DCC39MrL3 3[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DCC39MrL3 3[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DCC39MrL3[ETX]   |

### 2.7.1.16. Variable: C39MultiReadL4

The following section contains a detailed description of the variable C39MultiReadL4.

#### Variable Overview

| Variable Name  | Description                   |
|----------------|-------------------------------|
| C39MultiReadL4 | Multiread of Code 39 Length 4 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39MrL4   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 132   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..100 |
| Initialisation       | 3      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                               |
|----------------|-----------|--------|---------------|-------------------------------|
| sRN DCC39MrL4  |           |        |               |                               |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name   |
| Command        | DCC39MrL4 | String | 9             | Multiread of Code 39 Length 4 |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DCC39MrL4 <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC39MrL4 | String | 9             | Multiread of Code 39 Length 4   |
| Variable Data           | data      | UInt   | 2             |                                 |



| Write Variable:      |           |        |               |                               |
|----------------------|-----------|--------|---------------|-------------------------------|
| sWN DCC39MrL4 <data> |           |        |               |                               |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                   |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name  |
| Command              | DCC39MrL4 | String | 9             | Multiread of Code 39 Length 4 |
| Variable Data        | data      | UInt   | 2             |                               |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA DCC39MrL4            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC39MrL4 | String | 9             | Multiread of Code 39 Length 4    |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCC39MrL4[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC39MrL4 3[ETX] |
| Write Variable:   | [STX]sWN DCC39MrL4 3[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC39MrL4[ETX]   |

### 2.7.1.17. Variable: C39MultiReadL5

The following section contains a detailed description of the variable C39MultiReadL5.

#### Variable Overview

| Variable Name  | Description                   |
|----------------|-------------------------------|
| C39MultiReadL5 | Multiread of Code 39 Length 5 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39MrL5   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 133   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..100 |
| Initialisation       | 3      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                               |
|----------------|-----------|--------|---------------|-------------------------------|
| sRN DCC39MrL5  |           |        |               |                               |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name   |
| Command        | DCC39MrL5 | String | 9             | Multiread of Code 39 Length 5 |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DCC39MrL5 <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC39MrL5 | String | 9             | Multiread of Code 39 Length 5   |
| Variable Data           | data      | UInt   | 2             |                                 |

| Write Variable:      |           |        |               |                               |
|----------------------|-----------|--------|---------------|-------------------------------|
| sWN DCC39MrL5 <data> |           |        |               |                               |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                   |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name  |
| Command              | DCC39MrL5 | String | 9             | Multiread of Code 39 Length 5 |
| Variable Data        | data      | UInt   | 2             |                               |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA DCC39MrL5            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC39MrL5 | String | 9             | Multiread of Code 39 Length 5    |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCC39MrL5[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC39MrL5 3[ETX] |
| Write Variable:   | [STX]sWN DCC39MrL5 3[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC39MrL5[ETX]   |

### 2.7.1.18. Variable: C39StaStoTransmit

The following section contains a detailed description of the variable C39StaStoTransmit.

#### Variable Overview

| Variable Name     | Description                 |
|-------------------|-----------------------------|
| C39StaStoTransmit | Start/Stop transmit Code 39 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39StTx   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 134   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN DCC39StTx  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | DCC39StTx | String | 9             | Start/Stop transmit Code 39 |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DCC39StTx <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC39StTx | String | 9             | Start/Stop transmit Code 39     |
| Variable Data           | data      | Bool   | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN DCC39StTx <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | DCC39StTx | String | 9             | Start/Stop transmit Code 39  |
| Variable Data        | data      | Bool   | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA DCC39StTx            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC39StTx | String | 9             | Start/Stop transmit Code 39      |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCC39StTx[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC39StTx 0[ETX] |
| Write Variable:   | [STX]sWN DCC39StTx 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC39StTx[ETX]   |

### 2.7.1.19. Variable: C39\_C32Active

The following section contains a detailed description of the variable C39\_C32Active.

#### Variable Overview

| Variable Name | Description   |
|---------------|---|
| C39_C32Active | Interpretation of C39 as C32 code (length specific) |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39C32Act   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 135   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN DCC39C32Act |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                         |
| Command         | DCC39C32Act | String | 11            | Interpretation of C39 as C32 code (length specific) |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA DCC39C32Act <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description   |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge                     |
| Command                 | DCC39C32Act | String | 11            | Interpretation of C39 as C32 code (length specific) |
| Variable Data           | data        | Bool   | 1             |   |



| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN DCC39C32Act <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                        |
| Command                | DCC39C32Act | String | 11            | Interpretation of C39 as C32 code (length specific) |
| Variable Data          | data        | Bool   | 1             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA DCC39C32Act          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge                    |
| Command                  | DCC39C32Act | String | 11            | Interpretation of C39 as C32 code (length specific) |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN DCC39C32Act[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC39C32Act 0[ETX] |
| Write Variable:   | [STX]sWN DCC39C32Act 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC39C32Act[ETX]   |

### 2.7.1.20. Variable: C39FullASCII

The following section contains a detailed description of the variable C39FullASCII.

#### Variable Overview

| Variable Name | Description                 |
|---------------|-----------------------------|
| C39FullASCII  | Start/Stop transmit Code 39 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39FullA  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 136   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |





## Variable Telegram Syntax

| Read Variable: |            |        |               |                             |
|----------------|------------|--------|---------------|-----------------------------|
| sRN DCC39FullA |            |        |               |                             |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                 |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name |
| Command        | DCC39FullA | String | 10            | Start/Stop transmit Code 39 |

| Read Variable Response: |            |        |               |                                 |
|-------------------------|------------|--------|---------------|---------------------------------|
| sRA DCC39FullA <data>   |            |        |               |                                 |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC39FullA | String | 10            | Start/Stop transmit Code 39     |
| Variable Data           | data       | Bool   | 1             |                                 |

| Write Variable:       |            |        |               |                              |
|-----------------------|------------|--------|---------------|------------------------------|
| sWN DCC39FullA <data> |            |        |               |                              |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name |
| Command               | DCC39FullA | String | 10            | Start/Stop transmit Code 39  |
| Variable Data         | data       | Bool   | 1             |                              |

| Write Variable Response: |            |        |               |                                  |
|--------------------------|------------|--------|---------------|----------------------------------|
| sWA DCC39FullA           |            |        |               |                                  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC39FullA | String | 10            | Start/Stop transmit Code 39      |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DCC39FullA[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC39FullA 0[ETX] |
| Write Variable:   | [STX]sWN DCC39FullA 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC39FullA[ETX]   |



### 2.7.1.21. Variable: C39HexASCIIOutput

The following section contains a detailed description of the variable C39HexASCIIOutput.

#### Variable Overview

| Variable Name     | Description                 |
|-------------------|-----------------------------|
| C39HexASCIIOutput | Start/Stop transmit Code 39 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39HxAOut   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 137   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN DCC39HxAOut |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | DCC39HxAOut | String | 11            | Start/Stop transmit Code 39 |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA DCC39HxAOut <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC39HxAOut | String | 11            | Start/Stop transmit Code 39     |
| Variable Data           | data        | Bool   | 1             |                                 |

| Write Variable:        |             |        |               |                              |
|------------------------|-------------|--------|---------------|------------------------------|
| sWN DCC39HxAOut <data> |             |        |               |                              |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name |
| Command                | DCC39HxAOut | String | 11            | Start/Stop transmit Code 39  |
| Variable Data          | data        | Bool   | 1             |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DCC39HxAOut          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC39HxAOut | String | 11            | Start/Stop transmit Code 39      |



## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN DCC39HxAOut [ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC39HxAOut 0 [ETX] |
| Write Variable:   | [STX]sWN DCC39HxAOut 0 [ETX] |
| Write Variable Response:                                    | [STX]sWA DCC39HxAOut [ETX]   |

### 2.7.1.22. Variable: C39CheckDigitTest

The following section contains a detailed description of the variable C39CheckDigitTest.

#### Variable Overview

| Variable Name     | Description                  |
|-------------------|------------------------------|
| C39CheckDigitTest | Check Digit Test for Code 39 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39CdTst  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 138   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |              |             |
|---------------|-------|--------------|-------------|
| Default Value |       | 0            |             |
|               | Value | Name         | Description |
|               | 0     | TX_None      |             |
|               | 1     | TX_Modulo_10 |             |
|               | 2     | TX_Modulo_43 |             |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                              |
|----------------|------------|--------|---------------|------------------------------|
| sRN DCC39CdTst |            |        |               |                              |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                  |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name  |
| Command        | DCC39CdTst | String | 10            | Check Digit Test for Code 39 |

| Read Variable Response: |            |        |               |                                 |
|-------------------------|------------|--------|---------------|---------------------------------|
| sRA DCC39CdTst <data>   |            |        |               |                                 |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC39CdTst | String | 10            | Check Digit Test for Code 39    |
| Variable Data           | data       | Enum8  | 1             |                                 |



| Write Variable:       |            |        |               |                              |
|-----------------------|------------|--------|---------------|------------------------------|
| sWN DCC39CdTst <data> |            |        |               |                              |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name |
| Command               | DCC39CdTst | String | 10            | Check Digit Test for Code 39 |
| Variable Data         | data       | Enum8  | 1             |                              |

| Write Variable Response: |            |        |               |                                  |
|--------------------------|------------|--------|---------------|----------------------------------|
| sWA DCC39CdTst           |            |        |               |                                  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC39CdTst | String | 10            | Check Digit Test for Code 39     |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DCC39CdTst[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC39CdTst 0[ETX] |
| Write Variable:   | [STX]sWN DCC39CdTst 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC39CdTst[ETX]   |

### 2.7.1.23. Variable: C39CheckDigitTestL2

The following section contains a detailed description of the variable C39CheckDigitTestL2.

#### Variable Overview

| Variable Name       | Description                           |
|---------------------|---------------------------------------|
| C39CheckDigitTestL2 | Check Digit Test for Code 39 Length 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39CdTstL2  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 139   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |              |             |
|---------------|-------|--------------|-------------|
| Default Value |       | 0            |             |
|               | Value | Name         | Description |
|               | 0     | TX_None      |             |
|               | 1     | TX_Modulo_10 |             |
|               | 2     | TX_Modulo_43 |             |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |                                       |
|------------------|--------------|--------|---------------|---------------------------------------|
| sRN DCC39CdTstL2 |              |        |               |                                       |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name           |
| Command          | DCC39CdTstL2 | String | 12            | Check Digit Test for Code 39 Length 2 |

| Read Variable Response: |              |        |               |                                       |
|-------------------------|--------------|--------|---------------|---------------------------------------|
| sRA DCC39CdTstL2 <data> |              |        |               |                                       |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | DCC39CdTstL2 | String | 12            | Check Digit Test for Code 39 Length 2 |
| Variable Data           | data         | Enum8  | 1             |                                       |

| Write Variable:         |              |        |               |                                       |
|-------------------------|--------------|--------|---------------|---------------------------------------|
| sWN DCC39CdTstL2 <data> |              |        |               |                                       |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name          |
| Command                 | DCC39CdTstL2 | String | 12            | Check Digit Test for Code 39 Length 2 |
| Variable Data           | data         | Enum8  | 1             |                                       |

| Write Variable Response: |              |        |               |                                       |
|--------------------------|--------------|--------|---------------|---------------------------------------|
| sWA DCC39CdTstL2         |              |        |               |                                       |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | DCC39CdTstL2 | String | 12            | Check Digit Test for Code 39 Length 2 |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN DCC39CdTstL2[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC39CdTstL2 0[ETX] |
| Write Variable:   | [STX]sWN DCC39CdTstL2 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC39CdTstL2[ETX]   |

### 2.7.1.24. Variable: C39CheckDigitTestL3

The following section contains a detailed description of the variable C39CheckDigitTestL3.

#### Variable Overview

| Variable Name       | Description                           |
|---------------------|---------------------------------------|
| C39CheckDigitTestL3 | Check Digit Test for Code 39 Length 3 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39CdTstL3  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 140   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |              |             |  |
|---------------|--------------|-------------|--|
| Default Value |              | 0           |  |
| Value         | Name         | Description |  |
| 0             | TX_None      |             |  |
| 1             | TX_Modulo_10 |             |  |
| 2             | TX_Modulo_43 |             |  |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |                                       |
|------------------|--------------|--------|---------------|---------------------------------------|
| sRN DCC39CdTstL3 |              |        |               |                                       |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name           |
| Command          | DCC39CdTstL3 | String | 12            | Check Digit Test for Code 39 Length 3 |

| Read Variable Response: |              |        |               |                                       |
|-------------------------|--------------|--------|---------------|---------------------------------------|
| sRA DCC39CdTstL3 <data> |              |        |               |                                       |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | DCC39CdTstL3 | String | 12            | Check Digit Test for Code 39 Length 3 |
| Variable Data           | data         | Enum8  | 1             |                                       |

| Write Variable:         |              |        |               |                                       |
|-------------------------|--------------|--------|---------------|---------------------------------------|
| sWN DCC39CdTstL3 <data> |              |        |               |                                       |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name          |
| Command                 | DCC39CdTstL3 | String | 12            | Check Digit Test for Code 39 Length 3 |
| Variable Data           | data         | Enum8  | 1             |                                       |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCC39CdTstL3         |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |              |        |               |                                       |
|--------------------------|--------------|--------|---------------|---------------------------------------|
| sWA DCC39CdTstL3         |              |        |               |                                       |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                           |
| Command                  | DCC39CdTstL3 | String | 12            | Check Digit Test for Code 39 Length 3 |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN DCC39CdTstL3[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC39CdTstL3 0[ETX] |
| Write Variable:   | [STX]sWN DCC39CdTstL3 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC39CdTstL3[ETX]   |

### 2.7.1.25. Variable: C39CheckDigitTestL4

The following section contains a detailed description of the variable C39CheckDigitTestL4.

#### Variable Overview

| Variable Name       | Description                           |
|---------------------|---------------------------------------|
| C39CheckDigitTestL4 | Check Digit Test for Code 39 Length 4 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39CdTstL4  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 141   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |              |             |
|---------------|-------|--------------|-------------|
| Default Value |       | 0            |             |
|               | Value | Name         | Description |
|               | 0     | TX_None      |             |
|               | 1     | TX_Modulo_10 |             |
|               | 2     | TX_Modulo_43 |             |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |                                       |
|------------------|--------------|--------|---------------|---------------------------------------|
| sRN DCC39CdTstL4 |              |        |               |                                       |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name           |
| Command          | DCC39CdTstL4 | String | 12            | Check Digit Test for Code 39 Length 4 |

| Read Variable Response: |              |        |               |                                       |
|-------------------------|--------------|--------|---------------|---------------------------------------|
| sRA DCC39CdTstL4 <data> |              |        |               |                                       |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | DCC39CdTstL4 | String | 12            | Check Digit Test for Code 39 Length 4 |
| Variable Data           | data         | Enum8  | 1             |                                       |

| Write Variable:         |              |        |               |                                       |
|-------------------------|--------------|--------|---------------|---------------------------------------|
| sWN DCC39CdTstL4 <data> |              |        |               |                                       |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name          |
| Command                 | DCC39CdTstL4 | String | 12            | Check Digit Test for Code 39 Length 4 |
| Variable Data           | data         | Enum8  | 1             |                                       |

| Write Variable Response: |              |        |               |                                       |
|--------------------------|--------------|--------|---------------|---------------------------------------|
| sWA DCC39CdTstL4         |              |        |               |                                       |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | DCC39CdTstL4 | String | 12            | Check Digit Test for Code 39 Length 4 |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN DCC39CdTstL4[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC39CdTstL4 0[ETX] |
| Write Variable:   | [STX]sWN DCC39CdTstL4 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC39CdTstL4[ETX]   |



### 2.7.1.26. Variable: C39CheckDigitTestL5

The following section contains a detailed description of the variable C39CheckDigitTestL5.

#### Variable Overview

| Variable Name       | Description                           |
|---------------------|---------------------------------------|
| C39CheckDigitTestL5 | Check Digit Test for Code 39 Length 5 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39CdTstL5  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 142   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |              |             |  |
|---------------|--------------|-------------|--|
| Default Value |              | 0           |  |
| Value         | Name         | Description |  |
| 0             | TX_None      |             |  |
| 1             | TX_Modulo_10 |             |  |
| 2             | TX_Modulo_43 |             |  |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |                                       |
|------------------|--------------|--------|---------------|---------------------------------------|
| sRN DCC39CdTstL5 |              |        |               |                                       |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name           |
| Command          | DCC39CdTstL5 | String | 12            | Check Digit Test for Code 39 Length 5 |

| Read Variable Response: |              |        |               |                                       |
|-------------------------|--------------|--------|---------------|---------------------------------------|
| sRA DCC39CdTstL5 <data> |              |        |               |                                       |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | DCC39CdTstL5 | String | 12            | Check Digit Test for Code 39 Length 5 |
| Variable Data           | data         | Enum8  | 1             |                                       |

| Write Variable:         |              |        |               |                                       |
|-------------------------|--------------|--------|---------------|---------------------------------------|
| sWN DCC39CdTstL5 <data> |              |        |               |                                       |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name          |
| Command                 | DCC39CdTstL5 | String | 12            | Check Digit Test for Code 39 Length 5 |
| Variable Data           | data         | Enum8  | 1             |                                       |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCC39CdTstL5         |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |              |        |               |                                       |
|--------------------------|--------------|--------|---------------|---------------------------------------|
| sWA DCC39CdTstL5         |              |        |               |                                       |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                           |
| Command                  | DCC39CdTstL5 | String | 12            | Check Digit Test for Code 39 Length 5 |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN DCC39CdTstL5[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC39CdTstL5 0[ETX] |
| Write Variable:   | [STX]sWN DCC39CdTstL5 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC39CdTstL5[ETX]   |

### 2.7.1.27. Variable: C39LengthMode

The following section contains a detailed description of the variable C39LengthMode.

#### Variable Overview

| Variable Name | Description                |
|---------------|----------------------------|
| C39LengthMode | Codelength mode of Code 39 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39LenMode  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 143   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_Free     |             |
|               | 1     | TX_Interval |             |
|               | 2     | TX_Fix      |             |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |                             |
|------------------|--------------|--------|---------------|-----------------------------|
| sRN DCC39LenMode |              |        |               |                             |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                 |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name |
| Command          | DCC39LenMode | String | 12            | Codelength mode of Code 39  |

| Read Variable Response: |              |        |               |                                 |
|-------------------------|--------------|--------|---------------|---------------------------------|
| sRA DCC39LenMode <data> |              |        |               |                                 |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC39LenMode | String | 12            | Codelength mode of Code 39      |
| Variable Data           | data         | Enum8  | 1             |                                 |

| Write Variable:         |              |        |               |                              |
|-------------------------|--------------|--------|---------------|------------------------------|
| sWN DCC39LenMode <data> |              |        |               |                              |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                  |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name |
| Command                 | DCC39LenMode | String | 12            | Codelength mode of Code 39   |
| Variable Data           | data         | Enum8  | 1             |                              |

| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA DCC39LenMode         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC39LenMode | String | 12            | Codelength mode of Code 39       |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN DCC39LenMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC39LenMode 0[ETX] |
| Write Variable:   | [STX]sWN DCC39LenMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC39LenMode[ETX]   |

### 2.7.1.28. Variable: C39FixLenList

The following section contains a detailed description of the variable C39FixLenList.

#### Variable Overview

| Variable Name | Description              |
|---------------|--------------------------|
| C39FixLenList | List of fix code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39FixLen   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 144   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |        |
|----------------------|--------|
| Length               | 5      |
| <b>UDInt</b>         |        |
| Value Range          | 0..100 |
| Initialisation       | 0      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN DCC39FixLen |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | DCC39FixLen | String | 11            | List of fix code lengths    |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA DCC39FixLen <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC39FixLen | String | 11            | List of fix code lengths        |
| Variable Data           | data        | Array  | 20            |                                 |

| Write Variable:        |             |        |               |                              |
|------------------------|-------------|--------|---------------|------------------------------|
| sWN DCC39FixLen <data> |             |        |               |                              |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name |
| Command                | DCC39FixLen | String | 11            | List of fix code lengths     |
| Variable Data          | data        | Array  | 20            |                              |



| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DCC39FixLen          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC39FixLen | String | 11            | List of fix code lengths         |

## Variable Telegram Examples

| Example: Default Values                                     |                                       |
|---|---------------------------------------|
| Variable telegram examples with data set to default values. |                                       |
| Read Variable:  | [STX]sRN DCC39FixLen[ETX]             |
| Read Variable Response:                                     | [STX]sRA DCC39FixLen 0 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN DCC39FixLen 0 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC39FixLen[ETX]             |

### 2.7.1.29. Variable: C39IntLenList

The following section contains a detailed description of the variable C39IntLenList.

#### Variable Overview

| Variable Name | Description                   |
|---------------|-------------------------------|
| C39IntLenList | List of interval code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39IntLen   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 145   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |        |
|--------|----------------------|--------|
| Length |                      | 2      |
|        | UDInt                |        |
|        | Value Range          | 0..100 |
|        | Initialisation       | 0      |
|        | Physical Unit        |        |
|        | Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                               |
|-----------------|-------------|--------|---------------|-------------------------------|
| sRN DCC39IntLen |             |        |               |                               |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name   |
| Command         | DCC39IntLen | String | 11            | List of interval code lengths |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA DCC39IntLen <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC39IntLen | String | 11            | List of interval code lengths   |
| Variable Data           | data        | Array  | 8             |                                 |

| Write Variable:        |             |        |               |                               |
|------------------------|-------------|--------|---------------|-------------------------------|
| sWN DCC39IntLen <data> |             |        |               |                               |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name  |
| Command                | DCC39IntLen | String | 11            | List of interval code lengths |
| Variable Data          | data        | Array  | 8             |                               |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DCC39IntLen          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC39IntLen | String | 11            | List of interval code lengths    |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN DCC39IntLen[ETX]     |
| Read Variable Response:                                     | [STX]sRA DCC39IntLen 0 0[ETX] |
| Write Variable:   | [STX]sWN DCC39IntLen 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC39IntLen[ETX]     |



### 2.7.1.30. Variable: C39AllowIncomplete

The following section contains a detailed description of the variable C39AllowIncomplete.

#### Variable Overview

| Variable Name      | Description                                |
|--------------------|--|
| C39AllowIncomplete | Allows reading of incomplete code 39 codes |

|                       |   |
|-----------------------|---|
| Communication Name    | DCCC39Incmp   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 146   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |  |
|-----------------|-------------|--------|---------------|--|
| sRN DCCC39Incmp |             |        |               |  |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                |
| Command         | DCCC39Incmp | String | 11            | Allows reading of incomplete code 39 codes |

| Read Variable Response: |             |        |               |  |
|-------------------------|-------------|--------|---------------|--|
| sRA DCCC39Incmp <data>  |             |        |               |  |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge            |
| Command                 | DCCC39Incmp | String | 11            | Allows reading of incomplete code 39 codes |
| Variable Data           | data        | Bool   | 1             |  |

| Write Variable:        |             |        |               |  |
|------------------------|-------------|--------|---------------|--|
| sWN DCCC39Incmp <data> |             |        |               |  |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name               |
| Command                | DCCC39Incmp | String | 11            | Allows reading of incomplete code 39 codes |
| Variable Data          | data        | Bool   | 1             |  |

| Write Variable Response: |             |        |               |  |
|--------------------------|-------------|--------|---------------|--|
| sWA DCCC39Incmp          |             |        |               |  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge           |
| Command                  | DCCC39Incmp | String | 11            | Allows reading of incomplete code 39 codes |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| <b>Read Variable:</b>                                       | [STX]sRN DCCC39Incmp[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA DCCC39Incmp 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DCCC39Incmp 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DCCC39Incmp[ETX]   |

### 2.7.1.31. Variable: C39MinCharsIncomplete

The following section contains a detailed description of the variable C39MinCharsIncomplete.

#### Variable Overview

| Variable Name         | Description   |
|-----------------------|---|
| C39MinCharsIncomplete | Minimum number of charactes If incomplete code 39 codes are allowed |

|                       |   |
|-----------------------|---|
| Communication Name    | DCCC39MinIncmp  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 147   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |       |
|----------------------|-------|
| Value Range          | 2..50 |
| Initialisation       | 5     |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |   |
|--------------------|----------------|--------|---------------|---|
| sRN DCCC39MinIncmp |                |        |               |   |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description   |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name   |
| Command            | DCCC39MinIncmp | String | 14            | Minimum number of charactes If incomplete code 39 codes are allowed |

| Read Variable Response:   |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sRA DCCC39MinIncmp <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description   |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge                                     |
| Command                   | DCCC39MinIncmp | String | 14            | Minimum number of charactes If incomplete code 39 codes are allowed |
| Variable Data             | data           | UInt   | 2             |   |





| Write Variable:           |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sWN DCCC39MinIncmp <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description   |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name  |
| Command                   | DCCC39MinIncmp | String | 14            | Minimum number of charactes If incomplete code 39 codes are allowed |
| Variable Data             | data           | UInt   | 2             |   |

| Write Variable Response: |                |        |               |   |
|--------------------------|----------------|--------|---------------|---|
| sWA DCCC39MinIncmp       |                |        |               |   |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description   |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge                                    |
| Command                  | DCCC39MinIncmp | String | 14            | Minimum number of charactes If incomplete code 39 codes are allowed |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN DCCC39MinIncmp[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCCC39MinIncmp 5[ETX] |
| Write Variable:   | [STX]sWN DCCC39MinIncmp 5[ETX] |
| Write Variable Response:                                    | [STX]sWA DCCC39MinIncmp[ETX]   |

### 2.7.1.32. Variable: C39TransmitCheckDigit

The following section contains a detailed description of the variable C39TransmitCheckDigit.

#### Variable Overview

| Variable Name         | Description                  |
|-----------------------|------------------------------|
| C39TransmitCheckDigit | Transmit Check Digit for C39 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC39TrCd   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 148   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                              |
|----------------|-----------|--------|---------------|------------------------------|
| sRN DCC39TrCd  |           |        |               |                              |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name  |
| Command        | DCC39TrCd | String | 9             | Transmit Check Digit for C39 |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DCC39TrCd <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC39TrCd | String | 9             | Transmit Check Digit for C39    |
| Variable Data           | data      | Bool   | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN DCC39TrCd <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | DCC39TrCd | String | 9             | Transmit Check Digit for C39 |
| Variable Data        | data      | Bool   | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA DCC39TrCd            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC39TrCd | String | 9             | Transmit Check Digit for C39     |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCC39TrCd[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC39TrCd 1[ETX] |
| Write Variable:   | [STX]sWN DCC39TrCd 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC39TrCd[ETX]   |



### 2.7.1.33. Variable: UPCEANActive

The following section contains a detailed description of the variable UPCEANActive.

#### Variable Overview

| Variable Name | Description                   |
|---------------|-------------------------------|
| UPCEANActive  | Activates UPC and EAN Decoder |

|                       |   |
|-----------------------|---|
| Communication Name    | DCUPCEANAct   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 149   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                               |
|-----------------|-------------|--------|---------------|-------------------------------|
| sRN DCUPCEANAct |             |        |               |                               |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name   |
| Command         | DCUPCEANAct | String | 11            | Activates UPC and EAN Decoder |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA DCUPCEANAct <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCUPCEANAct | String | 11            | Activates UPC and EAN Decoder   |
| Variable Data           | data        | Bool   | 1             |                                 |

| Write Variable:        |             |        |               |                               |
|------------------------|-------------|--------|---------------|-------------------------------|
| sWN DCUPCEANAct <data> |             |        |               |                               |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name  |
| Command                | DCUPCEANAct | String | 11            | Activates UPC and EAN Decoder |
| Variable Data          | data        | Bool   | 1             |                               |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DCUPCEANAct          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCUPCEANAct | String | 11            | Activates UPC and EAN Decoder    |



## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| <b>Read Variable:</b>                                       | [STX]sRN DCUPCEANAct[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA DCUPCEANAct 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DCUPCEANAct 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DCUPCEANAct[ETX]   |

### 2.7.1.34. Variable: UPCEANMultiRead

The following section contains a detailed description of the variable UPCEANMultiRead.

#### Variable Overview

| Variable Name   | Description          |
|-----------------|----------------------|
| UPCEANMultiRead | Multiread of UPC/EAN |

|                       |   |
|-----------------------|---|
| Communication Name    | DCUPCEANMr  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 150   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..100 |
| Initialisation       | 3      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                             |
|----------------|------------|--------|---------------|-----------------------------|
| sRN DCUPCEANMr |            |        |               |                             |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                 |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name |
| Command        | DCUPCEANMr | String | 10            | Multiread of UPC/EAN        |

| Read Variable Response: |            |        |               |                                 |
|-------------------------|------------|--------|---------------|---------------------------------|
| sRA DCUPCEANMr <data>   |            |        |               |                                 |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCUPCEANMr | String | 10            | Multiread of UPC/EAN            |
| Variable Data           | data       | UInt   | 2             |                                 |



| Write Variable:       |            |        |               |                              |
|-----------------------|------------|--------|---------------|------------------------------|
| sWN DCUPCEANMr <data> |            |        |               |                              |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name |
| Command               | DCUPCEANMr | String | 10            | Multiread of UPC/EAN         |
| Variable Data         | data       | UInt   | 2             |                              |

| Write Variable Response: |            |        |               |                                  |
|--------------------------|------------|--------|---------------|----------------------------------|
| sWA DCUPCEANMr           |            |        |               |                                  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCUPCEANMr | String | 10            | Multiread of UPC/EAN             |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DCUPCEANMr[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCUPCEANMr 3[ETX] |
| Write Variable:   | [STX]sWN DCUPCEANMr 3[ETX] |
| Write Variable Response:                                    | [STX]sWA DCUPCEANMr[ETX]   |

### 2.7.1.35. Variable: UPCEANAddOnMode

The following section contains a detailed description of the variable UPCEANAddOnMode.

#### Variable Overview

| Variable Name   | Description |
|-----------------|-------------|
| UPCEANAddOnMode | Add-On mode |

|                       |   |
|-----------------------|---|
| Communication Name    | DCAddOnMode   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 151   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_None     |             |
|               | 1     | TX_Active   |             |
|               | 2     | TX_Required |             |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN DCAddOnMode |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | DCAddOnMode | String | 11            | Add-On mode                 |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA DCAddOnMode <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCAddOnMode | String | 11            | Add-On mode                     |
| Variable Data           | data        | Enum8  | 1             |                                 |

| Write Variable:        |             |        |               |                              |
|------------------------|-------------|--------|---------------|------------------------------|
| sWN DCAddOnMode <data> |             |        |               |                              |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name |
| Command                | DCAddOnMode | String | 11            | Add-On mode                  |
| Variable Data          | data        | Enum8  | 1             |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DCAddOnMode          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCAddOnMode | String | 11            | Add-On mode                      |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN DCAddOnMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCAddOnMode 0[ETX] |
| Write Variable:   | [STX]sWN DCAddOnMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCAddOnMode[ETX]   |



### 2.7.1.36. Variable: UPCEANAddOnLength

The following section contains a detailed description of the variable UPCEANAddOnLength.

#### Variable Overview

| Variable Name     | Description   |
|-------------------|---------------|
| UPCEANAddOnLength | Add-On length |

|                       |   |
|-----------------------|---|
| Communication Name    | DCAddOnLength   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 152   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_2_Digits    |             |
|               | 1     | TX_5_Digits    |             |
|               | 2     | TX_2or5_Digits |             |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |                             |
|-------------------|---------------|--------|---------------|-----------------------------|
| sRN DCAddOnLength |               |        |               |                             |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                 |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name |
| Command           | DCAddOnLength | String | 13            | Add-On length               |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA DCAddOnLength <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | DCAddOnLength | String | 13            | Add-On length                   |
| Variable Data            | data          | Enum8  | 1             |                                 |

| Write Variable:          |               |        |               |                              |
|--------------------------|---------------|--------|---------------|------------------------------|
| sWN DCAddOnLength <data> |               |        |               |                              |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                  |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name |
| Command                  | DCAddOnLength | String | 13            | Add-On length                |
| Variable Data            | data          | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCAddOnLength        |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |               |        |               |               |
|--------------------------|---------------|--------|---------------|---------------|
| sWA DCAddOnLength        |               |        |               |               |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description   |
| Command                  | DCAddOnLength | String | 13            | Add-On length |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| <b>Read Variable:</b>                                       | [STX]sRN DCAddOnLength[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA DCAddOnLength 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DCAddOnLength 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DCAddOnLength[ETX]   |

### 2.7.1.37. Variable: UPCAActive

The following section contains a detailed description of the variable UPCAActive.

#### Variable Overview

| Variable Name | Description     |
|---------------|-----------------|
| UPCAActive    | Activates UPC-A |

|                       |   |
|-----------------------|---|
| Communication Name    | DCUPCAAct   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 153   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |





## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN DCUPCAAct  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | DCUPCAAct | String | 9             | Activates UPC-A             |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DCUPCAAct <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCUPCAAct | String | 9             | Activates UPC-A                 |
| Variable Data           | data      | Bool   | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN DCUPCAAct <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | DCUPCAAct | String | 9             | Activates UPC-A              |
| Variable Data        | data      | Bool   | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA DCUPCAAct            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCUPCAAct | String | 9             | Activates UPC-A                  |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCUPCAAct[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCUPCAAct 1[ETX] |
| Write Variable:   | [STX]sWN DCUPCAAct 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DCUPCAAct[ETX]   |

### 2.7.1.38. Variable: UPCEActive

The following section contains a detailed description of the variable UPCEActive.

#### Variable Overview

| Variable Name | Description     |
|---------------|-----------------|
| UPCEActive    | Activates UPC-E |

|                       |   |
|-----------------------|---|
| Communication Name    | DCUPCEAct   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 154   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN DCUPCEAct  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | DCUPCEAct | String | 9             | Activates UPC-E             |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DCUPCEAct <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCUPCEAct | String | 9             | Activates UPC-E                 |
| Variable Data           | data      | Bool   | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN DCUPCEAct <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | DCUPCEAct | String | 9             | Activates UPC-E              |
| Variable Data        | data      | Bool   | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA DCUPCEAct            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCUPCEAct | String | 9             | Activates UPC-E                  |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCUPCEAct[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCUPCEAct 1[ETX] |
| Write Variable:   | [STX]sWN DCUPCEAct 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DCUPCEAct[ETX]   |

### 2.7.1.39. Variable: UPCEExtended

The following section contains a detailed description of the variable UPCEExtended.

#### Variable Overview

| Variable Name | Description              |
|---------------|--------------------------|
| UPCEExtended  | Activates Extended UPC-E |

|                       |   |
|-----------------------|---|
| Communication Name    | DCUPCEExt   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 155   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN DCUPCEExt  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | DCUPCEExt | String | 8             | Activates Extended UPC-E    |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DCUPCEExt <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCUPCEExt | String | 8             | Activates Extended UPC-E        |
| Variable Data           | data      | Bool   | 1             |                                 |



| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN DCUPCExt <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | DCUPCExt | String | 8             | Activates Extended UPC-E     |
| Variable Data       | data     | Bool   | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCUPCExt             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCUPCExt | String | 8             | Activates Extended UPC-E         |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN DCUPCExt[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCUPCExt 0[ETX] |
| Write Variable:   | [STX]sWN DCUPCExt 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCUPCExt[ETX]   |

### 2.7.1.40. Variable: EANUPCTransmitCheckDigit

The following section contains a detailed description of the variable EANUPCTransmitCheckDigit.

#### Variable Overview

| Variable Name            | Description                      |
|--------------------------|----------------------------------|
| EANUPCTransmitCheckDigit | Transmit Check Digit for EAN/UPC |

|                       |   |
|-----------------------|---|
| Communication Name    | DCEANUPCTrCd  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 156   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |                                  |
|------------------|--------------|--------|---------------|----------------------------------|
| sRN DCEANUPCTrCd |              |        |               |                                  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name      |
| Command          | DCEANUPCTrCd | String | 12            | Transmit Check Digit for EAN/UPC |

| Read Variable Response: |              |        |               |                                  |
|-------------------------|--------------|--------|---------------|----------------------------------|
| sRA DCEANUPCTrCd <data> |              |        |               |                                  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | DCEANUPCTrCd | String | 12            | Transmit Check Digit for EAN/UPC |
| Variable Data           | data         | Bool   | 1             |                                  |

| Write Variable:         |              |        |               |                                  |
|-------------------------|--------------|--------|---------------|----------------------------------|
| sWN DCEANUPCTrCd <data> |              |        |               |                                  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name     |
| Command                 | DCEANUPCTrCd | String | 12            | Transmit Check Digit for EAN/UPC |
| Variable Data           | data         | Bool   | 1             |                                  |

| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA DCEANUPCTrCd         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCEANUPCTrCd | String | 12            | Transmit Check Digit for EAN/UPC |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN DCEANUPCTrCd[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCEANUPCTrCd 1[ETX] |
| Write Variable:   | [STX]sWN DCEANUPCTrCd 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DCEANUPCTrCd[ETX]   |

### 2.7.1.41. Variable: UPCENumSystem

The following section contains a detailed description of the variable UPCENumSystem.

#### Variable Overview

| Variable Name | Description                             |
|---------------|---|
| UPCENumSystem | Activates output of UPC-E number system |

|                       |   |
|-----------------------|---|
| Communication Name    | DCUPCNumSys   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 157   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN DCUPCNumSys |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                             |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name             |
| Command         | DCUPCNumSys | String | 11            | Activates output of UPC-E number system |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA DCUPCNumSys <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                             |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | DCUPCNumSys | String | 11            | Activates output of UPC-E number system |
| Variable Data           | data        | Bool   | 1             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN DCUPCNumSys <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                             |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name            |
| Command                | DCUPCNumSys | String | 11            | Activates output of UPC-E number system |
| Variable Data          | data        | Bool   | 1             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA DCUPCNumSys          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                             |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | DCUPCNumSys | String | 11            | Activates output of UPC-E number system |



## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN DCUPCNumSys[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCUPCNumSys 0[ETX] |
| Write Variable:   | [STX]sWN DCUPCNumSys 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCUPCNumSys[ETX]   |

### 2.7.1.42. Variable: EAN8Active

The following section contains a detailed description of the variable EAN8Active.

#### Variable Overview

| Variable Name | Description    |
|---------------|----------------|
| EAN8Active    | Activates EAN8 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCEAN8Act   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 158   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN DCEAN8Act  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | DCEAN8Act | String | 9             | Activates EAN8              |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DCEAN8Act <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCEAN8Act | String | 9             | Activates EAN8                  |
| Variable Data           | data      | Bool   | 1             |                                 |



| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN DCEAN8Act <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | DCEAN8Act | String | 9             | Activates EAN8               |
| Variable Data        | data      | Bool   | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA DCEAN8Act            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCEAN8Act | String | 9             | Activates EAN8                   |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCEAN8Act[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCEAN8Act 1[ETX] |
| Write Variable:   | [STX]sWN DCEAN8Act 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DCEAN8Act[ETX]   |

### 2.7.1.43. Variable: EAN13Active

The following section contains a detailed description of the variable EAN13Active.

#### Variable Overview

| Variable Name | Description     |
|---------------|-----------------|
| EAN13Active   | Activates EAN13 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCEAN13Act  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 159   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |





## Variable Telegram Syntax

| Read Variable: |            |        |               |                             |
|----------------|------------|--------|---------------|-----------------------------|
| sRN DCEAN13Act |            |        |               |                             |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                 |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name |
| Command        | DCEAN13Act | String | 10            | Activates EAN13             |

| Read Variable Response: |            |        |               |                                 |
|-------------------------|------------|--------|---------------|---------------------------------|
| sRA DCEAN13Act <data>   |            |        |               |                                 |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCEAN13Act | String | 10            | Activates EAN13                 |
| Variable Data           | data       | Bool   | 1             |                                 |

| Write Variable:       |            |        |               |                              |
|-----------------------|------------|--------|---------------|------------------------------|
| sWN DCEAN13Act <data> |            |        |               |                              |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name |
| Command               | DCEAN13Act | String | 10            | Activates EAN13              |
| Variable Data         | data       | Bool   | 1             |                              |

| Write Variable Response: |            |        |               |                                  |
|--------------------------|------------|--------|---------------|----------------------------------|
| sWA DCEAN13Act           |            |        |               |                                  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCEAN13Act | String | 10            | Activates EAN13                  |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DCEAN13Act[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCEAN13Act 1[ETX] |
| Write Variable:   | [STX]sWN DCEAN13Act 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DCEAN13Act[ETX]   |



#### 2.7.1.44. Variable: UPCEANAllowIncomplete

The following section contains a detailed description of the variable UPCEANAllowIncomplete.

##### Variable Overview

| Variable Name         | Description                                |
|-----------------------|--|
| UPCEANAllowIncomplete | Allows reading of incomplete EAN/UPC codes |

|                       |   |
|-----------------------|---|
| Communication Name    | DCUPCEANIncmp   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 160   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

##### Variable Telegram Syntax

| Read Variable:    |               |        |               |  |
|-------------------|---------------|--------|---------------|--|
| sRN DCUPCEANIncmp |               |        |               |  |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                                |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name                |
| Command           | DCUPCEANIncmp | String | 13            | Allows reading of incomplete EAN/UPC codes |

| Read Variable Response:  |               |        |               |  |
|--------------------------|---------------|--------|---------------|--|
| sRA DCUPCEANIncmp <data> |               |        |               |  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                                |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge            |
| Command                  | DCUPCEANIncmp | String | 13            | Allows reading of incomplete EAN/UPC codes |
| Variable Data            | data          | Bool   | 1             |  |

| Write Variable:          |               |        |               |  |
|--------------------------|---------------|--------|---------------|--|
| sWN DCUPCEANIncmp <data> |               |        |               |  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                                |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name               |
| Command                  | DCUPCEANIncmp | String | 13            | Allows reading of incomplete EAN/UPC codes |
| Variable Data            | data          | Bool   | 1             |  |

| Write Variable Response: |               |        |               |  |
|--------------------------|---------------|--------|---------------|--|
| sWA DCUPCEANIncmp        |               |        |               |  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                                |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge           |
| Command                  | DCUPCEANIncmp | String | 13            | Allows reading of incomplete EAN/UPC codes |



## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| <b>Read Variable:</b>                                       | [STX]sRN DCUPCEANIncmp[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA DCUPCEANIncmp 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DCUPCEANIncmp 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DCUPCEANIncmp[ETX]   |

### 2.7.1.45. Variable: UPCEANMinCharsIncomplete

The following section contains a detailed description of the variable UPCEANMinCharsIncomplete.

#### Variable Overview

| Variable Name            | Description   |
|--------------------------|---|
| UPCEANMinCharsIncomplete | Minimum number of charactes If incomplete EAN/UPC codes are allowed |

|                       |   |
|-----------------------|---|
| Communication Name    | DCUPCEANMinIncmp  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 161   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |       |
|----------------------|-------|
| Value Range          | 2..13 |
| Initialisation       | 5     |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |

#### Variable Telegram Syntax

| Read Variable:       |                  |        |               |   |
|----------------------|------------------|--------|---------------|---|
| sRN DCUPCEANMinIncmp |                  |        |               |   |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description   |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name   |
| Command              | DCUPCEANMinIncmp | String | 16            | Minimum number of charactes If incomplete EAN/UPC codes are allowed |

| Read Variable Response:     |                  |        |               |   |
|-----------------------------|------------------|--------|---------------|---|
| sRA DCUPCEANMinIncmp <data> |                  |        |               |   |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description   |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge                                     |
| Command                     | DCUPCEANMinIncmp | String | 16            | Minimum number of charactes If incomplete EAN/UPC codes are allowed |
| Variable Data               | data             | UInt   | 2             |   |



| Write Variable:             |                  |        |               |   |
|-----------------------------|------------------|--------|---------------|---|
| sWN DCUPCEANMinIncmp <data> |                  |        |               |   |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description   |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name  |
| Command                     | DCUPCEANMinIncmp | String | 16            | Minimum number of charactes If incomplete EAN/UPC codes are allowed |
| Variable Data               | data             | UInt   | 2             |   |

| Write Variable Response: |                  |        |               |   |
|--------------------------|------------------|--------|---------------|---|
| sWA DCUPCEANMinIncmp     |                  |        |               |   |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description   |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge                                    |
| Command                  | DCUPCEANMinIncmp | String | 16            | Minimum number of charactes If incomplete EAN/UPC codes are allowed |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN DCUPCEANMinIncmp[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCUPCEANMinIncmp 5[ETX] |
| Write Variable:   | [STX]sWN DCUPCEANMinIncmp 5[ETX] |
| Write Variable Response:                                    | [STX]sWA DCUPCEANMinIncmp[ETX]   |

### 2.7.1.46. Variable: C25ILActive

The following section contains a detailed description of the variable C25ILActive.

#### Variable Overview

| Variable Name | Description                       |
|---------------|-----------------------------------|
| C25ILActive   | Activates 2/5 Interleaved Decoder |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILAct  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 162   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |



## Variable Telegram Syntax

| Read Variable: |            |        |               |                                   |
|----------------|------------|--------|---------------|-----------------------------------|
| sRN DCC25ILAct |            |        |               |                                   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                       |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name       |
| Command        | DCC25ILAct | String | 10            | Activates 2/5 Interleaved Decoder |

| Read Variable Response: |            |        |               |                                   |
|-------------------------|------------|--------|---------------|-----------------------------------|
| sRA DCC25ILAct <data>   |            |        |               |                                   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                       |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | DCC25ILAct | String | 10            | Activates 2/5 Interleaved Decoder |
| Variable Data           | data       | Bool   | 1             |                                   |

| Write Variable:       |            |        |               |                                   |
|-----------------------|------------|--------|---------------|-----------------------------------|
| sWN DCC25ILAct <data> |            |        |               |                                   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                       |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name      |
| Command               | DCC25ILAct | String | 10            | Activates 2/5 Interleaved Decoder |
| Variable Data         | data       | Bool   | 1             |                                   |

| Write Variable Response: |            |        |               |                                   |
|--------------------------|------------|--------|---------------|-----------------------------------|
| sWA DCC25ILAct           |            |        |               |                                   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                       |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | DCC25ILAct | String | 10            | Activates 2/5 Interleaved Decoder |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DCC25ILAct[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC25ILAct 1[ETX] |
| Write Variable:   | [STX]sWN DCC25ILAct 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC25ILAct[ETX]   |

### 2.7.1.47. Variable: C25ILMultiReadL1

The following section contains a detailed description of the variable C25ILMultiReadL1.

#### Variable Overview

| Variable Name    | Description                           |
|------------------|---------------------------------------|
| C25ILMultiReadL1 | Multiread of 2/5 Interleaved Length 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILMrL1   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 163   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..100 |
| Initialisation       | 3      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                                       |
|-----------------|-------------|--------|---------------|---------------------------------------|
| sRN DCC25ILMrL1 |             |        |               |                                       |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name           |
| Command         | DCC25ILMrL1 | String | 11            | Multiread of 2/5 Interleaved Length 1 |

| Read Variable Response: |             |        |               |                                       |
|-------------------------|-------------|--------|---------------|---------------------------------------|
| sRA DCC25ILMrL1 <data>  |             |        |               |                                       |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | DCC25ILMrL1 | String | 11            | Multiread of 2/5 Interleaved Length 1 |
| Variable Data           | data        | UInt   | 2             |                                       |

| Write Variable:        |             |        |               |                                       |
|------------------------|-------------|--------|---------------|---------------------------------------|
| sWN DCC25ILMrL1 <data> |             |        |               |                                       |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name          |
| Command                | DCC25ILMrL1 | String | 11            | Multiread of 2/5 Interleaved Length 1 |
| Variable Data          | data        | UInt   | 2             |                                       |

| Write Variable Response: |             |        |               |                                       |
|--------------------------|-------------|--------|---------------|---------------------------------------|
| sWA DCC25ILMrL1          |             |        |               |                                       |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | DCC25ILMrL1 | String | 11            | Multiread of 2/5 Interleaved Length 1 |



## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN DCC25ILMrL1[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC25ILMrL1 3[ETX] |
| Write Variable:   | [STX]sWN DCC25ILMrL1 3[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC25ILMrL1[ETX]   |

### 2.7.1.48. Variable: C25ILMultiReadL2

The following section contains a detailed description of the variable C25ILMultiReadL2.

#### Variable Overview

| Variable Name    | Description                           |
|------------------|---------------------------------------|
| C25ILMultiReadL2 | Multiread of 2/5 Interleaved Length 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILMrL2   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 164   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..100 |
| Initialisation       | 3      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                                       |
|-----------------|-------------|--------|---------------|---------------------------------------|
| sRN DCC25ILMrL2 |             |        |               |                                       |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name           |
| Command         | DCC25ILMrL2 | String | 11            | Multiread of 2/5 Interleaved Length 2 |

| Read Variable Response: |             |        |               |                                       |
|-------------------------|-------------|--------|---------------|---------------------------------------|
| sRA DCC25ILMrL2 <data>  |             |        |               |                                       |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | DCC25ILMrL2 | String | 11            | Multiread of 2/5 Interleaved Length 2 |
| Variable Data           | data        | UInt   | 2             |                                       |



| Write Variable:        |             |        |               |                                       |
|------------------------|-------------|--------|---------------|---------------------------------------|
| sWN DCC25ILMrL2 <data> |             |        |               |                                       |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name          |
| Command                | DCC25ILMrL2 | String | 11            | Multiread of 2/5 Interleaved Length 2 |
| Variable Data          | data        | UInt   | 2             |                                       |

| Write Variable Response: |             |        |               |                                       |
|--------------------------|-------------|--------|---------------|---------------------------------------|
| sWA DCC25ILMrL2          |             |        |               |                                       |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | DCC25ILMrL2 | String | 11            | Multiread of 2/5 Interleaved Length 2 |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN DCC25ILMrL2[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC25ILMrL2 3[ETX] |
| Write Variable:   | [STX]sWN DCC25ILMrL2 3[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC25ILMrL2[ETX]   |

### 2.7.1.49. Variable: C25ILMultiReadL3

The following section contains a detailed description of the variable C25ILMultiReadL3.

#### Variable Overview

| Variable Name    | Description                           |
|------------------|---------------------------------------|
| C25ILMultiReadL3 | Multiread of 2/5 Interleaved Length 3 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILMrL3   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 165   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..100 |
| Initialisation       | 3      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |





## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                       |
|-----------------|-------------|--------|---------------|---------------------------------------|
| sRN DCC25ILMrL3 |             |        |               |                                       |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name           |
| Command         | DCC25ILMrL3 | String | 11            | Multiread of 2/5 Interleaved Length 3 |

| Read Variable Response: |             |        |               |                                       |
|-------------------------|-------------|--------|---------------|---------------------------------------|
| sRA DCC25ILMrL3 <data>  |             |        |               |                                       |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | DCC25ILMrL3 | String | 11            | Multiread of 2/5 Interleaved Length 3 |
| Variable Data           | data        | UInt   | 2             |                                       |

| Write Variable:        |             |        |               |                                       |
|------------------------|-------------|--------|---------------|---------------------------------------|
| sWN DCC25ILMrL3 <data> |             |        |               |                                       |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name          |
| Command                | DCC25ILMrL3 | String | 11            | Multiread of 2/5 Interleaved Length 3 |
| Variable Data          | data        | UInt   | 2             |                                       |

| Write Variable Response: |             |        |               |                                       |
|--------------------------|-------------|--------|---------------|---------------------------------------|
| sWA DCC25ILMrL3          |             |        |               |                                       |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | DCC25ILMrL3 | String | 11            | Multiread of 2/5 Interleaved Length 3 |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN DCC25ILMrL3[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC25ILMrL3 3[ETX] |
| Write Variable:   | [STX]sWN DCC25ILMrL3 3[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC25ILMrL3[ETX]   |

### 2.7.1.50. Variable: C25ILMultiReadL4

The following section contains a detailed description of the variable C25ILMultiReadL4.

#### Variable Overview

| Variable Name    | Description                           |
|------------------|---------------------------------------|
| C25ILMultiReadL4 | Multiread of 2/5 Interleaved Length 4 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILMrL4   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 166   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..100 |
| Initialisation       | 3      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                                       |
|-----------------|-------------|--------|---------------|---------------------------------------|
| sRN DCC25ILMrL4 |             |        |               |                                       |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name           |
| Command         | DCC25ILMrL4 | String | 11            | Multiread of 2/5 Interleaved Length 4 |

| Read Variable Response: |             |        |               |                                       |
|-------------------------|-------------|--------|---------------|---------------------------------------|
| sRA DCC25ILMrL4 <data>  |             |        |               |                                       |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | DCC25ILMrL4 | String | 11            | Multiread of 2/5 Interleaved Length 4 |
| Variable Data           | data        | UInt   | 2             |                                       |

| Write Variable:        |             |        |               |                                       |
|------------------------|-------------|--------|---------------|---------------------------------------|
| sWN DCC25ILMrL4 <data> |             |        |               |                                       |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name          |
| Command                | DCC25ILMrL4 | String | 11            | Multiread of 2/5 Interleaved Length 4 |
| Variable Data          | data        | UInt   | 2             |                                       |

| Write Variable Response: |             |        |               |                                       |
|--------------------------|-------------|--------|---------------|---------------------------------------|
| sWA DCC25ILMrL4          |             |        |               |                                       |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | DCC25ILMrL4 | String | 11            | Multiread of 2/5 Interleaved Length 4 |



## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| <b>Read Variable:</b>                                       | [STX]sRN DCC25ILMrL4[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA DCC25ILMrL4 3[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DCC25ILMrL4 3[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DCC25ILMrL4[ETX]   |

### 2.7.1.51. Variable: C25ILMultiReadL5

The following section contains a detailed description of the variable C25ILMultiReadL5.

#### Variable Overview

| Variable Name    | Description                           |
|------------------|---------------------------------------|
| C25ILMultiReadL5 | Multiread of 2/5 Interleaved Length 5 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILMrL5   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 167   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..100 |
| Initialisation       | 3      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                                       |
|-----------------|-------------|--------|---------------|---------------------------------------|
| sRN DCC25ILMrL5 |             |        |               |                                       |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name           |
| Command         | DCC25ILMrL5 | String | 11            | Multiread of 2/5 Interleaved Length 5 |

| Read Variable Response: |             |        |               |                                       |
|-------------------------|-------------|--------|---------------|---------------------------------------|
| sRA DCC25ILMrL5 <data>  |             |        |               |                                       |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | DCC25ILMrL5 | String | 11            | Multiread of 2/5 Interleaved Length 5 |
| Variable Data           | data        | UInt   | 2             |                                       |



| Write Variable:        |             |        |               |                                       |
|------------------------|-------------|--------|---------------|---------------------------------------|
| sWN DCC25ILMrL5 <data> |             |        |               |                                       |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name          |
| Command                | DCC25ILMrL5 | String | 11            | Multiread of 2/5 Interleaved Length 5 |
| Variable Data          | data        | UInt   | 2             |                                       |

| Write Variable Response: |             |        |               |                                       |
|--------------------------|-------------|--------|---------------|---------------------------------------|
| sWA DCC25ILMrL5          |             |        |               |                                       |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | DCC25ILMrL5 | String | 11            | Multiread of 2/5 Interleaved Length 5 |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN DCC25ILMrL5[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC25ILMrL5 3[ETX] |
| Write Variable:   | [STX]sWN DCC25ILMrL5 3[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC25ILMrL5[ETX]   |

### 2.7.1.52. Variable: C25ILCheckDigitTestL1

The following section contains a detailed description of the variable C25ILCheckDigitTestL1.

#### Variable Overview

| Variable Name         | Description                             |
|-----------------------|---|
| C25ILCheckDigitTestL1 | Check Digit Test for Code 25IL Length 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILCdTstL1  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 168   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                 |             |
|---------------|-------|-----------------|-------------|
| Default Value |       | 0               |             |
|               | Value | Name            | Description |
|               | 0     | TX_None         |             |
|               | 1     | TX_Modulo_10    |             |
|               | 2     | TX_1R18         |             |
|               | 3     | TX_W49M10       |             |
|               | 5     | TX_W12CSM10     |             |
|               | 6     | TX_ModModulo_11 |             |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |   |
|--------------------|----------------|--------|---------------|---|
| sRN DCC25ILCdTstL1 |                |        |               |   |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name             |
| Command            | DCC25ILCdTstL1 | String | 14            | Check Digit Test for Code 25IL Length 1 |

| Read Variable Response:   |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sRA DCC25ILCdTstL1 <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                   | DCC25ILCdTstL1 | String | 14            | Check Digit Test for Code 25IL Length 1 |
| Variable Data             | data           | Enum8  | 1             |   |

| Write Variable:           |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sWN DCC25ILCdTstL1 <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name            |
| Command                   | DCC25ILCdTstL1 | String | 14            | Check Digit Test for Code 25IL Length 1 |
| Variable Data             | data           | Enum8  | 1             |   |

| Write Variable Response: |                |        |               |   |
|--------------------------|----------------|--------|---------------|---|
| sWA DCC25ILCdTstL1       |                |        |               |   |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | DCC25ILCdTstL1 | String | 14            | Check Digit Test for Code 25IL Length 1 |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN DCC25ILCdTstL1[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC25ILCdTstL1 0[ETX] |
| Write Variable:   | [STX]sWN DCC25ILCdTstL1 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC25ILCdTstL1[ETX]   |



### 2.7.1.53. Variable: C25ILCheckDigitTestL2

The following section contains a detailed description of the variable C25ILCheckDigitTestL2.

#### Variable Overview

| Variable Name         | Description                             |
|-----------------------|---|
| C25ILCheckDigitTestL2 | Check Digit Test for Code 25IL Length 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILCdTstL2  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 169   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                 |             |
|---------------|-------|-----------------|-------------|
| Default Value |       | 0               |             |
|               | Value | Name            | Description |
|               | 0     | TX_None         |             |
|               | 1     | TX_Modulo_10    |             |
|               | 2     | TX_1R18         |             |
|               | 3     | TX_W49M10       |             |
|               | 5     | TX_W12CSM10     |             |
|               | 6     | TX_ModModulo_11 |             |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |   |
|--------------------|----------------|--------|---------------|---|
| sRN DCC25ILCdTstL2 |                |        |               |   |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name             |
| Command            | DCC25ILCdTstL2 | String | 14            | Check Digit Test for Code 25IL Length 2 |

| Read Variable Response:   |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sRA DCC25ILCdTstL2 <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                   | DCC25ILCdTstL2 | String | 14            | Check Digit Test for Code 25IL Length 2 |
| Variable Data             | data           | Enum8  | 1             |   |

| Write Variable:           |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sWN DCC25ILCdTstL2 <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name            |
| Command                   | DCC25ILCdTstL2 | String | 14            | Check Digit Test for Code 25IL Length 2 |
| Variable Data             | data           | Enum8  | 1             |   |



| Write Variable Response: |                |        |               |   |
|--------------------------|----------------|--------|---------------|---|
| sWA DCC25ILCdTstL2       |                |        |               |   |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | DCC25ILCdTstL2 | String | 14            | Check Digit Test for Code 25IL Length 2 |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN DCC25ILCdTstL2[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC25ILCdTstL2 0[ETX] |
| Write Variable:   | [STX]sWN DCC25ILCdTstL2 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC25ILCdTstL2[ETX]   |

### 2.7.1.54. Variable: C25ILCheckDigitTestL3

The following section contains a detailed description of the variable C25ILCheckDigitTestL3.

#### Variable Overview

| Variable Name         | Description                             |
|-----------------------|---|
| C25ILCheckDigitTestL3 | Check Digit Test for Code 25IL Length 3 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILCdTstL3  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 170   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                 |             |
|---------------|-------|-----------------|-------------|
| Default Value |       | 0               |             |
|               | Value | Name            | Description |
|               | 0     | TX_None         |             |
|               | 1     | TX_Modulo_10    |             |
|               | 2     | TX_1R18         |             |
|               | 3     | TX_W49M10       |             |
|               | 5     | TX_W12CSM10     |             |
|               | 6     | TX_ModModulo_11 |             |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |   |
|--------------------|----------------|--------|---------------|---|
| sRN DCC25ILCdTstL3 |                |        |               |   |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name             |
| Command            | DCC25ILCdTstL3 | String | 14            | Check Digit Test for Code 25IL Length 3 |

| Read Variable Response:   |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sRA DCC25ILCdTstL3 <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                   | DCC25ILCdTstL3 | String | 14            | Check Digit Test for Code 25IL Length 3 |
| Variable Data             | data           | Enum8  | 1             |   |

| Write Variable:           |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sWN DCC25ILCdTstL3 <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name            |
| Command                   | DCC25ILCdTstL3 | String | 14            | Check Digit Test for Code 25IL Length 3 |
| Variable Data             | data           | Enum8  | 1             |   |

| Write Variable Response: |                |        |               |   |
|--------------------------|----------------|--------|---------------|---|
| sWA DCC25ILCdTstL3       |                |        |               |   |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | DCC25ILCdTstL3 | String | 14            | Check Digit Test for Code 25IL Length 3 |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN DCC25ILCdTstL3[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC25ILCdTstL3 0[ETX] |
| Write Variable:   | [STX]sWN DCC25ILCdTstL3 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC25ILCdTstL3[ETX]   |



### 2.7.1.55. Variable: C25ILCheckDigitTestL4

The following section contains a detailed description of the variable C25ILCheckDigitTestL4.

#### Variable Overview

| Variable Name         | Description                             |
|-----------------------|---|
| C25ILCheckDigitTestL4 | Check Digit Test for Code 25IL Length 4 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILCdTstL4  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 171   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |                 |             |  |
|---------------|-----------------|-------------|--|
| Default Value |                 | 0           |  |
| Value         | Name            | Description |  |
| 0             | TX_None         |             |  |
| 1             | TX_Modulo_10    |             |  |
| 2             | TX_1R18         |             |  |
| 3             | TX_W49M10       |             |  |
| 5             | TX_W12CSM10     |             |  |
| 6             | TX_ModModulo_11 |             |  |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |   |
|--------------------|----------------|--------|---------------|---|
| sRN DCC25ILCdTstL4 |                |        |               |   |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name             |
| Command            | DCC25ILCdTstL4 | String | 14            | Check Digit Test for Code 25IL Length 4 |

| Read Variable Response:   |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sRA DCC25ILCdTstL4 <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                   | DCC25ILCdTstL4 | String | 14            | Check Digit Test for Code 25IL Length 4 |
| Variable Data             | data           | Enum8  | 1             |   |

| Write Variable:           |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sWN DCC25ILCdTstL4 <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name            |
| Command                   | DCC25ILCdTstL4 | String | 14            | Check Digit Test for Code 25IL Length 4 |
| Variable Data             | data           | Enum8  | 1             |   |



| Write Variable Response: |                |        |               |   |
|--------------------------|----------------|--------|---------------|---|
| sWA DCC25ILCdTstL4       |                |        |               |   |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | DCC25ILCdTstL4 | String | 14            | Check Digit Test for Code 25IL Length 4 |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN DCC25ILCdTstL4[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC25ILCdTstL4 0[ETX] |
| Write Variable:   | [STX]sWN DCC25ILCdTstL4 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC25ILCdTstL4[ETX]   |

### 2.7.1.56. Variable: C25ILCheckDigitTestL5

The following section contains a detailed description of the variable C25ILCheckDigitTestL5.

#### Variable Overview

| Variable Name         | Description                             |
|-----------------------|---|
| C25ILCheckDigitTestL5 | Check Digit Test for Code 25IL Length 5 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILCdTstL5  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 172   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                 |             |
|---------------|-------|-----------------|-------------|
| Default Value |       | 0               |             |
|               | Value | Name            | Description |
|               | 0     | TX_None         |             |
|               | 1     | TX_Modulo_10    |             |
|               | 2     | TX_1R18         |             |
|               | 3     | TX_W49M10       |             |
|               | 5     | TX_W12CSM10     |             |
|               | 6     | TX_ModModulo_11 |             |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |   |
|--------------------|----------------|--------|---------------|---|
| sRN DCC25ILCdTstL5 |                |        |               |   |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name             |
| Command            | DCC25ILCdTstL5 | String | 14            | Check Digit Test for Code 25IL Length 5 |

| Read Variable Response:   |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sRA DCC25ILCdTstL5 <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                   | DCC25ILCdTstL5 | String | 14            | Check Digit Test for Code 25IL Length 5 |
| Variable Data             | data           | Enum8  | 1             |   |

| Write Variable:           |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sWN DCC25ILCdTstL5 <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name            |
| Command                   | DCC25ILCdTstL5 | String | 14            | Check Digit Test for Code 25IL Length 5 |
| Variable Data             | data           | Enum8  | 1             |   |

| Write Variable Response: |                |        |               |   |
|--------------------------|----------------|--------|---------------|---|
| sWA DCC25ILCdTstL5       |                |        |               |   |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | DCC25ILCdTstL5 | String | 14            | Check Digit Test for Code 25IL Length 5 |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN DCC25ILCdTstL5[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC25ILCdTstL5 0[ETX] |
| Write Variable:   | [STX]sWN DCC25ILCdTstL5 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC25ILCdTstL5[ETX]   |

### 2.7.1.57. Variable: C25ILLengthMode

The following section contains a detailed description of the variable C25ILLengthMode.

#### Variable Overview

| Variable Name   | Description                |
|-----------------|----------------------------|
| C25ILLengthMode | Codelength mode of Code 39 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILLenMode  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 173   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 1           |             |
|               | Value | Name        | Description |
|               | 0     | TX_Free     |             |
|               | 1     | TX_Interval |             |
|               | 2     | TX_Fix      |             |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |                             |
|--------------------|----------------|--------|---------------|-----------------------------|
| sRN DCC25ILLenMode |                |        |               |                             |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                 |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name |
| Command            | DCC25ILLenMode | String | 14            | Codelength mode of Code 39  |

| Read Variable Response:   |                |        |               |                                 |
|---------------------------|----------------|--------|---------------|---------------------------------|
| sRA DCC25ILLenMode <data> |                |        |               |                                 |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                     |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge |
| Command                   | DCC25ILLenMode | String | 14            | Codelength mode of Code 39      |
| Variable Data             | data           | Enum8  | 1             |                                 |

| Write Variable:           |                |        |               |                              |
|---------------------------|----------------|--------|---------------|------------------------------|
| sWN DCC25ILLenMode <data> |                |        |               |                              |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                  |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name |
| Command                   | DCC25ILLenMode | String | 14            | Codelength mode of Code 39   |
| Variable Data             | data           | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCC25ILLenMode       |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |                |        |               |                            |
|--------------------------|----------------|--------|---------------|----------------------------|
| sWA DCC25ILLenMode       |                |        |               |                            |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                |
| Command                  | DCC25ILLenMode | String | 14            | Codelength mode of Code 39 |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| <b>Read Variable:</b>                                       | [STX]sRN DCC25ILLenMode[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA DCC25ILLenMode 1[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DCC25ILLenMode 1[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DCC25ILLenMode[ETX]   |

### 2.7.1.58. Variable: C25ILFixLenList

The following section contains a detailed description of the variable C25ILFixLenList.

#### Variable Overview

| Variable Name   | Description              |
|-----------------|--------------------------|
| C25ILFixLenList | List of fix code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILFixLen   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 174   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |       |
|--------|----------------------|-------|
| Length |                      | 5     |
|        | UDInt                |       |
|        | Value Range          | 0..50 |
|        | Initialisation       | 0     |
|        | Physical Unit        |       |
|        | Physical Unit Factor | 0.0   |



## Variable Telegram Syntax

| Read Variable:    |               |        |               |                             |
|-------------------|---------------|--------|---------------|-----------------------------|
| sRN DCC25ILFixLen |               |        |               |                             |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                 |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name |
| Command           | DCC25ILFixLen | String | 13            | List of fix code lengths    |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA DCC25ILFixLen <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | DCC25ILFixLen | String | 13            | List of fix code lengths        |
| Variable Data            | data          | Array  | 20            |                                 |

| Write Variable:          |               |        |               |                              |
|--------------------------|---------------|--------|---------------|------------------------------|
| sWN DCC25ILFixLen <data> |               |        |               |                              |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                  |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name |
| Command                  | DCC25ILFixLen | String | 13            | List of fix code lengths     |
| Variable Data            | data          | Array  | 20            |                              |

| Write Variable Response: |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sWA DCC25ILFixLen        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC25ILFixLen | String | 13            | List of fix code lengths         |

## Variable Telegram Examples

| Example: Default Values                                     |                                       |
|---|---------------------------------------|
| Variable telegram examples with data set to default values. |                                       |
| Read Variable:  | [STX]sRN DCC25ILFixLen[ETX]           |
| Read Variable Response:                                     | [STX]sRA DCC25ILFixLen 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN DCC25ILFixLen 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC25ILFixLen[ETX]           |

### 2.7.1.59. Variable: C25ILIntLenList

The following section contains a detailed description of the variable C25ILIntLenList.

#### Variable Overview

| Variable Name   | Description                   |
|-----------------|-------------------------------|
| C25ILIntLenList | List of interval code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILIntLen   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 175   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array         |                      |
|---------------|----------------------|
| Length        | 2                    |
| Default Value | {4, 50}              |
|               | <b>UDInt</b>         |
|               | Value Range          |
|               | Initialisation       |
|               | Physical Unit        |
|               | Physical Unit Factor |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |                               |
|-------------------|---------------|--------|---------------|-------------------------------|
| sRN DCC25ILIntLen |               |        |               |                               |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                   |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name   |
| Command           | DCC25ILIntLen | String | 13            | List of interval code lengths |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA DCC25ILIntLen <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | DCC25ILIntLen | String | 13            | List of interval code lengths   |
| Variable Data            | data          | Array  | 8             |                                 |

| Write Variable:          |               |        |               |                               |
|--------------------------|---------------|--------|---------------|-------------------------------|
| sWN DCC25ILIntLen <data> |               |        |               |                               |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                   |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name  |
| Command                  | DCC25ILIntLen | String | 13            | List of interval code lengths |
| Variable Data            | data          | Array  | 8             |                               |



| Write Variable Response: |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sWA DCC25ILIntLen        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC25ILIntLen | String | 13            | List of interval code lengths    |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN DCC25ILIntLen[ETX]      |
| Read Variable Response:                                     | [STX]sRA DCC25ILIntLen 4 32[ETX] |
| Write Variable:   | [STX]sWN DCC25ILIntLen 4 32[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC25ILIntLen[ETX]      |

### 2.7.1.60. Variable: C25ILClassRestriction

The following section contains a detailed description of the variable C25ILClassRestriction.

#### Variable Overview

| Variable Name         | Description                                   |
|-----------------------|---|
| C25ILClassRestriction | Classification restriction of 2/5 Interleaved |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILCIRs   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 176   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 0..100 |
| Initialisation       | 0      |
| Physical Unit        | %      |
| Physical Unit Factor | 0.0    |





## Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN DCC25ILC1Rs |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                   |
| Command         | DCC25ILC1Rs | String | 11            | Classification restriction of 2/5 Interleaved |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA DCC25ILC1Rs <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge               |
| Command                 | DCC25ILC1Rs | String | 11            | Classification restriction of 2/5 Interleaved |
| Variable Data           | data        | UInt   | 2             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN DCC25ILC1Rs <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                  |
| Command                | DCC25ILC1Rs | String | 11            | Classification restriction of 2/5 Interleaved |
| Variable Data          | data        | UInt   | 2             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA DCC25ILC1Rs          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge              |
| Command                  | DCC25ILC1Rs | String | 11            | Classification restriction of 2/5 Interleaved |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN DCC25ILC1Rs[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC25ILC1Rs 0[ETX] |
| Write Variable:   | [STX]sWN DCC25ILC1Rs 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC25ILC1Rs[ETX]   |



### 2.7.1.61. Variable: C25ILAllowIncomplete

The following section contains a detailed description of the variable C25ILAllowIncomplete.

#### Variable Overview

| Variable Name        | Description  |
|----------------------|--|
| C25ILAllowIncomplete | Allows reading of incomplete 2/5 interleaved codes |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILIncmp  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 177   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |  |
|------------------|--------------|--------|---------------|--|
| sRN DCC25ILIncmp |              |        |               |  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description  |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name                        |
| Command          | DCC25ILIncmp | String | 12            | Allows reading of incomplete 2/5 interleaved codes |

| Read Variable Response: |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sRA DCC25ILIncmp <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description  |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge                    |
| Command                 | DCC25ILIncmp | String | 12            | Allows reading of incomplete 2/5 interleaved codes |
| Variable Data           | data         | Bool   | 1             |  |

| Write Variable:         |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sWN DCC25ILIncmp <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description  |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name                       |
| Command                 | DCC25ILIncmp | String | 12            | Allows reading of incomplete 2/5 interleaved codes |
| Variable Data           | data         | Bool   | 1             |  |

| Write Variable Response: |              |        |               |  |
|--------------------------|--------------|--------|---------------|--|
| sWA DCC25ILIncmp         |              |        |               |  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description  |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge                   |
| Command                  | DCC25ILIncmp | String | 12            | Allows reading of incomplete 2/5 interleaved codes |



## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN DCC25ILIncmp[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC25ILIncmp 0[ETX] |
| Write Variable:   | [STX]sWN DCC25ILIncmp 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC25ILIncmp[ETX]   |

### 2.7.1.62. Variable: C25ILMinCharsIncomplete

The following section contains a detailed description of the variable C25ILMinCharsIncomplete.

#### Variable Overview

| Variable Name           | Description   |
|-------------------------|---|
| C25ILMinCharsIncomplete | Minimum number of charactes If incomplete 2/5 interleaved codes are allowed |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILMinIncmp   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 178   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |       |
|----------------------|-------|
| Value Range          | 2..50 |
| Initialisation       | 5     |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |

#### Variable Telegram Syntax

| Read Variable:      |                 |        |               |   |
|---------------------|-----------------|--------|---------------|---|
| sRN DCC25ILMinIncmp |                 |        |               |   |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description   |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name   |
| Command             | DCC25ILMinIncmp | String | 15            | Minimum number of charactes If incomplete 2/5 interleaved codes are allowed |

| Read Variable Response:    |                 |        |               |   |
|----------------------------|-----------------|--------|---------------|---|
| sRA DCC25ILMinIncmp <data> |                 |        |               |   |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description   |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                    | DCC25ILMinIncmp | String | 15            | Minimum number of charactes If incomplete 2/5 interleaved codes are allowed |
| Variable Data              | data            | UInt   | 2             |   |



| Write Variable:            |                 |        |               |   |
|----------------------------|-----------------|--------|---------------|---|
| sWN DCC25ILMinIncmp <data> |                 |        |               |   |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description   |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name  |
| Command                    | DCC25ILMinIncmp | String | 15            | Minimum number of charactes If incomplete 2/5 interleaved codes are allowed |
| Variable Data              | data            | UInt   | 2             |   |

| Write Variable Response: |                 |        |               |   |
|--------------------------|-----------------|--------|---------------|---|
| sWA DCC25ILMinIncmp      |                 |        |               |   |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description   |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | DCC25ILMinIncmp | String | 15            | Minimum number of charactes If incomplete 2/5 interleaved codes are allowed |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN DCC25ILMinIncmp[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC25ILMinIncmp 5[ETX] |
| Write Variable:   | [STX]sWN DCC25ILMinIncmp 5[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC25ILMinIncmp[ETX]   |

### 2.7.1.63. Variable: C25ILTransmitCheckDigit

The following section contains a detailed description of the variable C25ILTransmitCheckDigit.

#### Variable Overview

| Variable Name           | Description                   |
|-------------------------|-------------------------------|
| C25ILTransmitCheckDigit | Transmit Check Digit for 25IL |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC25ILTrCd   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 179   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                               |
|-----------------|-------------|--------|---------------|-------------------------------|
| sRN DCC25ILTrCd |             |        |               |                               |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name   |
| Command         | DCC25ILTrCd | String | 11            | Transmit Check Digit for 25IL |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA DCC25ILTrCd <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC25ILTrCd | String | 11            | Transmit Check Digit for 25IL   |
| Variable Data           | data        | Bool   | 1             |                                 |

| Write Variable:        |             |        |               |                               |
|------------------------|-------------|--------|---------------|-------------------------------|
| sWN DCC25ILTrCd <data> |             |        |               |                               |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name  |
| Command                | DCC25ILTrCd | String | 11            | Transmit Check Digit for 25IL |
| Variable Data          | data        | Bool   | 1             |                               |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DCC25ILTrCd          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC25ILTrCd | String | 11            | Transmit Check Digit for 25IL    |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN DCC25ILTrCd[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC25ILTrCd 1[ETX] |
| Write Variable:   | [STX]sWN DCC25ILTrCd 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC25ILTrCd[ETX]   |

## 2.7.1.64. Variable: C93Active

The following section contains a detailed description of the variable C93Active.

### Variable Overview

| Variable Name | Description               |
|---------------|---------------------------|
| C93Active     | Activates Code 93 Decoder |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC93Act  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 180   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN DCC93Act   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | DCC93Act | String | 8             | Activates Code 93 Decoder   |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DCC93Act <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC93Act | String | 8             | Activates Code 93 Decoder       |
| Variable Data           | data     | Bool   | 1             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN DCC93Act <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | DCC93Act | String | 8             | Activates Code 93 Decoder    |
| Variable Data       | data     | Bool   | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCC93Act             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC93Act | String | 8             | Activates Code 93 Decoder        |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCC93Act [ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC93Act 0 [ETX] |
| Write Variable:   | [STX]sWN DCC93Act 0 [ETX] |
| Write Variable Response:                                    | [STX]sWA DCC93Act [ETX]   |

### 2.7.1.65. Variable: C93MultiRead

The following section contains a detailed description of the variable C93MultiRead.

#### Variable Overview

| Variable Name | Description          |
|---------------|----------------------|
| C93MultiRead  | Multiread of Code 93 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC93Mr   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 181   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..100 |
| Initialisation       | 3      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN DCC93Mr    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | DCC93Mr  | String | 7             | Multiread of Code 93        |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DCC93Mr <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC93Mr  | String | 7             | Multiread of Code 93            |
| Variable Data           | data     | UInt   | 2             |                                 |



| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN DCC93Mr <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | DCC93Mr  | String | 7             | Multiread of Code 93         |
| Variable Data      | data     | UInt   | 2             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCC93Mr              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC93Mr  | String | 7             | Multiread of Code 93             |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN DCC93Mr[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC93Mr 3[ETX] |
| Write Variable:   | [STX]sWN DCC93Mr 3[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC93Mr[ETX]   |

### 2.7.1.66. Variable: C93LengthMode

The following section contains a detailed description of the variable C93LengthMode.

#### Variable Overview

| Variable Name | Description               |
|---------------|---------------------------|
| C93LengthMode | Codelength mode of Code93 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC93LenMode  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 182   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_Free     |             |
|               | 1     | TX_Interval |             |
|               | 2     | TX_Fix      |             |





## Variable Telegram Syntax

| Read Variable:   |              |        |               |                             |
|------------------|--------------|--------|---------------|-----------------------------|
| sRN DCC93LenMode |              |        |               |                             |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                 |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name |
| Command          | DCC93LenMode | String | 12            | Codelength mode of Code93   |

| Read Variable Response: |              |        |               |                                 |
|-------------------------|--------------|--------|---------------|---------------------------------|
| sRA DCC93LenMode <data> |              |        |               |                                 |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC93LenMode | String | 12            | Codelength mode of Code93       |
| Variable Data           | data         | Enum8  | 1             |                                 |

| Write Variable:         |              |        |               |                              |
|-------------------------|--------------|--------|---------------|------------------------------|
| sWN DCC93LenMode <data> |              |        |               |                              |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                  |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name |
| Command                 | DCC93LenMode | String | 12            | Codelength mode of Code93    |
| Variable Data           | data         | Enum8  | 1             |                              |

| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA DCC93LenMode         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC93LenMode | String | 12            | Codelength mode of Code93        |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN DCC93LenMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC93LenMode 0[ETX] |
| Write Variable:   | [STX]sWN DCC93LenMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC93LenMode[ETX]   |

### 2.7.1.67. Variable: C93FixLenList

The following section contains a detailed description of the variable C93FixLenList.

#### Variable Overview

| Variable Name | Description              |
|---------------|--------------------------|
| C93FixLenList | List of fix code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC93FixLen   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 183   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |        |
|----------------------|--------|
| Length               | 5      |
| <b>UDInt</b>         |        |
| Value Range          | 0..100 |
| Initialisation       | 0      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN DCC93FixLen |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | DCC93FixLen | String | 11            | List of fix code lengths    |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA DCC93FixLen <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC93FixLen | String | 11            | List of fix code lengths        |
| Variable Data           | data        | Array  | 20            |                                 |

| Write Variable:        |             |        |               |                              |
|------------------------|-------------|--------|---------------|------------------------------|
| sWN DCC93FixLen <data> |             |        |               |                              |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name |
| Command                | DCC93FixLen | String | 11            | List of fix code lengths     |
| Variable Data          | data        | Array  | 20            |                              |



| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DCC93FixLen          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC93FixLen | String | 11            | List of fix code lengths         |

## Variable Telegram Examples

| Example: Default Values                                     |                                       |
|---|---------------------------------------|
| Variable telegram examples with data set to default values. |                                       |
| Read Variable:  | [STX]sRN DCC93FixLen[ETX]             |
| Read Variable Response:                                     | [STX]sRA DCC93FixLen 0 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN DCC93FixLen 0 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC93FixLen[ETX]             |

### 2.7.1.68. Variable: C93IntLenList

The following section contains a detailed description of the variable C93IntLenList.

#### Variable Overview

| Variable Name | Description                   |
|---------------|-------------------------------|
| C93IntLenList | List of interval code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC93IntLen   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 184   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |        |
|--------|----------------------|--------|
| Length |                      | 2      |
|        | UDInt                |        |
|        | Value Range          | 0..100 |
|        | Initialisation       | 0      |
|        | Physical Unit        |        |
|        | Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                               |
|-----------------|-------------|--------|---------------|-------------------------------|
| sRN DCC93IntLen |             |        |               |                               |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name   |
| Command         | DCC93IntLen | String | 11            | List of interval code lengths |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA DCC93IntLen <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC93IntLen | String | 11            | List of interval code lengths   |
| Variable Data           | data        | Array  | 8             |                                 |

| Write Variable:        |             |        |               |                               |
|------------------------|-------------|--------|---------------|-------------------------------|
| sWN DCC93IntLen <data> |             |        |               |                               |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name  |
| Command                | DCC93IntLen | String | 11            | List of interval code lengths |
| Variable Data          | data        | Array  | 8             |                               |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DCC93IntLen          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC93IntLen | String | 11            | List of interval code lengths    |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN DCC93IntLen[ETX]     |
| Read Variable Response:                                     | [STX]sRA DCC93IntLen 0 0[ETX] |
| Write Variable:   | [STX]sWN DCC93IntLen 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC93IntLen[ETX]     |



### 2.7.1.69. Variable: C93HexASCIIOutput

The following section contains a detailed description of the variable C93HexASCIIOutput.

#### Variable Overview

| Variable Name     | Description                 |
|-------------------|-----------------------------|
| C93HexASCIIOutput | Hex ASCII Output of Code 93 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC93HxAOut   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 185   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN DCC93HxAOut |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | DCC93HxAOut | String | 11            | Hex ASCII Output of Code 93 |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA DCC93HxAOut <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC93HxAOut | String | 11            | Hex ASCII Output of Code 93     |
| Variable Data           | data        | Bool   | 1             |                                 |

| Write Variable:        |             |        |               |                              |
|------------------------|-------------|--------|---------------|------------------------------|
| sWN DCC93HxAOut <data> |             |        |               |                              |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name |
| Command                | DCC93HxAOut | String | 11            | Hex ASCII Output of Code 93  |
| Variable Data          | data        | Bool   | 1             |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DCC93HxAOut          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC93HxAOut | String | 11            | Hex ASCII Output of Code 93      |



## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN DCC93HxAOut [ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC93HxAOut 0 [ETX] |
| Write Variable:   | [STX]sWN DCC93HxAOut 0 [ETX] |
| Write Variable Response:                                    | [STX]sWA DCC93HxAOut [ETX]   |

### 2.7.1.70. Variable: C93AllowIncomplete

The following section contains a detailed description of the variable C93AllowIncomplete.

#### Variable Overview

| Variable Name      | Description                                |
|--------------------|--|
| C93AllowIncomplete | Allows reading of incomplete code 93 codes |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC93Incmp  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 186   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN DCC93Incmp |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                                |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                |
| Command        | DCC93Incmp | String | 10            | Allows reading of incomplete code 93 codes |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA DCC93Incmp <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                                |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge            |
| Command                 | DCC93Incmp | String | 10            | Allows reading of incomplete code 93 codes |
| Variable Data           | data       | Bool   | 1             |  |



| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN DCC93Incmp <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                                |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name               |
| Command               | DCC93Incmp | String | 10            | Allows reading of incomplete code 93 codes |
| Variable Data         | data       | Bool   | 1             |  |

| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA DCC93Incmp           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                                |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge           |
| Command                  | DCC93Incmp | String | 10            | Allows reading of incomplete code 93 codes |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DCC93Incmp[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC93Incmp 0[ETX] |
| Write Variable:   | [STX]sWN DCC93Incmp 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC93Incmp[ETX]   |

### 2.7.1.71. Variable: C93MinCharsIncomplete

The following section contains a detailed description of the variable C93MinCharsIncomplete.

#### Variable Overview

| Variable Name         | Description   |
|-----------------------|---|
| C93MinCharsIncomplete | Minimum number of charactes If incomplete code 93 codes are allowed |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC93MinIncmp   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 187   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |       |
|----------------------|-------|
| Value Range          | 2..50 |
| Initialisation       | 5     |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |



## Variable Telegram Syntax

| Read Variable:    |               |        |               |   |
|-------------------|---------------|--------|---------------|---|
| sRN DCC93MinIncmp |               |        |               |   |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description   |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name   |
| Command           | DCC93MinIncmp | String | 13            | Minimum number of charactes If incomplete code 93 codes are allowed |

| Read Variable Response:  |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sRA DCC93MinIncmp <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description   |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge                                     |
| Command                  | DCC93MinIncmp | String | 13            | Minimum number of charactes If incomplete code 93 codes are allowed |
| Variable Data            | data          | UInt   | 2             |   |

| Write Variable:          |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWN DCC93MinIncmp <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description   |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name  |
| Command                  | DCC93MinIncmp | String | 13            | Minimum number of charactes If incomplete code 93 codes are allowed |
| Variable Data            | data          | UInt   | 2             |   |

| Write Variable Response: |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWA DCC93MinIncmp        |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description   |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge                                    |
| Command                  | DCC93MinIncmp | String | 13            | Minimum number of charactes If incomplete code 93 codes are allowed |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN DCC93MinIncmp[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC93MinIncmp 5[ETX] |
| Write Variable:   | [STX]sWN DCC93MinIncmp 5[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC93MinIncmp[ETX]   |





### 2.7.1.72. Variable: C128FamiliyActive

The following section contains a detailed description of the variable C128FamiliyActive.

#### Variable Overview

| Variable Name     | Description                       |
|-------------------|-----------------------------------|
| C128FamiliyActive | Activates Family Code 128 Decoder |

|                       |   |
|-----------------------|---|
| Communication Name    | DCFam128Act   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 188   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                                   |
|-----------------|-------------|--------|---------------|-----------------------------------|
| sRN DCFam128Act |             |        |               |                                   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                       |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name       |
| Command         | DCFam128Act | String | 11            | Activates Family Code 128 Decoder |

| Read Variable Response: |             |        |               |                                   |
|-------------------------|-------------|--------|---------------|-----------------------------------|
| sRA DCFam128Act <data>  |             |        |               |                                   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                       |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | DCFam128Act | String | 11            | Activates Family Code 128 Decoder |
| Variable Data           | data        | Bool   | 1             |                                   |

| Write Variable:        |             |        |               |                                   |
|------------------------|-------------|--------|---------------|-----------------------------------|
| sWN DCFam128Act <data> |             |        |               |                                   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                       |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name      |
| Command                | DCFam128Act | String | 11            | Activates Family Code 128 Decoder |
| Variable Data          | data        | Bool   | 1             |                                   |

| Write Variable Response: |             |        |               |                                   |
|--------------------------|-------------|--------|---------------|-----------------------------------|
| sWA DCFam128Act          |             |        |               |                                   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                       |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | DCFam128Act | String | 11            | Activates Family Code 128 Decoder |



## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN DCFam128Act[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCFam128Act 1[ETX] |
| Write Variable:   | [STX]sWN DCFam128Act 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DCFam128Act[ETX]   |

### 2.7.1.73. Variable: C128Active

The following section contains a detailed description of the variable C128Active.

#### Variable Overview

| Variable Name | Description                |
|---------------|----------------------------|
| C128Active    | Activates Code 128 Decoder |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC128Act   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 189   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN DCC128Act  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | DCC128Act | String | 9             | Activates Code 128 Decoder  |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DCC128Act <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC128Act | String | 9             | Activates Code 128 Decoder      |
| Variable Data           | data      | Bool   | 1             |                                 |



| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN DCC128Act <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | DCC128Act | String | 9             | Activates Code 128 Decoder   |
| Variable Data        | data      | Bool   | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA DCC128Act            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC128Act | String | 9             | Activates Code 128 Decoder       |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCC128Act[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC128Act 1[ETX] |
| Write Variable:   | [STX]sWN DCC128Act 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC128Act[ETX]   |

### 2.7.1.74. Variable: EAN128Active

The following section contains a detailed description of the variable EAN128Active.

#### Variable Overview

| Variable Name | Description       |
|---------------|-------------------|
| EAN128Active  | Activates EAN 128 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCEAN128Act   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 190   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN DCEAN128Act |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | DCEAN128Act | String | 11            | Activates EAN 128           |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA DCEAN128Act <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCEAN128Act | String | 11            | Activates EAN 128               |
| Variable Data           | data        | Bool   | 1             |                                 |

| Write Variable:        |             |        |               |                              |
|------------------------|-------------|--------|---------------|------------------------------|
| sWN DCEAN128Act <data> |             |        |               |                              |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name |
| Command                | DCEAN128Act | String | 11            | Activates EAN 128            |
| Variable Data          | data        | Bool   | 1             |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DCEAN128Act          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCEAN128Act | String | 11            | Activates EAN 128                |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN DCEAN128Act[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCEAN128Act 0[ETX] |
| Write Variable:   | [STX]sWN DCEAN128Act 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCEAN128Act[ETX]   |

### 2.7.1.75. Variable: C128MultiRead

The following section contains a detailed description of the variable C128MultiRead.

#### Variable Overview

| Variable Name | Description           |
|---------------|-----------------------|
| C128MultiRead | Multiread of Code 128 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC128Mr  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 191   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..100 |
| Initialisation       | 3      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN DCC128Mr   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | DCC128Mr | String | 8             | Multiread of Code 128       |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DCC128Mr <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC128Mr | String | 8             | Multiread of Code 128           |
| Variable Data           | data     | UInt   | 2             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN DCC128Mr <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | DCC128Mr | String | 8             | Multiread of Code 128        |
| Variable Data       | data     | UInt   | 2             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCC128Mr             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC128Mr | String | 8             | Multiread of Code 128            |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCC128Mr [ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC128Mr 3 [ETX] |
| Write Variable:   | [STX]sWN DCC128Mr 3 [ETX] |
| Write Variable Response:                                    | [STX]sWA DCC128Mr [ETX]   |

### 2.7.1.76. Variable: C128CheckDigitTestL1

The following section contains a detailed description of the variable C128CheckDigitTestL1.

#### Variable Overview

| Variable Name        | Description                           |
|----------------------|---------------------------------------|
| C128CheckDigitTestL1 | Check Digit Test for Code128 Length 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC128CdTstL1   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 192   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_None     |             |
|               | 1     | TX_GROUND96 |             |
|               | 2     | TX_SSCC18   |             |
|               | 3     | TX_W8M11    |             |



## Variable Telegram Syntax

| Read Variable:    |               |        |               |                                       |
|-------------------|---------------|--------|---------------|---------------------------------------|
| sRN DCC128CdTstL1 |               |        |               |                                       |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name           |
| Command           | DCC128CdTstL1 | String | 13            | Check Digit Test for Code128 Length 1 |

| Read Variable Response:  |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sRA DCC128CdTstL1 <data> |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                  | DCC128CdTstL1 | String | 13            | Check Digit Test for Code128 Length 1 |
| Variable Data            | data          | Enum8  | 1             |                                       |

| Write Variable:          |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sWN DCC128CdTstL1 <data> |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name          |
| Command                  | DCC128CdTstL1 | String | 13            | Check Digit Test for Code128 Length 1 |
| Variable Data            | data          | Enum8  | 1             |                                       |

| Write Variable Response: |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sWA DCC128CdTstL1        |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | DCC128CdTstL1 | String | 13            | Check Digit Test for Code128 Length 1 |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN DCC128CdTstL1[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC128CdTstL1 0[ETX] |
| Write Variable:   | [STX]sWN DCC128CdTstL1 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC128CdTstL1[ETX]   |

### 2.7.1.77. Variable: C128CheckDigitTestL2

The following section contains a detailed description of the variable C128CheckDigitTestL2.

#### Variable Overview

| Variable Name        | Description                           |
|----------------------|---------------------------------------|
| C128CheckDigitTestL2 | Check Digit Test for Code128 Length 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC128CdTstL2   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 193   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |             |             |  |
|---------------|-------------|-------------|--|
| Default Value |             | 0           |  |
| Value         | Name        | Description |  |
| 0             | TX_None     |             |  |
| 1             | TX_GROUND96 |             |  |
| 2             | TX_SSCC18   |             |  |
| 3             | TX_W8M11    |             |  |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |                                       |
|-------------------|---------------|--------|---------------|---------------------------------------|
| sRN DCC128CdTstL2 |               |        |               |                                       |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name           |
| Command           | DCC128CdTstL2 | String | 13            | Check Digit Test for Code128 Length 2 |

| Read Variable Response:  |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sRA DCC128CdTstL2 <data> |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                  | DCC128CdTstL2 | String | 13            | Check Digit Test for Code128 Length 2 |
| Variable Data            | data          | Enum8  | 1             |                                       |

| Write Variable:          |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sWN DCC128CdTstL2 <data> |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name          |
| Command                  | DCC128CdTstL2 | String | 13            | Check Digit Test for Code128 Length 2 |
| Variable Data            | data          | Enum8  | 1             |                                       |





| Write Variable Response: |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sWA DCC128CdTstL2        |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | DCC128CdTstL2 | String | 13            | Check Digit Test for Code128 Length 2 |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN DCC128CdTstL2[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC128CdTstL2 0[ETX] |
| Write Variable:   | [STX]sWN DCC128CdTstL2 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC128CdTstL2[ETX]   |

### 2.7.1.78. Variable: C128CheckDigitTestL3

The following section contains a detailed description of the variable C128CheckDigitTestL3.

#### Variable Overview

| Variable Name        | Description                           |
|----------------------|---------------------------------------|
| C128CheckDigitTestL3 | Check Digit Test for Code128 Length 3 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC128CdTstL3   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 194   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_None     |             |
|               | 1     | TX_GROUND96 |             |
|               | 2     | TX_SSCC18   |             |
|               | 3     | TX_W8M11    |             |



## Variable Telegram Syntax

| Read Variable:    |               |        |               |                                       |
|-------------------|---------------|--------|---------------|---------------------------------------|
| sRN DCC128CdTstL3 |               |        |               |                                       |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name           |
| Command           | DCC128CdTstL3 | String | 13            | Check Digit Test for Code128 Length 3 |

| Read Variable Response:  |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sRA DCC128CdTstL3 <data> |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                  | DCC128CdTstL3 | String | 13            | Check Digit Test for Code128 Length 3 |
| Variable Data            | data          | Enum8  | 1             |                                       |

| Write Variable:          |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sWN DCC128CdTstL3 <data> |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name          |
| Command                  | DCC128CdTstL3 | String | 13            | Check Digit Test for Code128 Length 3 |
| Variable Data            | data          | Enum8  | 1             |                                       |

| Write Variable Response: |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sWA DCC128CdTstL3        |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | DCC128CdTstL3 | String | 13            | Check Digit Test for Code128 Length 3 |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN DCC128CdTstL3[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC128CdTstL3 0[ETX] |
| Write Variable:   | [STX]sWN DCC128CdTstL3 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC128CdTstL3[ETX]   |

### 2.7.1.79. Variable: C128CheckDigitTestL4

The following section contains a detailed description of the variable C128CheckDigitTestL4.

#### Variable Overview

| Variable Name        | Description                           |
|----------------------|---------------------------------------|
| C128CheckDigitTestL4 | Check Digit Test for Code128 Length 4 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC128CdTstL4   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 195   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |             |             |  |
|---------------|-------------|-------------|--|
| Default Value |             | 0           |  |
| Value         | Name        | Description |  |
| 0             | TX_None     |             |  |
| 1             | TX_GROUND96 |             |  |
| 2             | TX_SSCC18   |             |  |
| 3             | TX_W8M11    |             |  |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |                                       |
|-------------------|---------------|--------|---------------|---------------------------------------|
| sRN DCC128CdTstL4 |               |        |               |                                       |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name           |
| Command           | DCC128CdTstL4 | String | 13            | Check Digit Test for Code128 Length 4 |

| Read Variable Response:  |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sRA DCC128CdTstL4 <data> |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                  | DCC128CdTstL4 | String | 13            | Check Digit Test for Code128 Length 4 |
| Variable Data            | data          | Enum8  | 1             |                                       |

| Write Variable:          |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sWN DCC128CdTstL4 <data> |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name          |
| Command                  | DCC128CdTstL4 | String | 13            | Check Digit Test for Code128 Length 4 |
| Variable Data            | data          | Enum8  | 1             |                                       |



| Write Variable Response: |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sWA DCC128CdTstL4        |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | DCC128CdTstL4 | String | 13            | Check Digit Test for Code128 Length 4 |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN DCC128CdTstL4[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC128CdTstL4 0[ETX] |
| Write Variable:   | [STX]sWN DCC128CdTstL4 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC128CdTstL4[ETX]   |

### 2.7.1.80. Variable: C128CheckDigitTestL5

The following section contains a detailed description of the variable C128CheckDigitTestL5.

#### Variable Overview

| Variable Name        | Description                           |
|----------------------|---------------------------------------|
| C128CheckDigitTestL5 | Check Digit Test for Code128 Length 5 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC128CdTstL5   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 196   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_None     |             |
|               | 1     | TX_GROUND96 |             |
|               | 2     | TX_SSCC18   |             |
|               | 3     | TX_W8M11    |             |



## Variable Telegram Syntax

| Read Variable:    |               |        |               |                                       |
|-------------------|---------------|--------|---------------|---------------------------------------|
| sRN DCC128CdTstL5 |               |        |               |                                       |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name           |
| Command           | DCC128CdTstL5 | String | 13            | Check Digit Test for Code128 Length 5 |

| Read Variable Response:  |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sRA DCC128CdTstL5 <data> |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                  | DCC128CdTstL5 | String | 13            | Check Digit Test for Code128 Length 5 |
| Variable Data            | data          | Enum8  | 1             |                                       |

| Write Variable:          |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sWN DCC128CdTstL5 <data> |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name          |
| Command                  | DCC128CdTstL5 | String | 13            | Check Digit Test for Code128 Length 5 |
| Variable Data            | data          | Enum8  | 1             |                                       |

| Write Variable Response: |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sWA DCC128CdTstL5        |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | DCC128CdTstL5 | String | 13            | Check Digit Test for Code128 Length 5 |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN DCC128CdTstL5[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC128CdTstL5 0[ETX] |
| Write Variable:   | [STX]sWN DCC128CdTstL5 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC128CdTstL5[ETX]   |



### 2.7.1.81. Variable: C128LengthMode

The following section contains a detailed description of the variable C128LengthMode.

#### Variable Overview

| Variable Name  | Description                |
|----------------|----------------------------|
| C128LengthMode | Codelength mode of Code128 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC128LenMode   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 197   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_Free     |             |
|               | 1     | TX_Interval |             |
|               | 2     | TX_Fix      |             |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |                             |
|-------------------|---------------|--------|---------------|-----------------------------|
| sRN DCC128LenMode |               |        |               |                             |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                 |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name |
| Command           | DCC128LenMode | String | 13            | Codelength mode of Code128  |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA DCC128LenMode <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | DCC128LenMode | String | 13            | Codelength mode of Code128      |
| Variable Data            | data          | Enum8  | 1             |                                 |

| Write Variable:          |               |        |               |                              |
|--------------------------|---------------|--------|---------------|------------------------------|
| sWN DCC128LenMode <data> |               |        |               |                              |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                  |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name |
| Command                  | DCC128LenMode | String | 13            | Codelength mode of Code128   |
| Variable Data            | data          | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCC128LenMode        |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |               |        |               |                            |
|--------------------------|---------------|--------|---------------|----------------------------|
| sWA DCC128LenMode        |               |        |               |                            |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                |
| Command                  | DCC128LenMode | String | 13            | Codelength mode of Code128 |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| <b>Read Variable:</b>                                       | [STX]sRN DCC128LenMode[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA DCC128LenMode 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DCC128LenMode 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DCC128LenMode[ETX]   |

### 2.7.1.82. Variable: C128FixLenList

The following section contains a detailed description of the variable C128FixLenList.

#### Variable Overview

| Variable Name  | Description              |
|----------------|--------------------------|
| C128FixLenList | List of fix code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC128FixLen  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 198   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |        |
|--------|----------------------|--------|
| Length |                      | 5      |
|        | UDInt                |        |
|        | Value Range          | 0..100 |
|        | Initialisation       | 0      |
|        | Physical Unit        |        |
|        | Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |                             |
|------------------|--------------|--------|---------------|-----------------------------|
| sRN DCC128FixLen |              |        |               |                             |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                 |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name |
| Command          | DCC128FixLen | String | 12            | List of fix code lengths    |

| Read Variable Response: |              |        |               |                                 |
|-------------------------|--------------|--------|---------------|---------------------------------|
| sRA DCC128FixLen <data> |              |        |               |                                 |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC128FixLen | String | 12            | List of fix code lengths        |
| Variable Data           | data         | Array  | 20            |                                 |

| Write Variable:         |              |        |               |                              |
|-------------------------|--------------|--------|---------------|------------------------------|
| sWN DCC128FixLen <data> |              |        |               |                              |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                  |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name |
| Command                 | DCC128FixLen | String | 12            | List of fix code lengths     |
| Variable Data           | data         | Array  | 20            |                              |

| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA DCC128FixLen         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC128FixLen | String | 12            | List of fix code lengths         |

## Variable Telegram Examples

| Example: Default Values                                     |                                      |
|---|--------------------------------------|
| Variable telegram examples with data set to default values. |                                      |
| Read Variable:  | [STX]sRN DCC128FixLen[ETX]           |
| Read Variable Response:                                     | [STX]sRA DCC128FixLen 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN DCC128FixLen 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC128FixLen[ETX]           |





### 2.7.1.83. Variable: C128IntLenList

The following section contains a detailed description of the variable C128IntLenList.

#### Variable Overview

| Variable Name  | Description                   |
|----------------|-------------------------------|
| C128IntLenList | List of interval code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC128IntLen  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 199   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |        |
|--------|----------------------|--------|
| Length |                      | 2      |
|        | UDInt                |        |
|        | Value Range          | 0..100 |
|        | Initialisation       | 0      |
|        | Physical Unit        |        |
|        | Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |                               |
|------------------|--------------|--------|---------------|-------------------------------|
| sRN DCC128IntLen |              |        |               |                               |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                   |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name   |
| Command          | DCC128IntLen | String | 12            | List of interval code lengths |

| Read Variable Response: |              |        |               |                                 |
|-------------------------|--------------|--------|---------------|---------------------------------|
| sRA DCC128IntLen <data> |              |        |               |                                 |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC128IntLen | String | 12            | List of interval code lengths   |
| Variable Data           | data         | Array  | 8             |                                 |

| Write Variable:         |              |        |               |                               |
|-------------------------|--------------|--------|---------------|-------------------------------|
| sWN DCC128IntLen <data> |              |        |               |                               |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                   |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name  |
| Command                 | DCC128IntLen | String | 12            | List of interval code lengths |
| Variable Data           | data         | Array  | 8             |                               |



| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA DCC128IntLen         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC128IntLen | String | 12            | List of interval code lengths    |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN DCC128IntLen[ETX]     |
| Read Variable Response:                                     | [STX]sRA DCC128IntLen 0 0[ETX] |
| Write Variable:   | [STX]sWN DCC128IntLen 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC128IntLen[ETX]     |

### 2.7.1.84. Variable: C128HexASCIIOutput

The following section contains a detailed description of the variable C128HexASCIIOutput.

#### Variable Overview

| Variable Name      | Description                  |
|--------------------|------------------------------|
| C128HexASCIIOutput | Hex ASCII Output of Code 128 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC128HxAOut  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 200   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |                              |
|------------------|--------------|--------|---------------|------------------------------|
| sRN DCC128HxAOut |              |        |               |                              |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                  |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name  |
| Command          | DCC128HxAOut | String | 12            | Hex ASCII Output of Code 128 |

| Read Variable Response: |              |        |               |                                 |
|-------------------------|--------------|--------|---------------|---------------------------------|
| sRA DCC128HxAOut <data> |              |        |               |                                 |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCC128HxAOut | String | 12            | Hex ASCII Output of Code 128    |
| Variable Data           | data         | Bool   | 1             |                                 |

| Write Variable:         |              |        |               |                              |
|-------------------------|--------------|--------|---------------|------------------------------|
| sWN DCC128HxAOut <data> |              |        |               |                              |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                  |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name |
| Command                 | DCC128HxAOut | String | 12            | Hex ASCII Output of Code 128 |
| Variable Data           | data         | Bool   | 1             |                              |

| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA DCC128HxAOut         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCC128HxAOut | String | 12            | Hex ASCII Output of Code 128     |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN DCC128HxAOut[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC128HxAOut 0[ETX] |
| Write Variable:   | [STX]sWN DCC128HxAOut 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC128HxAOut[ETX]   |

### 2.7.1.85. Variable: EAN128FirstFC1Val

The following section contains a detailed description of the variable EAN128FirstFC1Val.

#### Variable Overview

| Variable Name     | Description                                 |
|-------------------|---|
| EAN128FirstFC1Val | FC1 replace values if FC1 on first position |

|                       |   |
|-----------------------|---|
| Communication Name    | DCEAN1281stFc1  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 201   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array         |                      |
|---------------|----------------------|
| Length        | 3                    |
| Default Value | {93,67,49}           |
|               | <b>USInt</b>         |
|               | Value Range          |
|               | Initialisation       |
|               | Physical Unit        |
|               | Physical Unit Factor |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |   |
|--------------------|----------------|--------|---------------|---|
| sRN DCEAN1281stFc1 |                |        |               |   |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                                 |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name                 |
| Command            | DCEAN1281stFc1 | String | 14            | FC1 replace values if FC1 on first position |

| Read Variable Response:   |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sRA DCEAN1281stFc1 <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                                 |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge             |
| Command                   | DCEAN1281stFc1 | String | 14            | FC1 replace values if FC1 on first position |
| Variable Data             | data           | Array  | 3             |   |

| Write Variable:           |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sWN DCEAN1281stFc1 <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                                 |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name                |
| Command                   | DCEAN1281stFc1 | String | 14            | FC1 replace values if FC1 on first position |
| Variable Data             | data           | Array  | 3             |   |



| Write Variable Response: |                |        |               |   |
|--------------------------|----------------|--------|---------------|---|
| sWA DCEAN1281stFc1       |                |        |               |   |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                                 |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge            |
| Command                  | DCEAN1281stFc1 | String | 14            | FC1 replace values if FC1 on first position |

## Variable Telegram Examples

| Example: Default Values                                     |                                       |
|---|---------------------------------------|
| Variable telegram examples with data set to default values. |                                       |
| Read Variable:  | [STX]sRN DCEAN1281stFc1[ETX]          |
| Read Variable Response:                                     | [STX]sRA DCEAN1281stFc1 5D 43 31[ETX] |
| Write Variable:   | [STX]sWN DCEAN1281stFc1 5D 43 31[ETX] |
| Write Variable Response:                                    | [STX]sWA DCEAN1281stFc1[ETX]          |

### 2.7.1.86. Variable: EAN128InsideFC1Val

The following section contains a detailed description of the variable EAN128InsideFC1Val.

#### Variable Overview

| Variable Name      | Description                           |
|--------------------|---------------------------------------|
| EAN128InsideFC1Val | FC1 replace values if FC1 within code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCEAN128InsFc1  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 202   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array         |                      |          |
|---------------|----------------------|----------|
| Length        |                      | 3        |
| Default Value |                      | {29,0,0} |
|               | USInt                |          |
|               | Value Range          | 0..255   |
|               | Initialisation       |          |
|               | Physical Unit        |          |
|               | Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |                                       |
|--------------------|----------------|--------|---------------|---------------------------------------|
| sRN DCEAN128InsFc1 |                |        |               |                                       |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                           |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name           |
| Command            | DCEAN128InsFc1 | String | 14            | FC1 replace values if FC1 within code |

| Read Variable Response:   |                |        |               |                                       |
|---------------------------|----------------|--------|---------------|---------------------------------------|
| sRA DCEAN128InsFc1 <data> |                |        |               |                                       |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                           |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                   | DCEAN128InsFc1 | String | 14            | FC1 replace values if FC1 within code |
| Variable Data             | data           | Array  | 3             |                                       |

| Write Variable:           |                |        |               |                                       |
|---------------------------|----------------|--------|---------------|---------------------------------------|
| sWN DCEAN128InsFc1 <data> |                |        |               |                                       |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                           |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name          |
| Command                   | DCEAN128InsFc1 | String | 14            | FC1 replace values if FC1 within code |
| Variable Data             | data           | Array  | 3             |                                       |

| Write Variable Response: |                |        |               |                                       |
|--------------------------|----------------|--------|---------------|---------------------------------------|
| sWA DCEAN128InsFc1       |                |        |               |                                       |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                           |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | DCEAN128InsFc1 | String | 14            | FC1 replace values if FC1 within code |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| Read Variable:  | [STX]sRN DCEAN128InsFc1[ETX]        |
| Read Variable Response:                                     | [STX]sRA DCEAN128InsFc1 1D 0 0[ETX] |
| Write Variable:   | [STX]sWN DCEAN128InsFc1 1D 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCEAN128InsFc1[ETX]        |

### 2.7.1.87. Variable: C128AllowIncomplete

The following section contains a detailed description of the variable C128AllowIncomplete.

#### Variable Overview

| Variable Name       | Description                                 |
|---------------------|---|
| C128AllowIncomplete | Allows reading of incomplete code 128 codes |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC128Incmp   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 203   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN DCC128Incmp |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                 |
| Command         | DCC128Incmp | String | 11            | Allows reading of incomplete code 128 codes |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA DCC128Incmp <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                 |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge             |
| Command                 | DCC128Incmp | String | 11            | Allows reading of incomplete code 128 codes |
| Variable Data           | data        | Bool   | 1             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN DCC128Incmp <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                 |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                |
| Command                | DCC128Incmp | String | 11            | Allows reading of incomplete code 128 codes |
| Variable Data          | data        | Bool   | 1             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA DCC128Incmp          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                 |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge            |
| Command                  | DCC128Incmp | String | 11            | Allows reading of incomplete code 128 codes |



## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| <b>Read Variable:</b>                                       | [STX]sRN DCC128Incmp[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA DCC128Incmp 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DCC128Incmp 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DCC128Incmp[ETX]   |

### 2.7.1.88. Variable: C128MinCharsIncomplete

The following section contains a detailed description of the variable C128MinCharsIncomplete.

#### Variable Overview

| Variable Name          | Description  |
|------------------------|--|
| C128MinCharsIncomplete | Minimum number of charactes If incomplete code0128 codes are allowed |

|                       |   |
|-----------------------|---|
| Communication Name    | DCC128MinIncmp  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 204   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |       |
|----------------------|-------|
| Value Range          | 2..50 |
| Initialisation       | 5     |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |  |
|--------------------|----------------|--------|---------------|--|
| sRN DCC128MinIncmp |                |        |               |  |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description  |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name  |
| Command            | DCC128MinIncmp | String | 14            | Minimum number of charactes If incomplete code0128 codes are allowed |

| Read Variable Response:   |                |        |               |  |
|---------------------------|----------------|--------|---------------|--|
| sRA DCC128MinIncmp <data> |                |        |               |  |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description  |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge                                      |
| Command                   | DCC128MinIncmp | String | 14            | Minimum number of charactes If incomplete code0128 codes are allowed |
| Variable Data             | data           | UInt   | 2             |  |





| Write Variable:           |                |        |               |  |
|---------------------------|----------------|--------|---------------|--|
| sWN DCC128MinIncmp <data> |                |        |               |  |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description  |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name   |
| Command                   | DCC128MinIncmp | String | 14            | Minimum number of charactes If incomplete code0128 codes are allowed |
| Variable Data             | data           | UInt   | 2             |  |

| Write Variable Response: |                |        |               |  |
|--------------------------|----------------|--------|---------------|--|
| sWA DCC128MinIncmp       |                |        |               |  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description  |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge                                     |
| Command                  | DCC128MinIncmp | String | 14            | Minimum number of charactes If incomplete code0128 codes are allowed |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN DCC128MinIncmp[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCC128MinIncmp 5[ETX] |
| Write Variable:   | [STX]sWN DCC128MinIncmp 5[ETX] |
| Write Variable Response:                                    | [STX]sWA DCC128MinIncmp[ETX]   |

### 2.7.1.89. Variable: PharmaActive

The following section contains a detailed description of the variable PharmaActive.

#### Variable Overview

| Variable Name | Description              |
|---------------|--------------------------|
| PharmaActive  | Activates Pharma Decoder |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPhrmAct   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 205   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN DCPhrmAct  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | DCPhrmAct | String | 9             | Activates Pharma Decoder    |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DCPhrmAct <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCPhrmAct | String | 9             | Activates Pharma Decoder        |
| Variable Data           | data      | Bool   | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN DCPhrmAct <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | DCPhrmAct | String | 9             | Activates Pharma Decoder     |
| Variable Data        | data      | Bool   | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA DCPhrmAct            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPhrmAct | String | 9             | Activates Pharma Decoder         |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCPhrmAct[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPhrmAct 0[ETX] |
| Write Variable:   | [STX]sWN DCPhrmAct 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPhrmAct[ETX]   |

### 2.7.1.90. Variable: PharmMultiRead

The following section contains a detailed description of the variable PharmMultiRead.

#### Variable Overview

| Variable Name  | Description             |
|----------------|-------------------------|
| PharmMultiRead | Multiread of Pharmacode |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPhrmMr  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 206   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..100 |
| Initialisation       | 3      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN DCPhrmMr   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | DCPhrmMr | String | 8             | Multiread of Pharmacode     |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DCPhrmMr <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCPhrmMr | String | 8             | Multiread of Pharmacode         |
| Variable Data           | data     | UInt   | 2             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN DCPhrmMr <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | DCPhrmMr | String | 8             | Multiread of Pharmacode      |
| Variable Data       | data     | UInt   | 2             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCPhrmMr             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPhrmMr | String | 8             | Multiread of Pharmacode          |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCPhrmMr [ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPhrmMr 3 [ETX] |
| Write Variable:   | [STX]sWN DCPhrmMr 3 [ETX] |
| Write Variable Response:                                    | [STX]sWA DCPhrmMr [ETX]   |

### 2.7.1.91. Variable: PharmModuleWidthMode

The following section contains a detailed description of the variable PharmModuleWidthMode.

#### Variable Overview

| Variable Name        | Description   |
|----------------------|---|
| PharmModuleWidthMode | Mode at which allowed module widths of pharma codes are handled |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPhrmMdWdMd  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 207   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                 |             |
|---------------|-------|-----------------|-------------|
| Default Value |       | 0               |             |
|               | Value | Name            | Description |
|               | 0     | TX_AUTO         |             |
|               | 1     | TX_USER_DEFINED |             |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |   |
|------------------|--------------|--------|---------------|---|
| sRN DCPhrmMdWdMd |              |        |               |   |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description   |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name                                     |
| Command          | DCPhrmMdWdMd | String | 12            | Mode at which allowed module widths of pharma codes are handled |

| Read Variable Response: |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sRA DCPhrmMdWdMd <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description   |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge                                 |
| Command                 | DCPhrmMdWdMd | String | 12            | Mode at which allowed module widths of pharma codes are handled |
| Variable Data           | data         | Enum8  | 1             |   |



| Write Variable:         |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sWN DCPHrmMdWdMd <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description   |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name                                    |
| Command                 | DCPhrmMdWdMd | String | 12            | Mode at which allowed module widths of pharma codes are handled |
| Variable Data           | data         | Enum8  | 1             |   |

| Write Variable Response: |              |        |               |   |
|--------------------------|--------------|--------|---------------|---|
| sWA DCPHrmMdWdMd         |              |        |               |   |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description   |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge                                |
| Command                  | DCPhrmMdWdMd | String | 12            | Mode at which allowed module widths of pharma codes are handled |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN DCPHrmMdWdMd[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPHrmMdWdMd 0[ETX] |
| Write Variable:   | [STX]sWN DCPHrmMdWdMd 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPHrmMdWdMd[ETX]   |

### 2.7.1.92. Variable: PharmModuleWidthUserDefined

The following section contains a detailed description of the variable PharmModuleWidthUserDefined.

#### Variable Overview

| Variable Name               | Description   |
|-----------------------------|---|
| PharmModuleWidthUserDefined | Classification limit if PharmModuleWidthMode is user defined. |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPhrmMdWdUs  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 208   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Real                 |                                      |
|----------------------|--------------------------------------|
| Value Range          | See specification IEEE 754 0.2..0.50 |
| Initialisation       | 0.35                                 |
| Physical Unit        |                                      |
| Physical Unit Factor | 0.0                                  |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |   |
|------------------|--------------|--------|---------------|---|
| sRN DCPHrmMdWdUs |              |        |               |   |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description   |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name                                   |
| Command          | DCPHrmMdWdUs | String | 12            | Classification limit if PharmModuleWidthMode is user defined. |

| Read Variable Response: |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sRA DCPHrmMdWdUs <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description   |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge                               |
| Command                 | DCPHrmMdWdUs | String | 12            | Classification limit if PharmModuleWidthMode is user defined. |
| Variable Data           | data         | Real   | 4             |   |

| Write Variable:         |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sWN DCPHrmMdWdUs <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description   |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name                                  |
| Command                 | DCPHrmMdWdUs | String | 12            | Classification limit if PharmModuleWidthMode is user defined. |
| Variable Data           | data         | Real   | 4             |   |

| Write Variable Response: |              |        |               |   |
|--------------------------|--------------|--------|---------------|---|
| sWA DCPHrmMdWdUs         |              |        |               |   |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description   |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge                              |
| Command                  | DCPHrmMdWdUs | String | 12            | Classification limit if PharmModuleWidthMode is user defined. |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| Read Variable:  | [STX]sRN DCPHrmMdWdUs[ETX]          |
| Read Variable Response:                                     | [STX]sRA DCPHrmMdWdUs 3EB33333[ETX] |
| Write Variable:   | [STX]sWN DCPHrmMdWdUs +0.35[ETX]    |
| Write Variable Response:                                    | [STX]sWA DCPHrmMdWdUs[ETX]          |



### 2.7.1.93. Variable: PharmLength

The following section contains a detailed description of the variable PharmLength.

#### Variable Overview

| Variable Name | Description           |
|---------------|-----------------------|
| PharmLength   | Length of pharma code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPhrmLen   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 209   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |       |
|----------------------|-------|
| Value Range          | 4..20 |
| Initialisation       | 4     |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN DCPhrmLen  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | DCPhrmLen | String | 9             | Length of pharma code       |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DCPhrmLen <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCPhrmLen | String | 9             | Length of pharma code           |
| Variable Data           | data      | UDInt  | 4             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN DCPhrmLen <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | DCPhrmLen | String | 9             | Length of pharma code        |
| Variable Data        | data      | UDInt  | 4             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA DCPhrmLen            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPhrmLen | String | 9             | Length of pharma code            |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCPhrmLen[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPhrmLen 4[ETX] |
| Write Variable:   | [STX]sWN DCPhrmLen 4[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPhrmLen[ETX]   |

### 2.7.1.94. Variable: PharmReverse

The following section contains a detailed description of the variable PharmReverse.

#### Variable Overview

| Variable Name | Description                   |
|---------------|-------------------------------|
| PharmReverse  | Reverse output of pharma code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPhrmRev   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 210   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                               |
|----------------|-----------|--------|---------------|-------------------------------|
| sRN DCPhrmRev  |           |        |               |                               |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name   |
| Command        | DCPhrmRev | String | 9             | Reverse output of pharma code |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DCPhrmRev <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCPhrmRev | String | 9             | Reverse output of pharma code   |
| Variable Data           | data      | Bool   | 1             |                                 |





| Write Variable:      |           |        |               |                               |
|----------------------|-----------|--------|---------------|-------------------------------|
| sWN DCPhrmRev <data> |           |        |               |                               |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                   |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name  |
| Command              | DCPhrmRev | String | 9             | Reverse output of pharma code |
| Variable Data        | data      | Bool   | 1             |                               |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA DCPhrmRev            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPhrmRev | String | 9             | Reverse output of pharma code    |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCPhrmRev[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPhrmRev 0[ETX] |
| Write Variable:   | [STX]sWN DCPhrmRev 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPhrmRev[ETX]   |

## 2.7.2. Group: Decoding1DGS1DataBar

### 2.7.2.1. Variable: GS1DataBarActive

The following section contains a detailed description of the variable GS1DataBarActive.

#### Variable Overview

| Variable Name    | Description                   |
|------------------|-------------------------------|
| GS1DataBarActive | Activates GS1 DataBar Decoder |

|                       |   |
|-----------------------|---|
| Communication Name    | DCGS1Act  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 214   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                               |
|----------------|----------|--------|---------------|-------------------------------|
| sRN DCGS1Act   |          |        |               |                               |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name   |
| Command        | DCGS1Act | String | 8             | Activates GS1 DataBar Decoder |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DCGS1Act <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCGS1Act | String | 8             | Activates GS1 DataBar Decoder   |
| Variable Data           | data     | Bool   | 1             |                                 |

| Write Variable:     |          |        |               |                               |
|---------------------|----------|--------|---------------|-------------------------------|
| sWN DCGS1Act <data> |          |        |               |                               |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                   |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name  |
| Command             | DCGS1Act | String | 8             | Activates GS1 DataBar Decoder |
| Variable Data       | data     | Bool   | 1             |                               |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCGS1Act             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |          |        |               |                               |
|--------------------------|----------|--------|---------------|-------------------------------|
| sWA DCGS1Act             |          |        |               |                               |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                   |
| Command                  | DCGS1Act | String | 8             | Activates GS1 DataBar Decoder |

### Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN DCGS1Act[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCGS1Act 0[ETX] |
| Write Variable:   | [STX]sWN DCGS1Act 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCGS1Act[ETX]   |

### 2.7.2.2. Variable: GS114Enabled

The following section contains a detailed description of the variable GS114Enabled.

#### Variable Overview

| Variable Name | Description              |
|---------------|--------------------------|
| GS114Enabled  | Activates GS1 DataBar 14 |

|                       |   |
|-----------------------|---|
| Communication Name    | DCGS114Enabled  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 215   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |                             |
|--------------------|----------------|--------|---------------|-----------------------------|
| sRN DCGS114Enabled |                |        |               |                             |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                 |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name |
| Command            | DCGS114Enabled | String | 14            | Activates GS1 DataBar 14    |

| Read Variable Response:   |                |        |               |                                 |
|---------------------------|----------------|--------|---------------|---------------------------------|
| sRA DCGS114Enabled <data> |                |        |               |                                 |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                     |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge |
| Command                   | DCGS114Enabled | String | 14            | Activates GS1 DataBar 14        |
| Variable Data             | data           | Bool   | 1             |                                 |

| Write Variable:           |                |        |               |                              |
|---------------------------|----------------|--------|---------------|------------------------------|
| sWN DCGS114Enabled <data> |                |        |               |                              |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                  |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name |
| Command                   | DCGS114Enabled | String | 14            | Activates GS1 DataBar 14     |
| Variable Data             | data           | Bool   | 1             |                              |

| Write Variable Response: |                |        |               |                                  |
|--------------------------|----------------|--------|---------------|----------------------------------|
| sWA DCGS114Enabled       |                |        |               |                                  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                      |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCGS114Enabled | String | 14            | Activates GS1 DataBar 14         |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN DCGS114Enabled[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCGS114Enabled 1[ETX] |
| Write Variable:   | [STX]sWN DCGS114Enabled 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DCGS114Enabled[ETX]   |



### 2.7.2.3. Variable: GS1ExpandedEnabled

The following section contains a detailed description of the variable GS1ExpandedEnabled.

#### Variable Overview

| Variable Name      | Description                    |
|--------------------|--------------------------------|
| GS1ExpandedEnabled | Activates GS1 DataBar Expanded |

|                       |   |
|-----------------------|---|
| Communication Name    | DCGS1ExpEnabled   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 216   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |

#### Variable Telegram Syntax

| Read Variable:      |                 |        |               |                                |
|---------------------|-----------------|--------|---------------|--------------------------------|
| sRN DCGS1ExpEnabled |                 |        |               |                                |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                    |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name    |
| Command             | DCGS1ExpEnabled | String | 15            | Activates GS1 DataBar Expanded |

| Read Variable Response:    |                 |        |               |                                 |
|----------------------------|-----------------|--------|---------------|---------------------------------|
| sRA DCGS1ExpEnabled <data> |                 |        |               |                                 |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                     |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge |
| Command                    | DCGS1ExpEnabled | String | 15            | Activates GS1 DataBar Expanded  |
| Variable Data              | data            | Bool   | 1             |                                 |

| Write Variable:            |                 |        |               |                                |
|----------------------------|-----------------|--------|---------------|--------------------------------|
| sWN DCGS1ExpEnabled <data> |                 |        |               |                                |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                    |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name   |
| Command                    | DCGS1ExpEnabled | String | 15            | Activates GS1 DataBar Expanded |
| Variable Data              | data            | Bool   | 1             |                                |

| Write Variable Response: |                 |        |               |                                  |
|--------------------------|-----------------|--------|---------------|----------------------------------|
| sWA DCGS1ExpEnabled      |                 |        |               |                                  |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                      |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCGS1ExpEnabled | String | 15            | Activates GS1 DataBar Expanded   |



## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN DCGS1ExpEnabled[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCGS1ExpEnabled 1[ETX] |
| Write Variable:   | [STX]sWN DCGS1ExpEnabled 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DCGS1ExpEnabled[ETX]   |

### 2.7.2.4. Variable: GS1LimitedEnabled

The following section contains a detailed description of the variable GS1LimitedEnabled.

#### Variable Overview

| Variable Name     | Description                   |
|-------------------|-------------------------------|
| GS1LimitedEnabled | Activates GS1 DataBar Limited |

|                       |   |
|-----------------------|---|
| Communication Name    | DCGS1LimEnabled   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 217   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |

#### Variable Telegram Syntax

| Read Variable:      |                 |        |               |                               |
|---------------------|-----------------|--------|---------------|-------------------------------|
| sRN DCGS1LimEnabled |                 |        |               |                               |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                   |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name   |
| Command             | DCGS1LimEnabled | String | 15            | Activates GS1 DataBar Limited |

| Read Variable Response:    |                 |        |               |                                 |
|----------------------------|-----------------|--------|---------------|---------------------------------|
| sRA DCGS1LimEnabled <data> |                 |        |               |                                 |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                     |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge |
| Command                    | DCGS1LimEnabled | String | 15            | Activates GS1 DataBar Limited   |
| Variable Data              | data            | Bool   | 1             |                                 |



| Write Variable:            |                 |        |               |                               |
|----------------------------|-----------------|--------|---------------|-------------------------------|
| sWN DCGS1LimEnabled <data> |                 |        |               |                               |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                   |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name  |
| Command                    | DCGS1LimEnabled | String | 15            | Activates GS1 DataBar Limited |
| Variable Data              | data            | Bool   | 1             |                               |

| Write Variable Response: |                 |        |               |                                  |
|--------------------------|-----------------|--------|---------------|----------------------------------|
| sWA DCGS1LimEnabled      |                 |        |               |                                  |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                      |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCGS1LimEnabled | String | 15            | Activates GS1 DataBar Limited    |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN DCGS1LimEnabled[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCGS1LimEnabled 1[ETX] |
| Write Variable:   | [STX]sWN DCGS1LimEnabled 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DCGS1LimEnabled[ETX]   |

### 2.7.2.5. Variable: GS1DataBarStackedCodesActive

The following section contains a detailed description of the variable GS1DataBarStackedCodesActive.

#### Variable Overview

| Variable Name                | Description                         |
|------------------------------|-------------------------------------|
| GS1DataBarStackedCodesActive | Activates GS1 DataBar Stacked Codes |

|                       |   |
|-----------------------|---|
| Communication Name    | DCGS1StackedAct   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 218   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:      |                 |        |               |                                     |
|---------------------|-----------------|--------|---------------|-------------------------------------|
| sRN DCGS1StackedAct |                 |        |               |                                     |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                         |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name         |
| Command             | DCGS1StackedAct | String | 15            | Activates GS1 DataBar Stacked Codes |

| Read Variable Response:    |                 |        |               |                                     |
|----------------------------|-----------------|--------|---------------|-------------------------------------|
| sRA DCGS1StackedAct <data> |                 |        |               |                                     |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                         |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                    | DCGS1StackedAct | String | 15            | Activates GS1 DataBar Stacked Codes |
| Variable Data              | data            | Bool   | 1             |                                     |

| Write Variable:            |                 |        |               |                                     |
|----------------------------|-----------------|--------|---------------|-------------------------------------|
| sWN DCGS1StackedAct <data> |                 |        |               |                                     |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                         |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name        |
| Command                    | DCGS1StackedAct | String | 15            | Activates GS1 DataBar Stacked Codes |
| Variable Data              | data            | Bool   | 1             |                                     |

| Write Variable Response: |                 |        |               |                                     |
|--------------------------|-----------------|--------|---------------|-------------------------------------|
| sWA DCGS1StackedAct      |                 |        |               |                                     |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                         |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | DCGS1StackedAct | String | 15            | Activates GS1 DataBar Stacked Codes |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN DCGS1StackedAct[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCGS1StackedAct 0[ETX] |
| Write Variable:   | [STX]sWN DCGS1StackedAct 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCGS1StackedAct[ETX]   |





## 2.7.2.6. Variable: GS1MultiRead

The following section contains a detailed description of the variable GS1MultiRead.

### Variable Overview

| Variable Name | Description              |
|---------------|--------------------------|
| GS1MultiRead  | Multiread of GS1 DataBar |

|                       |   |
|-----------------------|---|
| Communication Name    | DCGS1Mr   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 219   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..100 |
| Initialisation       | 3      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN DCGS1Mr    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | DCGS1Mr  | String | 7             | Multiread of GS1 DataBar    |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DCGS1Mr <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCGS1Mr  | String | 7             | Multiread of GS1 DataBar        |
| Variable Data           | data     | UInt   | 2             |                                 |

| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN DCGS1Mr <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | DCGS1Mr  | String | 7             | Multiread of GS1 DataBar     |
| Variable Data      | data     | UInt   | 2             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCGS1Mr              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCGS1Mr  | String | 7             | Multiread of GS1 DataBar         |



## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN DCGS1Mr [ETX]   |
| Read Variable Response:                                     | [STX]sRA DCGS1Mr 3 [ETX] |
| Write Variable:   | [STX]sWN DCGS1Mr 3 [ETX] |
| Write Variable Response:                                    | [STX]sWA DCGS1Mr [ETX]   |

### 2.7.2.7. Variable: GS12DComponentMode

The following section contains a detailed description of the variable GS12DComponentMode.

#### Variable Overview

| Variable Name      | Description                        |
|--------------------|------------------------------------|
| GS12DComponentMode | GS1 DataBar 2D component mode mode |

|                       |   |
|-----------------------|---|
| Communication Name    | DCGS12DCompMode   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 220   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_None     |             |
|               | 1     | TX_Active   |             |
|               | 2     | TX_Required |             |

#### Variable Telegram Syntax

| Read Variable:      |                 |        |               |                                    |
|---------------------|-----------------|--------|---------------|------------------------------------|
| sRN DCGS12DCompMode |                 |        |               |                                    |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                        |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name        |
| Command             | DCGS12DCompMode | String | 15            | GS1 DataBar 2D component mode mode |

| Read Variable Response:    |                 |        |               |                                    |
|----------------------------|-----------------|--------|---------------|------------------------------------|
| sRA DCGS12DCompMode <data> |                 |        |               |                                    |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                        |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                    | DCGS12DCompMode | String | 15            | GS1 DataBar 2D component mode mode |
| Variable Data              | data            | Enum8  | 1             |                                    |



| Write Variable:            |                 |        |               |                                    |
|----------------------------|-----------------|--------|---------------|------------------------------------|
| sWN DCGS12DCompMode <data> |                 |        |               |                                    |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                        |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name       |
| Command                    | DCGS12DCompMode | String | 15            | GS1 DataBar 2D component mode mode |
| Variable Data              | data            | Enum8  | 1             |                                    |

| Write Variable Response: |                 |        |               |                                    |
|--------------------------|-----------------|--------|---------------|------------------------------------|
| sWA DCGS12DCompMode      |                 |        |               |                                    |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                        |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | DCGS12DCompMode | String | 15            | GS1 DataBar 2D component mode mode |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN DCGS12DCompMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCGS12DCompMode 0[ETX] |
| Write Variable:   | [STX]sWN DCGS12DCompMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCGS12DCompMode[ETX]   |

### 2.7.2.8. Variable: GS1HexASCIIOutput

The following section contains a detailed description of the variable GS1HexASCIIOutput.

#### Variable Overview

| Variable Name     | Description                     |
|-------------------|---------------------------------|
| GS1HexASCIIOutput | Hex ASCII Output of GS1 DataBar |

|                       |   |
|-----------------------|---|
| Communication Name    | DCGS1HxAOut   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 221   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                 |
|-----------------|-------------|--------|---------------|---------------------------------|
| sRN DCGS1HxAOut |             |        |               |                                 |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name     |
| Command         | DCGS1HxAOut | String | 11            | Hex ASCII Output of GS1 DataBar |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA DCGS1HxAOut <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCGS1HxAOut | String | 11            | Hex ASCII Output of GS1 DataBar |
| Variable Data           | data        | Bool   | 1             |                                 |

| Write Variable:        |             |        |               |                                 |
|------------------------|-------------|--------|---------------|---------------------------------|
| sWN DCGS1HxAOut <data> |             |        |               |                                 |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name    |
| Command                | DCGS1HxAOut | String | 11            | Hex ASCII Output of GS1 DataBar |
| Variable Data          | data        | Bool   | 1             |                                 |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DCGS1HxAOut          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCGS1HxAOut | String | 11            | Hex ASCII Output of GS1 DataBar  |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN DCGS1HxAOut[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCGS1HxAOut 0[ETX] |
| Write Variable:   | [STX]sWN DCGS1HxAOut 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCGS1HxAOut[ETX]   |

### 2.7.2.9. Variable: GS1EmulationEnabled

The following section contains a detailed description of the variable GS1EmulationEnabled.

#### Variable Overview

| Variable Name       | Description                     |
|---------------------|---------------------------------|
| GS1EmulationEnabled | Activates GS1 DataBar Emulation |

|                       |   |
|-----------------------|---|
| Communication Name    | DCGS1EmuEnabled   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 222   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:      |                 |        |               |                                 |
|---------------------|-----------------|--------|---------------|---------------------------------|
| sRN DCGS1EmuEnabled |                 |        |               |                                 |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                     |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name     |
| Command             | DCGS1EmuEnabled | String | 15            | Activates GS1 DataBar Emulation |

| Read Variable Response:    |                 |        |               |                                 |
|----------------------------|-----------------|--------|---------------|---------------------------------|
| sRA DCGS1EmuEnabled <data> |                 |        |               |                                 |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                     |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge |
| Command                    | DCGS1EmuEnabled | String | 15            | Activates GS1 DataBar Emulation |
| Variable Data              | data            | Bool   | 1             |                                 |

| Write Variable:            |                 |        |               |                                 |
|----------------------------|-----------------|--------|---------------|---------------------------------|
| sWN DCGS1EmuEnabled <data> |                 |        |               |                                 |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                     |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name    |
| Command                    | DCGS1EmuEnabled | String | 15            | Activates GS1 DataBar Emulation |
| Variable Data              | data            | Bool   | 1             |                                 |

| Write Variable Response: |                 |        |               |                                  |
|--------------------------|-----------------|--------|---------------|----------------------------------|
| sWA DCGS1EmuEnabled      |                 |        |               |                                  |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                      |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCGS1EmuEnabled | String | 15            | Activates GS1 DataBar Emulation  |



## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN DCGS1EmuEnabled[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCGS1EmuEnabled 0[ETX] |
| Write Variable:   | [STX]sWN DCGS1EmuEnabled 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCGS1EmuEnabled[ETX]   |

### 2.7.2.10. Variable: GS1LengthMode

The following section contains a detailed description of the variable GS1LengthMode.

#### Variable Overview

| Variable Name | Description                    |
|---------------|--------------------------------|
| GS1LengthMode | Codelength mode of GS1 DataBar |

|                       |   |
|-----------------------|---|
| Communication Name    | DCGS1LenMode  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 223   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_Free     |             |
|               | 1     | TX_Interval |             |
|               | 2     | TX_Fix      |             |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |                                |
|------------------|--------------|--------|---------------|--------------------------------|
| sRN DCGS1LenMode |              |        |               |                                |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                    |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name    |
| Command          | DCGS1LenMode | String | 12            | Codelength mode of GS1 DataBar |

| Read Variable Response: |              |        |               |                                 |
|-------------------------|--------------|--------|---------------|---------------------------------|
| sRA DCGS1LenMode <data> |              |        |               |                                 |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCGS1LenMode | String | 12            | Codelength mode of GS1 DataBar  |
| Variable Data           | data         | Enum8  | 1             |                                 |



| Write Variable:         |              |        |               |                                |
|-------------------------|--------------|--------|---------------|--------------------------------|
| sWN DCGS1LenMode <data> |              |        |               |                                |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                    |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name   |
| Command                 | DCGS1LenMode | String | 12            | Codelength mode of GS1 DataBar |
| Variable Data           | data         | Enum8  | 1             |                                |

| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA DCGS1LenMode         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCGS1LenMode | String | 12            | Codelength mode of GS1 DataBar   |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN DCGS1LenMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCGS1LenMode 0[ETX] |
| Write Variable:   | [STX]sWN DCGS1LenMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCGS1LenMode[ETX]   |

### 2.7.2.11. Variable: GS1FixLenList

The following section contains a detailed description of the variable GS1FixLenList.

#### Variable Overview

| Variable Name | Description              |
|---------------|--------------------------|
| GS1FixLenList | List of fix code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCDS1FixLen   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 224   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |        |
|--------|----------------------|--------|
| Length |                      | 5      |
|        | UDInt                |        |
|        | Value Range          | 0..100 |
|        | Initialisation       | 0      |
|        | Physical Unit        |        |
|        | Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN DCDS1FixLen |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | DCDS1FixLen | String | 11            | List of fix code lengths    |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA DCDS1FixLen <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCDS1FixLen | String | 11            | List of fix code lengths        |
| Variable Data           | data        | Array  | 20            |                                 |

| Write Variable:        |             |        |               |                              |
|------------------------|-------------|--------|---------------|------------------------------|
| sWN DCDS1FixLen <data> |             |        |               |                              |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name |
| Command                | DCDS1FixLen | String | 11            | List of fix code lengths     |
| Variable Data          | data        | Array  | 20            |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DCDS1FixLen          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCDS1FixLen | String | 11            | List of fix code lengths         |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| Read Variable:  | [STX]sRN DCDS1FixLen[ETX]           |
| Read Variable Response:                                     | [STX]sRA DCDS1FixLen 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN DCDS1FixLen 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCDS1FixLen[ETX]           |



## 2.7.2.12. Variable: GS1IntLenList

The following section contains a detailed description of the variable GS1IntLenList.

### Variable Overview

| Variable Name | Description                   |
|---------------|-------------------------------|
| GS1IntLenList | List of interval code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCGS1IntLen   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 225   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |        |
|----------------------|--------|
| Length               | 2      |
| <b>UDInt</b>         |        |
| Value Range          | 0..100 |
| Initialisation       | 0      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

### Variable Telegram Syntax

| Read Variable:  |             |        |               |                               |
|-----------------|-------------|--------|---------------|-------------------------------|
| sRN DCGS1IntLen |             |        |               |                               |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name   |
| Command         | DCGS1IntLen | String | 11            | List of interval code lengths |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA DCGS1IntLen <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCGS1IntLen | String | 11            | List of interval code lengths   |
| Variable Data           | data        | Array  | 8             |                                 |

| Write Variable:        |             |        |               |                               |
|------------------------|-------------|--------|---------------|-------------------------------|
| sWN DCGS1IntLen <data> |             |        |               |                               |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name  |
| Command                | DCGS1IntLen | String | 11            | List of interval code lengths |
| Variable Data          | data        | Array  | 8             |                               |



| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DCGS1IntLen          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCGS1IntLen | String | 11            | List of interval code lengths    |

### Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN DCGS1IntLen[ETX]     |
| Read Variable Response:                                     | [STX]sRA DCGS1IntLen 0 0[ETX] |
| Write Variable:   | [STX]sWN DCGS1IntLen 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCGS1IntLen[ETX]     |

### 2.7.2.13. Variable: GS1AllowIncomplete

The following section contains a detailed description of the variable GS1AllowIncomplete.

#### Variable Overview

| Variable Name      | Description                                    |
|--------------------|--|
| GS1AllowIncomplete | Allows reading of incomplete GS1 DataBar codes |

|                       |   |
|-----------------------|---|
| Communication Name    | DCGS1Incmp  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 226   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN DCGS1Incmp |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                                    |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                    |
| Command        | DCGS1Incmp | String | 10            | Allows reading of incomplete GS1 DataBar codes |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA DCGS1Incmp <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                                    |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                |
| Command                 | DCGS1Incmp | String | 10            | Allows reading of incomplete GS1 DataBar codes |
| Variable Data           | data       | Bool   | 1             |  |

| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN DCGS1Incmp <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                                    |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                   |
| Command               | DCGS1Incmp | String | 10            | Allows reading of incomplete GS1 DataBar codes |
| Variable Data         | data       | Bool   | 1             |  |

| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA DCGS1Incmp           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                                    |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge               |
| Command                  | DCGS1Incmp | String | 10            | Allows reading of incomplete GS1 DataBar codes |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DCGS1Incmp[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCGS1Incmp 0[ETX] |
| Write Variable:   | [STX]sWN DCGS1Incmp 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCGS1Incmp[ETX]   |



## 2.7.2.14. Variable: GS1MinCharsIncomplete

The following section contains a detailed description of the variable GS1MinCharsIncomplete.

### Variable Overview

| Variable Name         | Description   |
|-----------------------|---|
| GS1MinCharsIncomplete | Minimum number of charactes If incomplete GS1 DataBar codes are allowed |

|                       |   |
|-----------------------|---|
| Communication Name    | DCGS1MinIncmp   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 227   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |       |
|----------------------|-------|
| Value Range          | 2..50 |
| Initialisation       | 5     |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |

### Variable Telegram Syntax

| Read Variable:    |               |        |               |   |
|-------------------|---------------|--------|---------------|---|
| sRN DCGS1MinIncmp |               |        |               |   |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description   |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name   |
| Command           | DCGS1MinIncmp | String | 13            | Minimum number of charactes If incomplete GS1 DataBar codes are allowed |

| Read Variable Response:  |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sRA DCGS1MinIncmp <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description   |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                  | DCGS1MinIncmp | String | 13            | Minimum number of charactes If incomplete GS1 DataBar codes are allowed |
| Variable Data            | data          | UInt   | 2             |   |

| Write Variable:          |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWN DCGS1MinIncmp <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description   |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name  |
| Command                  | DCGS1MinIncmp | String | 13            | Minimum number of charactes If incomplete GS1 DataBar codes are allowed |
| Variable Data            | data          | UInt   | 2             |   |



| Write Variable Response: |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWA DCGS1MinIncmp        |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description   |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | DCGS1MinIncmp | String | 13            | Minimum number of charactes If incomplete GS1 DataBar codes are allowed |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN DCGS1MinIncmp[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCGS1MinIncmp 5[ETX] |
| Write Variable:   | [STX]sWN DCGS1MinIncmp 5[ETX] |
| Write Variable Response:                                    | [STX]sWA DCGS1MinIncmp[ETX]   |

### 2.7.2.15. Variable: GS1Min3AdjacentSegments

The following section contains a detailed description of the variable GS1Min3AdjacentSegments.

#### Variable Overview

| Variable Name           | Description  |
|-------------------------|--|
| GS1Min3AdjacentSegments | minimum of 3 adjacent segments for GS1 DataBar codes |

|                       |   |
|-----------------------|---|
| Communication Name    | DCGS1Min3AdjSegm  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 228   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:       |                  |        |               |  |
|----------------------|------------------|--------|---------------|--|
| sRN DCGS1Min3AdjSegm |                  |        |               |  |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description  |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name                          |
| Command              | DCGS1Min3AdjSegm | String | 16            | minimum of 3 adjacent segments for GS1 DataBar codes |

| Read Variable Response:     |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sRA DCGS1Min3AdjSegm <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description  |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge                      |
| Command                     | DCGS1Min3AdjSegm | String | 16            | minimum of 3 adjacent segments for GS1 DataBar codes |
| Variable Data               | data             | Bool   | 1             |  |

| Write Variable:             |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sWN DCGS1Min3AdjSegm <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description  |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name                         |
| Command                     | DCGS1Min3AdjSegm | String | 16            | minimum of 3 adjacent segments for GS1 DataBar codes |
| Variable Data               | data             | Bool   | 1             |  |

| Write Variable Response: |                  |        |               |  |
|--------------------------|------------------|--------|---------------|--|
| sWA DCGS1Min3AdjSegm     |                  |        |               |  |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description  |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge                     |
| Command                  | DCGS1Min3AdjSegm | String | 16            | minimum of 3 adjacent segments for GS1 DataBar codes |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN DCGS1Min3AdjSegm[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCGS1Min3AdjSegm 0[ETX] |
| Write Variable:   | [STX]sWN DCGS1Min3AdjSegm 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCGS1Min3AdjSegm[ETX]   |



## 2.7.2.16. Variable: GS1ModuleWidthTolerance

The following section contains a detailed description of the variable GS1ModuleWidthTolerance.

### Variable Overview

| Variable Name           | Description  |
|-------------------------|--|
| GS1ModuleWidthTolerance | defines module width tolerance for GS1 DataBar codes |

|                       |   |
|-----------------------|---|
| Communication Name    | DCGS1ModWidthTol  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 229   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |      |
|----------------------|------|
| Value Range          | 1..4 |
| Initialisation       | 1    |
| Physical Unit        |      |
| Physical Unit Factor | 0.0  |

### Variable Telegram Syntax

| Read Variable:       |                  |        |               |  |
|----------------------|------------------|--------|---------------|--|
| sRN DCGS1ModWidthTol |                  |        |               |  |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description  |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name                          |
| Command              | DCGS1ModWidthTol | String | 16            | defines module width tolerance for GS1 DataBar codes |

| Read Variable Response:     |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sRA DCGS1ModWidthTol <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description  |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge                      |
| Command                     | DCGS1ModWidthTol | String | 16            | defines module width tolerance for GS1 DataBar codes |
| Variable Data               | data             | USInt  | 1             |  |

| Write Variable:             |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sWN DCGS1ModWidthTol <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description  |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name                         |
| Command                     | DCGS1ModWidthTol | String | 16            | defines module width tolerance for GS1 DataBar codes |
| Variable Data               | data             | USInt  | 1             |  |



| Write Variable Response: |                  |        |               |  |
|--------------------------|------------------|--------|---------------|--|
| sWA DCGS1ModWidthTol     |                  |        |               |  |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description  |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge                     |
| Command                  | DCGS1ModWidthTol | String | 16            | defines module width tolerance for GS1 DataBar codes |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN DCGS1ModWidthTol[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCGS1ModWidthTol 1[ETX] |
| Write Variable:   | [STX]sWN DCGS1ModWidthTol 1[ETX] |
| Write Variable Response:                                    | [STX]sWA DCGS1ModWidthTol[ETX]   |





## 2.7.3. Group: Decoding1DPostCodes

### 2.7.3.1. Variable: PostCodesDependentSymbology

The following section contains a detailed description of the variable PostCodesDependentSymbology.

#### Variable Overview

| Variable Name               | Description  |
|-----------------------------|--|
| PostCodesDependentSymbology | List of symbologies that can be enabled only exclusive |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCDepSym  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 230   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                         |             |
|---------------|-------|-------------------------|-------------|
| Default Value |       | 0                       |             |
|               | Value | Name                    | Description |
|               | 0     | TX_INACTIVE             |             |
|               | 1     | TX_UNITED_STATES_POSTAL |             |
|               | 2     | TX_AUSTRALIA_POST       |             |
|               | 3     | TX_JAPAN_POST           |             |
|               | 4     | TX_ROYAL_MAIL           |             |
|               | 5     | TX_KIX                  |             |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN DCPCDepSym |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description  |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                            |
| Command        | DCPCDepSym | String | 10            | List of symbologies that can be enabled only exclusive |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA DCPCDepSym <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description  |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                        |
| Command                 | DCPCDepSym | String | 10            | List of symbologies that can be enabled only exclusive |
| Variable Data           | data       | Enum8  | 1             |  |

| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN DCPCDepSym <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                           |
| Command               | DCPCDepSym | String | 10            | List of symbologies that can be enabled only exclusive |



| Write Variable:       |          |       |               |             |
|-----------------------|----------|-------|---------------|-------------|
| sWN DCPCDepSym <data> |          |       |               |             |
| Telegram Part         | Telegram | Type  | Length [Byte] | Description |
| Variable Data         | data     | Enum8 | 1             |             |

| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA DCPCDepSym           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description  |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                       |
| Command                  | DCPCDepSym | String | 10            | List of synbologies that can be enabled only exclusive |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DCPCDepSym[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPCDepSym 0[ETX] |
| Write Variable:   | [STX]sWN DCPCDepSym 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCDepSym[ETX]   |

### 2.7.3.2. Variable: PostCodesOrientation

The following section contains a detailed description of the variable PostCodesOrientation.

#### Variable Overview

| Variable Name        | Description          |
|----------------------|----------------------|
| PostCodesOrientation | List of orientations |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCOrint   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 231   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                    |             |
|---------------|-------|--------------------|-------------|
| Default Value |       | 0                  |             |
|               | Value | Name               | Description |
|               | 0     | TX_OMNIDIRECTIONAL |             |
|               | 1     | TX_HORIZONTAL      |             |
|               | 2     | TX_VERTICAL        |             |
|               | 3     | TX_HOR_N_VERTICAL  |             |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN DCPCOrint  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | DCPCOrint | String | 9             | List of orientations        |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA DCPCOrint <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DCPCOrint | String | 9             | List of orientations            |
| Variable Data           | data      | Enum8  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN DCPCOrint <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | DCPCOrint | String | 9             | List of orientations         |
| Variable Data        | data      | Enum8  | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA DCPCOrint            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCOrint | String | 9             | List of orientations             |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DCPCOrint[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPCOrint 0[ETX] |
| Write Variable:   | [STX]sWN DCPCOrint 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCOrint[ETX]   |

### 2.7.3.3. Variable: PostCodeKixLengthMode

The following section contains a detailed description of the variable PostCodeKixLengthMode.

#### Variable Overview

| Variable Name         | Description                 |
|-----------------------|-----------------------------|
| PostCodeKixLengthMode | Codelength mode of Kix code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPKixLenMode   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 232   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_Free     |             |
|               | 1     | TX_Interval |             |
|               | 2     | TX_Fix      |             |

#### Variable Telegram Syntax

| Read Variable:      |                 |        |               |                             |
|---------------------|-----------------|--------|---------------|-----------------------------|
| sRN DCPCPKixLenMode |                 |        |               |                             |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                 |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name |
| Command             | DCPCPKixLenMode | String | 15            | Codelength mode of Kix code |

| Read Variable Response:    |                 |        |               |                                 |
|----------------------------|-----------------|--------|---------------|---------------------------------|
| sRA DCPCPKixLenMode <data> |                 |        |               |                                 |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                     |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge |
| Command                    | DCPCPKixLenMode | String | 15            | Codelength mode of Kix code     |
| Variable Data              | data            | Enum8  | 1             |                                 |

| Write Variable:            |                 |        |               |                              |
|----------------------------|-----------------|--------|---------------|------------------------------|
| sWN DCPCPKixLenMode <data> |                 |        |               |                              |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                  |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name |
| Command                    | DCPCPKixLenMode | String | 15            | Codelength mode of Kix code  |
| Variable Data              | data            | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCPCPKixLenMode      |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |                 |        |               |                             |
|--------------------------|-----------------|--------|---------------|-----------------------------|
| sWA DCPCPKixLenMode      |                 |        |               |                             |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                 |
| Command                  | DCPCPKixLenMode | String | 15            | Codelength mode of Kix code |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| <b>Read Variable:</b>                                       | [STX]sRN DCPCPKixLenMode[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA DCPCPKixLenMode 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DCPCPKixLenMode 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DCPCPKixLenMode[ETX]   |

### 2.7.3.4. Variable: PostCodeKixFixLenList

The following section contains a detailed description of the variable PostCodeKixFixLenList.

#### Variable Overview

| Variable Name         | Description              |
|-----------------------|--------------------------|
| PostCodeKixFixLenList | List of fix code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPKixFixLen  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 233   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |        |
|--------|----------------------|--------|
| Length |                      | 5      |
|        | UDInt                |        |
|        | Value Range          | 0..100 |
|        | Initialisation       | 0      |
|        | Physical Unit        |        |
|        | Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |                             |
|--------------------|----------------|--------|---------------|-----------------------------|
| sRN DCPCPKixFixLen |                |        |               |                             |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                 |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name |
| Command            | DCPCPKixFixLen | String | 14            | List of fix code lengths    |

| Read Variable Response:   |                |        |               |                                 |
|---------------------------|----------------|--------|---------------|---------------------------------|
| sRA DCPCPKixFixLen <data> |                |        |               |                                 |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                     |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge |
| Command                   | DCPCPKixFixLen | String | 14            | List of fix code lengths        |
| Variable Data             | data           | Array  | 20            |                                 |

| Write Variable:           |                |        |               |                              |
|---------------------------|----------------|--------|---------------|------------------------------|
| sWN DCPCPKixFixLen <data> |                |        |               |                              |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                  |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name |
| Command                   | DCPCPKixFixLen | String | 14            | List of fix code lengths     |
| Variable Data             | data           | Array  | 20            |                              |

| Write Variable Response: |                |        |               |                                  |
|--------------------------|----------------|--------|---------------|----------------------------------|
| sWA DCPCPKixFixLen       |                |        |               |                                  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                      |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCPKixFixLen | String | 14            | List of fix code lengths         |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN DCPCPKixFixLen[ETX]           |
| Read Variable Response:                                     | [STX]sRA DCPCPKixFixLen 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN DCPCPKixFixLen 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCPKixFixLen[ETX]           |



### 2.7.3.5. Variable: PostCodeKixIntLenList

The following section contains a detailed description of the variable PostCodeKixIntLenList.

#### Variable Overview

| Variable Name         | Description                   |
|-----------------------|-------------------------------|
| PostCodeKixIntLenList | List of interval code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPKixIntLen  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 234   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |        |
|--------|----------------------|--------|
| Length |                      | 2      |
|        | UDInt                |        |
|        | Value Range          | 0..100 |
|        | Initialisation       | 0      |
|        | Physical Unit        |        |
|        | Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |                               |
|--------------------|----------------|--------|---------------|-------------------------------|
| sRN DCPCPKixIntLen |                |        |               |                               |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                   |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name   |
| Command            | DCPCPKixIntLen | String | 14            | List of interval code lengths |

| Read Variable Response:   |                |        |               |                                 |
|---------------------------|----------------|--------|---------------|---------------------------------|
| sRA DCPCPKixIntLen <data> |                |        |               |                                 |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                     |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge |
| Command                   | DCPCPKixIntLen | String | 14            | List of interval code lengths   |
| Variable Data             | data           | Array  | 8             |                                 |

| Write Variable:           |                |        |               |                               |
|---------------------------|----------------|--------|---------------|-------------------------------|
| sWN DCPCPKixIntLen <data> |                |        |               |                               |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                   |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name  |
| Command                   | DCPCPKixIntLen | String | 14            | List of interval code lengths |
| Variable Data             | data           | Array  | 8             |                               |



| Write Variable Response: |                |        |               |                                  |
|--------------------------|----------------|--------|---------------|----------------------------------|
| sWA DCPCPKixIntLen       |                |        |               |                                  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                      |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCPKixIntLen | String | 14            | List of interval code lengths    |

### Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN DCPCPKixIntLen[ETX]     |
| Read Variable Response:                                     | [STX]sRA DCPCPKixIntLen 0 0[ETX] |
| Write Variable:   | [STX]sWN DCPCPKixIntLen 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCPKixIntLen[ETX]     |

### 2.7.3.6. Variable: PostCodeRMRM4SCCActive

The following section contains a detailed description of the variable PostCodeRMRM4SCCActive.

#### Variable Overview

| Variable Name          | Description                          |
|------------------------|--------------------------------------|
| PostCodeRMRM4SCCActive | Activates the Royal Mail RM4SCC code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPRMRM4SCCAct  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 235   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |





## Variable Telegram Syntax

| Read Variable:       |                  |        |               |                                      |
|----------------------|------------------|--------|---------------|--------------------------------------|
| sRN DCPCPRMRM4SCCAct |                  |        |               |                                      |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description                          |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name          |
| Command              | DCPCPRMRM4SCCAct | String | 16            | Activates the Royal Mail RM4SCC code |

| Read Variable Response:     |                  |        |               |                                      |
|-----------------------------|------------------|--------|---------------|--------------------------------------|
| sRA DCPCPRMRM4SCCAct <data> |                  |        |               |                                      |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                          |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge      |
| Command                     | DCPCPRMRM4SCCAct | String | 16            | Activates the Royal Mail RM4SCC code |
| Variable Data               | data             | Bool   | 1             |                                      |

| Write Variable:             |                  |        |               |                                      |
|-----------------------------|------------------|--------|---------------|--------------------------------------|
| sWN DCPCPRMRM4SCCAct <data> |                  |        |               |                                      |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                          |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name         |
| Command                     | DCPCPRMRM4SCCAct | String | 16            | Activates the Royal Mail RM4SCC code |
| Variable Data               | data             | Bool   | 1             |                                      |

| Write Variable Response: |                  |        |               |                                      |
|--------------------------|------------------|--------|---------------|--------------------------------------|
| sWA DCPCPRMRM4SCCAct     |                  |        |               |                                      |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description                          |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge     |
| Command                  | DCPCPRMRM4SCCAct | String | 16            | Activates the Royal Mail RM4SCC code |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN DCPCPRMRM4SCCAct[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPCPRMRM4SCCAct 0[ETX] |
| Write Variable:   | [STX]sWN DCPCPRMRM4SCCAct 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCPRMRM4SCCAct[ETX]   |

### 2.7.3.7. Variable: PostCodeRMRM4SCCLengthMode

The following section contains a detailed description of the variable PostCodeRMRM4SCCLengthMode.

#### Variable Overview

| Variable Name              | Description                               |
|----------------------------|---|
| PostCodeRMRM4SCCLengthMode | Codelength mode of Royal Mail RM4SCC code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPRMRM4SCCLenMode                                    |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 236   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |             |             |  |
|---------------|-------------|-------------|--|
| Default Value |             | 0           |  |
| Value         | Name        | Description |  |
| 0             | TX_Free     |             |  |
| 1             | TX_Interval |             |  |
| 2             | TX_Fix      |             |  |

#### Variable Telegram Syntax

| Read Variable:           |                      |        |               |   |
|--------------------------|----------------------|--------|---------------|---|
| sRN DCPCPRMRM4SCCLenMode |                      |        |               |   |
| Telegram Part            | Telegram             | Type   | Length [Byte] | Description                               |
| Command Type             | sRN                  | String | 3             | Read SOPAS Variable by Name               |
| Command                  | DCPCPRMRM4SCCLenMode | String | 20            | Codelength mode of Royal Mail RM4SCC code |

| Read Variable Response:         |                      |        |               |   |
|---------------------------------|----------------------|--------|---------------|---|
| sRA DCPCPRMRM4SCCLenMode <data> |                      |        |               |   |
| Telegram Part                   | Telegram             | Type   | Length [Byte] | Description                               |
| Command Type                    | sRA                  | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                         | DCPCPRMRM4SCCLenMode | String | 20            | Codelength mode of Royal Mail RM4SCC code |
| Variable Data                   | data                 | Enum8  | 1             |   |

| Write Variable:                 |                      |        |               |   |
|---------------------------------|----------------------|--------|---------------|---|
| sWN DCPCPRMRM4SCCLenMode <data> |                      |        |               |   |
| Telegram Part                   | Telegram             | Type   | Length [Byte] | Description                               |
| Command Type                    | sWN                  | String | 3             | Write SOPAS Variable by Name              |
| Command                         | DCPCPRMRM4SCCLenMode | String | 20            | Codelength mode of Royal Mail RM4SCC code |
| Variable Data                   | data                 | Enum8  | 1             |   |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCPCPRMRM4SCCLenMode |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |                      |        |               |   |
|--------------------------|----------------------|--------|---------------|---|
| sWA DCPCPRMRM4SCCLenMode |                      |        |               |   |
| Telegram Part            | Telegram             | Type   | Length [Byte] | Description                               |
| Command                  | DCPCPRMRM4SCCLenMode | String | 20            | Codelength mode of Royal Mail RM4SCC code |

## Variable Telegram Examples

| Example: Default Values                                     |                                      |
|---|--------------------------------------|
| Variable telegram examples with data set to default values. |                                      |
| Read Variable:  | [STX]sRN DCPCPRMRM4SCCLenMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPCPRMRM4SCCLenMode 0[ETX] |
| Write Variable:   | [STX]sWN DCPCPRMRM4SCCLenMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCPRMRM4SCCLenMode[ETX]   |

### 2.7.3.8. Variable: PostCodeRMRM4SCCFixLenList

The following section contains a detailed description of the variable PostCodeRMRM4SCCFixLenList.

#### Variable Overview

| Variable Name              | Description              |
|----------------------------|--------------------------|
| PostCodeRMRM4SCCFixLenList | List of fix code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPRMRM4SCCFixLen                                     |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 237   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |        |
|--------|----------------------|--------|
| Length |                      | 5      |
|        | UDInt                |        |
|        | Value Range          | 0..100 |
|        | Initialisation       | 0      |
|        | Physical Unit        |        |
|        | Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable:          |                     |        |               |                             |
|-------------------------|---------------------|--------|---------------|-----------------------------|
| sRN DCPCPRMRM4SCCFixLen |                     |        |               |                             |
| Telegram Part           | Telegram            | Type   | Length [Byte] | Description                 |
| Command Type            | sRN                 | String | 3             | Read SOPAS Variable by Name |
| Command                 | DCPCPRMRM4SCCFixLen | String | 19            | List of fix code lengths    |

| Read Variable Response:        |                     |        |               |                                 |
|--------------------------------|---------------------|--------|---------------|---------------------------------|
| sRA DCPCPRMRM4SCCFixLen <data> |                     |        |               |                                 |
| Telegram Part                  | Telegram            | Type   | Length [Byte] | Description                     |
| Command Type                   | sRA                 | String | 3             | SOPAS Variable Read Acknowledge |
| Command                        | DCPCPRMRM4SCCFixLen | String | 19            | List of fix code lengths        |
| Variable Data                  | data                | Array  | 20            |                                 |

| Write Variable:                |                     |        |               |                              |
|--------------------------------|---------------------|--------|---------------|------------------------------|
| sWN DCPCPRMRM4SCCFixLen <data> |                     |        |               |                              |
| Telegram Part                  | Telegram            | Type   | Length [Byte] | Description                  |
| Command Type                   | sWN                 | String | 3             | Write SOPAS Variable by Name |
| Command                        | DCPCPRMRM4SCCFixLen | String | 19            | List of fix code lengths     |
| Variable Data                  | data                | Array  | 20            |                              |

| Write Variable Response: |                     |        |               |                                  |
|--------------------------|---------------------|--------|---------------|----------------------------------|
| sWA DCPCPRMRM4SCCFixLen  |                     |        |               |                                  |
| Telegram Part            | Telegram            | Type   | Length [Byte] | Description                      |
| Command Type             | sWA                 | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCPRMRM4SCCFixLen | String | 19            | List of fix code lengths         |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN DCPCPRMRM4SCCFixLen[ETX]           |
| Read Variable Response:                                     | [STX]sRA DCPCPRMRM4SCCFixLen 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN DCPCPRMRM4SCCFixLen 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCPRMRM4SCCFixLen[ETX]           |



### 2.7.3.9. Variable: PostCodeRMRM4SCCIntLenList

The following section contains a detailed description of the variable PostCodeRMRM4SCCIntLenList.

#### Variable Overview

| Variable Name              | Description                   |
|----------------------------|-------------------------------|
| PostCodeRMRM4SCCIntLenList | List of interval code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPRMRM4SCCIntLen                                     |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 238   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |
|--------|----------------------|
| Length | 2                    |
|        | <b>UDInt</b>         |
|        | Value Range          |
|        | Initialisation       |
|        | Physical Unit        |
|        | Physical Unit Factor |

#### Variable Telegram Syntax

| Read Variable:          |                     |        |               |                               |
|-------------------------|---------------------|--------|---------------|-------------------------------|
| sRN DCPCPRMRM4SCCIntLen |                     |        |               |                               |
| Telegram Part           | Telegram            | Type   | Length [Byte] | Description                   |
| Command Type            | sRN                 | String | 3             | Read SOPAS Variable by Name   |
| Command                 | DCPCPRMRM4SCCIntLen | String | 19            | List of interval code lengths |

| Read Variable Response:        |                     |        |               |                                 |
|--------------------------------|---------------------|--------|---------------|---------------------------------|
| sRA DCPCPRMRM4SCCIntLen <data> |                     |        |               |                                 |
| Telegram Part                  | Telegram            | Type   | Length [Byte] | Description                     |
| Command Type                   | sRA                 | String | 3             | SOPAS Variable Read Acknowledge |
| Command                        | DCPCPRMRM4SCCIntLen | String | 19            | List of interval code lengths   |
| Variable Data                  | data                | Array  | 8             |                                 |

| Write Variable:                |                     |        |               |                               |
|--------------------------------|---------------------|--------|---------------|-------------------------------|
| sWN DCPCPRMRM4SCCIntLen <data> |                     |        |               |                               |
| Telegram Part                  | Telegram            | Type   | Length [Byte] | Description                   |
| Command Type                   | sWN                 | String | 3             | Write SOPAS Variable by Name  |
| Command                        | DCPCPRMRM4SCCIntLen | String | 19            | List of interval code lengths |
| Variable Data                  | data                | Array  | 8             |                               |



| Write Variable Response: |                     |        |               |                                  |
|--------------------------|---------------------|--------|---------------|----------------------------------|
| sWA DCPCPRMRM4SCCIntLen  |                     |        |               |                                  |
| Telegram Part            | Telegram            | Type   | Length [Byte] | Description                      |
| Command Type             | sWA                 | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCPRMRM4SCCIntLen | String | 19            | List of interval code lengths    |

### Variable Telegram Examples

| Example: Default Values                                     |                                       |
|---|---------------------------------------|
| Variable telegram examples with data set to default values. |                                       |
| Read Variable:  | [STX]sRN DCPCPRMRM4SCCIntLen[ETX]     |
| Read Variable Response:                                     | [STX]sRA DCPCPRMRM4SCCIntLen 0 0[ETX] |
| Write Variable:   | [STX]sWN DCPCPRMRM4SCCIntLen 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCPRMRM4SCCIntLen[ETX]     |

### 2.7.3.10. Variable: PostCodeRMInfomailActive

The following section contains a detailed description of the variable PostCodeRMInfomailActive.

#### Variable Overview

| Variable Name            | Description                          |
|--------------------------|--------------------------------------|
| PostCodeRMInfomailActive | Activates the Royal Mail RM4SCC code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPRMInfmlAct   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 239   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:      |                 |        |               |                                      |
|---------------------|-----------------|--------|---------------|--------------------------------------|
| sRN DCPCPRMInfmlAct |                 |        |               |                                      |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                          |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name          |
| Command             | DCPCPRMInfmlAct | String | 15            | Activates the Royal Mail RM4SCC code |

| Read Variable Response:    |                 |        |               |                                      |
|----------------------------|-----------------|--------|---------------|--------------------------------------|
| sRA DCPCPRMInfmlAct <data> |                 |        |               |                                      |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                          |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge      |
| Command                    | DCPCPRMInfmlAct | String | 15            | Activates the Royal Mail RM4SCC code |
| Variable Data              | data            | Bool   | 1             |                                      |

| Write Variable:            |                 |        |               |                                      |
|----------------------------|-----------------|--------|---------------|--------------------------------------|
| sWN DCPCPRMInfmlAct <data> |                 |        |               |                                      |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                          |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name         |
| Command                    | DCPCPRMInfmlAct | String | 15            | Activates the Royal Mail RM4SCC code |
| Variable Data              | data            | Bool   | 1             |                                      |

| Write Variable Response: |                 |        |               |                                      |
|--------------------------|-----------------|--------|---------------|--------------------------------------|
| sWA DCPCPRMInfmlAct      |                 |        |               |                                      |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                          |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge     |
| Command                  | DCPCPRMInfmlAct | String | 15            | Activates the Royal Mail RM4SCC code |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN DCPCPRMInfmlAct[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPCPRMInfmlAct 0[ETX] |
| Write Variable:   | [STX]sWN DCPCPRMInfmlAct 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCPRMInfmlAct[ETX]   |



### 2.7.3.11. Variable: PostCodeRMInfomailLengthMode

The following section contains a detailed description of the variable PostCodeRMInfomailLengthMode.

#### Variable Overview

| Variable Name                | Description                                 |
|------------------------------|---|
| PostCodeRMInfomailLengthMode | Codelength mode of Royal Mail Infomail code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPRMInfmlLenMode                                     |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 240   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_Free     |             |
|               | 1     | TX_Interval |             |
|               | 2     | TX_Fix      |             |

#### Variable Telegram Syntax

| Read Variable:          |                     |        |               |   |
|-------------------------|---------------------|--------|---------------|---|
| sRN DCPCPRMInfmlLenMode |                     |        |               |   |
| Telegram Part           | Telegram            | Type   | Length [Byte] | Description                                 |
| Command Type            | sRN                 | String | 3             | Read SOPAS Variable by Name                 |
| Command                 | DCPCPRMInfmlLenMode | String | 19            | Codelength mode of Royal Mail Infomail code |

| Read Variable Response:        |                     |        |               |   |
|--------------------------------|---------------------|--------|---------------|---|
| sRA DCPCPRMInfmlLenMode <data> |                     |        |               |   |
| Telegram Part                  | Telegram            | Type   | Length [Byte] | Description                                 |
| Command Type                   | sRA                 | String | 3             | SOPAS Variable Read Acknowledge             |
| Command                        | DCPCPRMInfmlLenMode | String | 19            | Codelength mode of Royal Mail Infomail code |
| Variable Data                  | data                | Enum8  | 1             |   |

| Write Variable:                |                     |        |               |   |
|--------------------------------|---------------------|--------|---------------|---|
| sWN DCPCPRMInfmlLenMode <data> |                     |        |               |   |
| Telegram Part                  | Telegram            | Type   | Length [Byte] | Description                                 |
| Command Type                   | sWN                 | String | 3             | Write SOPAS Variable by Name                |
| Command                        | DCPCPRMInfmlLenMode | String | 19            | Codelength mode of Royal Mail Infomail code |
| Variable Data                  | data                | Enum8  | 1             |   |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCPCPRMInfmlLenMode  |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |





| Write Variable Response: |                     |        |               |   |
|--------------------------|---------------------|--------|---------------|---|
| sWA DCPCPRMInfmlLenMode  |                     |        |               |   |
| Telegram Part            | Telegram            | Type   | Length [Byte] | Description                                 |
| Command                  | DCPCPRMInfmlLenMode | String | 19            | Codelength mode of Royal Mail Infomail code |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| <b>Read Variable:</b>                                       | [STX]sRN DCPCPRMInfmlLenMode[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA DCPCPRMInfmlLenMode 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DCPCPRMInfmlLenMode 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DCPCPRMInfmlLenMode[ETX]   |

### 2.7.3.12. Variable: PostCodeRMInfomailFixLenList

The following section contains a detailed description of the variable PostCodeRMInfomailFixLenList.

#### Variable Overview

| Variable Name                | Description              |
|------------------------------|--------------------------|
| PostCodeRMInfomailFixLenList | List of fix code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPRMInfmlFixLen                                      |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 241   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |        |
|--------|----------------------|--------|
| Length |                      | 5      |
|        | UDInt                |        |
|        | Value Range          | 0..100 |
|        | Initialisation       | 0      |
|        | Physical Unit        |        |
|        | Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable:         |                    |        |               |                             |
|------------------------|--------------------|--------|---------------|-----------------------------|
| sRN DCPCPRMInfmlFixLen |                    |        |               |                             |
| Telegram Part          | Telegram           | Type   | Length [Byte] | Description                 |
| Command Type           | sRN                | String | 3             | Read SOPAS Variable by Name |
| Command                | DCPCPRMInfmlFixLen | String | 18            | List of fix code lengths    |

| Read Variable Response:       |                    |        |               |                                 |
|-------------------------------|--------------------|--------|---------------|---------------------------------|
| sRA DCPCPRMInfmlFixLen <data> |                    |        |               |                                 |
| Telegram Part                 | Telegram           | Type   | Length [Byte] | Description                     |
| Command Type                  | sRA                | String | 3             | SOPAS Variable Read Acknowledge |
| Command                       | DCPCPRMInfmlFixLen | String | 18            | List of fix code lengths        |
| Variable Data                 | data               | Array  | 20            |                                 |

| Write Variable:               |                    |        |               |                              |
|-------------------------------|--------------------|--------|---------------|------------------------------|
| sWN DCPCPRMInfmlFixLen <data> |                    |        |               |                              |
| Telegram Part                 | Telegram           | Type   | Length [Byte] | Description                  |
| Command Type                  | sWN                | String | 3             | Write SOPAS Variable by Name |
| Command                       | DCPCPRMInfmlFixLen | String | 18            | List of fix code lengths     |
| Variable Data                 | data               | Array  | 20            |                              |

| Write Variable Response: |                    |        |               |                                  |
|--------------------------|--------------------|--------|---------------|----------------------------------|
| sWA DCPCPRMInfmlFixLen   |                    |        |               |                                  |
| Telegram Part            | Telegram           | Type   | Length [Byte] | Description                      |
| Command Type             | sWA                | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCPRMInfmlFixLen | String | 18            | List of fix code lengths         |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN DCPCPRMInfmlFixLen[ETX]             |
| Read Variable Response:                                     | [STX]sRA DCPCPRMInfmlFixLen 0 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN DCPCPRMInfmlFixLen 0 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCPRMInfmlFixLen[ETX]             |



### 2.7.3.13. Variable: PostCodeRMInfomailIntLenList

The following section contains a detailed description of the variable PostCodeRMInfomailIntLenList.

#### Variable Overview

| Variable Name                | Description                   |
|------------------------------|-------------------------------|
| PostCodeRMInfomailIntLenList | List of interval code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPRMInfmlIntLen                                      |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 242   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |        |
|--------|----------------------|--------|
| Length |                      | 2      |
|        | UDInt                |        |
|        | Value Range          | 0..100 |
|        | Initialisation       | 0      |
|        | Physical Unit        |        |
|        | Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:         |                    |        |               |                               |
|------------------------|--------------------|--------|---------------|-------------------------------|
| sRN DCPCPRMInfmlIntLen |                    |        |               |                               |
| Telegram Part          | Telegram           | Type   | Length [Byte] | Description                   |
| Command Type           | sRN                | String | 3             | Read SOPAS Variable by Name   |
| Command                | DCPCPRMInfmlIntLen | String | 18            | List of interval code lengths |

| Read Variable Response:       |                    |        |               |                                 |
|-------------------------------|--------------------|--------|---------------|---------------------------------|
| sRA DCPCPRMInfmlIntLen <data> |                    |        |               |                                 |
| Telegram Part                 | Telegram           | Type   | Length [Byte] | Description                     |
| Command Type                  | sRA                | String | 3             | SOPAS Variable Read Acknowledge |
| Command                       | DCPCPRMInfmlIntLen | String | 18            | List of interval code lengths   |
| Variable Data                 | data               | Array  | 8             |                                 |

| Write Variable:               |                    |        |               |                               |
|-------------------------------|--------------------|--------|---------------|-------------------------------|
| sWN DCPCPRMInfmlIntLen <data> |                    |        |               |                               |
| Telegram Part                 | Telegram           | Type   | Length [Byte] | Description                   |
| Command Type                  | sWN                | String | 3             | Write SOPAS Variable by Name  |
| Command                       | DCPCPRMInfmlIntLen | String | 18            | List of interval code lengths |
| Variable Data                 | data               | Array  | 8             |                               |



| Write Variable Response: |                    |        |               |                                  |
|--------------------------|--------------------|--------|---------------|----------------------------------|
| sWA DCPCPRMInfmlIntLen   |                    |        |               |                                  |
| Telegram Part            | Telegram           | Type   | Length [Byte] | Description                      |
| Command Type             | sWA                | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCPRMInfmlIntLen | String | 18            | List of interval code lengths    |

## Variable Telegram Examples

| Example: Default Values                                     |                                      |
|---|--------------------------------------|
| Variable telegram examples with data set to default values. |                                      |
| Read Variable:  | [STX]sRN DCPCPRMInfmlIntLen[ETX]     |
| Read Variable Response:                                     | [STX]sRA DCPCPRMInfmlIntLen 0 0[ETX] |
| Write Variable:   | [STX]sWN DCPCPRMInfmlIntLen 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCPRMInfmlIntLen[ETX]     |

### 2.7.3.14. Variable: PostCodePostJapanLengthMode

The following section contains a detailed description of the variable PostCodePostJapanLengthMode.

#### Variable Overview

| Variable Name               | Description                        |
|-----------------------------|------------------------------------|
| PostCodePostJapanLengthMode | Codelength mode of Post Japan code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPJpnLenMode   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 243   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_Free     |             |
|               | 1     | TX_Interval |             |
|               | 2     | TX_Fix      |             |



## Variable Telegram Syntax

| Read Variable:      |                 |        |               |                                    |
|---------------------|-----------------|--------|---------------|------------------------------------|
| sRN DCPCPJpnLenMode |                 |        |               |                                    |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                        |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name        |
| Command             | DCPCPJpnLenMode | String | 15            | Codelength mode of Post Japan code |

| Read Variable Response:    |                 |        |               |                                    |
|----------------------------|-----------------|--------|---------------|------------------------------------|
| sRA DCPCPJpnLenMode <data> |                 |        |               |                                    |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                        |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                    | DCPCPJpnLenMode | String | 15            | Codelength mode of Post Japan code |
| Variable Data              | data            | Enum8  | 1             |                                    |

| Write Variable:            |                 |        |               |                                    |
|----------------------------|-----------------|--------|---------------|------------------------------------|
| sWN DCPCPJpnLenMode <data> |                 |        |               |                                    |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                        |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name       |
| Command                    | DCPCPJpnLenMode | String | 15            | Codelength mode of Post Japan code |
| Variable Data              | data            | Enum8  | 1             |                                    |

| Write Variable Response: |                 |        |               |                                    |
|--------------------------|-----------------|--------|---------------|------------------------------------|
| sWA DCPCPJpnLenMode      |                 |        |               |                                    |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                        |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | DCPCPJpnLenMode | String | 15            | Codelength mode of Post Japan code |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN DCPCPJpnLenMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPCPJpnLenMode 0[ETX] |
| Write Variable:   | [STX]sWN DCPCPJpnLenMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCPJpnLenMode[ETX]   |

### 2.7.3.15. Variable: PostCodePostJapanFixLenList

The following section contains a detailed description of the variable PostCodePostJapanFixLenList.

#### Variable Overview

| Variable Name               | Description              |
|-----------------------------|--------------------------|
| PostCodePostJapanFixLenList | List of fix code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPJpnFixLen  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 244   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |        |
|----------------------|--------|
| Length               | 5      |
| <b>UDInt</b>         |        |
| Value Range          | 0..100 |
| Initialisation       | 0      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |                             |
|--------------------|----------------|--------|---------------|-----------------------------|
| sRN DCPCPJpnFixLen |                |        |               |                             |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                 |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name |
| Command            | DCPCPJpnFixLen | String | 14            | List of fix code lengths    |

| Read Variable Response:   |                |        |               |                                 |
|---------------------------|----------------|--------|---------------|---------------------------------|
| sRA DCPCPJpnFixLen <data> |                |        |               |                                 |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                     |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge |
| Command                   | DCPCPJpnFixLen | String | 14            | List of fix code lengths        |
| Variable Data             | data           | Array  | 20            |                                 |

| Write Variable:           |                |        |               |                              |
|---------------------------|----------------|--------|---------------|------------------------------|
| sWN DCPCPJpnFixLen <data> |                |        |               |                              |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                  |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name |
| Command                   | DCPCPJpnFixLen | String | 14            | List of fix code lengths     |
| Variable Data             | data           | Array  | 20            |                              |



| Write Variable Response: |                |        |               |                                  |
|--------------------------|----------------|--------|---------------|----------------------------------|
| sWA DCPCPJpnFixLen       |                |        |               |                                  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                      |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCPJpnFixLen | String | 14            | List of fix code lengths         |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN DCPCPJpnFixLen[ETX]           |
| Read Variable Response:                                     | [STX]sRA DCPCPJpnFixLen 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN DCPCPJpnFixLen 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCPJpnFixLen[ETX]           |

### 2.7.3.16. Variable: PostCodePostJapanIntLenList

The following section contains a detailed description of the variable PostCodePostJapanIntLenList.

#### Variable Overview

| Variable Name               | Description                   |
|-----------------------------|-------------------------------|
| PostCodePostJapanIntLenList | List of interval code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPJpnIntLen  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 245   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |        |
|--------|----------------------|--------|
| Length |                      | 2      |
|        | UDInt                |        |
|        | Value Range          | 0..100 |
|        | Initialisation       | 0      |
|        | Physical Unit        |        |
|        | Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |                               |
|--------------------|----------------|--------|---------------|-------------------------------|
| sRN DCPCPJpnIntLen |                |        |               |                               |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                   |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name   |
| Command            | DCPCPJpnIntLen | String | 14            | List of interval code lengths |

| Read Variable Response:   |                |        |               |                                 |
|---------------------------|----------------|--------|---------------|---------------------------------|
| sRA DCPCPJpnIntLen <data> |                |        |               |                                 |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                     |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge |
| Command                   | DCPCPJpnIntLen | String | 14            | List of interval code lengths   |
| Variable Data             | data           | Array  | 8             |                                 |

| Write Variable:           |                |        |               |                               |
|---------------------------|----------------|--------|---------------|-------------------------------|
| sWN DCPCPJpnIntLen <data> |                |        |               |                               |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                   |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name  |
| Command                   | DCPCPJpnIntLen | String | 14            | List of interval code lengths |
| Variable Data             | data           | Array  | 8             |                               |

| Write Variable Response: |                |        |               |                                  |
|--------------------------|----------------|--------|---------------|----------------------------------|
| sWA DCPCPJpnIntLen       |                |        |               |                                  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                      |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCPJpnIntLen | String | 14            | List of interval code lengths    |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN DCPCPJpnIntLen[ETX]     |
| Read Variable Response:                                     | [STX]sRA DCPCPJpnIntLen 0 0[ETX] |
| Write Variable:   | [STX]sWN DCPCPJpnIntLen 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCPJpnIntLen[ETX]     |



### 2.7.3.17. Variable: PostCodePostAustraliaLengthMode

The following section contains a detailed description of the variable PostCodePostAustraliaLengthMode.

#### Variable Overview

| Variable Name                   | Description                            |
|---------------------------------|--|
| PostCodePostAustraliaLengthMode | Codelength mode of Post Australia code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPAstrLenMode  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 246   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_Free     |             |
|               | 1     | TX_Interval |             |
|               | 2     | TX_Fix      |             |

#### Variable Telegram Syntax

| Read Variable:       |                  |        |               |  |
|----------------------|------------------|--------|---------------|--|
| sRN DCPCPAstrLenMode |                  |        |               |  |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description                            |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name            |
| Command              | DCPCPAstrLenMode | String | 17            | Codelength mode of Post Australia code |

| Read Variable Response:     |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sRA DCPCPAstrLenMode <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                            |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge        |
| Command                     | DCPCPAstrLenMode | String | 17            | Codelength mode of Post Australia code |
| Variable Data               | data             | Enum8  | 1             |  |

| Write Variable:             |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sWN DCPCPAstrLenMode <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                            |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name           |
| Command                     | DCPCPAstrLenMode | String | 17            | Codelength mode of Post Australia code |
| Variable Data               | data             | Enum8  | 1             |  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DCPCPAstrLenMode     |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |                   |        |               |  |
|--------------------------|-------------------|--------|---------------|--|
| sWA DCPCPAstrlLenMode    |                   |        |               |  |
| Telegram Part            | Telegram          | Type   | Length [Byte] | Description                            |
| Command                  | DCPCPAstrlLenMode | String | 17            | Codelength mode of Post Australia code |

## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN DCPCPAstrlLenMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPCPAstrlLenMode 0[ETX] |
| Write Variable:   | [STX]sWN DCPCPAstrlLenMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCPAstrlLenMode[ETX]   |

### 2.7.3.18. Variable: PostCodePostAustraliaFixLenList

The following section contains a detailed description of the variable PostCodePostAustraliaFixLenList.

#### Variable Overview

| Variable Name                   | Description              |
|---------------------------------|--------------------------|
| PostCodePostAustraliaFixLenList | List of fix code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPAstrlFixLen  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 247   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |        |
|--------|----------------------|--------|
| Length |                      | 5      |
|        | UDInt                |        |
|        | Value Range          | 0..100 |
|        | Initialisation       | 0      |
|        | Physical Unit        |        |
|        | Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable:       |                  |        |               |                             |
|----------------------|------------------|--------|---------------|-----------------------------|
| sRN DCPCPAstrlFixLen |                  |        |               |                             |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description                 |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name |
| Command              | DCPCPAstrlFixLen | String | 16            | List of fix code lengths    |

| Read Variable Response:     |                  |        |               |                                 |
|-----------------------------|------------------|--------|---------------|---------------------------------|
| sRA DCPCPAstrlFixLen <data> |                  |        |               |                                 |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                     |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge |
| Command                     | DCPCPAstrlFixLen | String | 16            | List of fix code lengths        |
| Variable Data               | data             | Array  | 20            |                                 |

| Write Variable:             |                  |        |               |                              |
|-----------------------------|------------------|--------|---------------|------------------------------|
| sWN DCPCPAstrlFixLen <data> |                  |        |               |                              |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                  |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name |
| Command                     | DCPCPAstrlFixLen | String | 16            | List of fix code lengths     |
| Variable Data               | data             | Array  | 20            |                              |

| Write Variable Response: |                  |        |               |                                  |
|--------------------------|------------------|--------|---------------|----------------------------------|
| sWA DCPCPAstrlFixLen     |                  |        |               |                                  |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description                      |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCPAstrlFixLen | String | 16            | List of fix code lengths         |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN DCPCPAstrlFixLen[ETX]           |
| Read Variable Response:                                     | [STX]sRA DCPCPAstrlFixLen 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN DCPCPAstrlFixLen 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCPAstrlFixLen[ETX]           |

### 2.7.3.19. Variable: PostCodePostAustraliaIntLenList

The following section contains a detailed description of the variable PostCodePostAustraliaIntLenList.

#### Variable Overview

| Variable Name                   | Description                   |
|---------------------------------|-------------------------------|
| PostCodePostAustraliaIntLenList | List of interval code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPAstrlIntLen  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 248   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |        |
|----------------------|--------|
| Length               | 2      |
| <b>UDInt</b>         |        |
| Value Range          | 0..100 |
| Initialisation       | 0      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:       |                  |        |               |                               |
|----------------------|------------------|--------|---------------|-------------------------------|
| sRN DCPCPAstrlIntLen |                  |        |               |                               |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description                   |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name   |
| Command              | DCPCPAstrlIntLen | String | 16            | List of interval code lengths |

| Read Variable Response:     |                  |        |               |                                 |
|-----------------------------|------------------|--------|---------------|---------------------------------|
| sRA DCPCPAstrlIntLen <data> |                  |        |               |                                 |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                     |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge |
| Command                     | DCPCPAstrlIntLen | String | 16            | List of interval code lengths   |
| Variable Data               | data             | Array  | 8             |                                 |

| Write Variable:             |                  |        |               |                               |
|-----------------------------|------------------|--------|---------------|-------------------------------|
| sWN DCPCPAstrlIntLen <data> |                  |        |               |                               |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                   |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name  |
| Command                     | DCPCPAstrlIntLen | String | 16            | List of interval code lengths |
| Variable Data               | data             | Array  | 8             |                               |



| Write Variable Response: |                  |        |               |                                  |
|--------------------------|------------------|--------|---------------|----------------------------------|
| sWA DCPCPAstrlIntLen     |                  |        |               |                                  |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description                      |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCPAstrlIntLen | String | 16            | List of interval code lengths    |

### Variable Telegram Examples

| Example: Default Values                                     |                                    |
|---|------------------------------------|
| Variable telegram examples with data set to default values. |                                    |
| Read Variable:  | [STX]sRN DCPCPAstrlIntLen[ETX]     |
| Read Variable Response:                                     | [STX]sRA DCPCPAstrlIntLen 0 0[ETX] |
| Write Variable:   | [STX]sWN DCPCPAstrlIntLen 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCPAstrlIntLen[ETX]     |

### 2.7.3.20. Variable: PostCodePostAustraliaAllowZeroFCC

The following section contains a detailed description of the variable PostCodePostAustraliaAllowZeroFCC.

#### Variable Overview

| Variable Name                     | Description                                  |
|-----------------------------------|--|
| PostCodePostAustraliaAllowZeroFCC | Activates the Post Australia Zero FCC option |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCPAstrlZrFCC   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 249   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:      |                 |        |               |  |
|---------------------|-----------------|--------|---------------|--|
| sRN DCPCPAstr1ZrFCC |                 |        |               |  |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                                  |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name                  |
| Command             | DCPCPAstr1ZrFCC | String | 15            | Activates the Post Australia Zero FCC option |

| Read Variable Response:    |                 |        |               |  |
|----------------------------|-----------------|--------|---------------|--|
| sRA DCPCPAstr1ZrFCC <data> |                 |        |               |  |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                                  |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge              |
| Command                    | DCPCPAstr1ZrFCC | String | 15            | Activates the Post Australia Zero FCC option |
| Variable Data              | data            | Bool   | 1             |  |

| Write Variable:            |                 |        |               |  |
|----------------------------|-----------------|--------|---------------|--|
| sWN DCPCPAstr1ZrFCC <data> |                 |        |               |  |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                                  |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name                 |
| Command                    | DCPCPAstr1ZrFCC | String | 15            | Activates the Post Australia Zero FCC option |
| Variable Data              | data            | Bool   | 1             |  |

| Write Variable Response: |                 |        |               |  |
|--------------------------|-----------------|--------|---------------|--|
| sWA DCPCPAstr1ZrFCC      |                 |        |               |  |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                                  |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge             |
| Command                  | DCPCPAstr1ZrFCC | String | 15            | Activates the Post Australia Zero FCC option |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN DCPCPAstr1ZrFCC[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPCPAstr1ZrFCC 0[ETX] |
| Write Variable:   | [STX]sWN DCPCPAstr1ZrFCC 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCPAstr1ZrFCC[ETX]   |



### 2.7.3.21. Variable: PostCodeUSPPostNetActive

The following section contains a detailed description of the variable PostCodeUSPPostNetActive.

#### Variable Overview

| Variable Name            | Description                                     |
|--------------------------|---|
| PostCodeUSPPostNetActive | Activates the United States Postal Postnet code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCUSPPNAct  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 250   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |   |
|------------------|--------------|--------|---------------|---|
| sRN DCPCUSPPNAct |              |        |               |   |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                                     |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name                     |
| Command          | DCPCUSPPNAct | String | 12            | Activates the United States Postal Postnet code |

| Read Variable Response: |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sRA DCPCUSPPNAct <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge                 |
| Command                 | DCPCUSPPNAct | String | 12            | Activates the United States Postal Postnet code |
| Variable Data           | data         | Bool   | 1             |   |

| Write Variable:         |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sWN DCPCUSPPNAct <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                     |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name                    |
| Command                 | DCPCUSPPNAct | String | 12            | Activates the United States Postal Postnet code |
| Variable Data           | data         | Bool   | 1             |   |

| Write Variable Response: |              |        |               |   |
|--------------------------|--------------|--------|---------------|---|
| sWA DCPCUSPPNAct         |              |        |               |   |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                                     |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge                |
| Command                  | DCPCUSPPNAct | String | 12            | Activates the United States Postal Postnet code |



## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN DCPCUSPPNAct[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPCUSPPNAct 0[ETX] |
| Write Variable:   | [STX]sWN DCPCUSPPNAct 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCUSPPNAct[ETX]   |

### 2.7.3.22. Variable: PostCodeUSPPostNetLengthMode

The following section contains a detailed description of the variable PostCodeUSPPostNetLengthMode.

#### Variable Overview

| Variable Name                | Description  |
|------------------------------|--|
| PostCodeUSPPostNetLengthMode | Codelength mode of United States Postal Postnet code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCUSPPNLenMode  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 251   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_Free     |             |
|               | 1     | TX_Interval |             |
|               | 2     | TX_Fix      |             |

#### Variable Telegram Syntax

| Read Variable:       |                  |        |               |  |
|----------------------|------------------|--------|---------------|--|
| sRN DCPCUSPPNLenMode |                  |        |               |  |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description  |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name                          |
| Command              | DCPCUSPPNLenMode | String | 16            | Codelength mode of United States Postal Postnet code |

| Read Variable Response:     |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sRA DCPCUSPPNLenMode <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description  |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge                      |
| Command                     | DCPCUSPPNLenMode | String | 16            | Codelength mode of United States Postal Postnet code |
| Variable Data               | data             | Enum8  | 1             |  |





| Write Variable:             |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sWN DCPCUSPPNLenMode <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description  |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name                         |
| Command                     | DCPCUSPPNLenMode | String | 16            | Codelength mode of United States Postal Postnet code |
| Variable Data               | data             | Enum8  | 1             |  |

| Write Variable Response: |                  |        |               |  |
|--------------------------|------------------|--------|---------------|--|
| sWA DCPCUSPPNLenMode     |                  |        |               |  |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description  |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge                     |
| Command                  | DCPCUSPPNLenMode | String | 16            | Codelength mode of United States Postal Postnet code |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN DCPCUSPPNLenMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPCUSPPNLenMode 0[ETX] |
| Write Variable:   | [STX]sWN DCPCUSPPNLenMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCUSPPNLenMode[ETX]   |

### 2.7.3.23. Variable: PostCodeUSPPostNetFixLenList

The following section contains a detailed description of the variable PostCodeUSPPostNetFixLenList.

#### Variable Overview

| Variable Name                | Description              |
|------------------------------|--------------------------|
| PostCodeUSPPostNetFixLenList | List of fix code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCUSPPNFixLen   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 252   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |        |
|--------|----------------------|--------|
| Length |                      | 5      |
|        | UDInt                |        |
|        | Value Range          | 0..100 |
|        | Initialisation       | 0      |
|        | Physical Unit        |        |
|        | Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable:      |                 |        |               |                             |
|---------------------|-----------------|--------|---------------|-----------------------------|
| sRN DCPCUSPPNFixLen |                 |        |               |                             |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                 |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name |
| Command             | DCPCUSPPNFixLen | String | 15            | List of fix code lengths    |

| Read Variable Response:    |                 |        |               |                                 |
|----------------------------|-----------------|--------|---------------|---------------------------------|
| sRA DCPCUSPPNFixLen <data> |                 |        |               |                                 |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                     |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge |
| Command                    | DCPCUSPPNFixLen | String | 15            | List of fix code lengths        |
| Variable Data              | data            | Array  | 20            |                                 |

| Write Variable:            |                 |        |               |                              |
|----------------------------|-----------------|--------|---------------|------------------------------|
| sWN DCPCUSPPNFixLen <data> |                 |        |               |                              |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                  |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name |
| Command                    | DCPCUSPPNFixLen | String | 15            | List of fix code lengths     |
| Variable Data              | data            | Array  | 20            |                              |

| Write Variable Response: |                 |        |               |                                  |
|--------------------------|-----------------|--------|---------------|----------------------------------|
| sWA DCPCUSPPNFixLen      |                 |        |               |                                  |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                      |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCUSPPNFixLen | String | 15            | List of fix code lengths         |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN DCPCUSPPNFixLen[ETX]           |
| Read Variable Response:                                     | [STX]sRA DCPCUSPPNFixLen 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN DCPCUSPPNFixLen 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCUSPPNFixLen[ETX]           |

### 2.7.3.24. Variable: PostCodeUSPPostNetIntLenList

The following section contains a detailed description of the variable PostCodeUSPPostNetIntLenList.

#### Variable Overview

| Variable Name                | Description                   |
|------------------------------|-------------------------------|
| PostCodeUSPPostNetIntLenList | List of interval code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCUSPPNIntLen   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 253   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |        |
|----------------------|--------|
| Length               | 2      |
| <b>UDInt</b>         |        |
| Value Range          | 0..100 |
| Initialisation       | 0      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:      |                 |        |               |                               |
|---------------------|-----------------|--------|---------------|-------------------------------|
| sRN DCPCUSPPNIntLen |                 |        |               |                               |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                   |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name   |
| Command             | DCPCUSPPNIntLen | String | 15            | List of interval code lengths |

| Read Variable Response:    |                 |        |               |                                 |
|----------------------------|-----------------|--------|---------------|---------------------------------|
| sRA DCPCUSPPNIntLen <data> |                 |        |               |                                 |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                     |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge |
| Command                    | DCPCUSPPNIntLen | String | 15            | List of interval code lengths   |
| Variable Data              | data            | Array  | 8             |                                 |

| Write Variable:            |                 |        |               |                               |
|----------------------------|-----------------|--------|---------------|-------------------------------|
| sWN DCPCUSPPNIntLen <data> |                 |        |               |                               |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                   |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name  |
| Command                    | DCPCUSPPNIntLen | String | 15            | List of interval code lengths |
| Variable Data              | data            | Array  | 8             |                               |



| Write Variable Response: |                 |        |               |                                  |
|--------------------------|-----------------|--------|---------------|----------------------------------|
| sWA DCPCUSPPNIntLen      |                 |        |               |                                  |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                      |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCUSPPNIntLen | String | 15            | List of interval code lengths    |

### Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| <b>Read Variable:</b>                                       | [STX]sRN DCPCUSPPNIntLen[ETX]     |
| <b>Read Variable Response:</b>                              | [STX]sRA DCPCUSPPNIntLen 0 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DCPCUSPPNIntLen 0 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DCPCUSPPNIntLen[ETX]     |

### 2.7.3.25. Variable: PostCodeUSPPostNetAllowBnBFields

The following section contains a detailed description of the variable PostCodeUSPPostNetAllowBnBFields.

#### Variable Overview

| Variable Name                    | Description  |
|----------------------------------|--|
| PostCodeUSPPostNetAllowBnBFields | Activates the United States Postal Postnet B and B-Fields option |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCUSPPNBnBFid   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 254   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:      |                 |        |               |  |
|---------------------|-----------------|--------|---------------|--|
| sRN DCPCUSPPNBnBFld |                 |        |               |  |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description  |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name                                      |
| Command             | DCPCUSPPNBnBFld | String | 15            | Activates the United States Postal Postnet B and B-Fields option |

| Read Variable Response:    |                 |        |               |  |
|----------------------------|-----------------|--------|---------------|--|
| sRA DCPCUSPPNBnBFld <data> |                 |        |               |  |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description  |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge                                  |
| Command                    | DCPCUSPPNBnBFld | String | 15            | Activates the United States Postal Postnet B and B-Fields option |
| Variable Data              | data            | Bool   | 1             |  |

| Write Variable:            |                 |        |               |  |
|----------------------------|-----------------|--------|---------------|--|
| sWN DCPCUSPPNBnBFld <data> |                 |        |               |  |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description  |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name                                     |
| Command                    | DCPCUSPPNBnBFld | String | 15            | Activates the United States Postal Postnet B and B-Fields option |
| Variable Data              | data            | Bool   | 1             |  |

| Write Variable Response: |                 |        |               |  |
|--------------------------|-----------------|--------|---------------|--|
| sWA DCPCUSPPNBnBFld      |                 |        |               |  |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description  |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge                                 |
| Command                  | DCPCUSPPNBnBFld | String | 15            | Activates the United States Postal Postnet B and B-Fields option |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN DCPCUSPPNBnBFld[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPCUSPPNBnBFld 0[ETX] |
| Write Variable:   | [STX]sWN DCPCUSPPNBnBFld 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCUSPPNBnBFld[ETX]   |



### 2.7.3.26. Variable: PostCodeUSPPlanetActive

The following section contains a detailed description of the variable PostCodeUSPPlanetActive.

#### Variable Overview

| Variable Name           | Description                                    |
|-------------------------|--|
| PostCodeUSPPlanetActive | Activates the United States Postal Planet code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCUSPPLAct  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 255   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |  |
|------------------|--------------|--------|---------------|--|
| sRN DCPCUSPPLAct |              |        |               |  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                                    |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name                    |
| Command          | DCPCUSPPLAct | String | 12            | Activates the United States Postal Planet code |

| Read Variable Response: |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sRA DCPCUSPPLAct <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                    |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge                |
| Command                 | DCPCUSPPLAct | String | 12            | Activates the United States Postal Planet code |
| Variable Data           | data         | Bool   | 1             |  |

| Write Variable:         |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sWN DCPCUSPPLAct <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                    |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name                   |
| Command                 | DCPCUSPPLAct | String | 12            | Activates the United States Postal Planet code |
| Variable Data           | data         | Bool   | 1             |  |

| Write Variable Response: |              |        |               |  |
|--------------------------|--------------|--------|---------------|--|
| sWA DCPCUSPPLAct         |              |        |               |  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                                    |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge               |
| Command                  | DCPCUSPPLAct | String | 12            | Activates the United States Postal Planet code |



## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN DCPCUSPPLAct[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPCUSPPLAct 0[ETX] |
| Write Variable:   | [STX]sWN DCPCUSPPLAct 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCUSPPLAct[ETX]   |

### 2.7.3.27. Variable: PostCodeUSPPlanetLengthMode

The following section contains a detailed description of the variable PostCodeUSPPlanetLengthMode.

#### Variable Overview

| Variable Name               | Description   |
|-----------------------------|---|
| PostCodeUSPPlanetLengthMode | Codelength mode of United States Postal Planet code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCUSPPLLenMode  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 256   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_Free     |             |
|               | 1     | TX_Interval |             |
|               | 2     | TX_Fix      |             |

#### Variable Telegram Syntax

| Read Variable:       |                  |        |               |   |
|----------------------|------------------|--------|---------------|---|
| sRN DCPCUSPPLLenMode |                  |        |               |   |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description   |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name                         |
| Command              | DCPCUSPPLLenMode | String | 16            | Codelength mode of United States Postal Planet code |

| Read Variable Response:     |                  |        |               |   |
|-----------------------------|------------------|--------|---------------|---|
| sRA DCPCUSPPLLenMode <data> |                  |        |               |   |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description   |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge                     |
| Command                     | DCPCUSPPLLenMode | String | 16            | Codelength mode of United States Postal Planet code |
| Variable Data               | data             | Enum8  | 1             |   |



| Write Variable:             |                  |        |               |   |
|-----------------------------|------------------|--------|---------------|---|
| sWN DCPCUSPPLLenMode <data> |                  |        |               |   |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description   |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name                        |
| Command                     | DCPCUSPPLLenMode | String | 16            | Codelength mode of United States Postal Planet code |
| Variable Data               | data             | Enum8  | 1             |   |

| Write Variable Response: |                  |        |               |   |
|--------------------------|------------------|--------|---------------|---|
| sWA DCPCUSPPLLenMode     |                  |        |               |   |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description   |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge                    |
| Command                  | DCPCUSPPLLenMode | String | 16            | Codelength mode of United States Postal Planet code |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN DCPCUSPPLLenMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPCUSPPLLenMode 0[ETX] |
| Write Variable:   | [STX]sWN DCPCUSPPLLenMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCUSPPLLenMode[ETX]   |

### 2.7.3.28. Variable: PostCodeUSPPlanetFixLenList

The following section contains a detailed description of the variable PostCodeUSPPlanetFixLenList.

#### Variable Overview

| Variable Name               | Description              |
|-----------------------------|--------------------------|
| PostCodeUSPPlanetFixLenList | List of fix code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCUSPPLFixLen   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 257   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |        |
|--------|----------------------|--------|
| Length |                      | 5      |
|        | UDInt                |        |
|        | Value Range          | 0..100 |
|        | Initialisation       | 0      |
|        | Physical Unit        |        |
|        | Physical Unit Factor | 0.0    |





## Variable Telegram Syntax

| Read Variable:      |                 |        |               |                             |
|---------------------|-----------------|--------|---------------|-----------------------------|
| sRN DCPCUSPPLFixLen |                 |        |               |                             |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                 |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name |
| Command             | DCPCUSPPLFixLen | String | 15            | List of fix code lengths    |

| Read Variable Response:    |                 |        |               |                                 |
|----------------------------|-----------------|--------|---------------|---------------------------------|
| sRA DCPCUSPPLFixLen <data> |                 |        |               |                                 |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                     |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge |
| Command                    | DCPCUSPPLFixLen | String | 15            | List of fix code lengths        |
| Variable Data              | data            | Array  | 20            |                                 |

| Write Variable:            |                 |        |               |                              |
|----------------------------|-----------------|--------|---------------|------------------------------|
| sWN DCPCUSPPLFixLen <data> |                 |        |               |                              |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                  |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name |
| Command                    | DCPCUSPPLFixLen | String | 15            | List of fix code lengths     |
| Variable Data              | data            | Array  | 20            |                              |

| Write Variable Response: |                 |        |               |                                  |
|--------------------------|-----------------|--------|---------------|----------------------------------|
| sWA DCPCUSPPLFixLen      |                 |        |               |                                  |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                      |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCUSPPLFixLen | String | 15            | List of fix code lengths         |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN DCPCUSPPLFixLen[ETX]           |
| Read Variable Response:                                     | [STX]sRA DCPCUSPPLFixLen 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN DCPCUSPPLFixLen 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCUSPPLFixLen[ETX]           |

### 2.7.3.29. Variable: PostCodeUSPPlanetIntLenList

The following section contains a detailed description of the variable PostCodeUSPPlanetIntLenList.

#### Variable Overview

| Variable Name               | Description                   |
|-----------------------------|-------------------------------|
| PostCodeUSPPlanetIntLenList | List of interval code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCUSPPLIntLen   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 258   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |        |
|----------------------|--------|
| Length               | 2      |
| <b>UDInt</b>         |        |
| Value Range          | 0..100 |
| Initialisation       | 0      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:      |                 |        |               |                               |
|---------------------|-----------------|--------|---------------|-------------------------------|
| sRN DCPCUSPPLIntLen |                 |        |               |                               |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                   |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name   |
| Command             | DCPCUSPPLIntLen | String | 15            | List of interval code lengths |

| Read Variable Response:    |                 |        |               |                                 |
|----------------------------|-----------------|--------|---------------|---------------------------------|
| sRA DCPCUSPPLIntLen <data> |                 |        |               |                                 |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                     |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge |
| Command                    | DCPCUSPPLIntLen | String | 15            | List of interval code lengths   |
| Variable Data              | data            | Array  | 8             |                                 |

| Write Variable:            |                 |        |               |                               |
|----------------------------|-----------------|--------|---------------|-------------------------------|
| sWN DCPCUSPPLIntLen <data> |                 |        |               |                               |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                   |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name  |
| Command                    | DCPCUSPPLIntLen | String | 15            | List of interval code lengths |
| Variable Data              | data            | Array  | 8             |                               |



| Write Variable Response: |                 |        |               |                                  |
|--------------------------|-----------------|--------|---------------|----------------------------------|
| sWA DCPCUSPPLIntLen      |                 |        |               |                                  |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                      |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCUSPPLIntLen | String | 15            | List of interval code lengths    |

### Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| <b>Read Variable:</b>                                       | [STX]sRN DCPCUSPPLIntLen[ETX]     |
| <b>Read Variable Response:</b>                              | [STX]sRA DCPCUSPPLIntLen 0 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DCPCUSPPLIntLen 0 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DCPCUSPPLIntLen[ETX]     |

### 2.7.3.30. Variable: PostCodeUSPUPUActive

The following section contains a detailed description of the variable PostCodeUSPUPUActive.

#### Variable Overview

| Variable Name        | Description                                 |
|----------------------|---|
| PostCodeUSPUPUActive | Activates the United States Postal UPU code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCUSPUPUAct   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 259   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:    |               |        |               |   |
|-------------------|---------------|--------|---------------|---|
| sRN DCPCUSPUPUAct |               |        |               |   |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                                 |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name                 |
| Command           | DCPCUSPUPUAct | String | 13            | Activates the United States Postal UPU code |

| Read Variable Response:  |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sRA DCPCUSPUPUAct <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                                 |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge             |
| Command                  | DCPCUSPUPUAct | String | 13            | Activates the United States Postal UPU code |
| Variable Data            | data          | Bool   | 1             |   |

| Write Variable:          |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWN DCPCUSPUPUAct <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                                 |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name                |
| Command                  | DCPCUSPUPUAct | String | 13            | Activates the United States Postal UPU code |
| Variable Data            | data          | Bool   | 1             |   |

| Write Variable Response: |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWA DCPCUSPUPUAct        |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                                 |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge            |
| Command                  | DCPCUSPUPUAct | String | 13            | Activates the United States Postal UPU code |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN DCPCUSPUPUAct[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPCUSPUPUAct 0[ETX] |
| Write Variable:   | [STX]sWN DCPCUSPUPUAct 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCUSPUPUAct[ETX]   |



### 2.7.3.31. Variable: PostCodeUSPUPULengthMode

The following section contains a detailed description of the variable PostCodeUSPUPULengthMode.

#### Variable Overview

| Variable Name            | Description                                      |
|--------------------------|--|
| PostCodeUSPUPULengthMode | Codelength mode of United States Postal UPU code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCUSPUPULenMode                                       |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 260   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_Free     |             |
|               | 1     | TX_Interval |             |
|               | 2     | TX_Fix      |             |

#### Variable Telegram Syntax

| Read Variable:        |                   |        |               |  |
|-----------------------|-------------------|--------|---------------|--|
| sRN DCPCUSPUPULenMode |                   |        |               |  |
| Telegram Part         | Telegram          | Type   | Length [Byte] | Description                                      |
| Command Type          | sRN               | String | 3             | Read SOPAS Variable by Name                      |
| Command               | DCPCUSPUPULenMode | String | 17            | Codelength mode of United States Postal UPU code |

| Read Variable Response:      |                   |        |               |  |
|------------------------------|-------------------|--------|---------------|--|
| sRA DCPCUSPUPULenMode <data> |                   |        |               |  |
| Telegram Part                | Telegram          | Type   | Length [Byte] | Description                                      |
| Command Type                 | sRA               | String | 3             | SOPAS Variable Read Acknowledge                  |
| Command                      | DCPCUSPUPULenMode | String | 17            | Codelength mode of United States Postal UPU code |
| Variable Data                | data              | Enum8  | 1             |  |

| Write Variable:              |                   |        |               |  |
|------------------------------|-------------------|--------|---------------|--|
| sWN DCPCUSPUPULenMode <data> |                   |        |               |  |
| Telegram Part                | Telegram          | Type   | Length [Byte] | Description                                      |
| Command Type                 | sWN               | String | 3             | Write SOPAS Variable by Name                     |
| Command                      | DCPCUSPUPULenMode | String | 17            | Codelength mode of United States Postal UPU code |
| Variable Data                | data              | Enum8  | 1             |  |



| Write Variable Response: |                   |        |               |  |
|--------------------------|-------------------|--------|---------------|--|
| sWA DCPCUSPUPULenMode    |                   |        |               |  |
| Telegram Part            | Telegram          | Type   | Length [Byte] | Description                                      |
| Command Type             | sWA               | String | 3             | SOPAS Variable Write Acknowledge                 |
| Command                  | DCPCUSPUPULenMode | String | 17            | Codelength mode of United States Postal UPU code |

## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN DCPCUSPUPULenMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPCUSPUPULenMode 0[ETX] |
| Write Variable:   | [STX]sWN DCPCUSPUPULenMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCUSPUPULenMode[ETX]   |

### 2.7.3.32. Variable: PostCodeUSPUPUFixLenList

The following section contains a detailed description of the variable PostCodeUSPUPUFixLenList.

#### Variable Overview

| Variable Name            | Description              |
|--------------------------|--------------------------|
| PostCodeUSPUPUFixLenList | List of fix code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCUSPUPUFixLen  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 261   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |        |
|--------|----------------------|--------|
| Length |                      | 5      |
|        | UDInt                |        |
|        | Value Range          | 0..100 |
|        | Initialisation       | 0      |
|        | Physical Unit        |        |
|        | Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable:       |                  |        |               |                             |
|----------------------|------------------|--------|---------------|-----------------------------|
| sRN DCPCUSPUPUFixLen |                  |        |               |                             |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description                 |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name |
| Command              | DCPCUSPUPUFixLen | String | 16            | List of fix code lengths    |

| Read Variable Response:     |                  |        |               |                                 |
|-----------------------------|------------------|--------|---------------|---------------------------------|
| sRA DCPCUSPUPUFixLen <data> |                  |        |               |                                 |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                     |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge |
| Command                     | DCPCUSPUPUFixLen | String | 16            | List of fix code lengths        |
| Variable Data               | data             | Array  | 20            |                                 |

| Write Variable:             |                  |        |               |                              |
|-----------------------------|------------------|--------|---------------|------------------------------|
| sWN DCPCUSPUPUFixLen <data> |                  |        |               |                              |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                  |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name |
| Command                     | DCPCUSPUPUFixLen | String | 16            | List of fix code lengths     |
| Variable Data               | data             | Array  | 20            |                              |

| Write Variable Response: |                  |        |               |                                  |
|--------------------------|------------------|--------|---------------|----------------------------------|
| sWA DCPCUSPUPUFixLen     |                  |        |               |                                  |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description                      |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCUSPUPUFixLen | String | 16            | List of fix code lengths         |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN DCPCUSPUPUFixLen[ETX]           |
| Read Variable Response:                                     | [STX]sRA DCPCUSPUPUFixLen 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN DCPCUSPUPUFixLen 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCUSPUPUFixLen[ETX]           |

### 2.7.3.33. Variable: PostCodeUSPUPUIntLenList

The following section contains a detailed description of the variable PostCodeUSPUPUIntLenList.

#### Variable Overview

| Variable Name            | Description                   |
|--------------------------|-------------------------------|
| PostCodeUSPUPUIntLenList | List of interval code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCUSPUPUIntLen  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 262   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |        |
|----------------------|--------|
| Length               | 2      |
| <b>UDInt</b>         |        |
| Value Range          | 0..100 |
| Initialisation       | 0      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:       |                  |        |               |                               |
|----------------------|------------------|--------|---------------|-------------------------------|
| sRN DCPCUSPUPUIntLen |                  |        |               |                               |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description                   |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name   |
| Command              | DCPCUSPUPUIntLen | String | 16            | List of interval code lengths |

| Read Variable Response:     |                  |        |               |                                 |
|-----------------------------|------------------|--------|---------------|---------------------------------|
| sRA DCPCUSPUPUIntLen <data> |                  |        |               |                                 |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                     |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge |
| Command                     | DCPCUSPUPUIntLen | String | 16            | List of interval code lengths   |
| Variable Data               | data             | Array  | 8             |                                 |

| Write Variable:             |                  |        |               |                               |
|-----------------------------|------------------|--------|---------------|-------------------------------|
| sWN DCPCUSPUPUIntLen <data> |                  |        |               |                               |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                   |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name  |
| Command                     | DCPCUSPUPUIntLen | String | 16            | List of interval code lengths |
| Variable Data               | data             | Array  | 8             |                               |





| Write Variable Response: |                  |        |               |                                  |
|--------------------------|------------------|--------|---------------|----------------------------------|
| sWA DCPCUSPUPUIntLen     |                  |        |               |                                  |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description                      |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCUSPUPUIntLen | String | 16            | List of interval code lengths    |

### Variable Telegram Examples

| Example: Default Values                                     |                                    |
|---|------------------------------------|
| Variable telegram examples with data set to default values. |                                    |
| <b>Read Variable:</b>                                       | [STX]sRN DCPCUSPUPUIntLen[ETX]     |
| <b>Read Variable Response:</b>                              | [STX]sRA DCPCUSPUPUIntLen 0 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DCPCUSPUPUIntLen 0 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DCPCUSPUPUIntLen[ETX]     |

### 2.7.3.34. Variable: PostCodeUSPUsp4StateActive

The following section contains a detailed description of the variable PostCodeUSPUsp4StateActive.

#### Variable Overview

| Variable Name              | Description  |
|----------------------------|--|
| PostCodeUSPUsp4StateActive | Activates the United States Postal USPS 4-State code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCUSPUsp4SAct   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 263   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:       |                  |        |               |  |
|----------------------|------------------|--------|---------------|--|
| sRN DCPCUSPUsps4SAct |                  |        |               |  |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description  |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name                          |
| Command              | DCPCUSPUsps4SAct | String | 16            | Activates the United States Postal USPS 4-State code |

| Read Variable Response:     |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sRA DCPCUSPUsps4SAct <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description  |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge                      |
| Command                     | DCPCUSPUsps4SAct | String | 16            | Activates the United States Postal USPS 4-State code |
| Variable Data               | data             | Bool   | 1             |  |

| Write Variable:             |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sWN DCPCUSPUsps4SAct <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description  |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name                         |
| Command                     | DCPCUSPUsps4SAct | String | 16            | Activates the United States Postal USPS 4-State code |
| Variable Data               | data             | Bool   | 1             |  |

| Write Variable Response: |                  |        |               |  |
|--------------------------|------------------|--------|---------------|--|
| sWA DCPCUSPUsps4SAct     |                  |        |               |  |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description  |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge                     |
| Command                  | DCPCUSPUsps4SAct | String | 16            | Activates the United States Postal USPS 4-State code |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN DCPCUSPUsps4SAct[ETX]   |
| Read Variable Response:                                     | [STX]sRA DCPCUSPUsps4SAct 0[ETX] |
| Write Variable:   | [STX]sWN DCPCUSPUsps4SAct 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCUSPUsps4SAct[ETX]   |



### 2.7.3.35. Variable: PostCodeUSPUsps4StateLengthMode

The following section contains a detailed description of the variable PostCodeUSPUsps4StateLengthMode.

#### Variable Overview

| Variable Name                   | Description   |
|---------------------------------|---|
| PostCodeUSPUsps4StateLengthMode | Codelength mode of United States Postal USPS 4-State code |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCUSPUpsps4SLenMode                                   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 264   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_Free     |             |
|               | 1     | TX_Interval |             |
|               | 2     | TX_Fix      |             |

#### Variable Telegram Syntax

| Read Variable:            |                       |        |               |   |
|---------------------------|-----------------------|--------|---------------|---|
| sRN DCPCUSPUpsps4SLenMode |                       |        |               |   |
| Telegram Part             | Telegram              | Type   | Length [Byte] | Description   |
| Command Type              | sRN                   | String | 3             | Read SOPAS Variable by Name                               |
| Command                   | DCPCUSPUpsps4SLenMode | String | 20            | Codelength mode of United States Postal USPS 4-State code |

| Read Variable Response:          |                       |        |               |   |
|----------------------------------|-----------------------|--------|---------------|---|
| sRA DCPCUSPUpsps4SLenMode <data> |                       |        |               |   |
| Telegram Part                    | Telegram              | Type   | Length [Byte] | Description   |
| Command Type                     | sRA                   | String | 3             | SOPAS Variable Read Acknowledge                           |
| Command                          | DCPCUSPUpsps4SLenMode | String | 20            | Codelength mode of United States Postal USPS 4-State code |
| Variable Data                    | data                  | Enum8  | 1             |   |

| Write Variable:                  |                       |        |               |   |
|----------------------------------|-----------------------|--------|---------------|---|
| sWN DCPCUSPUpsps4SLenMode <data> |                       |        |               |   |
| Telegram Part                    | Telegram              | Type   | Length [Byte] | Description   |
| Command Type                     | sWN                   | String | 3             | Write SOPAS Variable by Name                              |
| Command                          | DCPCUSPUpsps4SLenMode | String | 20            | Codelength mode of United States Postal USPS 4-State code |
| Variable Data                    | data                  | Enum8  | 1             |   |

| Write Variable Response: |                     |        |               |   |
|--------------------------|---------------------|--------|---------------|---|
| sWA DCPCUSPUsp4SLenMode  |                     |        |               |   |
| Telegram Part            | Telegram            | Type   | Length [Byte] | Description   |
| Command Type             | sWA                 | String | 3             | SOPAS Variable Write Acknowledge                          |
| Command                  | DCPCUSPUsp4SLenMode | String | 20            | Codelength mode of United States Postal USPS 4-State code |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| <b>Read Variable:</b>                                       | [STX]sRN DCPCUSPUsp4SLenMode[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA DCPCUSPUsp4SLenMode 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DCPCUSPUsp4SLenMode 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DCPCUSPUsp4SLenMode[ETX]   |

### 2.7.3.36. Variable: PostCodeUSPUsp4StateFixLenList

The following section contains a detailed description of the variable PostCodeUSPUsp4StateFixLenList.

#### Variable Overview

| Variable Name                  | Description              |
|--------------------------------|--------------------------|
| PostCodeUSPUsp4StateFixLenList | List of fix code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCUSPUsp4SFixLen                                      |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 265   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |        |
|--------|----------------------|--------|
| Length |                      | 5      |
|        | UDInt                |        |
|        | Value Range          | 0..100 |
|        | Initialisation       | 0      |
|        | Physical Unit        |        |
|        | Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable:         |                    |        |               |                             |
|------------------------|--------------------|--------|---------------|-----------------------------|
| sRN DCPCUSPUsp4SFixLen |                    |        |               |                             |
| Telegram Part          | Telegram           | Type   | Length [Byte] | Description                 |
| Command Type           | sRN                | String | 3             | Read SOPAS Variable by Name |
| Command                | DCPCUSPUsp4SFixLen | String | 19            | List of fix code lengths    |

| Read Variable Response:       |                    |        |               |                                 |
|-------------------------------|--------------------|--------|---------------|---------------------------------|
| sRA DCPCUSPUsp4SFixLen <data> |                    |        |               |                                 |
| Telegram Part                 | Telegram           | Type   | Length [Byte] | Description                     |
| Command Type                  | sRA                | String | 3             | SOPAS Variable Read Acknowledge |
| Command                       | DCPCUSPUsp4SFixLen | String | 19            | List of fix code lengths        |
| Variable Data                 | data               | Array  | 20            |                                 |

| Write Variable:               |                    |        |               |                              |
|-------------------------------|--------------------|--------|---------------|------------------------------|
| sWN DCPCUSPUsp4SFixLen <data> |                    |        |               |                              |
| Telegram Part                 | Telegram           | Type   | Length [Byte] | Description                  |
| Command Type                  | sWN                | String | 3             | Write SOPAS Variable by Name |
| Command                       | DCPCUSPUsp4SFixLen | String | 19            | List of fix code lengths     |
| Variable Data                 | data               | Array  | 20            |                              |

| Write Variable Response: |                    |        |               |                                  |
|--------------------------|--------------------|--------|---------------|----------------------------------|
| sWA DCPCUSPUsp4SFixLen   |                    |        |               |                                  |
| Telegram Part            | Telegram           | Type   | Length [Byte] | Description                      |
| Command Type             | sWA                | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCUSPUsp4SFixLen | String | 19            | List of fix code lengths         |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN DCPCUSPUsp4SFixLen[ETX]           |
| Read Variable Response:                                     | [STX]sRA DCPCUSPUsp4SFixLen 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN DCPCUSPUsp4SFixLen 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCUSPUsp4SFixLen[ETX]           |

### 2.7.3.37. Variable: PostCodeUSPUsp4StateIntLenList

The following section contains a detailed description of the variable PostCodeUSPUsp4StateIntLenList.

#### Variable Overview

| Variable Name                  | Description                   |
|--------------------------------|-------------------------------|
| PostCodeUSPUsp4StateIntLenList | List of interval code lengths |

|                       |   |
|-----------------------|---|
| Communication Name    | DCPCUSPUsp4SIntLen                                      |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 266   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |        |
|----------------------|--------|
| Length               | 2      |
| <b>UDInt</b>         |        |
| Value Range          | 0..100 |
| Initialisation       | 0      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:         |                    |        |               |                               |
|------------------------|--------------------|--------|---------------|-------------------------------|
| sRN DCPCUSPUsp4SIntLen |                    |        |               |                               |
| Telegram Part          | Telegram           | Type   | Length [Byte] | Description                   |
| Command Type           | sRN                | String | 3             | Read SOPAS Variable by Name   |
| Command                | DCPCUSPUsp4SIntLen | String | 19            | List of interval code lengths |

| Read Variable Response:       |                    |        |               |                                 |
|-------------------------------|--------------------|--------|---------------|---------------------------------|
| sRA DCPCUSPUsp4SIntLen <data> |                    |        |               |                                 |
| Telegram Part                 | Telegram           | Type   | Length [Byte] | Description                     |
| Command Type                  | sRA                | String | 3             | SOPAS Variable Read Acknowledge |
| Command                       | DCPCUSPUsp4SIntLen | String | 19            | List of interval code lengths   |
| Variable Data                 | data               | Array  | 8             |                                 |

| Write Variable:               |                    |        |               |                               |
|-------------------------------|--------------------|--------|---------------|-------------------------------|
| sWN DCPCUSPUsp4SIntLen <data> |                    |        |               |                               |
| Telegram Part                 | Telegram           | Type   | Length [Byte] | Description                   |
| Command Type                  | sWN                | String | 3             | Write SOPAS Variable by Name  |
| Command                       | DCPCUSPUsp4SIntLen | String | 19            | List of interval code lengths |
| Variable Data                 | data               | Array  | 8             |                               |



| Write Variable Response: |                    |        |               |                                  |
|--------------------------|--------------------|--------|---------------|----------------------------------|
| sWA DCPCUSPUsp4SIntLen   |                    |        |               |                                  |
| Telegram Part            | Telegram           | Type   | Length [Byte] | Description                      |
| Command Type             | sWA                | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DCPCUSPUsp4SIntLen | String | 19            | List of interval code lengths    |

## Variable Telegram Examples

| Example: Default Values                                     |                                      |
|---|--------------------------------------|
| Variable telegram examples with data set to default values. |                                      |
| Read Variable:  | [STX]sRN DCPCUSPUsp4SIntLen[ETX]     |
| Read Variable Response:                                     | [STX]sRA DCPCUSPUsp4SIntLen 0 0[ETX] |
| Write Variable:   | [STX]sWN DCPCUSPUsp4SIntLen 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DCPCUSPUsp4SIntLen[ETX]     |

## 2.8. Interface Block: GeneralCfgObjAdminBase

### 2.8.1. Group: TrackingBase

#### 2.8.1.1. Variable: TrackingMode

The following section contains a detailed description of the variable TrackingMode.

#### Variable Overview

| Variable Name | Description                |
|---------------|----------------------------|
| TrackingMode  | Operating mode of Tracking |

|                       |   |
|-----------------------|---|
| Communication Name    | TRTrMode  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 267   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |              |             |
|---------------|-------|--------------|-------------|
| Default Value |       | 0            |             |
|               | Value | Name         | Description |
|               | 0     | TX_DISABLED  |             |
|               | 1     | TX_TR_ACTIVE |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN TRTrMode   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | TRTrMode | String | 8             | Operating mode of Tracking  |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA TRTrMode <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | TRTrMode | String | 8             | Operating mode of Tracking      |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN TRTrMode <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | TRTrMode | String | 8             | Operating mode of Tracking   |
| Variable Data       | data     | Enum8  | 1             |                              |





| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA TRTrMode             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | TRTrMode | String | 8             | Operating mode of Tracking       |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN TRTrMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA TRTrMode 0[ETX] |
| Write Variable:   | [STX]sWN TRTrMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TRTrMode[ETX]   |

### 2.8.1.2. Variable: TrackingTimeOut

The following section contains a detailed description of the variable TrackingTimeOut.

#### Variable Overview

| Variable Name   | Description          |
|-----------------|----------------------|
| TrackingTimeOut | Timeout for Tracking |

|                       |   |
|-----------------------|---|
| Communication Name    | TRTimeout   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 268   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |         |
|----------------------|---------|
| Value Range          | 0..5000 |
| Initialisation       | 50      |
| Physical Unit        | ms      |
| Physical Unit Factor | 0.0     |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN TRTimeout  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | TRTimeout | String | 9             | Timeout for Tracking        |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA TRTimeout <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | TRTimeout | String | 9             | Timeout for Tracking            |
| Variable Data           | data      | UDInt  | 4             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN TRTimeout <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | TRTimeout | String | 9             | Timeout for Tracking         |
| Variable Data        | data      | UDInt  | 4             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA TRTimeout            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | TRTimeout | String | 9             | Timeout for Tracking             |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN TRTimeout[ETX]    |
| Read Variable Response:                                     | [STX]sRA TRTimeout 32[ETX] |
| Write Variable:   | [STX]sWN TRTimeout 32[ETX] |
| Write Variable Response:                                    | [STX]sWA TRTimeout[ETX]    |



### 2.8.1.3. Variable: ObjectReleasePoint

The following section contains a detailed description of the variable ObjectReleasePoint.

#### Variable Overview

| Variable Name      | Description          |
|--------------------|----------------------|
| ObjectReleasePoint | Object Release Point |

|                       |   |
|-----------------------|---|
| Communication Name    | TRObjRel  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 269   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |          |
|----------------------|----------|
| Value Range          | 0..50000 |
| Initialisation       | 2000     |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN TRObjRel   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | TRObjRel | String | 8             | Object Release Point        |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA TRObjRel <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | TRObjRel | String | 8             | Object Release Point            |
| Variable Data           | data     | UDInt  | 4             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN TRObjRel <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | TRObjRel | String | 8             | Object Release Point         |
| Variable Data       | data     | UDInt  | 4             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA TRObjRel             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | TRObjRel | String | 8             | Object Release Point             |



## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN TRObjRel[ETX]     |
| Read Variable Response:                                     | [STX]sRA TRObjRel 7D0[ETX] |
| Write Variable:   | [STX]sWN TRObjRel 7D0[ETX] |
| Write Variable Response:                                    | [STX]sWA TRObjRel[ETX]     |

### 2.8.1.4. Variable: UseReleaseDelayTime

The following section contains a detailed description of the variable UseReleaseDelayTime.

#### Variable Overview

| Variable Name       | Description                         |
|---------------------|-------------------------------------|
| UseReleaseDelayTime | Use Release Delay Time for Tracking |

|                       |   |
|-----------------------|---|
| Communication Name    | TRUseReleaseDelayTime                                   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 270   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:            |                       |        |               |                                     |
|---------------------------|-----------------------|--------|---------------|-------------------------------------|
| sRN TRUseReleaseDelayTime |                       |        |               |                                     |
| Telegram Part             | Telegram              | Type   | Length [Byte] | Description                         |
| Command Type              | sRN                   | String | 3             | Read SOPAS Variable by Name         |
| Command                   | TRUseReleaseDelayTime | String | 21            | Use Release Delay Time for Tracking |

| Read Variable Response:          |                       |        |               |                                     |
|----------------------------------|-----------------------|--------|---------------|-------------------------------------|
| sRA TRUseReleaseDelayTime <data> |                       |        |               |                                     |
| Telegram Part                    | Telegram              | Type   | Length [Byte] | Description                         |
| Command Type                     | sRA                   | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                          | TRUseReleaseDelayTime | String | 21            | Use Release Delay Time for Tracking |
| Variable Data                    | data                  | Bool   | 1             |                                     |



| Write Variable:                  |                       |        |               |                                     |
|----------------------------------|-----------------------|--------|---------------|-------------------------------------|
| sWN TRUseReleaseDelayTime <data> |                       |        |               |                                     |
| Telegram Part                    | Telegram              | Type   | Length [Byte] | Description                         |
| Command Type                     | sWN                   | String | 3             | Write SOPAS Variable by Name        |
| Command                          | TRUseReleaseDelayTime | String | 21            | Use Release Delay Time for Tracking |
| Variable Data                    | data                  | Bool   | 1             |                                     |

| Write Variable Response:  |                       |        |               |                                     |
|---------------------------|-----------------------|--------|---------------|-------------------------------------|
| sWA TRUseReleaseDelayTime |                       |        |               |                                     |
| Telegram Part             | Telegram              | Type   | Length [Byte] | Description                         |
| Command Type              | sWA                   | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                   | TRUseReleaseDelayTime | String | 21            | Use Release Delay Time for Tracking |

## Variable Telegram Examples

| Example: Default Values                                     |                                       |
|---|---------------------------------------|
| Variable telegram examples with data set to default values. |                                       |
| Read Variable:  | [STX]sRN TRUseReleaseDelayTime[ETX]   |
| Read Variable Response:                                     | [STX]sRA TRUseReleaseDelayTime 0[ETX] |
| Write Variable:   | [STX]sWN TRUseReleaseDelayTime 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TRUseReleaseDelayTime[ETX]   |

### 2.8.1.5. Variable: ReleaseDelayTime

The following section contains a detailed description of the variable ReleaseDelayTime.

#### Variable Overview

| Variable Name    | Description                    |
|------------------|--------------------------------|
| ReleaseDelayTime | Post Release Time for Tracking |

|                       |   |
|-----------------------|---|
| Communication Name    | TRReleaseDelayTime                                      |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 271   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |          |
|----------------------|----------|
| Value Range          | 0..10000 |
| Initialisation       | 0        |
| Physical Unit        | ms       |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable:         |                    |        |               |                                |
|------------------------|--------------------|--------|---------------|--------------------------------|
| sRN TRReleaseDelayTime |                    |        |               |                                |
| Telegram Part          | Telegram           | Type   | Length [Byte] | Description                    |
| Command Type           | sRN                | String | 3             | Read SOPAS Variable by Name    |
| Command                | TRReleaseDelayTime | String | 18            | Post Release Time for Tracking |

| Read Variable Response:       |                    |        |               |                                 |
|-------------------------------|--------------------|--------|---------------|---------------------------------|
| sRA TRReleaseDelayTime <data> |                    |        |               |                                 |
| Telegram Part                 | Telegram           | Type   | Length [Byte] | Description                     |
| Command Type                  | sRA                | String | 3             | SOPAS Variable Read Acknowledge |
| Command                       | TRReleaseDelayTime | String | 18            | Post Release Time for Tracking  |
| Variable Data                 | data               | UDInt  | 4             |                                 |

| Write Variable:               |                    |        |               |                                |
|-------------------------------|--------------------|--------|---------------|--------------------------------|
| sWN TRReleaseDelayTime <data> |                    |        |               |                                |
| Telegram Part                 | Telegram           | Type   | Length [Byte] | Description                    |
| Command Type                  | sWN                | String | 3             | Write SOPAS Variable by Name   |
| Command                       | TRReleaseDelayTime | String | 18            | Post Release Time for Tracking |
| Variable Data                 | data               | UDInt  | 4             |                                |

| Write Variable Response: |                    |        |               |                                  |
|--------------------------|--------------------|--------|---------------|----------------------------------|
| sWA TRReleaseDelayTime   |                    |        |               |                                  |
| Telegram Part            | Telegram           | Type   | Length [Byte] | Description                      |
| Command Type             | sWA                | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | TRReleaseDelayTime | String | 18            | Post Release Time for Tracking   |

## Variable Telegram Examples

| Example: Default Values                                     |                                    |
|---|------------------------------------|
| Variable telegram examples with data set to default values. |                                    |
| Read Variable:  | [STX]sRN TRReleaseDelayTime[ETX]   |
| Read Variable Response:                                     | [STX]sRA TRReleaseDelayTime 0[ETX] |
| Write Variable:   | [STX]sWN TRReleaseDelayTime 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TRReleaseDelayTime[ETX]   |



### 2.8.1.6. Variable: LabelAssTol

The following section contains a detailed description of the variable LabelAssTol.

#### Variable Overview

| Variable Name | Description                |
|---------------|----------------------------|
| LabelAssTol   | Label Assignment Tolerance |

|                       |   |
|-----------------------|---|
| Communication Name    | TRLabAssTol   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 272   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                 |             |
|---------------|-------|-----------------|-------------|
| Default Value |       | 0               |             |
|               | Value | Name            | Description |
|               | 0     | TX_LAB_ASS_AUTO |             |
|               | 1     | TX_LAB_ASS_FIX  |             |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN TRLabAssTol |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | TRLabAssTol | String | 11            | Label Assignment Tolerance  |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA TRLabAssTol <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | TRLabAssTol | String | 11            | Label Assignment Tolerance      |
| Variable Data           | data        | Enum8  | 1             |                                 |

| Write Variable:        |             |        |               |                              |
|------------------------|-------------|--------|---------------|------------------------------|
| sWN TRLabAssTol <data> |             |        |               |                              |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name |
| Command                | TRLabAssTol | String | 11            | Label Assignment Tolerance   |
| Variable Data          | data        | Enum8  | 1             |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA TRLabAssTol          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | TRLabAssTol | String | 11            | Label Assignment Tolerance       |



## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN TRLabAssTo1[ETX]   |
| Read Variable Response:                                     | [STX]sRA TRLabAssTo1 0[ETX] |
| Write Variable:   | [STX]sWN TRLabAssTo1 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TRLabAssTo1[ETX]   |

### 2.8.1.7. Variable: LabelAssMax

The following section contains a detailed description of the variable LabelAssMax.

#### Variable Overview

| Variable Name | Description          |
|---------------|----------------------|
| LabelAssMax   | Max Label Assignment |

|                       |   |
|-----------------------|---|
| Communication Name    | TRLabAssMax   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 273   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |          |
|----------------------|----------|
| Value Range          | 50..1000 |
| Initialisation       | 200      |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN TRLabAssMax |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | TRLabAssMax | String | 11            | Max Label Assignment        |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA TRLabAssMax <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | TRLabAssMax | String | 11            | Max Label Assignment            |
| Variable Data           | data        | UDInt  | 4             |                                 |





| Write Variable:        |             |        |               |                              |
|------------------------|-------------|--------|---------------|------------------------------|
| sWN TRLabAssMax <data> |             |        |               |                              |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name |
| Command                | TRLabAssMax | String | 11            | Max Label Assignment         |
| Variable Data          | data        | UDInt  | 4             |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA TRLabAssMax          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | TRLabAssMax | String | 11            | Max Label Assignment             |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN TRLabAssMax[ETX]    |
| Read Variable Response:                                     | [STX]sRA TRLabAssMax C8[ETX] |
| Write Variable:   | [STX]sWN TRLabAssMax C8[ETX] |
| Write Variable Response:                                    | [STX]sWA TRLabAssMax[ETX]    |

### 2.8.1.8. Variable: LabelAssFix

The following section contains a detailed description of the variable LabelAssFix.

#### Variable Overview

| Variable Name | Description          |
|---------------|----------------------|
| LabelAssFix   | Fix Label Assignment |

|                       |   |
|-----------------------|---|
| Communication Name    | TRLabAssFix   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 274   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |             |
|----------------------|-------------|
| Value Range          | -1000..1000 |
| Initialisation       | 50          |
| Physical Unit        | mm          |
| Physical Unit Factor | 0.0         |

## Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN TRLabAssFix |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | TRLabAssFix | String | 11            | Fix Label Assignment        |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA TRLabAssFix <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | TRLabAssFix | String | 11            | Fix Label Assignment            |
| Variable Data           | data        | DInt   | 4             |                                 |

| Write Variable:        |             |        |               |                              |
|------------------------|-------------|--------|---------------|------------------------------|
| sWN TRLabAssFix <data> |             |        |               |                              |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name |
| Command                | TRLabAssFix | String | 11            | Fix Label Assignment         |
| Variable Data          | data        | DInt   | 4             |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA TRLabAssFix          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | TRLabAssFix | String | 11            | Fix Label Assignment             |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN TRLabAssFix[ETX]     |
| Read Variable Response:                                     | [STX]sRA TRLabAssFix 32[ETX]  |
| Write Variable:   | [STX]sWN TRLabAssFix +50[ETX] |
| Write Variable Response:                                    | [STX]sWA TRLabAssFix[ETX]     |



### 2.8.1.9. Variable: AssignmentMode

The following section contains a detailed description of the variable AssignmentMode.

#### Variable Overview

| Variable Name  | Description         |
|----------------|---------------------|
| AssignmentMode | Mode for assignment |

|                       |   |
|-----------------------|---|
| Communication Name    | TRAssMode   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 275   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                    |             |
|---------------|-------|--------------------|-------------|
| Default Value |       | 0                  |             |
|               | Value | Name               | Description |
|               | 0     | TX_INCREMENT_BASED |             |
|               | 1     | TX_3D_OBJECT_BASED |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN TRAssMode  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | TRAssMode | String | 9             | Mode for assignment         |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA TRAssMode <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | TRAssMode | String | 9             | Mode for assignment             |
| Variable Data           | data      | Enum8  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN TRAssMode <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | TRAssMode | String | 9             | Mode for assignment          |
| Variable Data        | data      | Enum8  | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA TRAssMode            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | TRAssMode | String | 9             | Mode for assignment              |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN TRAssMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA TRAssMode 0[ETX] |
| Write Variable:   | [STX]sWN TRAssMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TRAssMode[ETX]   |

### 2.8.1.10. Variable: MinTolerance3D

The following section contains a detailed description of the variable MinTolerance3D.

#### Variable Overview

| Variable Name  | Description                     |
|----------------|---------------------------------|
| MinTolerance3D | Min Tolerance for 3D Assignment |

|                       |   |
|-----------------------|---|
| Communication Name    | TRMinTol3D  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 276   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |             |
|----------------------|-------------|
| Value Range          | -1000..1000 |
| Initialisation       | 30          |
| Physical Unit        | mm          |
| Physical Unit Factor | 0.0         |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                                 |
|----------------|------------|--------|---------------|---------------------------------|
| sRN TRMinTol3D |            |        |               |                                 |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name     |
| Command        | TRMinTol3D | String | 10            | Min Tolerance for 3D Assignment |

| Read Variable Response: |            |        |               |                                 |
|-------------------------|------------|--------|---------------|---------------------------------|
| sRA TRMinTol3D <data>   |            |        |               |                                 |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | TRMinTol3D | String | 10            | Min Tolerance for 3D Assignment |
| Variable Data           | data       | DInt   | 4             |                                 |



| Write Variable:       |            |        |               |                                 |
|-----------------------|------------|--------|---------------|---------------------------------|
| sWN TRMinTol3D <data> |            |        |               |                                 |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name    |
| Command               | TRMinTol3D | String | 10            | Min Tolerance for 3D Assignment |
| Variable Data         | data       | DInt   | 4             |                                 |

| Write Variable Response: |            |        |               |                                  |
|--------------------------|------------|--------|---------------|----------------------------------|
| sWA TRMinTol3D           |            |        |               |                                  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | TRMinTol3D | String | 10            | Min Tolerance for 3D Assignment  |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN TRMinTol3D[ETX]     |
| Read Variable Response:                                     | [STX]sRA TRMinTol3D 1E[ETX]  |
| Write Variable:   | [STX]sWN TRMinTol3D +30[ETX] |
| Write Variable Response:                                    | [STX]sWA TRMinTol3D[ETX]     |

### 2.8.1.11. Variable: MaxTolerance3D

The following section contains a detailed description of the variable MaxTolerance3D.

#### Variable Overview

| Variable Name  | Description                     |
|----------------|---------------------------------|
| MaxTolerance3D | Max Tolerance for 3D Assignment |

|                       |   |
|-----------------------|---|
| Communication Name    | TRMaxTol3D  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 277   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |             |
|----------------------|-------------|
| Value Range          | -1000..1000 |
| Initialisation       | 50          |
| Physical Unit        | mm          |
| Physical Unit Factor | 0.0         |



## Variable Telegram Syntax

| Read Variable: |            |        |               |                                 |
|----------------|------------|--------|---------------|---------------------------------|
| sRN TRMaxTol3D |            |        |               |                                 |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name     |
| Command        | TRMaxTol3D | String | 10            | Max Tolerance for 3D Assignment |

| Read Variable Response: |            |        |               |                                 |
|-------------------------|------------|--------|---------------|---------------------------------|
| sRA TRMaxTol3D <data>   |            |        |               |                                 |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | TRMaxTol3D | String | 10            | Max Tolerance for 3D Assignment |
| Variable Data           | data       | DInt   | 4             |                                 |

| Write Variable:       |            |        |               |                                 |
|-----------------------|------------|--------|---------------|---------------------------------|
| sWN TRMaxTol3D <data> |            |        |               |                                 |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name    |
| Command               | TRMaxTol3D | String | 10            | Max Tolerance for 3D Assignment |
| Variable Data         | data       | DInt   | 4             |                                 |

| Write Variable Response: |            |        |               |                                  |
|--------------------------|------------|--------|---------------|----------------------------------|
| sWA TRMaxTol3D           |            |        |               |                                  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | TRMaxTol3D | String | 10            | Max Tolerance for 3D Assignment  |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN TRMaxTol3D[ETX]     |
| Read Variable Response:                                     | [STX]sRA TRMaxTol3D 32[ETX]  |
| Write Variable:   | [STX]sWN TRMaxTol3D +50[ETX] |
| Write Variable Response:                                    | [STX]sWA TRMaxTol3D[ETX]     |



## 2.8.1.12. Variable: StartOfAssignment

The following section contains a detailed description of the variable StartOfAssignment.

### Variable Overview

| Variable Name     | Description                           |
|-------------------|---------------------------------------|
| StartOfAssignment | Start of Assignment for 3D Assignment |

|                       |   |
|-----------------------|---|
| Communication Name    | TRStartOfAss  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 278   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |          |
|----------------------|----------|
| Value Range          | 0..50000 |
| Initialisation       | 1000     |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |

### Variable Telegram Syntax

| Read Variable:   |              |        |               |                                       |
|------------------|--------------|--------|---------------|---------------------------------------|
| sRN TRStartOfAss |              |        |               |                                       |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name           |
| Command          | TRStartOfAss | String | 12            | Start of Assignment for 3D Assignment |

| Read Variable Response: |              |        |               |                                       |
|-------------------------|--------------|--------|---------------|---------------------------------------|
| sRA TRStartOfAss <data> |              |        |               |                                       |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | TRStartOfAss | String | 12            | Start of Assignment for 3D Assignment |
| Variable Data           | data         | UDInt  | 4             |                                       |

| Write Variable:         |              |        |               |                                       |
|-------------------------|--------------|--------|---------------|---------------------------------------|
| sWN TRStartOfAss <data> |              |        |               |                                       |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name          |
| Command                 | TRStartOfAss | String | 12            | Start of Assignment for 3D Assignment |
| Variable Data           | data         | UDInt  | 4             |                                       |

| Write Variable Response: |              |        |               |                                       |
|--------------------------|--------------|--------|---------------|---------------------------------------|
| sWA TRStartOfAss         |              |        |               |                                       |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | TRStartOfAss | String | 12            | Start of Assignment for 3D Assignment |



## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN TRStartOfAss[ETX]     |
| Read Variable Response:                                     | [STX]sRA TRStartOfAss 3E8[ETX] |
| Write Variable:   | [STX]sWN TRStartOfAss 3E8[ETX] |
| Write Variable Response:                                    | [STX]sWA TRStartOfAss[ETX]     |





## 2.8.2. Group: OutputTimingBase

### 2.8.2.1. Variable: OutputTimingControl

The following section contains a detailed description of the variable OutputTimingControl.

#### Variable Overview

| Variable Name       | Description   |
|---------------------|---|
| OutputTimingControl | Switch wether output timing is time or track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | OTControl   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 279   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_TIME_BASED  |             |
|               | 1     | TX_TRACK_BASED |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN OTControl  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                             |
| Command        | OTControl | String | 9             | Switch wether output timing is time or track controlled |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA OTControl <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description   |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                         |
| Command                 | OTControl | String | 9             | Switch wether output timing is time or track controlled |
| Variable Data           | data      | Enum8  | 1             |   |

| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN OTControl <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description   |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                            |
| Command              | OTControl | String | 9             | Switch wether output timing is time or track controlled |
| Variable Data        | data      | Enum8  | 1             |   |



| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA OTControl            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                        |
| Command                  | OTControl | String | 9             | Switch wether output timing is time or track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN OTControl[ETX]   |
| Read Variable Response:                                     | [STX]sRA OTControl 0[ETX] |
| Write Variable:   | [STX]sWN OTControl 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OTControl[ETX]   |

### 2.8.2.2. Variable: OPSendPointTracking

The following section contains a detailed description of the variable OPSendPointTracking.

#### Variable Overview

| Variable Name       | Description                               |
|---------------------|---|
| OPSendPointTracking | Point of result output if Tracking active |

|                       |   |
|-----------------------|---|
| Communication Name    | OTSndPntTr  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 280   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                   |             |
|---------------|-------|-------------------|-------------|
| Default Value |       | 0                 |             |
|               | Value | Name              | Description |
|               | 0     | TX_OBJECT_RELATED |             |
|               | 1     | TX_END_OF_LABEL   |             |



## Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN OTSndPntTr |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name               |
| Command        | OTSndPntTr | String | 10            | Point of result output if Tracking active |

| Read Variable Response: |            |        |               |   |
|-------------------------|------------|--------|---------------|---|
| sRA OTSndPntTr <data>   |            |        |               |   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                 | OTSndPntTr | String | 10            | Point of result output if Tracking active |
| Variable Data           | data       | Enum8  | 1             |   |

| Write Variable:       |            |        |               |   |
|-----------------------|------------|--------|---------------|---|
| sWN OTSndPntTr <data> |            |        |               |   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name              |
| Command               | OTSndPntTr | String | 10            | Point of result output if Tracking active |
| Variable Data         | data       | Enum8  | 1             |   |

| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA OTSndPntTr           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                               |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge          |
| Command                  | OTSndPntTr | String | 10            | Point of result output if Tracking active |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN OTSndPntTr[ETX]   |
| Read Variable Response:                                     | [STX]sRA OTSndPntTr 0[ETX] |
| Write Variable:   | [STX]sWN OTSndPntTr 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OTSndPntTr[ETX]   |

### 2.8.2.3. Variable: OPSEndPointNonTracking

The following section contains a detailed description of the variable OPSEndPointNonTracking.

#### Variable Overview

| Variable Name          | Description                                 |
|------------------------|---|
| OPSEndPointNonTracking | Point of result output if Tracking disabled |

|                       |   |
|-----------------------|---|
| Communication Name    | OTSndPntNoTr  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 281   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | 0                      |             |
|               | Value | Name                   | Description |
|               | 0     | TX_END_OF_TRIG         |             |
|               | 1     | TX_AS_SOON_AS_POSSIBLE |             |
|               | 2     | TX_END_OF_LABEL        |             |
|               | 3     | TX_NEW_LABEL_CONTENT   |             |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |   |
|------------------|--------------|--------|---------------|---|
| sRN OTSndPntNoTr |              |        |               |   |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                                 |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name                 |
| Command          | OTSndPntNoTr | String | 12            | Point of result output if Tracking disabled |

| Read Variable Response: |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sRA OTSndPntNoTr <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                 |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge             |
| Command                 | OTSndPntNoTr | String | 12            | Point of result output if Tracking disabled |
| Variable Data           | data         | Enum8  | 1             |   |

| Write Variable:         |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sWN OTSndPntNoTr <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                 |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name                |
| Command                 | OTSndPntNoTr | String | 12            | Point of result output if Tracking disabled |
| Variable Data           | data         | Enum8  | 1             |   |



| Write Variable Response: |              |        |               |   |
|--------------------------|--------------|--------|---------------|---|
| sWA OTSndPntNoTr         |              |        |               |   |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                                 |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge            |
| Command                  | OTSndPntNoTr | String | 12            | Point of result output if Tracking disabled |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN OTSndPntNoTr[ETX]   |
| Read Variable Response:                                     | [STX]sRA OTSndPntNoTr 0[ETX] |
| Write Variable:   | [STX]sWN OTSndPntNoTr 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OTSndPntNoTr[ETX]   |

### 2.8.2.4. Variable: OPCondASAPenum

The following section contains a detailed description of the variable OPCondASAPenum.

#### Variable Overview

| Variable Name  | Description   |
|----------------|---|
| OPCondASAPenum | Condition enum for output if "As soon as possible" active |

|                       |   |
|-----------------------|---|
| Communication Name    | OTCondASAPenum  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 282   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |              |             |
|---------------|-------|--------------|-------------|
| Default Value |       | 0            |             |
|               | Value | Name         | Description |
|               | 0     | TX_GOOD_READ |             |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |   |
|--------------------|----------------|--------|---------------|---|
| sRN OTCondASAPenum |                |        |               |   |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description   |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name                               |
| Command            | OTCondASAPenum | String | 14            | Condition enum for output if "As soon as possible" active |

| Read Variable Response:   |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sRA OTCondASAPenum <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description   |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge                           |
| Command                   | OTCondASAPenum | String | 14            | Condition enum for output if "As soon as possible" active |
| Variable Data             | data           | Enum8  | 1             |   |

| Write Variable:           |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sWN OTCondASAPenum <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description   |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name                              |
| Command                   | OTCondASAPenum | String | 14            | Condition enum for output if "As soon as possible" active |
| Variable Data             | data           | Enum8  | 1             |   |

| Write Variable Response: |                |        |               |   |
|--------------------------|----------------|--------|---------------|---|
| sWA OTCondASAPenum       |                |        |               |   |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description   |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge                          |
| Command                  | OTCondASAPenum | String | 14            | Condition enum for output if "As soon as possible" active |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN OTCondASAPenum[ETX]   |
| Read Variable Response:                                     | [STX]sRA OTCondASAPenum 0[ETX] |
| Write Variable:   | [STX]sWN OTCondASAPenum 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OTCondASAPenum[ETX]   |

### 2.8.2.5. Variable: OPCondASAPstruct

The following section contains a detailed description of the variable OPCondASAPstruct.

#### Variable Overview

| Variable Name    | Description   |
|------------------|---|
| OPCondASAPstruct | Condition struct for output if "As soon as possible" active |

|                       |   |
|-----------------------|---|
| Communication Name    | OTCondASAPstruct  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 283   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UserType              |   |
|-----------------------|---|
| SETEditExtensibleEnum | See the chapter "User Types" for details. |

#### Variable Telegram Syntax

| Read Variable:       |                  |        |               |   |
|----------------------|------------------|--------|---------------|---|
| sRN OTCondASAPstruct |                  |        |               |   |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description   |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name                                 |
| Command              | OTCondASAPstruct | String | 16            | Condition struct for output if "As soon as possible" active |

| Read Variable Response:     |                  |                       |               |   |
|-----------------------------|------------------|-----------------------|---------------|---|
| sRA OTCondASAPstruct <data> |                  |                       |               |   |
| Telegram Part               | Telegram         | Type                  | Length [Byte] | Description   |
| Command Type                | sRA              | String                | 3             | SOPAS Variable Read Acknowledge                             |
| Command                     | OTCondASAPstruct | String                | 16            | Condition struct for output if "As soon as possible" active |
| Variable Data               | data             | SETEditExtensibleEnum | 19            |   |

| Write Variable:             |                  |                       |               |   |
|-----------------------------|------------------|-----------------------|---------------|---|
| sWN OTCondASAPstruct <data> |                  |                       |               |   |
| Telegram Part               | Telegram         | Type                  | Length [Byte] | Description   |
| Command Type                | sWN              | String                | 3             | Write SOPAS Variable by Name                                |
| Command                     | OTCondASAPstruct | String                | 16            | Condition struct for output if "As soon as possible" active |
| Variable Data               | data             | SETEditExtensibleEnum | 19            |   |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA OTCondASAPstruct     |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |                  |        |               |   |
|--------------------------|------------------|--------|---------------|---|
| sWA OTCondASAPstruct     |                  |        |               |   |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description   |
| Command                  | OTCondASAPstruct | String | 16            | Condition struct for output if "As soon as possible" active |

## Variable Telegram Examples

| Example: Default Values                                     |                                       |
|---|---------------------------------------|
| Variable telegram examples with data set to default values. |                                       |
| Read Variable:  | [STX]sRN OTCondASAPstruct[ETX]        |
| Read Variable Response:                                     | [STX]sRA OTCondASAPstruct 0 0[ETX]    |
| Write Variable:   | [STX]sWN OTCondASAPstruct 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OTCondASAPstruct[ETX]        |

### 2.8.2.6. Variable: OutputSendingPointReference

The following section contains a detailed description of the variable OutputSendingPointReference.

#### Variable Overview

| Variable Name               | Description                              |
|-----------------------------|--|
| OutputSendingPointReference | Point of result output if object related |

|                       |   |
|-----------------------|---|
| Communication Name    | OTSndPntRef   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 284   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                             |             |
|---------------|-------|-----------------------------|-------------|
| Default Value |       | 0                           |             |
|               | Value | Name                        | Description |
|               | 0     | TX_REFERED_TO_TRAILING_EDGE |             |
|               | 1     | TX_REFERED_TO_LEADING_EDGE  |             |





## Variable Telegram Syntax

| Read Variable:  |             |        |               |  |
|-----------------|-------------|--------|---------------|--|
| sRN OTSndPntRef |             |        |               |  |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name              |
| Command         | OTSndPntRef | String | 11            | Point of result output if object related |

| Read Variable Response: |             |        |               |  |
|-------------------------|-------------|--------|---------------|--|
| sRA OTSndPntRef <data>  |             |        |               |  |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge          |
| Command                 | OTSndPntRef | String | 11            | Point of result output if object related |
| Variable Data           | data        | Enum8  | 1             |  |

| Write Variable:        |             |        |               |  |
|------------------------|-------------|--------|---------------|--|
| sWN OTSndPntRef <data> |             |        |               |  |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name             |
| Command                | OTSndPntRef | String | 11            | Point of result output if object related |
| Variable Data          | data        | Enum8  | 1             |  |

| Write Variable Response: |             |        |               |  |
|--------------------------|-------------|--------|---------------|--|
| sWA OTSndPntRef          |             |        |               |  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | OTSndPntRef | String | 11            | Point of result output if object related |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN OTSndPntRef[ETX]   |
| Read Variable Response:                                     | [STX]sRA OTSndPntRef 0[ETX] |
| Write Variable:   | [STX]sWN OTSndPntRef 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OTSndPntRef[ETX]   |

### 2.8.2.7. Variable: OutputSendingPointDistance

The following section contains a detailed description of the variable OutputSendingPointDistance.

#### Variable Overview

| Variable Name              | Description                                 |
|----------------------------|---|
| OutputSendingPointDistance | Distance of result output if object related |

|                       |   |
|-----------------------|---|
| Communication Name    | OTSndPntDst   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 285   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 1..50000 |
| Initialisation       | 2500     |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN OTSndPntDst |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                 |
| Command         | OTSndPntDst | String | 11            | Distance of result output if object related |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA OTSndPntDst <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                 |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge             |
| Command                 | OTSndPntDst | String | 11            | Distance of result output if object related |
| Variable Data           | data        | UInt   | 2             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN OTSndPntDst <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                 |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                |
| Command                | OTSndPntDst | String | 11            | Distance of result output if object related |
| Variable Data          | data        | UInt   | 2             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA OTSndPntDst          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                 |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge            |
| Command                  | OTSndPntDst | String | 11            | Distance of result output if object related |



## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| <b>Read Variable:</b>                                       | [STX]sRN OTSndPntDst[ETX]     |
| <b>Read Variable Response:</b>                              | [STX]sRA OTSndPntDst 9C4[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN OTSndPntDst 9C4[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA OTSndPntDst[ETX]     |

### 2.8.2.8. Variable: OutputSendingPointTime

The following section contains a detailed description of the variable OutputSendingPointTime.

#### Variable Overview

| Variable Name          | Description                             |
|------------------------|---|
| OutputSendingPointTime | Time of result output if object related |

|                       |   |
|-----------------------|---|
| Communication Name    | OTSndPntTime  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 286   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 1..50000 |
| Initialisation       | 2500     |
| Physical Unit        | ms       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |   |
|------------------|--------------|--------|---------------|---|
| sRN OTSndPntTime |              |        |               |   |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                             |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name             |
| Command          | OTSndPntTime | String | 12            | Time of result output if object related |

| Read Variable Response: |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sRA OTSndPntTime <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                             |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | OTSndPntTime | String | 12            | Time of result output if object related |
| Variable Data           | data         | UInt   | 2             |   |



| Write Variable:         |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sWN OTSndPntTime <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                             |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name            |
| Command                 | OTSndPntTime | String | 12            | Time of result output if object related |
| Variable Data           | data         | UInt   | 2             |   |

| Write Variable Response: |              |        |               |   |
|--------------------------|--------------|--------|---------------|---|
| sWA OTSndPntTime         |              |        |               |   |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                             |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | OTSndPntTime | String | 12            | Time of result output if object related |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN OTSndPntTime[ETX]     |
| Read Variable Response:                                     | [STX]sRA OTSndPntTime 9C4[ETX] |
| Write Variable:   | [STX]sWN OTSndPntTime 9C4[ETX] |
| Write Variable Response:                                    | [STX]sWA OTSndPntTime[ETX]     |

### 2.8.2.9. Variable: OutputDelayTime

The following section contains a detailed description of the variable OutputDelayTime.

#### Variable Overview

| Variable Name   | Description                     |
|-----------------|---------------------------------|
| OutputDelayTime | Output delay if time controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | OTDelayTm   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 287   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |         |
|----------------------|---------|
| Value Range          | 0..5000 |
| Initialisation       | 50      |
| Physical Unit        | ms      |
| Physical Unit Factor | 0.0     |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                                 |
|----------------|-----------|--------|---------------|---------------------------------|
| sRN OTDelayTm  |           |        |               |                                 |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name     |
| Command        | OTDelayTm | String | 9             | Output delay if time controlled |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA OTDelayTm <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | OTDelayTm | String | 9             | Output delay if time controlled |
| Variable Data           | data      | UInt   | 2             |                                 |

| Write Variable:      |           |        |               |                                 |
|----------------------|-----------|--------|---------------|---------------------------------|
| sWN OTDelayTm <data> |           |        |               |                                 |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name    |
| Command              | OTDelayTm | String | 9             | Output delay if time controlled |
| Variable Data        | data      | UInt   | 2             |                                 |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA OTDelayTm            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | OTDelayTm | String | 9             | Output delay if time controlled  |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN OTDelayTm[ETX]    |
| Read Variable Response:                                     | [STX]sRA OTDelayTm 32[ETX] |
| Write Variable:   | [STX]sWN OTDelayTm 32[ETX] |
| Write Variable Response:                                    | [STX]sWA OTDelayTm[ETX]    |

## 2.8.2.10. Variable: OutputDelayTrack

The following section contains a detailed description of the variable OutputDelayTrack.

### Variable Overview

| Variable Name    | Description                      |
|------------------|----------------------------------|
| OutputDelayTrack | Output delay if track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | OTDelayTk   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 288   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..50000 |
| Initialisation       | 50       |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |

### Variable Telegram Syntax

| Read Variable: |           |        |               |                                  |
|----------------|-----------|--------|---------------|----------------------------------|
| sRN OTDelayTk  |           |        |               |                                  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name      |
| Command        | OTDelayTk | String | 9             | Output delay if track controlled |

| Read Variable Response: |           |        |               |                                  |
|-------------------------|-----------|--------|---------------|----------------------------------|
| sRA OTDelayTk <data>    |           |        |               |                                  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | OTDelayTk | String | 9             | Output delay if track controlled |
| Variable Data           | data      | UInt   | 2             |                                  |

| Write Variable:      |           |        |               |                                  |
|----------------------|-----------|--------|---------------|----------------------------------|
| sWN OTDelayTk <data> |           |        |               |                                  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name     |
| Command              | OTDelayTk | String | 9             | Output delay if track controlled |
| Variable Data        | data      | UInt   | 2             |                                  |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA OTDelayTk            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | OTDelayTk | String | 9             | Output delay if track controlled |



## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN OTDelayTk[ETX]    |
| Read Variable Response:                                     | [STX]sRA OTDelayTk 32[ETX] |
| Write Variable:   | [STX]sWN OTDelayTk 32[ETX] |
| Write Variable Response:                                    | [STX]sWA OTDelayTk[ETX]    |

### 2.8.2.11. Variable: TimeoutTime

The following section contains a detailed description of the variable TimeoutTime.

#### Variable Overview

| Variable Name | Description                                      |
|---------------|--|
| TimeoutTime   | End of Label and asap timeout if time controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | OTTimoTm  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 289   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 1..50000 |
| Initialisation       | 500      |
| Physical Unit        | ms       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN OTTimoTm   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                                      |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                      |
| Command        | OTTimoTm | String | 8             | End of Label and asap timeout if time controlled |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA OTTimoTm <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                                      |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                  |
| Command                 | OTTimoTm | String | 8             | End of Label and asap timeout if time controlled |
| Variable Data           | data     | UInt   | 2             |  |



| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN OTTimoTm <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                                      |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                     |
| Command             | OTTimoTm | String | 8             | End of Label and asap timeout if time controlled |
| Variable Data       | data     | UInt   | 2             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA OTTimoTm             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                 |
| Command                  | OTTimoTm | String | 8             | End of Label and asap timeout if time controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN OTTimoTm[ETX]     |
| Read Variable Response:                                     | [STX]sRA OTTimoTm 1F4[ETX] |
| Write Variable:   | [STX]sWN OTTimoTm 1F4[ETX] |
| Write Variable Response:                                    | [STX]sWA OTTimoTm[ETX]     |

### 2.8.2.12. Variable: TimeoutTrack

The following section contains a detailed description of the variable TimeoutTrack.

#### Variable Overview

| Variable Name | Description                                       |
|---------------|---|
| TimeoutTrack  | End of label and asap timeout if track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | OTTimoTk  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 290   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 1..50000 |
| Initialisation       | 500      |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |





## Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN OTTimoTk   |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                                       |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                       |
| Command        | OTTimoTk | String | 8             | End of label and asap timeout if track controlled |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA OTTimoTk <data>     |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                                       |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                   |
| Command                 | OTTimoTk | String | 8             | End of label and asap timeout if track controlled |
| Variable Data           | data     | UInt   | 2             |   |

| Write Variable:     |          |        |               |   |
|---------------------|----------|--------|---------------|---|
| sWN OTTimoTk <data> |          |        |               |   |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                                       |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                      |
| Command             | OTTimoTk | String | 8             | End of label and asap timeout if track controlled |
| Variable Data       | data     | UInt   | 2             |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA OTTimoTk             |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                                       |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                  |
| Command                  | OTTimoTk | String | 8             | End of label and asap timeout if track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN OTTimoTk[ETX]     |
| Read Variable Response:                                     | [STX]sRA OTTimoTk 1F4[ETX] |
| Write Variable:   | [STX]sWN OTTimoTk 1F4[ETX] |
| Write Variable Response:                                    | [STX]sWA OTTimoTk[ETX]     |



### 2.8.2.13. Variable: OutputOutputMode

The following section contains a detailed description of the variable OutputOutputMode.

#### Variable Overview

| Variable Name    | Description                                      |
|------------------|--|
| OutputOutputMode | Switches output mode between single and multiple |

|                       |   |
|-----------------------|---|
| Communication Name    | OTOutMode   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 291   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_SINGLE   |             |
|               | 1     | TX_MULTIPLE |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN OTOutMode  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                                      |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                      |
| Command        | OTOutMode | String | 9             | Switches output mode between single and multiple |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA OTOutMode <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                                      |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                  |
| Command                 | OTOutMode | String | 9             | Switches output mode between single and multiple |
| Variable Data           | data      | Enum8  | 1             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN OTOutMode <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                                      |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                     |
| Command              | OTOutMode | String | 9             | Switches output mode between single and multiple |
| Variable Data        | data      | Enum8  | 1             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA OTOutMode            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                 |
| Command                  | OTOutMode | String | 9             | Switches output mode between single and multiple |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN OTOutMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA OTOutMode 0[ETX] |
| Write Variable:   | [STX]sWN OTOutMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OTOutMode[ETX]   |

### 2.8.2.14. Variable: ASAPLabelTimeoutTime

The following section contains a detailed description of the variable ASAPLabelTimeoutTime.

#### Variable Overview

| Variable Name        | Description                             |
|----------------------|---|
| ASAPLabelTimeoutTime | Timeout time for one label in ASAP mode |

|                       |   |
|-----------------------|---|
| Communication Name    | OTASAPLabTimoTm   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 292   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |          |
|----------------------|----------|
| Value Range          | 1..60000 |
| Initialisation       | 100      |
| Physical Unit        | ms       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable:      |                 |        |               |   |
|---------------------|-----------------|--------|---------------|---|
| sRN OTASAPLabTimoTm |                 |        |               |   |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                             |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name             |
| Command             | OTASAPLabTimoTm | String | 15            | Timeout time for one label in ASAP mode |

| Read Variable Response:    |                 |        |               |   |
|----------------------------|-----------------|--------|---------------|---|
| sRA OTASAPLabTimoTm <data> |                 |        |               |   |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                             |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                    | OTASAPLabTimoTm | String | 15            | Timeout time for one label in ASAP mode |
| Variable Data              | data            | UDInt  | 4             |   |

| Write Variable:            |                 |        |               |   |
|----------------------------|-----------------|--------|---------------|---|
| sWN OTASAPLabTimoTm <data> |                 |        |               |   |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                             |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name            |
| Command                    | OTASAPLabTimoTm | String | 15            | Timeout time for one label in ASAP mode |
| Variable Data              | data            | UDInt  | 4             |   |

| Write Variable Response: |                 |        |               |   |
|--------------------------|-----------------|--------|---------------|---|
| sWA OTASAPLabTimoTm      |                 |        |               |   |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                             |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | OTASAPLabTimoTm | String | 15            | Timeout time for one label in ASAP mode |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| <b>Read Variable:</b>                                       | [STX]sRN OTASAPLabTimoTm[ETX]    |
| <b>Read Variable Response:</b>                              | [STX]sRA OTASAPLabTimoTm 64[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN OTASAPLabTimoTm 64[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA OTASAPLabTimoTm[ETX]    |

### 2.8.2.15. Variable: ASAPLabelTimeoutTrack

The following section contains a detailed description of the variable ASAPLabelTimeoutTrack.

#### Variable Overview

| Variable Name         | Description                                 |
|-----------------------|---|
| ASAPLabelTimeoutTrack | Timeout distance for one label in ASAP mode |

|                       |   |
|-----------------------|---|
| Communication Name    | TRASAPLabTimoTk   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 293   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |          |
|----------------------|----------|
| Value Range          | 1..50000 |
| Initialisation       | 100      |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable:      |                 |        |               |   |
|---------------------|-----------------|--------|---------------|---|
| sRN TRASAPLabTimoTk |                 |        |               |   |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                                 |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name                 |
| Command             | TRASAPLabTimoTk | String | 15            | Timeout distance for one label in ASAP mode |

| Read Variable Response:    |                 |        |               |   |
|----------------------------|-----------------|--------|---------------|---|
| sRA TRASAPLabTimoTk <data> |                 |        |               |   |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                                 |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge             |
| Command                    | TRASAPLabTimoTk | String | 15            | Timeout distance for one label in ASAP mode |
| Variable Data              | data            | UDInt  | 4             |   |

| Write Variable:            |                 |        |               |   |
|----------------------------|-----------------|--------|---------------|---|
| sWN TRASAPLabTimoTk <data> |                 |        |               |   |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                                 |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name                |
| Command                    | TRASAPLabTimoTk | String | 15            | Timeout distance for one label in ASAP mode |
| Variable Data              | data            | UDInt  | 4             |   |

| Write Variable Response: |                 |        |               |   |
|--------------------------|-----------------|--------|---------------|---|
| sWA TRASAPLabTimoTk      |                 |        |               |   |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                                 |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge            |
| Command                  | TRASAPLabTimoTk | String | 15            | Timeout distance for one label in ASAP mode |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN TRASAPLabTimoTk[ETX]    |
| Read Variable Response:                                     | [STX]sRA TRASAPLabTimoTk 64[ETX] |
| Write Variable:   | [STX]sWN TRASAPLabTimoTk 64[ETX] |
| Write Variable Response:                                    | [STX]sWA TRASAPLabTimoTk[ETX]    |

## 2.8.2.16. Variable: ASAPConditionTimeoutTime

The following section contains a detailed description of the variable ASAPConditionTimeoutTime.

### Variable Overview

| Variable Name            | Description                                 |
|--------------------------|---|
| ASAPConditionTimeoutTime | Timeout time for one condition in ASAP mode |

|                       |   |
|-----------------------|---|
| Communication Name    | OTASAPCondTimoTm  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 294   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |          |
|----------------------|----------|
| Value Range          | 1..60000 |
| Initialisation       | 100      |
| Physical Unit        | ms       |
| Physical Unit Factor | 0.0      |

### Variable Telegram Syntax

| Read Variable:       |                  |        |               |   |
|----------------------|------------------|--------|---------------|---|
| sRN OTASAPCondTimoTm |                  |        |               |   |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description                                 |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name                 |
| Command              | OTASAPCondTimoTm | String | 16            | Timeout time for one condition in ASAP mode |

| Read Variable Response:     |                  |        |               |   |
|-----------------------------|------------------|--------|---------------|---|
| sRA OTASAPCondTimoTm <data> |                  |        |               |   |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                                 |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge             |
| Command                     | OTASAPCondTimoTm | String | 16            | Timeout time for one condition in ASAP mode |
| Variable Data               | data             | UDInt  | 4             |   |

| Write Variable:             |                  |        |               |   |
|-----------------------------|------------------|--------|---------------|---|
| sWN OTASAPCondTimoTm <data> |                  |        |               |   |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                                 |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name                |
| Command                     | OTASAPCondTimoTm | String | 16            | Timeout time for one condition in ASAP mode |
| Variable Data               | data             | UDInt  | 4             |   |

| Write Variable Response: |                  |        |               |   |
|--------------------------|------------------|--------|---------------|---|
| sWA OTASAPCondTimoTm     |                  |        |               |   |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description                                 |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge            |
| Command                  | OTASAPCondTimoTm | String | 16            | Timeout time for one condition in ASAP mode |



## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN OTASAPCondTimoTm[ETX]    |
| Read Variable Response:                                     | [STX]sRA OTASAPCondTimoTm 64[ETX] |
| Write Variable:   | [STX]sWN OTASAPCondTimoTm 64[ETX] |
| Write Variable Response:                                    | [STX]sWA OTASAPCondTimoTm[ETX]    |

### 2.8.2.17. Variable: ASAPConditionTimeoutTrack

The following section contains a detailed description of the variable ASAPConditionTimeoutTrack.

#### Variable Overview

| Variable Name             | Description                                     |
|---------------------------|---|
| ASAPConditionTimeoutTrack | Timeout distance for one condition in ASAP mode |

|                       |   |
|-----------------------|---|
| Communication Name    | TRASAPCondTimoTk  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 295   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |          |
|----------------------|----------|
| Value Range          | 1..50000 |
| Initialisation       | 100      |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable:       |                  |        |               |   |
|----------------------|------------------|--------|---------------|---|
| sRN TRASAPCondTimoTk |                  |        |               |   |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description                                     |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name                     |
| Command              | TRASAPCondTimoTk | String | 16            | Timeout distance for one condition in ASAP mode |

| Read Variable Response:     |                  |        |               |   |
|-----------------------------|------------------|--------|---------------|---|
| sRA TRASAPCondTimoTk <data> |                  |        |               |   |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                                     |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge                 |
| Command                     | TRASAPCondTimoTk | String | 16            | Timeout distance for one condition in ASAP mode |
| Variable Data               | data             | UDInt  | 4             |   |



| Write Variable:             |                  |        |               |   |
|-----------------------------|------------------|--------|---------------|---|
| sWN TRASAPCondTimoTk <data> |                  |        |               |   |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                                     |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name                    |
| Command                     | TRASAPCondTimoTk | String | 16            | Timeout distance for one condition in ASAP mode |
| Variable Data               | data             | UDInt  | 4             |   |

| Write Variable Response: |                  |        |               |   |
|--------------------------|------------------|--------|---------------|---|
| sWA TRASAPCondTimoTk     |                  |        |               |   |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description                                     |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge                |
| Command                  | TRASAPCondTimoTk | String | 16            | Timeout distance for one condition in ASAP mode |

## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| <b>Read Variable:</b>                                       | [STX]sRN TRASAPCondTimoTk[ETX]    |
| <b>Read Variable Response:</b>                              | [STX]sRA TRASAPCondTimoTk 64[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN TRASAPCondTimoTk 64[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA TRASAPCondTimoTk[ETX]    |

### 2.8.2.18. Variable: CodeFilterDepth

The following section contains a detailed description of the variable CodeFilterDepth.

#### Variable Overview

| Variable Name   | Description                       |
|-----------------|-----------------------------------|
| CodeFilterDepth | Depth of the label content filter |

|                       |   |
|-----------------------|---|
| Communication Name    | TRCdFltrDpt   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 296   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |       |
|----------------------|-------|
| Value Range          | 0..50 |
| Initialisation       | 1     |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |





## Variable Telegram Syntax

| Read Variable:   |              |        |               |                                   |
|------------------|--------------|--------|---------------|-----------------------------------|
| sRN TRCdFiltrDpt |              |        |               |                                   |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                       |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name       |
| Command          | TRCdFiltrDpt | String | 11            | Depth of the label content filter |

| Read Variable Response: |              |        |               |                                   |
|-------------------------|--------------|--------|---------------|-----------------------------------|
| sRA TRCdFiltrDpt <data> |              |        |               |                                   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                       |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | TRCdFiltrDpt | String | 11            | Depth of the label content filter |
| Variable Data           | data         | UDInt  | 4             |                                   |

| Write Variable:         |              |        |               |                                   |
|-------------------------|--------------|--------|---------------|-----------------------------------|
| sWN TRCdFiltrDpt <data> |              |        |               |                                   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                       |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name      |
| Command                 | TRCdFiltrDpt | String | 11            | Depth of the label content filter |
| Variable Data           | data         | UDInt  | 4             |                                   |

| Write Variable Response: |              |        |               |                                   |
|--------------------------|--------------|--------|---------------|-----------------------------------|
| sWA TRCdFiltrDpt         |              |        |               |                                   |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                       |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | TRCdFiltrDpt | String | 11            | Depth of the label content filter |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN TRCdFiltrDpt[ETX]   |
| Read Variable Response:                                     | [STX]sRA TRCdFiltrDpt 1[ETX] |
| Write Variable:   | [STX]sWN TRCdFiltrDpt 1[ETX] |
| Write Variable Response:                                    | [STX]sWA TRCdFiltrDpt[ETX]   |



### 2.8.2.19. Variable: LabelTimeoutTimeActive

The following section contains a detailed description of the variable LabelTimeoutTimeActive.

#### Variable Overview

| Variable Name          | Description                 |
|------------------------|-----------------------------|
| LabelTimeoutTimeActive | Aktivates the label timeout |

|                       |   |
|-----------------------|---|
| Communication Name    | OTLabTimoAct  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 297   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |                             |
|------------------|--------------|--------|---------------|-----------------------------|
| sRN OTLabTimoAct |              |        |               |                             |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                 |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name |
| Command          | OTLabTimoAct | String | 12            | Aktivates the label timeout |

| Read Variable Response: |              |        |               |                                 |
|-------------------------|--------------|--------|---------------|---------------------------------|
| sRA OTLabTimoAct <data> |              |        |               |                                 |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | OTLabTimoAct | String | 12            | Aktivates the label timeout     |
| Variable Data           | data         | Bool   | 1             |                                 |

| Write Variable:         |              |        |               |                              |
|-------------------------|--------------|--------|---------------|------------------------------|
| sWN OTLabTimoAct <data> |              |        |               |                              |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                  |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name |
| Command                 | OTLabTimoAct | String | 12            | Aktivates the label timeout  |
| Variable Data           | data         | Bool   | 1             |                              |

| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA OTLabTimoAct         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | OTLabTimoAct | String | 12            | Aktivates the label timeout      |



## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| <b>Read Variable:</b>                                       | [STX]sRN OTLabTimoAct[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA OTLabTimoAct 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN OTLabTimoAct 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA OTLabTimoAct[ETX]   |

### 2.8.2.20. Variable: LabelTimeoutTime

The following section contains a detailed description of the variable LabelTimeoutTime.

#### Variable Overview

| Variable Name    | Description                |
|------------------|----------------------------|
| LabelTimeoutTime | Timeout time for one label |

|                       |   |
|-----------------------|---|
| Communication Name    | OTLabTimoTm   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 298   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |          |
|----------------------|----------|
| Value Range          | 1..60000 |
| Initialisation       | 100      |
| Physical Unit        | ms       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN OTLabTimoTm |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | OTLabTimoTm | String | 11            | Timeout time for one label  |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA OTLabTimoTm <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | OTLabTimoTm | String | 11            | Timeout time for one label      |
| Variable Data           | data        | UDInt  | 4             |                                 |



| Write Variable:        |             |        |               |                              |
|------------------------|-------------|--------|---------------|------------------------------|
| sWN OTLabTimoTm <data> |             |        |               |                              |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name |
| Command                | OTLabTimoTm | String | 11            | Timeout time for one label   |
| Variable Data          | data        | UDInt  | 4             |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA OTLabTimoTm          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | OTLabTimoTm | String | 11            | Timeout time for one label       |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN OTLabTimoTm[ETX]    |
| Read Variable Response:                                     | [STX]sRA OTLabTimoTm 64[ETX] |
| Write Variable:   | [STX]sWN OTLabTimoTm 64[ETX] |
| Write Variable Response:                                    | [STX]sWA OTLabTimoTm[ETX]    |

### 2.8.2.21. Variable: LabelTimeoutTrack

The following section contains a detailed description of the variable LabelTimeoutTrack.

#### Variable Overview

| Variable Name     | Description                    |
|-------------------|--------------------------------|
| LabelTimeoutTrack | Timeout distance for one label |

|                       |   |
|-----------------------|---|
| Communication Name    | TRLabTimoTk   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 299   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |          |
|----------------------|----------|
| Value Range          | 1..50000 |
| Initialisation       | 100      |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                |
|-----------------|-------------|--------|---------------|--------------------------------|
| sRN TRLabTimoTk |             |        |               |                                |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                    |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name    |
| Command         | TRLabTimoTk | String | 11            | Timeout distance for one label |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA TRLabTimoTk <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | TRLabTimoTk | String | 11            | Timeout distance for one label  |
| Variable Data           | data        | UDInt  | 4             |                                 |

| Write Variable:        |             |        |               |                                |
|------------------------|-------------|--------|---------------|--------------------------------|
| sWN TRLabTimoTk <data> |             |        |               |                                |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                    |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name   |
| Command                | TRLabTimoTk | String | 11            | Timeout distance for one label |
| Variable Data          | data        | UDInt  | 4             |                                |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA TRLabTimoTk          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | TRLabTimoTk | String | 11            | Timeout distance for one label   |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN TRLabTimoTk[ETX]    |
| Read Variable Response:                                     | [STX]sRA TRLabTimoTk 64[ETX] |
| Write Variable:   | [STX]sWN TRLabTimoTk 64[ETX] |
| Write Variable Response:                                    | [STX]sWA TRLabTimoTk[ETX]    |

## 2.8.3. Group: OutputFormattingBase

### 2.8.3.1. Variable: OFTemplateString1

The following section contains a detailed description of the variable OFTemplateString1.

#### Variable Overview

| Variable Name     | Description                                       |
|-------------------|---|
| OFTemplateString1 | Temlate string defintion for output definition #1 |

|                       |   |
|-----------------------|---|
| Communication Name    | OFtplstr1   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 300   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |   |
|----------------|---|
| Length         | 0..1024   |
| Initialisation | \x02[iec _GoodReadCond][f][\$BC][e][l]NoRead[e]\x03 |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN OFtplstr1  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                                       |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                       |
| Command        | OFtplstr1 | String | 9             | Temlate string defintion for output definition #1 |

| Read Variable Response: |           |            |               |   |
|-------------------------|-----------|------------|---------------|---|
| sRA OFtplstr1 <data>    |           |            |               |   |
| Telegram Part           | Telegram  | Type       | Length [Byte] | Description                                       |
| Command Type            | sRA       | String     | 3             | SOPAS Variable Read Acknowledge                   |
| Command                 | OFtplstr1 | String     | 9             | Temlate string defintion for output definition #1 |
| Variable Data           | data      | FlexString | 1024          |   |

| Write Variable:      |           |            |               |   |
|----------------------|-----------|------------|---------------|---|
| sWN OFtplstr1 <data> |           |            |               |   |
| Telegram Part        | Telegram  | Type       | Length [Byte] | Description                                       |
| Command Type         | sWN       | String     | 3             | Write SOPAS Variable by Name                      |
| Command              | OFtplstr1 | String     | 9             | Temlate string defintion for output definition #1 |
| Variable Data        | data      | FlexString | 1024          |   |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA OFtplstr1            |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA OFtplstr1            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                                       |
| Command                  | OFtplstr1 | String | 9             | Temlate string defintion for output definition #1 |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN OFtplstr1[ETX]   |
| Read Variable Response:                                     | [STX]sRA OFtplstr1 32 \x02[iec _GoodReadCond][f][\$BC][e][1]NoRead[e]\x03[ETX]  |
| Write Variable:   | [STX]sWN OFtplstr1 +50 \x02[iec _GoodReadCond][f][\$BC][e][1]NoRead[e]\x03[ETX] |
| Write Variable Response:                                    | [STX]sWA OFtplstr1[ETX]   |

### 2.8.3.2. Variable: OFTemplateString2

The following section contains a detailed description of the variable OFTemplateString2.

#### Variable Overview

| Variable Name     | Description  |
|-------------------|--|
| OFTemplateString2 | Template string defintion for output definition #2 |

|                       |   |
|-----------------------|---|
| Communication Name    | OFtplstr2   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 301   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |   |
|----------------|---|
| Length         | 0..1024   |
| Initialisation | \x02[iec _GoodReadCond][f][\$BC][e][1]NoRead[e]\x03 |

## Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN OFtplstr2  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                         |
| Command        | OFtplstr2 | String | 9             | Template string definition for output definition #2 |

| Read Variable Response: |           |            |               |   |
|-------------------------|-----------|------------|---------------|---|
| sRA OFtplstr2 <data>    |           |            |               |   |
| Telegram Part           | Telegram  | Type       | Length [Byte] | Description   |
| Command Type            | sRA       | String     | 3             | SOPAS Variable Read Acknowledge                     |
| Command                 | OFtplstr2 | String     | 9             | Template string definition for output definition #2 |
| Variable Data           | data      | FlexString | 1024          |   |

| Write Variable:      |           |            |               |   |
|----------------------|-----------|------------|---------------|---|
| sWN OFtplstr2 <data> |           |            |               |   |
| Telegram Part        | Telegram  | Type       | Length [Byte] | Description   |
| Command Type         | sWN       | String     | 3             | Write SOPAS Variable by Name                        |
| Command              | OFtplstr2 | String     | 9             | Template string definition for output definition #2 |
| Variable Data        | data      | FlexString | 1024          |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA OFtplstr2            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                    |
| Command                  | OFtplstr2 | String | 9             | Template string definition for output definition #2 |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN OFtplstr2[ETX]   |
| Read Variable Response:                                     | [STX]sRA OFtplstr2 32 \x02[ie<br>_GoodReadCond][f][\$BC][e][1]NoRead[e]\x03[ETX]  |
| Write Variable:   | [STX]sWN OFtplstr2 +50 \x02[ie<br>_GoodReadCond][f][\$BC][e][1]NoRead[e]\x03[ETX] |
| Write Variable Response:                                    | [STX]sWA OFtplstr2[ETX]   |





### 2.8.3.3. Variable: HeartbeatString

The following section contains a detailed description of the variable HeartbeatString.

#### Variable Overview

| Variable Name   | Description               |
|-----------------|---------------------------|
| HeartbeatString | Heartbeat telegram string |

|                       |   |
|-----------------------|---|
| Communication Name    | OFHBString  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 302   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |                   |
|----------------|-------------------|
| Length         | 0..256            |
| Initialisation | \x02HeartBeat\x03 |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                             |
|----------------|------------|--------|---------------|-----------------------------|
| sRN OFHBString |            |        |               |                             |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                 |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name |
| Command        | OFHBString | String | 10            | Heartbeat telegram string   |

| Read Variable Response: |            |            |               |                                 |
|-------------------------|------------|------------|---------------|---------------------------------|
| sRA OFHBString <data>   |            |            |               |                                 |
| Telegram Part           | Telegram   | Type       | Length [Byte] | Description                     |
| Command Type            | sRA        | String     | 3             | SOPAS Variable Read Acknowledge |
| Command                 | OFHBString | String     | 10            | Heartbeat telegram string       |
| Variable Data           | data       | FlexString | 256           |                                 |

| Write Variable:       |            |            |               |                              |
|-----------------------|------------|------------|---------------|------------------------------|
| sWN OFHBString <data> |            |            |               |                              |
| Telegram Part         | Telegram   | Type       | Length [Byte] | Description                  |
| Command Type          | sWN        | String     | 3             | Write SOPAS Variable by Name |
| Command               | OFHBString | String     | 10            | Heartbeat telegram string    |
| Variable Data         | data       | FlexString | 256           |                              |

| Write Variable Response: |            |        |               |                                  |
|--------------------------|------------|--------|---------------|----------------------------------|
| sWA OFHBString           |            |        |               |                                  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | OFHBString | String | 10            | Heartbeat telegram string        |



## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| <b>Read Variable:</b>                                       | [STX]sRN OFHBString[ETX]                       |
| <b>Read Variable Response:</b>                              | [STX]sRA OFHBString 11 \x02HeartBeat\x03[ETX]  |
| <b>Write Variable:</b>                                      | [STX]sWN OFHBString +17 \x02HeartBeat\x03[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA OFHBString[ETX]                       |

### 2.8.3.4. Variable: OFEmbodimentMode

The following section contains a detailed description of the variable OFEmbodimentMode.

#### Variable Overview

| Variable Name    | Description                                     |
|------------------|---|
| OFEmbodimentMode | Describes how short the output format should be |

|                       |   |
|-----------------------|---|
| Communication Name    | OFembmode   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 303   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |           |             |
|---------------|-------|-----------|-------------|
| Default Value |       | 0         |             |
|               | Value | Name      | Description |
|               | 0     | TX_SHORT  |             |
|               | 1     | TX_NORMAL |             |
|               | 2     | TX_FULL   |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |  |
|----------------|-----------|--------|---------------|---|--|
| sRN OFembmode  |           |        |               |   |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                                     |  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                     |  |
| Command        | OFembmode | String | 9             | Describes how short the output format should be |  |

| Read Variable Response: |           |        |               |   |  |
|-------------------------|-----------|--------|---------------|---|--|
| sRA OFembmode <data>    |           |        |               |   |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                                     |  |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                 |  |
| Command                 | OFembmode | String | 9             | Describes how short the output format should be |  |
| Variable Data           | data      | Enum8  | 1             |   |  |



| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN OFembmode <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                                     |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                    |
| Command              | OFembmode | String | 9             | Describes how short the output format should be |
| Variable Data        | data      | Enum8  | 1             |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA OFembmode            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                                     |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                |
| Command                  | OFembmode | String | 9             | Describes how short the output format should be |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN OFembmode[ETX]   |
| Read Variable Response:                                     | [STX]sRA OFembmode 0[ETX] |
| Write Variable:   | [STX]sWN OFembmode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OFembmode[ETX]   |

### 2.8.3.5. Variable: OFTemplateString1Maximized

The following section contains a detailed description of the variable OFTemplateString1Maximized.

#### Variable Overview

| Variable Name              | Description                                  |
|----------------------------|--|
| OFTemplateString1Maximized | Template String 1 always maximized displayed |

|                       |   |
|-----------------------|---|
| Communication Name    | OFtplstr1max  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 304   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |  |
|------------------|--------------|--------|---------------|--|
| sRN OFtplstr1max |              |        |               |  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                                  |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name                  |
| Command          | OFtplstr1max | String | 12            | Template String 1 always maximized displayed |

| Read Variable Response: |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sRA OFtplstr1max <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                  |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge              |
| Command                 | OFtplstr1max | String | 12            | Template String 1 always maximized displayed |
| Variable Data           | data         | Bool   | 1             |  |

| Write Variable:         |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sWN OFtplstr1max <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                  |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name                 |
| Command                 | OFtplstr1max | String | 12            | Template String 1 always maximized displayed |
| Variable Data           | data         | Bool   | 1             |  |

| Write Variable Response: |              |        |               |  |
|--------------------------|--------------|--------|---------------|--|
| sWA OFtplstr1max         |              |        |               |  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                                  |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge             |
| Command                  | OFtplstr1max | String | 12            | Template String 1 always maximized displayed |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN OFtplstr1max[ETX]   |
| Read Variable Response:                                     | [STX]sRA OFtplstr1max 1[ETX] |
| Write Variable:   | [STX]sWN OFtplstr1max 1[ETX] |
| Write Variable Response:                                    | [STX]sWA OFtplstr1max[ETX]   |



### 2.8.3.6. Variable: OFtTemplateString2Maximized

The following section contains a detailed description of the variable OFtTemplateString2Maximized.

#### Variable Overview

| Variable Name               | Description                                  |
|-----------------------------|--|
| OFtTemplateString2Maximized | Template String 2 always maximized displayed |

|                       |   |
|-----------------------|---|
| Communication Name    | OFtPlstr2max  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 305   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |  |
|------------------|--------------|--------|---------------|--|
| sRN OFtPlstr2max |              |        |               |  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                                  |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name                  |
| Command          | OFtPlstr2max | String | 12            | Template String 2 always maximized displayed |

| Read Variable Response: |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sRA OFtPlstr2max <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                  |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge              |
| Command                 | OFtPlstr2max | String | 12            | Template String 2 always maximized displayed |
| Variable Data           | data         | Bool   | 1             |  |

| Write Variable:         |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sWN OFtPlstr2max <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                  |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name                 |
| Command                 | OFtPlstr2max | String | 12            | Template String 2 always maximized displayed |
| Variable Data           | data         | Bool   | 1             |  |

| Write Variable Response: |              |        |               |  |
|--------------------------|--------------|--------|---------------|--|
| sWA OFtPlstr2max         |              |        |               |  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                                  |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge             |
| Command                  | OFtPlstr2max | String | 12            | Template String 2 always maximized displayed |



## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN OFtplstr2max[ETX]   |
| Read Variable Response:                                     | [STX]sRA OFtplstr2max 1[ETX] |
| Write Variable:   | [STX]sWN OFtplstr2max 1[ETX] |
| Write Variable Response:                                    | [STX]sWA OFtplstr2max[ETX]   |

### 2.8.3.7. Variable: OFTemplateStringFixString1

The following section contains a detailed description of the variable OFTemplateStringFixString1.

#### Variable Overview

| Variable Name              | Description                              |
|----------------------------|--|
| OFTemplateStringFixString1 | Fix format string 1 editable by SOPAS ET |

|                       |   |
|-----------------------|---|
| Communication Name    | OFtplstrFix1  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 306   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |       |
|----------------|-------|
| Length         | 0..62 |
| Initialisation |       |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |  |
|------------------|--------------|--------|---------------|--|
| sRN OFtplstrFix1 |              |        |               |  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                              |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name              |
| Command          | OFtplstrFix1 | String | 12            | Fix format string 1 editable by SOPAS ET |

| Read Variable Response: |              |            |               |  |
|-------------------------|--------------|------------|---------------|--|
| sRA OFtplstrFix1 <data> |              |            |               |  |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                              |
| Command Type            | sRA          | String     | 3             | SOPAS Variable Read Acknowledge          |
| Command                 | OFtplstrFix1 | String     | 12            | Fix format string 1 editable by SOPAS ET |
| Variable Data           | data         | FlexString | 62            |  |



| Write Variable:         |              |            |               |  |
|-------------------------|--------------|------------|---------------|--|
| sWN OFtplstrFix1 <data> |              |            |               |  |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                              |
| Command Type            | sWN          | String     | 3             | Write SOPAS Variable by Name             |
| Command                 | OFtplstrFix1 | String     | 12            | Fix format string 1 editable by SOPAS ET |
| Variable Data           | data         | FlexString | 62            |  |

| Write Variable Response: |              |        |               |  |
|--------------------------|--------------|--------|---------------|--|
| sWA OFtplstrFix1         |              |        |               |  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                              |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | OFtplstrFix1 | String | 12            | Fix format string 1 editable by SOPAS ET |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN OFtplstrFix1[ETX]      |
| Read Variable Response:                                     | [STX]sRA OFtplstrFix1 0[ETX]    |
| Write Variable:   | [STX]sWN OFtplstrFix1 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OFtplstrFix1[ETX]      |

### 2.8.3.8. Variable: OFTemplateStringFixString2

The following section contains a detailed description of the variable OFTemplateStringFixString2.

#### Variable Overview

| Variable Name              | Description                              |
|----------------------------|--|
| OFTemplateStringFixString2 | Fix format string 2 editable by SOPAS ET |

|                       |   |
|-----------------------|---|
| Communication Name    | OFtplstrFix2  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 307   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |       |
|----------------|-------|
| Length         | 0..62 |
| Initialisation |       |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |  |
|------------------|--------------|--------|---------------|--|
| sRN OFtplstrFix2 |              |        |               |  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                              |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name              |
| Command          | OFtplstrFix2 | String | 12            | Fix format string 2 editable by SOPAS ET |

| Read Variable Response: |              |            |               |  |
|-------------------------|--------------|------------|---------------|--|
| sRA OFtplstrFix2 <data> |              |            |               |  |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                              |
| Command Type            | sRA          | String     | 3             | SOPAS Variable Read Acknowledge          |
| Command                 | OFtplstrFix2 | String     | 12            | Fix format string 2 editable by SOPAS ET |
| Variable Data           | data         | FlexString | 62            |  |

| Write Variable:         |              |            |               |  |
|-------------------------|--------------|------------|---------------|--|
| sWN OFtplstrFix2 <data> |              |            |               |  |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                              |
| Command Type            | sWN          | String     | 3             | Write SOPAS Variable by Name             |
| Command                 | OFtplstrFix2 | String     | 12            | Fix format string 2 editable by SOPAS ET |
| Variable Data           | data         | FlexString | 62            |  |

| Write Variable Response: |              |        |               |  |
|--------------------------|--------------|--------|---------------|--|
| sWA OFtplstrFix2         |              |        |               |  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                              |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | OFtplstrFix2 | String | 12            | Fix format string 2 editable by SOPAS ET |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN OFtplstrFix2[ETX]      |
| Read Variable Response:                                     | [STX]sRA OFtplstrFix2 0[ETX]    |
| Write Variable:   | [STX]sWN OFtplstrFix2 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OFtplstrFix2[ETX]      |





### 2.8.3.9. Variable: OFTemplateStringFixString3

The following section contains a detailed description of the variable OFTemplateStringFixString3.

#### Variable Overview

| Variable Name              | Description                              |
|----------------------------|--|
| OFTemplateStringFixString3 | Fix format string 3 editable by SOPAS ET |

|                       |   |
|-----------------------|---|
| Communication Name    | OFtplstrFix3  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 308   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |       |
|----------------|-------|
| Length         | 0..62 |
| Initialisation |       |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |  |
|------------------|--------------|--------|---------------|--|
| sRN OFtplstrFix3 |              |        |               |  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                              |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name              |
| Command          | OFtplstrFix3 | String | 12            | Fix format string 3 editable by SOPAS ET |

| Read Variable Response: |              |            |               |  |
|-------------------------|--------------|------------|---------------|--|
| sRA OFtplstrFix3 <data> |              |            |               |  |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                              |
| Command Type            | sRA          | String     | 3             | SOPAS Variable Read Acknowledge          |
| Command                 | OFtplstrFix3 | String     | 12            | Fix format string 3 editable by SOPAS ET |
| Variable Data           | data         | FlexString | 62            |  |

| Write Variable:         |              |            |               |  |
|-------------------------|--------------|------------|---------------|--|
| sWN OFtplstrFix3 <data> |              |            |               |  |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                              |
| Command Type            | sWN          | String     | 3             | Write SOPAS Variable by Name             |
| Command                 | OFtplstrFix3 | String     | 12            | Fix format string 3 editable by SOPAS ET |
| Variable Data           | data         | FlexString | 62            |  |

| Write Variable Response: |              |        |               |  |
|--------------------------|--------------|--------|---------------|--|
| sWA OFtplstrFix3         |              |        |               |  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                              |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | OFtplstrFix3 | String | 12            | Fix format string 3 editable by SOPAS ET |



## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN OFtplstrFix3[ETX]      |
| Read Variable Response:                                     | [STX]sRA OFtplstrFix3 0[ETX]    |
| Write Variable:   | [STX]sWN OFtplstrFix3 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OFtplstrFix3[ETX]      |

## 2.8.4. Group: SorterFilterBase

### 2.8.4.1. Variable: SFStructure1

The following section contains a detailed description of the variable SFStructure1.

#### Variable Overview

| Variable Name | Description                                     |
|---------------|---|
| SFStructure1  | Describes the structure of the filter/sorter #1 |

|                       |   |
|-----------------------|---|
| Communication Name    | SFstrct1  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 311   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |                  |
|----------------------|------------------|
| Length               | 0..128           |
| Default Value        | {3, {20, 21, 0}} |
| <b>USInt</b>         |                  |
| Value Range          | 0..255           |
| Initialisation       |                  |
| Physical Unit        |                  |
| Physical Unit Factor | 0.0              |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN SFstrctl   |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                                     |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                     |
| Command        | SFstrct1 | String | 8             | Describes the structure of the filter/sorter #1 |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA SFstrctl <data>     |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                 |
| Command                 | SFstrct1 | String | 8             | Describes the structure of the filter/sorter #1 |
| Variable Data           | data     | Array  | 128           |   |

| Write Variable:     |          |        |               |   |
|---------------------|----------|--------|---------------|---|
| sWN SFstrctl <data> |          |        |               |   |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                                     |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                    |
| Command             | SFstrct1 | String | 8             | Describes the structure of the filter/sorter #1 |
| Variable Data       | data     | Array  | 128           |   |



| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA SFstrct1             |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                                     |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                |
| Command                  | SFstrct1 | String | 8             | Describes the structure of the filter/sorter #1 |

### Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN SFstrct1[ETX]            |
| Read Variable Response:                                     | [STX]sRA SFstrct1 3 14 15 0[ETX]  |
| Write Variable:   | [STX]sWN SFstrct1 +3 14 15 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SFstrct1[ETX]            |

### 2.8.4.2. Variable: SFStructure2

The following section contains a detailed description of the variable SFStructure2.

#### Variable Overview

| Variable Name | Description                                     |
|---------------|---|
| SFStructure2  | Describes the structure of the filter/sorter #2 |

|                       |   |
|-----------------------|---|
| Communication Name    | SFstrct2  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 312   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array         |                      |                  |
|---------------|----------------------|------------------|
| Length        |                      | 0..128           |
| Default Value |                      | {3, {22, 23, 0}} |
|               | USInt                |                  |
|               | Value Range          | 0..255           |
|               | Initialisation       |                  |
|               | Physical Unit        |                  |
|               | Physical Unit Factor | 0.0              |



## Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN SFstrct2   |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                                     |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                     |
| Command        | SFstrct2 | String | 8             | Describes the structure of the filter/sorter #2 |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA SFstrct2 <data>     |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                 |
| Command                 | SFstrct2 | String | 8             | Describes the structure of the filter/sorter #2 |
| Variable Data           | data     | Array  | 128           |   |

| Write Variable:     |          |        |               |   |
|---------------------|----------|--------|---------------|---|
| sWN SFstrct2 <data> |          |        |               |   |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                                     |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                    |
| Command             | SFstrct2 | String | 8             | Describes the structure of the filter/sorter #2 |
| Variable Data       | data     | Array  | 128           |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA SFstrct2             |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                                     |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                |
| Command                  | SFstrct2 | String | 8             | Describes the structure of the filter/sorter #2 |

## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN SFstrct2[ETX]            |
| Read Variable Response:                                     | [STX]sRA SFstrct2 3 16 17 0[ETX]  |
| Write Variable:   | [STX]sWN SFstrct2 +3 16 17 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SFstrct2[ETX]            |



The following section contains a detailed description of the variable SFPParameter.

| Variable Name | Description                               |
|---------------|---|
| SFParameter   | Parameters of the all filters and sorters |

|                       |   |
|-----------------------|---|
| Communication Name    | SFprms  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 313   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

|               |  |  |   |  |
|---------------|--|--|---|--|
| Array         |  |  |   |  |
| Length        |  |  | 16  |  |
| Default Value |  |  | { {1, 0, {5, {0x56, 0x41, 0x4C, 0x3E, 0x30}}}, {2, 1, {2, {0x43, 0x53}}}, {1, 0, {5, {0x56, 0x41, 0x4C, 0x3E, 0x30}}}, {2, 1, {2, {0x43, 0x53}}}, {0, 0, {0, {} }}, {0, 0 |  |



## Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN SFprms     |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                               |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name               |
| Command        | SFprms   | String | 6             | Parameters of the all filters and sorters |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA SFprms <data>       |          |        |               |   |
|                         |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                               |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                 | SFprms   | String | 6             | Parameters of the all filters and sorters |
| Variable Data           | data     | Array  | 288           |   |

| Write Variable:   |          |        |               |   |
|-------------------|----------|--------|---------------|---|
| sWN SFprms <data> |          |        |               |   |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description                               |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name              |
| Command           | SFprms   | String | 6             | Parameters of the all filters and sorters |
| Variable Data     | data     | Arrav  | 288           |   |

|                                 |                 |             |                      |   |
|---------------------------------|-----------------|-------------|----------------------|---|
| <b>Write Variable Response:</b> |                 |             |                      |   |
| sWA SFprms                      |                 |             |                      |   |
| <b>Telegram Part</b>            | <b>Telegram</b> | <b>Type</b> | <b>Length [Byte]</b> | <b>Description</b>                        |
| Command Type                    | sWA             | String      | 3                    | SOPAS Variable Write Acknowledge          |
| Command                         | SFprms          | String      | 6                    | Parameters of the all filters and sorters |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN SFprms[ETX]  |
| Read Variable Response:                                     | [STX]sRA SFprms 1 0 5 VAL>0 2 1 2 CS 1 0 5 VAL>0 2 1 2 CS 0 |

## 2.8.5. Group: EvalConditions

### 2.8.5.1. Variable: EVMainGoodReadStruct

The following section contains a detailed description of the variable EVMainGoodReadStruct.

#### Variable Overview

| Variable Name        | Description                                |
|----------------------|--|
| EVMainGoodReadStruct | Structure for defining good read condition |

|                       |   |
|-----------------------|---|
| Communication Name    | EVstrgoodr  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 314   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct        |                   |                         |             |
|---------------|-------------------|-------------------------|-------------|
| EnumValue     | <b>Enum8</b>      |                         |             |
|               | Default Value     |                         |             |
|               | 0                 |                         |             |
|               | Value             | Name                    | Description |
|               | 0                 | TX_USE_MIN_MAX_CODE_LEN |             |
| UseExtraValue | <b>Bool</b>       |                         |             |
|               | Value Range       |                         |             |
|               | False, True       |                         |             |
|               | Initialisation    |                         |             |
|               | False             |                         |             |
| ExtraValue    | <b>FlexString</b> |                         |             |
|               | Length            |                         |             |
|               | 0..18             |                         |             |
|               | Initialisation    |                         |             |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN EVstrgoodr |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                                |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                |
| Command        | EVstrgoodr | String | 10            | Structure for defining good read condition |

| Read Variable Response:                                 |               |            |               |  |
|---|---------------|------------|---------------|--|
| sRA EVstrgoodr <EnumValue> <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part   | Telegram      | Type       | Length [Byte] | Description                                |
| Command Type  | sRA           | String     | 3             | SOPAS Variable Read Acknowledge            |
| Command   | EVstrgoodr    | String     | 10            | Structure for defining good read condition |
| Variable Data 1   | EnumValue     | Enum8      | 1             |  |
| Variable Data 2   | UseExtraValue | Bool       | 1             |  |
| Variable Data 3   | ExtraValue    | FlexString | 18            |  |





| Write Variable:   |               |            |               |  |
|---|---------------|------------|---------------|--|
| sWN EVstrgoodr <EnumValue> <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part   | Telegram      | Type       | Length [Byte] | Description                                |
| Command Type  | sWN           | String     | 3             | Write SOPAS Variable by Name               |
| Command   | EVstrgoodr    | String     | 10            | Structure for defining good read condition |
| Variable Data 1   | EnumValue     | Enum8      | 1             |  |
| Variable Data 2   | UseExtraValue | Bool       | 1             |  |
| Variable Data 3   | ExtraValue    | FlexString | 18            |  |

| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA EVstrgoodr           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                                |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge           |
| Command                  | EVstrgoodr | String | 10            | Structure for defining good read condition |

## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN EVstrgoodr[ETX]          |
| Read Variable Response:                                     | [STX]sRA EVstrgoodr 0 0 0[ETX]    |
| Write Variable:   | [STX]sWN EVstrgoodr 0 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EVstrgoodr[ETX]          |

### 2.8.5.2. Variable: EVMinNbrCodes

The following section contains a detailed description of the variable EVMinNbrCodes.

#### Variable Overview

| Variable Name | Description                                  |
|---------------|--|
| EVMinNbrCodes | Minimum number of codes which should be read |

|                       |   |
|-----------------------|---|
| Communication Name    | EVmincodes  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 315   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |       |
|----------------------|-------|
| Value Range          | 1..50 |
| Initialisation       | 1     |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |



## Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN EVmincodes |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                                  |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                  |
| Command        | EVmincodes | String | 10            | Minimum number of codes which should be read |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA EVmincodes <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                                  |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge              |
| Command                 | EVmincodes | String | 10            | Minimum number of codes which should be read |
| Variable Data           | data       | UInt   | 2             |  |

| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN EVmincodes <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                                  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                 |
| Command               | EVmincodes | String | 10            | Minimum number of codes which should be read |
| Variable Data         | data       | UInt   | 2             |  |

| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA EVmincodes           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                                  |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge             |
| Command                  | EVmincodes | String | 10            | Minimum number of codes which should be read |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN EVmincodes[ETX]   |
| Read Variable Response:                                     | [STX]sRA EVmincodes 1[ETX] |
| Write Variable:   | [STX]sWN EVmincodes 1[ETX] |
| Write Variable Response:                                    | [STX]sWA EVmincodes[ETX]   |

### 2.8.5.3. Variable: EVCheckMinNbr

The following section contains a detailed description of the variable EVCheckMinNbr.

#### Variable Overview

| Variable Name | Description  |
|---------------|--|
| EVCheckMinNbr | Check minimum number of codes which should be read |

|                       |   |
|-----------------------|---|
| Communication Name    | EVchkmin  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 316   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN EVchkmin   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                        |
| Command        | EVchkmin | String | 8             | Check minimum number of codes which should be read |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA EVchkmin <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description  |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                    |
| Command                 | EVchkmin | String | 8             | Check minimum number of codes which should be read |
| Variable Data           | data     | Bool   | 1             |  |

| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN EVchkmin <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                       |
| Command             | EVchkmin | String | 8             | Check minimum number of codes which should be read |
| Variable Data       | data     | Bool   | 1             |  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EVchkmin             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA EVchkmin             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command                  | EVchkmin | String | 8             | Check minimum number of codes which should be read |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN EVchkmin[ETX]   |
| Read Variable Response:                                     | [STX]sRA EVchkmin 0[ETX] |
| Write Variable:   | [STX]sWN EVchkmin 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EVchkmin[ETX]   |

### 2.8.5.4. Variable: EVMaxNbrCodes

The following section contains a detailed description of the variable EVMaxNbrCodes.

#### Variable Overview

| Variable Name | Description                                  |
|---------------|--|
| EVMaxNbrCodes | Maximum number of codes which should be read |

|                       |   |
|-----------------------|---|
| Communication Name    | EVmaxcodes  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 317   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |       |
|----------------------|-------|
| Value Range          | 1..50 |
| Initialisation       | 1     |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |



## Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN EVmaxcodes |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                                  |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                  |
| Command        | EVmaxcodes | String | 10            | Maximum number of codes which should be read |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA EVmaxcodes <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                                  |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge              |
| Command                 | EVmaxcodes | String | 10            | Maximum number of codes which should be read |
| Variable Data           | data       | UInt   | 2             |  |

| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN EVmaxcodes <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                                  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                 |
| Command               | EVmaxcodes | String | 10            | Maximum number of codes which should be read |
| Variable Data         | data       | UInt   | 2             |  |

| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA EVmaxcodes           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                                  |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge             |
| Command                  | EVmaxcodes | String | 10            | Maximum number of codes which should be read |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN EVmaxcodes[ETX]   |
| Read Variable Response:                                     | [STX]sRA EVmaxcodes 1[ETX] |
| Write Variable:   | [STX]sWN EVmaxcodes 1[ETX] |
| Write Variable Response:                                    | [STX]sWA EVmaxcodes[ETX]   |

### 2.8.5.5. Variable: EVCheckMaxNbr

The following section contains a detailed description of the variable EVCheckMaxNbr.

#### Variable Overview

| Variable Name | Description  |
|---------------|--|
| EVCheckMaxNbr | Check maximum number of codes which should be read |

|                       |   |
|-----------------------|---|
| Communication Name    | EVchkmax  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 318   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN EVchkmax   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                        |
| Command        | EVchkmax | String | 8             | Check maximum number of codes which should be read |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA EVchkmax <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description  |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                    |
| Command                 | EVchkmax | String | 8             | Check maximum number of codes which should be read |
| Variable Data           | data     | Bool   | 1             |  |

| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN EVchkmax <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                       |
| Command             | EVchkmax | String | 8             | Check maximum number of codes which should be read |
| Variable Data       | data     | Bool   | 1             |  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EVchkmax             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA EVchkmax             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command                  | EVchkmax | String | 8             | Check maximum number of codes which should be read |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN EVchkmax[ETX]   |
| Read Variable Response:                                     | [STX]sRA EVchkmax 0[ETX] |
| Write Variable:   | [STX]sWN EVchkmax 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EVchkmax[ETX]   |

## 2.8.5.6. Variable: EVConditions

The following section contains a detailed description of the variable EVConditions.

### Variable Overview

| Variable Name | Description     |
|---------------|-----------------|
| EVConditions  | Eval conditions |

|                       |   |
|-----------------------|---|
| Communication Name    | EVcond  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 319   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |



|               |                      |  |                 |             |
|---------------|----------------------|--|-----------------|-------------|
| Array         |                      |  |                 |             |
| Length        |                      | 0..48  |                 |             |
| Default Value |                      | {4,{{0, 0, 1, 0, {16, {0x7B, 0x42, 0x43, 0x7E, 0x31, 0x32, 0x33, 0x2E, 0x2A, 0x7D, 0x26, 0x56, 0x41, 0x4C, 0x3E, 0x30}}},{0, 1, 0, 0, {5, {0x56, 0x43, 0x43, 0x3E, 0x32}}},{2, 0, 1, 0, {12, {0x43, 0x4C, 0x3E, 0x3D, 0x34, 0x26, 0x43, 0x4C, 0x3C, 0x3D, 0x35, 0x30}}},{2, 0, 1, 0, {12, {0x43, 0x4C, 0x3E, 0x3D, 0x34, 0x26, 0x43, 0x4C, 0x3C, 0x3D, 0x35, 0x30}}}}} |                 |             |
|               | Struct               |  |                 |             |
|               | Mode                 |  |                 |             |
|               | Enum8                |  |                 |             |
|               | Default Value        |  | 0               |             |
|               |                      | Value  | Name            | Description |
|               |                      | 0  | TX_NORMAL       |             |
|               |                      | 1  | TX_ALWAYS_TRUE  |             |
|               |                      | 2  | TX_ALWAYS_FALSE |             |
|               | Type                 |  |                 |             |
|               | Enum8                |  |                 |             |
|               | Default Value        |  | 0               |             |
|               |                      | Value  | Name            | Description |
|               |                      | 0  | TX_MATCH        |             |
|               |                      | 1  | TX_FREE         |             |
|               |                      | 2  | TX_COMBINATION  |             |
|               | Relation             |  |                 |             |
|               | Enum8                |  |                 |             |
|               | Default Value        |  | 0               |             |
|               |                      | Value  | Name            | Description |
|               |                      | 0  | TX_OBJ_RELATED  |             |
|               |                      | 1  | TX_CODE_RELATED |             |
|               | DependencyLevel      |  |                 |             |
|               | USInt                |  |                 |             |
|               | Value Range          |  | 0..255          |             |
|               | Initialisation       |  | 0               |             |
|               | Physical Unit        |  |                 |             |
|               | Physical Unit Factor |  | 0.0             |             |
|               | Condition            |  |                 |             |
|               | FlexString           |  |                 |             |
|               | Length               |  | 0..94           |             |
|               | Initialisation       |  |                 |             |





## Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN EVcond     |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | EVcond   | String | 6             | Eval conditions             |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA EVcond <data>       |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | EVcond   | String | 6             | Eval conditions                 |
| Variable Data           | data     | Array  | 4704          |                                 |

| Write Variable:   |          |        |               |                              |
|-------------------|----------|--------|---------------|------------------------------|
| sWN EVcond <data> |          |        |               |                              |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description                  |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command           | EVcond   | String | 6             | Eval conditions              |
| Variable Data     | data     | Array  | 4704          |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EVcond               |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EVcond   | String | 6             | Eval conditions                  |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN EVcond[ETX]  |
| Read Variable Response:                                     | [STX]sRA EVcond 4 0 0 1 0 10 {BC~123.*}&VAL>0 0 1 0 0 5 VCC>2 2 0 1 0 C CL>=4&CL<=50 2 0 1 0 C CL>=4&CL<=50[ETX]        |
| Write Variable:   | [STX]sWN EVcond +4 0 0 1 0 +16 {BC~123.*}&VAL>0 0 1 0 0 +5 VCC>2 2 0 1 0 +12 CL>=4&CL<=50 2 0 1 0 +12 CL>=4&CL<=50[ETX] |
| Write Variable Response:                                    | [STX]sWA EVcond[ETX]  |

### 2.8.5.7. Variable: EVConditionNames

The following section contains a detailed description of the variable EVConditionNames.

#### Variable Overview

| Variable Name    | Description                   |
|------------------|-------------------------------|
| EVConditionNames | Names of available conditions |

|                       |   |
|-----------------------|---|
| Communication Name    | EVcndnames  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 320   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array             |  |
|-------------------|--|
| Length            | 0..48  |
| Default Value     | {4, {{6, {0x4D, 0x61, 0x74, 0x63, 0x68, 0x31}}, {10, {0x4D, 0x75, 0x6C, 0x74, 0x43, 0x6F, 0x64, 0x65, 0x73, 0x31}}, {8, {0x54, 0x65, 0x61, 0x63, 0x68, 0x49, 0x6E, 0x31}}, {8, {0x54, 0x65, 0x61, 0x63, 0x68, 0x49, 0x6E, 0x32}}}} |
| <b>FlexString</b> |  |
| Length            | 0..18  |
| Initialisation    |  |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                               |
|----------------|------------|--------|---------------|-------------------------------|
| sRN EVcndnames |            |        |               |                               |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                   |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name   |
| Command        | EVcndnames | String | 10            | Names of available conditions |

| Read Variable Response: |            |        |               |                                 |
|-------------------------|------------|--------|---------------|---------------------------------|
| sRA EVcndnames <data>   |            |        |               |                                 |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | EVcndnames | String | 10            | Names of available conditions   |
| Variable Data           | data       | Array  | 864           |                                 |

| Write Variable:       |            |        |               |                               |
|-----------------------|------------|--------|---------------|-------------------------------|
| sWN EVcndnames <data> |            |        |               |                               |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                   |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name  |
| Command               | EVcndnames | String | 10            | Names of available conditions |
| Variable Data         | data       | Array  | 864           |                               |



| Write Variable Response: |            |        |               |                                  |
|--------------------------|------------|--------|---------------|----------------------------------|
| sWA EVcndnames           |            |        |               |                                  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EVcndnames | String | 10            | Names of available conditions    |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN EVcndnames[ETX]   |
| Read Variable Response:                                     | [STX]sRA EVcndnames 4 6 Match1 A MultCodes1 8 TeachIn1 8 TeachIn2[ETX]       |
| Write Variable:   | [STX]sWN EVcndnames +4 +6 Match1 +10 MultCodes1 +8 TeachIn1 +8 TeachIn2[ETX] |
| Write Variable Response:                                    | [STX]sWA EVcndnames[ETX]   |

### 2.8.5.8. Variable: EVUserDefCondtionNames

The following section contains a detailed description of the variable EVUserDefCondtionNames.

#### Variable Overview

| Variable Name          | Description                                |
|------------------------|--|
| EVUserDefCondtionNames | Names of available user defined conditions |

|                       |   |
|-----------------------|---|
| Communication Name    | EVuserdefcndnames   |
| Sopas Synchronisation | Variable is not relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 321   |
| Storage               | Variable is stored in ParamEEProm                           |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array         |                |         |
|---------------|----------------|---------|
| Length        |                | 0..10   |
| Default Value |                | {0, {}} |
|               | FlexString     |         |
|               | Length         | 0..18   |
|               | Initialisation |         |



## Variable Telegram Syntax

| Read Variable:        |                   |        |               |  |
|-----------------------|-------------------|--------|---------------|--|
| sRN EVuserdefcndnames |                   |        |               |  |
| Telegram Part         | Telegram          | Type   | Length [Byte] | Description                                |
| Command Type          | sRN               | String | 3             | Read SOPAS Variable by Name                |
| Command               | EVuserdefcndnames | String | 17            | Names of available user defined conditions |

| Read Variable Response:      |                   |        |               |  |
|------------------------------|-------------------|--------|---------------|--|
| sRA EVuserdefcndnames <data> |                   |        |               |  |
| Telegram Part                | Telegram          | Type   | Length [Byte] | Description                                |
| Command Type                 | sRA               | String | 3             | SOPAS Variable Read Acknowledge            |
| Command                      | EVuserdefcndnames | String | 17            | Names of available user defined conditions |
| Variable Data                | data              | Array  | 180           |  |

| Write Variable:              |                   |        |               |  |
|------------------------------|-------------------|--------|---------------|--|
| sWN EVuserdefcndnames <data> |                   |        |               |  |
| Telegram Part                | Telegram          | Type   | Length [Byte] | Description                                |
| Command Type                 | sWN               | String | 3             | Write SOPAS Variable by Name               |
| Command                      | EVuserdefcndnames | String | 17            | Names of available user defined conditions |
| Variable Data                | data              | Array  | 180           |  |

| Write Variable Response: |                   |        |               |  |
|--------------------------|-------------------|--------|---------------|--|
| sWA EVuserdefcndnames    |                   |        |               |  |
| Telegram Part            | Telegram          | Type   | Length [Byte] | Description                                |
| Command Type             | sWA               | String | 3             | SOPAS Variable Write Acknowledge           |
| Command                  | EVuserdefcndnames | String | 17            | Names of available user defined conditions |

## Variable Telegram Examples

| Example: Default Values                                     |                                    |
|---|------------------------------------|
| Variable telegram examples with data set to default values. |                                    |
| Read Variable:  | [STX]sRN EVuserdefcndnames[ETX]    |
| Read Variable Response:                                     | [STX]sRA EVuserdefcndnames 0[ETX]  |
| Write Variable:   | [STX]sWN EVuserdefcndnames +0[ETX] |
| Write Variable Response:                                    | [STX]sWA EVuserdefcndnames[ETX]    |



### 2.8.5.9. Variable: EVConditionDiag

The following section contains a detailed description of the variable EVConditionDiag.

#### Variable Overview

| Variable Name   | Description   |
|-----------------|---|
| EVConditionDiag | Diagnosis strings buffer when conditon is wrong/missing |

|                       |   |
|-----------------------|---|
| Communication Name    | EVdiag  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 322   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array         |               |                   |   |
|---------------|---------------|-------------------|---|
| Length        | 0..10         |                   |   |
| Default Value | {0, {}}       |                   |   |
|               | <b>Struct</b> |                   |   |
|               | CauseKey      |                   |   |
|               |               | <b>FlexString</b> |   |
|               |               | Length            | 0..8  |
|               |               | Initialisation    |   |
|               | ConditionName |                   |   |
|               |               | <b>FlexString</b> |   |
|               |               | Length            | 0..18   |
|               |               | Initialisation    |   |
|               | ErrorState    |                   |   |
|               |               | <b>Enum8</b>      |   |
|               |               | Value             | Name  |
|               |               | 0                 | UNKNOWN                                       |
|               |               | 1                 | CONDITION_NOT_EXISTS                          |
|               |               | 2                 | CONDITION_OBJ_RELATED_INSTEAD_OF_CODE_RELATED |
|               |               |                   | Description                                   |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN EVdiag     |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                              |
| Command        | EVdiag   | String | 6             | Diagnosis strings buffer when condition is wrong/missing |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA EVdiag <data>       |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description  |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                          |
| Command                 | EVdiag   | String | 6             | Diagnosis strings buffer when condition is wrong/missing |
| Variable Data           | data     | Array  | 270           |  |

| Write Variable:   |          |        |               |  |
|-------------------|----------|--------|---------------|--|
| sWN EVdiag <data> |          |        |               |  |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description  |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name                             |
| Command           | EVdiag   | String | 6             | Diagnosis strings buffer when condition is wrong/missing |
| Variable Data     | data     | Array  | 270           |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA EVdiag               |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                         |
| Command                  | EVdiag   | String | 6             | Diagnosis strings buffer when condition is wrong/missing |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN EVdiag[ETX]    |
| Read Variable Response:                                     | [STX]sRA EVdiag 0[ETX]  |
| Write Variable:   | [STX]sWN EVdiag +0[ETX] |
| Write Variable Response:                                    | [STX]sWA EVdiag[ETX]    |



## 2.8.5.10. Method: EVSetMatchCode

The following section contains a detailed description of the method EVSetMatchCode.

### Method Overview

| Method Name    | Description           |
|----------------|-----------------------|
| EVSetMatchCode | Easy matchcode setter |

|                    |                  |
|--------------------|------------------|
| Communication Name | mEVSetMatchCode  |
| Sopas Index        | 62               |
| Invocation Access  | AuthorizedClient |

| Parameters        |        |
|-------------------|--------|
| Parameters        |        |
| <b>FlexString</b> |        |
| Length            | 0..192 |
| Initialisation    |        |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
| <b>Bool</b>    |             |
| Value Range    | False, True |
| Initialisation | False       |

### Method Telegram Syntax

| Method Invocation:               |                 |            |               |                                |
|----------------------------------|-----------------|------------|---------------|--------------------------------|
| sMN mEVSetMatchCode <Parameters> |                 |            |               |                                |
| Telegram Part                    | Telegram        | Type       | Length [Byte] | Description                    |
| Command Type                     | sMN             | String     | 3             | Request (SOPAS Method by Name) |
| Command                          | mEVSetMatchCode | String     | 15            | Easy matchcode setter          |
| Parameter 1                      | Parameters      | FlexString | 192           |                                |

| Method Return Value:          |                 |        |               |                              |
|-------------------------------|-----------------|--------|---------------|------------------------------|
| sAN mEVSetMatchCode <Success> |                 |        |               |                              |
| Telegram Part                 | Telegram        | Type   | Length [Byte] | Description                  |
| Command Type                  | sAN             | String | 3             | Result (SOPAS Method Result) |
| Command                       | mEVSetMatchCode | String | 15            | Easy matchcode setter        |
| Return Value 1                | Success         | Bool   | 1             |                              |



## Method Telegram Examples

| Example: Default Values   |                                    |
|---|------------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                    |
| Method Invocation:  | [STX]sMN mEVSetMatchCode +0 0[ETX] |
| Method Return Value:  | [STX]sAN mEVSetMatchCode 0[ETX]    |



## 2.8.6. Group: CodePosCompare

### 2.8.6.1. Variable: CPUseComparison

The following section contains a detailed description of the variable CPUseComparison.

#### Variable Overview

| Variable Name   | Description                                    |
|-----------------|--|
| CPUseComparison | Flag if CP compare is on (TRUE) or off (FALSE) |

|                       |   |
|-----------------------|---|
| Communication Name    | CPCComp   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 326   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN CPCComp    |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                                    |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                    |
| Command        | CPCComp  | String | 6             | Flag if CP compare is on (TRUE) or off (FALSE) |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA CPCComp <data>      |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                                    |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                |
| Command                 | CPCComp  | String | 6             | Flag if CP compare is on (TRUE) or off (FALSE) |
| Variable Data           | data     | Bool   | 1             |  |

| Write Variable:    |          |        |               |  |
|--------------------|----------|--------|---------------|--|
| sWN CPCComp <data> |          |        |               |  |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                                    |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name                   |
| Command            | CPCComp  | String | 6             | Flag if CP compare is on (TRUE) or off (FALSE) |
| Variable Data      | data     | Bool   | 1             |  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA CPCComp              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA CPComp               |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                                    |
| Command                  | CPComp   | String | 6             | Flag if CP compare is on (TRUE) or off (FALSE) |

### Variable Telegram Examples

| Example: Default Values                                     |                        |
|---|------------------------|
| Variable telegram examples with data set to default values. |                        |
| Read Variable:  | [STX]sRN CPComp[ETX]   |
| Read Variable Response:                                     | [STX]sRA CPComp 0[ETX] |
| Write Variable:   | [STX]sWN CPComp 0[ETX] |
| Write Variable Response:                                    | [STX]sWA CPComp[ETX]   |

### 2.8.6.2. Variable: CPCodeDistance

The following section contains a detailed description of the variable CPCodeDistance.

#### Variable Overview

| Variable Name  | Description        |
|----------------|--------------------|
| CPCodeDistance | Max. code distance |

|                       |   |
|-----------------------|---|
| Communication Name    | CPDist  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 327   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |         |
|----------------------|---------|
| Value Range          | 0..5000 |
| Initialisation       | 300     |
| Physical Unit        |         |
| Physical Unit Factor | 0.0     |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN CPDist     |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | CPDist   | String | 6             | Max. code distance          |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA CPDist <data>       |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | CPDist   | String | 6             | Max. code distance              |
| Variable Data           | data     | UInt   | 2             |                                 |

| Write Variable:   |          |        |               |                              |
|-------------------|----------|--------|---------------|------------------------------|
| sWN CPDist <data> |          |        |               |                              |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description                  |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command           | CPDist   | String | 6             | Max. code distance           |
| Variable Data     | data     | UInt   | 2             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA CPDist               |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | CPDist   | String | 6             | Max. code distance               |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN CPDist[ETX]     |
| Read Variable Response:                                     | [STX]sRA CPDist 12C[ETX] |
| Write Variable:   | [STX]sWN CPDist 12C[ETX] |
| Write Variable Response:                                    | [STX]sWA CPDist[ETX]     |

### 2.8.6.3. Variable: CPCompareDeviceID

The following section contains a detailed description of the variable CPCompareDeviceID.

#### Variable Overview

| Variable Name     | Description                              |
|-------------------|--|
| CPCompareDeviceID | Flag if device ID shall also be compared |

|                       |   |
|-----------------------|---|
| Communication Name    | CPCompDID   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 328   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN CPCompDID  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name              |
| Command        | CPCompDID | String | 9             | Flag if device ID shall also be compared |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA CPCompDID <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge          |
| Command                 | CPCompDID | String | 9             | Flag if device ID shall also be compared |
| Variable Data           | data      | Bool   | 1             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN CPCompDID <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name             |
| Command              | CPCompDID | String | 9             | Flag if device ID shall also be compared |
| Variable Data        | data      | Bool   | 1             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA CPCompDID            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | CPCompDID | String | 9             | Flag if device ID shall also be compared |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN CPCompDID[ETX]   |
| Read Variable Response:                                     | [STX]sRA CPCompDID 0[ETX] |
| Write Variable:   | [STX]sWN CPCompDID 0[ETX] |
| Write Variable Response:                                    | [STX]sWA CPCompDID[ETX]   |

## 2.8.7. Group: ExternalDataInput

### 2.8.7.1. Variable: ExtDataStringDefault

The following section contains a detailed description of the variable ExtDataStringDefault.

#### Variable Overview

| Variable Name        | Description   |
|----------------------|---|
| ExtDataStringDefault | When no external data string was received during reading gate ExtDataStringDflt is inserted |

|                       |   |
|-----------------------|---|
| Communication Name    | ExtDatStrDflt   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 329   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |       |
|----------------|-------|
| Length         | 0..50 |
| Initialisation | -     |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |   |
|-------------------|---------------|--------|---------------|---|
| sRN ExtDatStrDflt |               |        |               |   |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description   |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name   |
| Command           | ExtDatStrDflt | String | 13            | When no external data string was received during reading gate ExtDataStringDflt is inserted |

| Read Variable Response:  |               |            |               |   |
|--------------------------|---------------|------------|---------------|---|
| sRA ExtDatStrDflt <data> |               |            |               |   |
| Telegram Part            | Telegram      | Type       | Length [Byte] | Description   |
| Command Type             | sRA           | String     | 3             | SOPAS Variable Read Acknowledge   |
| Command                  | ExtDatStrDflt | String     | 13            | When no external data string was received during reading gate ExtDataStringDflt is inserted |
| Variable Data            | data          | FlexString | 50            |   |

| Write Variable:          |               |            |               |   |
|--------------------------|---------------|------------|---------------|---|
| sWN ExtDatStrDflt <data> |               |            |               |   |
| Telegram Part            | Telegram      | Type       | Length [Byte] | Description   |
| Command Type             | sWN           | String     | 3             | Write SOPAS Variable by Name  |
| Command                  | ExtDatStrDflt | String     | 13            | When no external data string was received during reading gate ExtDataStringDflt is inserted |
| Variable Data            | data          | FlexString | 50            |   |



| Write Variable Response: |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWA ExtDatStrDflt        |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description   |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | ExtDatStrDflt | String | 13            | When no external data string was received during reading gate ExtDataStringDflt is inserted |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN ExtDatStrDflt[ETX]      |
| Read Variable Response:                                     | [STX]sRA ExtDatStrDflt 1 -[ETX]  |
| Write Variable:   | [STX]sWN ExtDatStrDflt +1 -[ETX] |
| Write Variable Response:                                    | [STX]sWA ExtDatStrDflt[ETX]      |

### 2.8.7.2. Method: SetExternalDataString

The following section contains a detailed description of the method SetExternalDataString.

#### Method Overview

| Method Name           | Description   |
|-----------------------|---|
| SetExternalDataString | Data string via serial interface will be put to DB tag (ExtDataStringDefault used for initializing at reading gate start) |

|                    |                   |
|--------------------|-------------------|
| Communication Name | mSetExtDataString |
| Sopas Index        | 63                |
| Invocation Access  | Always            |

| Parameters        |                              |
|-------------------|------------------------------|
| ExtDataString     | External data string content |
| <b>FlexString</b> |                              |
| Length            | 0..50                        |
| Initialisation    |                              |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
| <b>Bool</b>    |             |
| Value Range    | False, True |
| Initialisation | False       |



## Method Telegram Syntax

| Method Invocation:                    |                   |            |               |   |
|---------------------------------------|-------------------|------------|---------------|---|
| sMN mSetExtDataString <ExtDataString> |                   |            |               |   |
| Telegram Part                         | Telegram          | Type       | Length [Byte] | Description   |
| Command Type                          | sMN               | String     | 3             | Request (SOPAS Method by Name)  |
| Command                               | mSetExtDataString | String     | 17            | Data string via serial interface will be put to DB tag (ExtDataStringDefault used for initializing at reading gate start) |
| Parameter 1                           | ExtDataString     | FlexString | 50            | External data string content  |

| Method Return Value:            |                   |        |               |   |
|---------------------------------|-------------------|--------|---------------|---|
| sAN mSetExtDataString <Success> |                   |        |               |   |
| Telegram Part                   | Telegram          | Type   | Length [Byte] | Description   |
| Command Type                    | sAN               | String | 3             | Result (SOPAS Method Result)  |
| Command                         | mSetExtDataString | String | 17            | Data string via serial interface will be put to DB tag (ExtDataStringDefault used for initializing at reading gate start) |
| Return Value 1                  | Success           | Bool   | 1             |   |

## Method Telegram Examples

| Example: Default Values   |                                      |
|---|--------------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                      |
| Method Invocation:  | [STX]sMN mSetExtDataString +0 0[ETX] |
| Method Return Value:  | [STX]sAN mSetExtDataString 0[ETX]    |

### 2.8.7.3. Method: SetExternalReadingData

The following section contains a detailed description of the method SetExternalReadingData.

#### Method Overview

| Method Name            | Description   |
|------------------------|---|
| SetExternalReadingData | Code data string via serial interface will be put to DB tag (uses CodeEmulator formatting -> see plone) |

|                    |                 |
|--------------------|-----------------|
| Communication Name | mSetExtReadData |
| Sopas Index        | 64              |
| Invocation Access  | Always          |

| Parameters           |                    |
|----------------------|--------------------|
| GateCtrl             | ReadingGateControl |
| <b>USInt</b>         |                    |
| Value Range          | 0..255             |
| Initialisation       | 0                  |
| Physical Unit        |                    |
| Physical Unit Factor | 0.0                |





| Parameters        |                     |
|-------------------|---------------------|
| CodeContent       | Code content string |
| <b>FlexString</b> |                     |
| Length            | 0..50               |
| Initialisation    |                     |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
| <b>Bool</b>    |             |
| Value Range    | False, True |
| Initialisation | False       |

## Method Telegram Syntax

| Method Invocation:                           |                 |            |               |   |
|--|-----------------|------------|---------------|---|
| sMN mSetExtReadData <GateCtrl> <CodeContent> |                 |            |               |   |
| Telegram Part                                | Telegram        | Type       | Length [Byte] | Description   |
| Command Type                                 | sMN             | String     | 3             | Request (SOPAS Method by Name)  |
| Command                                      | mSetExtReadData | String     | 15            | Code data string via serial interface will be put to DB tag (uses CodeEmulator formatting -> see plone) |
| Parameter 1                                  | GateCtrl        | USInt      | 1             | ReadingGateControl  |
| Parameter 2                                  | CodeContent     | FlexString | 50            | Code content string   |

| Method Return Value:          |                 |        |               |   |
|-------------------------------|-----------------|--------|---------------|---|
| sAN mSetExtReadData <Success> |                 |        |               |   |
| Telegram Part                 | Telegram        | Type   | Length [Byte] | Description   |
| Command Type                  | sAN             | String | 3             | Result (SOPAS Method Result)  |
| Command                       | mSetExtReadData | String | 15            | Code data string via serial interface will be put to DB tag (uses CodeEmulator formatting -> see plone) |
| Return Value 1                | Success         | Bool   | 1             |   |

## Method Telegram Examples

| Example: Default Values   |                                      |
|---|--------------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                      |
| <b>Method Invocation:</b>   | [STX]sMN mSetExtReadData 0 +0 0[ETX] |
| <b>Method Return Value:</b>   | [STX]sAN mSetExtReadData 0[ETX]      |

## 2.9. Interface Block: GeneralCfgCAN1Base

### 2.9.1. Group: CAN1BusBase

#### 2.9.1.1. Variable: CAN1Mode

The following section contains a detailed description of the variable CAN1Mode.

##### Variable Overview

| Variable Name | Description                             |
|---------------|---|
| CAN1Mode      | CAN mode (none, CANopen, OTC-Mode, ...) |

|                       |   |
|-----------------------|---|
| Communication Name    | Clmode  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 330   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                 |             |
|---------------|-------|-----------------|-------------|
| Default Value |       | 0               |             |
|               | Value | Name            | Description |
|               | 0     | TX_INACTIVE     |             |
|               | 1     | TX_SICK_NETWORK |             |
|               | 2     | TX_CAN_OPEN     |             |

##### Variable Telegram Syntax

| Read Variable: |          |        |               |   |  |
|----------------|----------|--------|---------------|---|--|
| sRN Clmode     |          |        |               |   |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                             |  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name             |  |
| Command        | Clmode   | String | 6             | CAN mode (none, CANopen, OTC-Mode, ...) |  |

| Read Variable Response: |          |        |               |   |  |
|-------------------------|----------|--------|---------------|---|--|
| sRA Clmode <data>       |          |        |               |   |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                             |  |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge         |  |
| Command                 | Clmode   | String | 6             | CAN mode (none, CANopen, OTC-Mode, ...) |  |
| Variable Data           | data     | Enum8  | 1             |   |  |

| Write Variable:   |          |        |               |   |  |
|-------------------|----------|--------|---------------|---|--|
| sWN Clmode <data> |          |        |               |   |  |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description                             |  |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name            |  |
| Command           | Clmode   | String | 6             | CAN mode (none, CANopen, OTC-Mode, ...) |  |
| Variable Data     | data     | Enum8  | 1             |   |  |



| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA CImode               |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                             |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | CImode   | String | 6             | CAN mode (none, CANopen, OTC-Mode, ...) |

## Variable Telegram Examples

| Example: Default Values                                     |                        |
|---|------------------------|
| Variable telegram examples with data set to default values. |                        |
| Read Variable:  | [STX]sRN CImode[ETX]   |
| Read Variable Response:                                     | [STX]sRA CImode 0[ETX] |
| Write Variable:   | [STX]sWN CImode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA CImode[ETX]   |

### 2.9.1.2. Variable: CAN1Baudrate

The following section contains a detailed description of the variable CAN1Baudrate.

#### Variable Overview

| Variable Name | Description                        |
|---------------|------------------------------------|
| CAN1Baudrate  | CAN baudrate (1000, 500, 250, ...) |

|                       |   |
|-----------------------|---|
| Communication Name    | Clbaud  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 332   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |           |             |
|---------------|-------|-----------|-------------|
| Default Value |       | 3         |             |
|               | Value | Name      | Description |
|               | 0     | TX_1000kB |             |
|               | 1     | TX_800kB  |             |
|               | 2     | TX_500kB  |             |
|               | 3     | TX_250kB  |             |
|               | 4     | TX_125kB  |             |
|               | 5     | TX_100kB  |             |
|               | 6     | TX_50kB   |             |
|               | 7     | TX_20kB   |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                                    |
|----------------|----------|--------|---------------|------------------------------------|
| sRN CIbaud     |          |        |               |                                    |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                        |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name        |
| Command        | CIbaud   | String | 6             | CAN baudrate (1000, 500, 250, ...) |

| Read Variable Response: |          |        |               |                                    |
|-------------------------|----------|--------|---------------|------------------------------------|
| sRA CIbaud <data>       |          |        |               |                                    |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                        |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                 | CIbaud   | String | 6             | CAN baudrate (1000, 500, 250, ...) |
| Variable Data           | data     | Enum8  | 1             |                                    |

| Write Variable:   |          |        |               |                                    |
|-------------------|----------|--------|---------------|------------------------------------|
| sWN CIbaud <data> |          |        |               |                                    |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description                        |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name       |
| Command           | CIbaud   | String | 6             | CAN baudrate (1000, 500, 250, ...) |
| Variable Data     | data     | Enum8  | 1             |                                    |

| Write Variable Response: |          |        |               |                                    |
|--------------------------|----------|--------|---------------|------------------------------------|
| sWA CIbaud               |          |        |               |                                    |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                        |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | CIbaud   | String | 6             | CAN baudrate (1000, 500, 250, ...) |

## Variable Telegram Examples

| Example: Default Values                                     |                        |
|---|------------------------|
| Variable telegram examples with data set to default values. |                        |
| Read Variable:  | [STX]sRN CIbaud[ETX]   |
| Read Variable Response:                                     | [STX]sRA CIbaud 3[ETX] |
| Write Variable:   | [STX]sWN CIbaud 3[ETX] |
| Write Variable Response:                                    | [STX]sWA CIbaud[ETX]   |



### 2.9.1.3. Variable: CAN1Format

The following section contains a detailed description of the variable CAN1Format.

#### Variable Overview

| Variable Name | Description             |
|---------------|-------------------------|
| CAN1Format    | Output format for CAN 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | CIHstFrm  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 333   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | TX_OUTPUT_FORMAT_DEF_1 |             |
|               | Value | Name                   | Description |
|               | 0     | TX_NO_OUTPUT           |             |
|               | 1     | TX_OUTPUT_FORMAT_DEF_1 |             |
|               | 2     | TX_OUTPUT_FORMAT_DEF_2 |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN CIHstFrm   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | CIHstFrm | String | 8             | Output format for CAN 1     |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA CIHstFrm <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | CIHstFrm | String | 8             | Output format for CAN 1         |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN CIHstFrm <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | CIHstFrm | String | 8             | Output format for CAN 1      |
| Variable Data       | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA CIHstFrm             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |          |        |               |                         |
|--------------------------|----------|--------|---------------|-------------------------|
| sWA CIHstFrm             |          |        |               |                         |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description             |
| Command                  | CIHstFrm | String | 8             | Output format for CAN 1 |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| <b>Read Variable:</b>                                       | [STX]sRN CIHstFrm[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA CIHstFrm 1[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN CIHstFrm 1[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA CIHstFrm[ETX]   |

### 2.9.1.4. Variable: CAN1DigOutputPdold

The following section contains a detailed description of the variable CAN1DigOutputPdold.

#### Variable Overview

| Variable Name      | Description  |
|--------------------|--|
| CAN1DigOutputPdold | COB-Id for the PDO which sends digital Outputs of the sensor |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_DoID   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 334   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |       |
|----------------------|-------|
| Value Range          | 0..0  |
| Initialisation       | 0x280 |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN C1_DoID    |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                                  |
| Command        | C1_DoID  | String | 7             | COB-Id for the PDO which sends digital Outputs of the sensor |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA C1_DoID <data>      |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description  |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                              |
| Command                 | C1_DoID  | String | 7             | COB-Id for the PDO which sends digital Outputs of the sensor |
| Variable Data           | data     | UInt   | 2             |  |

| Write Variable:    |          |        |               |  |
|--------------------|----------|--------|---------------|--|
| sWN C1_DoID <data> |          |        |               |  |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name                                 |
| Command            | C1_DoID  | String | 7             | COB-Id for the PDO which sends digital Outputs of the sensor |
| Variable Data      | data     | UInt   | 2             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA C1_DoID              |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                             |
| Command                  | C1_DoID  | String | 7             | COB-Id for the PDO which sends digital Outputs of the sensor |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_DoID[ETX]     |
| Read Variable Response:                                     | [STX]sRA C1_DoID 280[ETX] |
| Write Variable:   | [STX]sWN C1_DoID 280[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_DoID[ETX]     |

### 2.9.1.5. Variable: CAN1DigOutputPdoEna

The following section contains a detailed description of the variable CAN1DigOutputPdoEna.

#### Variable Overview

| Variable Name       | Description                           |
|---------------------|---------------------------------------|
| CAN1DigOutputPdoEna | Enables sending of Digital output PDO |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_DoEna  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 335   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                                       |
|----------------|----------|--------|---------------|---------------------------------------|
| sRN C1_DoEna   |          |        |               |                                       |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                           |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name           |
| Command        | C1_DoEna | String | 8             | Enables sending of Digital output PDO |

| Read Variable Response: |          |        |               |                                       |
|-------------------------|----------|--------|---------------|---------------------------------------|
| sRA C1_DoEna <data>     |          |        |               |                                       |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                           |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | C1_DoEna | String | 8             | Enables sending of Digital output PDO |
| Variable Data           | data     | Bool   | 1             |                                       |

| Write Variable:     |          |        |               |                                       |
|---------------------|----------|--------|---------------|---------------------------------------|
| sWN C1_DoEna <data> |          |        |               |                                       |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                           |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name          |
| Command             | C1_DoEna | String | 8             | Enables sending of Digital output PDO |
| Variable Data       | data     | Bool   | 1             |                                       |

| Write Variable Response: |          |        |               |                                       |
|--------------------------|----------|--------|---------------|---------------------------------------|
| sWA C1_DoEna             |          |        |               |                                       |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                           |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | C1_DoEna | String | 8             | Enables sending of Digital output PDO |





## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN C1_DoEna[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_DoEna 0[ETX] |
| Write Variable:   | [STX]sWN C1_DoEna 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_DoEna[ETX]   |

### 2.9.1.6. Variable: CAN1DigInputPdold

The following section contains a detailed description of the variable CAN1DigInputPdold.

#### Variable Overview

| Variable Name     | Description  |
|-------------------|--|
| CAN1DigInputPdold | COB-Id for the PDO which receives digital inputs to the sensor |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_DiIID  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 336   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |       |
|----------------------|-------|
| Value Range          | 0..0  |
| Initialisation       | 0x200 |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN C1_DiIID   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                                    |
| Command        | C1_DiIID | String | 8             | COB-Id for the PDO which receives digital inputs to the sensor |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA C1_DiIID <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description  |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                                |
| Command                 | C1_DiIID | String | 8             | COB-Id for the PDO which receives digital inputs to the sensor |
| Variable Data           | data     | UInt   | 2             |  |



| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN C1_DiIID <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                                   |
| Command             | C1_DiIID | String | 8             | COB-Id for the PDO which receives digital inputs to the sensor |
| Variable Data       | data     | UInt   | 2             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA C1_DiIID             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                               |
| Command                  | C1_DiIID | String | 8             | COB-Id for the PDO which receives digital inputs to the sensor |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_DiIID[ETX]     |
| Read Variable Response:                                     | [STX]sRA C1_DiIID 200[ETX] |
| Write Variable:   | [STX]sWN C1_DiIID 200[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_DiIID[ETX]     |

### 2.9.1.7. Variable: CAN1DigInputMask

The following section contains a detailed description of the variable CAN1DigInputMask.

#### Variable Overview

| Variable Name    | Description                           |
|------------------|---------------------------------------|
| CAN1DigInputMask | Mask for receiving digital input bits |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_DiMsk  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 337   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0xFFFF   |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                                       |
|----------------|----------|--------|---------------|---------------------------------------|
| sRN C1_DiMsk   |          |        |               |                                       |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                           |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name           |
| Command        | C1_DiMsk | String | 8             | Mask for receiving digital input bits |

| Read Variable Response: |          |        |               |                                       |
|-------------------------|----------|--------|---------------|---------------------------------------|
| sRA C1_DiMsk <data>     |          |        |               |                                       |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                           |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | C1_DiMsk | String | 8             | Mask for receiving digital input bits |
| Variable Data           | data     | UInt   | 2             |                                       |

| Write Variable:     |          |        |               |                                       |
|---------------------|----------|--------|---------------|---------------------------------------|
| sWN C1_DiMsk <data> |          |        |               |                                       |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                           |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name          |
| Command             | C1_DiMsk | String | 8             | Mask for receiving digital input bits |
| Variable Data       | data     | UInt   | 2             |                                       |

| Write Variable Response: |          |        |               |                                       |
|--------------------------|----------|--------|---------------|---------------------------------------|
| sWA C1_DiMsk             |          |        |               |                                       |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                           |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | C1_DiMsk | String | 8             | Mask for receiving digital input bits |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN C1_DiMsk[ETX]      |
| Read Variable Response:                                     | [STX]sRA C1_DiMsk FFFF[ETX] |
| Write Variable:   | [STX]sWN C1_DiMsk FFFF[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_DiMsk[ETX]      |

### 2.9.1.8. Variable: CAN1HBEna

The following section contains a detailed description of the variable CAN1HBEna.

#### Variable Overview

| Variable Name |
|---------------|
| CAN1HBEna     |

|                       |   |
|-----------------------|---|
| Communication Name    | C1HBEna   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 338   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN C1HBEna    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | C1HBEna  | String | 7             |                             |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA C1HBEna <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1HBEna  | String | 7             |                                 |
| Variable Data           | data     | Bool   | 1             |                                 |

| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN C1HBEna <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | C1HBEna  | String | 7             |                              |
| Variable Data      | data     | Bool   | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA C1HBEna              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1HBEna  | String | 7             |                                  |



## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN C1HBEna[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1HBEna 0[ETX] |
| Write Variable:   | [STX]sWN C1HBEna 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1HBEna[ETX]   |

### 2.9.1.9. Variable: CAN1HBInterval

The following section contains a detailed description of the variable CAN1HBInterval.

#### Variable Overview

| Variable Name  |  |
|----------------|--|
| CAN1HBInterval |  |

|                       |   |
|-----------------------|---|
| Communication Name    | C1HBInt   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 339   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..600 |
| Initialisation       | 30     |
| Physical Unit        | s      |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN C1HBInt    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | C1HBInt  | String | 7             |                             |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA C1HBInt <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1HBInt  | String | 7             |                                 |
| Variable Data           | data     | UInt   | 2             |                                 |



| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN ClHBInt <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | C1HBInt  | String | 7             |                              |
| Variable Data      | data     | UInt   | 2             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA ClHBInt              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1HBInt  | String | 7             |                                  |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN ClHBInt[ETX]    |
| Read Variable Response:                                     | [STX]sRA ClHBInt 1E[ETX] |
| Write Variable:   | [STX]sWN ClHBInt 1E[ETX] |
| Write Variable Response:                                    | [STX]sWA ClHBInt[ETX]    |

### 2.9.1.10. Variable: CAN1RetrHB

The following section contains a detailed description of the variable CAN1RetrHB.

#### Variable Overview

| Variable Name | Description                          |
|---------------|--------------------------------------|
| CAN1RetrHB    | Retrigger heartbeat on Hostinterface |

|                       |   |
|-----------------------|---|
| Communication Name    | C1RetrHB  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 340   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                                      |
|----------------|----------|--------|---------------|--------------------------------------|
| sRN C1RetrHB   |          |        |               |                                      |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                          |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name          |
| Command        | C1RetrHB | String | 8             | Retrigger heartbeat on Hostinterface |

| Read Variable Response: |          |        |               |                                      |
|-------------------------|----------|--------|---------------|--------------------------------------|
| sRA C1RetrHB <data>     |          |        |               |                                      |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                          |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge      |
| Command                 | C1RetrHB | String | 8             | Retrigger heartbeat on Hostinterface |
| Variable Data           | data     | Bool   | 1             |                                      |

| Write Variable:     |          |        |               |                                      |
|---------------------|----------|--------|---------------|--------------------------------------|
| sWN C1RetrHB <data> |          |        |               |                                      |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                          |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name         |
| Command             | C1RetrHB | String | 8             | Retrigger heartbeat on Hostinterface |
| Variable Data       | data     | Bool   | 1             |                                      |

| Write Variable Response: |          |        |               |                                      |
|--------------------------|----------|--------|---------------|--------------------------------------|
| sWA C1RetrHB             |          |        |               |                                      |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                          |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge     |
| Command                  | C1RetrHB | String | 8             | Retrigger heartbeat on Hostinterface |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN C1RetrHB[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1RetrHB 1[ETX] |
| Write Variable:   | [STX]sWN C1RetrHB 1[ETX] |
| Write Variable Response:                                    | [STX]sWA C1RetrHB[ETX]   |

### 2.9.1.11. Variable: CAN1UsrIOEna

The following section contains a detailed description of the variable CAN1UsrIOEna.

#### Variable Overview

| Variable Name | Description  |
|---------------|--|
| CAN1UsrIOEna  | Enables receiving ans Sending PDO with user Io data which may be handled by speed skript |

|                       |   |
|-----------------------|---|
| Communication Name    | C1UIOEna  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 341   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN C1UIOEna   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name  |
| Command        | C1UIOEna | String | 8             | Enables receiving ans Sending PDO with user Io data which may be handled by speed skript |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA C1UIOEna <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description  |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | C1UIOEna | String | 8             | Enables receiving ans Sending PDO with user Io data which may be handled by speed skript |
| Variable Data           | data     | Bool   | 1             |  |

| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN C1UIOEna <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name   |
| Command             | C1UIOEna | String | 8             | Enables receiving ans Sending PDO with user Io data which may be handled by speed skript |
| Variable Data       | data     | Bool   | 1             |  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA C1UIOEna             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |





| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA C1UIOEna             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command                  | C1UIOEna | String | 8             | Enables receiving ans Sending PDO with user lo data which may be handled by speed skript |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN C1UIOEna[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1UIOEna 0[ETX] |
| Write Variable:   | [STX]sWN C1UIOEna 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1UIOEna[ETX]   |

### 2.9.1.12. Variable: CAN1UserInpPdold

The following section contains a detailed description of the variable CAN1UserInpPdold.

#### Variable Overview

| Variable Name    | Description   |
|------------------|---|
| CAN1UserInpPdold | COB-Id for the PDO which receives user digital inputs bits which may be handled by SPEED skript |

|                       |   |
|-----------------------|---|
| Communication Name    | C1UInpID  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 342   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |       |
|----------------------|-------|
| Value Range          | 0..0  |
| Initialisation       | 0x481 |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |



## Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN ClUInpID   |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name   |
| Command        | ClUInpID | String | 8             | COB-Id for the PDO which receives user digital inputs bits which may be handled by SPEED skript |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA ClUInpID <data>     |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description   |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | ClUInpID | String | 8             | COB-Id for the PDO which receives user digital inputs bits which may be handled by SPEED skript |
| Variable Data           | data     | UInt   | 2             |   |

| Write Variable:     |          |        |               |   |
|---------------------|----------|--------|---------------|---|
| sWN ClUInpID <data> |          |        |               |   |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description   |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name  |
| Command             | ClUInpID | String | 8             | COB-Id for the PDO which receives user digital inputs bits which may be handled by SPEED skript |
| Variable Data       | data     | UInt   | 2             |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA ClUInpID             |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description   |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | ClUInpID | String | 8             | COB-Id for the PDO which receives user digital inputs bits which may be handled by SPEED skript |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN ClUInpID[ETX]     |
| Read Variable Response:                                     | [STX]sRA ClUInpID 481[ETX] |
| Write Variable:   | [STX]sWN ClUInpID 481[ETX] |
| Write Variable Response:                                    | [STX]sWA ClUInpID[ETX]     |

### 2.9.1.13. Variable: CAN1UserInpByteNum

The following section contains a detailed description of the variable CAN1UserInpByteNum.

#### Variable Overview

| Variable Name      | Description                              |
|--------------------|--|
| CAN1UserInpByteNum | Number of bytes mapped in CAN1UserInpPdo |

|                       |   |
|-----------------------|---|
| Communication Name    | C1UInpByNum   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 343   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |      |
|----------------------|------|
| Value Range          | 0..0 |
| Initialisation       | 0x01 |
| Physical Unit        |      |
| Physical Unit Factor | 0.0  |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |  |
|-----------------|-------------|--------|---------------|--|
| sRN C1UInpByNum |             |        |               |  |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name              |
| Command         | C1UInpByNum | String | 11            | Number of bytes mapped in CAN1UserInpPdo |

| Read Variable Response: |             |        |               |  |
|-------------------------|-------------|--------|---------------|--|
| sRA C1UInpByNum <data>  |             |        |               |  |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge          |
| Command                 | C1UInpByNum | String | 11            | Number of bytes mapped in CAN1UserInpPdo |
| Variable Data           | data        | UInt   | 2             |  |

| Write Variable:        |             |        |               |  |
|------------------------|-------------|--------|---------------|--|
| sWN C1UInpByNum <data> |             |        |               |  |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name             |
| Command                | C1UInpByNum | String | 11            | Number of bytes mapped in CAN1UserInpPdo |
| Variable Data          | data        | UInt   | 2             |  |

| Write Variable Response: |             |        |               |  |
|--------------------------|-------------|--------|---------------|--|
| sWA C1UInpByNum          |             |        |               |  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | C1UInpByNum | String | 11            | Number of bytes mapped in CAN1UserInpPdo |



## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN C1UInpByNum[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1UInpByNum 1[ETX] |
| Write Variable:   | [STX]sWN C1UInpByNum 1[ETX] |
| Write Variable Response:                                    | [STX]sWA C1UInpByNum[ETX]   |

### 2.9.1.14. Variable: CAN1UserOutpPdold

The following section contains a detailed description of the variable CAN1UserOutpPdold.

#### Variable Overview

| Variable Name     | Description  |
|-------------------|--|
| CAN1UserOutpPdold | COB-Id for the PDO which transmits user digital output bits which may be handled by SPEED skript |

|                       |   |
|-----------------------|---|
| Communication Name    | C1UOutpID   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 344   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |       |
|----------------------|-------|
| Value Range          | 0..0  |
| Initialisation       | 0x480 |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN C1UOutpID  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name  |
| Command        | C1UOutpID | String | 9             | COB-Id for the PDO which transmits user digital output bits which may be handled by SPEED skript |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA C1UOutpID <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description  |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | C1UOutpID | String | 9             | COB-Id for the PDO which transmits user digital output bits which may be handled by SPEED skript |
| Variable Data           | data      | UInt   | 2             |  |



| Write Variable:        |             |        |               |  |
|------------------------|-------------|--------|---------------|--|
| sWN C1UOutputID <data> |             |        |               |  |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name   |
| Command                | C1UOutputID | String | 9             | COB-Id for the PDO which transmits user digital output bits which may be handled by SPEED skript |
| Variable Data          | data        | UInt   | 2             |  |

| Write Variable Response: |             |        |               |  |
|--------------------------|-------------|--------|---------------|--|
| sWA C1UOutputID          |             |        |               |  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description  |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | C1UOutputID | String | 9             | COB-Id for the PDO which transmits user digital output bits which may be handled by SPEED skript |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN C1UOutputID[ETX]     |
| Read Variable Response:                                     | [STX]sRA C1UOutputID 480[ETX] |
| Write Variable:   | [STX]sWN C1UOutputID 480[ETX] |
| Write Variable Response:                                    | [STX]sWA C1UOutputID[ETX]     |

### 2.9.1.15. Variable: CAN1UserOutpByteNum

The following section contains a detailed description of the variable CAN1UserOutpByteNum.

#### Variable Overview

| Variable Name       | Description                               |
|---------------------|---|
| CAN1UserOutpByteNum | Number of bytes mapped in CAN1UserOutpPdo |

|                       |   |
|-----------------------|---|
| Communication Name    | C1UOutpByNum  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 345   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |      |
|----------------------|------|
| Value Range          | 0..0 |
| Initialisation       | 0x01 |
| Physical Unit        |      |
| Physical Unit Factor | 0.0  |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |   |
|------------------|--------------|--------|---------------|---|
| sRN C1UOutpByNum |              |        |               |   |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                               |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name               |
| Command          | C1UOutpByNum | String | 12            | Number of bytes mapped in CAN1UserOutpPdo |

| Read Variable Response: |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sRA C1UOutpByNum <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                               |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                 | C1UOutpByNum | String | 12            | Number of bytes mapped in CAN1UserOutpPdo |
| Variable Data           | data         | UInt   | 2             |   |

| Write Variable:         |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sWN C1UOutpByNum <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                               |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name              |
| Command                 | C1UOutpByNum | String | 12            | Number of bytes mapped in CAN1UserOutpPdo |
| Variable Data           | data         | UInt   | 2             |   |

| Write Variable Response: |              |        |               |   |
|--------------------------|--------------|--------|---------------|---|
| sWA C1UOutpByNum         |              |        |               |   |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                               |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge          |
| Command                  | C1UOutpByNum | String | 12            | Number of bytes mapped in CAN1UserOutpPdo |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN C1UOutpByNum[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1UOutpByNum 1[ETX] |
| Write Variable:   | [STX]sWN C1UOutpByNum 1[ETX] |
| Write Variable Response:                                    | [STX]sWA C1UOutpByNum[ETX]   |

## 2.9.2. Group: CAN1BusCANopen

### 2.9.2.1. Variable: CAN1ProdHbTime

The following section contains a detailed description of the variable CAN1ProdHbTime.

#### Variable Overview

| Variable Name  | Description                              |
|----------------|--|
| CAN1ProdHbTime | Heartbeat time in ms. 0: no Heartbeating |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_HbTime   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 346   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0        |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN C1_HbTime  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name              |
| Command        | C1_HbTime | String | 9             | Heartbeat time in ms. 0: no Heartbeating |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA C1_HbTime <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge          |
| Command                 | C1_HbTime | String | 9             | Heartbeat time in ms. 0: no Heartbeating |
| Variable Data           | data      | UInt   | 2             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN C1_HbTime <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name             |
| Command              | C1_HbTime | String | 9             | Heartbeat time in ms. 0: no Heartbeating |
| Variable Data        | data      | UInt   | 2             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA C1_HbTime            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | C1_HbTime | String | 9             | Heartbeat time in ms. 0: no Heartbeating |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| <b>Read Variable:</b>                                       | [STX]sRN C1_HbTime[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA C1_HbTime 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN C1_HbTime 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA C1_HbTime[ETX]   |

### 2.9.2.2. Variable: CAN1ReadResultEnable

The following section contains a detailed description of the variable CAN1ReadResultEnable.

#### Variable Overview

| Variable Name        | Description  |
|----------------------|--|
| CAN1ReadResultEnable | If true, device fills objects 0x2000 and 0x2001 with read result data. It sends a 'data available PDO' to initiate SDO upload of read result data. |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_ResEna   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 347   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |





## Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN C1_ResEna  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name  |
| Command        | C1_ResEna | String | 9             | If true, device fills objects 0x2000 and 0x2001 with read result data. It sends a 'data available PDO' to initiate SDO upload of read result data. |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA C1_ResEna <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description  |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | C1_ResEna | String | 9             | If true, device fills objects 0x2000 and 0x2001 with read result data. It sends a 'data available PDO' to initiate SDO upload of read result data. |
| Variable Data           | data      | Bool   | 1             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN C1_ResEna <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name   |
| Command              | C1_ResEna | String | 9             | If true, device fills objects 0x2000 and 0x2001 with read result data. It sends a 'data available PDO' to initiate SDO upload of read result data. |
| Variable Data        | data      | Bool   | 1             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA C1_ResEna            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description  |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | C1_ResEna | String | 9             | If true, device fills objects 0x2000 and 0x2001 with read result data. It sends a 'data available PDO' to initiate SDO upload of read result data. |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_ResEna[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_ResEna 1[ETX] |
| Write Variable:   | [STX]sWN C1_ResEna 1[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_ResEna[ETX]   |

### 2.9.2.3. Variable: CAN1SendMode

The following section contains a detailed description of the variable CAN1SendMode.

#### Variable Overview

| Variable Name | Description                             |
|---------------|---|
| CAN1SendMode  | Mode to send read result (BySDO, ByPDO) |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_SMode  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 348   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |           |             |
|---------------|-------|-----------|-------------|
| Default Value |       | TX_BY_SDO |             |
|               | Value | Name      | Description |
|               | 0     | TX_BY_SDO |             |
|               | 1     | TX_BY_PDO |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN C1_SMode   |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                             |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name             |
| Command        | C1_SMode | String | 8             | Mode to send read result (BySDO, ByPDO) |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA C1_SMode <data>     |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                             |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | C1_SMode | String | 8             | Mode to send read result (BySDO, ByPDO) |
| Variable Data           | data     | Enum8  | 1             |   |

| Write Variable:     |          |        |               |   |
|---------------------|----------|--------|---------------|---|
| sWN C1_SMode <data> |          |        |               |   |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                             |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name            |
| Command             | C1_SMode | String | 8             | Mode to send read result (BySDO, ByPDO) |
| Variable Data       | data     | Enum8  | 1             |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA C1_SMode             |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                             |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | C1_SMode | String | 8             | Mode to send read result (BySDO, ByPDO) |



## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN C1_SMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_SMode 0[ETX] |
| Write Variable:   | [STX]sWN C1_SMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_SMode[ETX]   |

### 2.9.2.4. Variable: CAN1\_ReadResultTimeout

The following section contains a detailed description of the variable CAN1\_ReadResultTimeout.

#### Variable Overview

| Variable Name          | Description   |
|------------------------|---|
| CAN1_ReadResultTimeout | Timeout in ms for read result upload after Data available PDO was startet |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_ResTmo   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 349   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |           |
|----------------------|-----------|
| Value Range          | 50..10000 |
| Initialisation       | 2000      |
| Physical Unit        |           |
| Physical Unit Factor | 0.0       |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN C1_ResTmo  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name   |
| Command        | C1_ResTmo | String | 9             | Timeout in ms for read result upload after Data available PDO was startet |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA C1_ResTmo <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description   |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | C1_ResTmo | String | 9             | Timeout in ms for read result upload after Data available PDO was startet |
| Variable Data           | data      | UInt   | 2             |   |

| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN C1_ResTmo <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description   |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name  |
| Command              | C1_ResTmo | String | 9             | Timeout in ms for read result upload after Data available PDO was startet |
| Variable Data        | data      | UInt   | 2             |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA C1_ResTmo            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | C1_ResTmo | String | 9             | Timeout in ms for read result upload after Data available PDO was startet |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN C1_ResTmo[ETX]     |
| Read Variable Response:                                     | [STX]sRA C1_ResTmo 7D0[ETX] |
| Write Variable:   | [STX]sWN C1_ResTmo 7D0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_ResTmo[ETX]     |

### 2.9.2.5. Variable: CAN1AutoSdoRelease

The following section contains a detailed description of the variable CAN1AutoSdoRelease.

#### Variable Overview

| Variable Name      | Description  |
|--------------------|--|
| CAN1AutoSdoRelease | when to release read result data in SDO mode: user access (write 0 to 0x2000/3) or automatic after first SDO upload was finished |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_SdoRel   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 350   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN C1_SdoRel  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name  |
| Command        | C1_SdoRel | String | 9             | when to release read result data in SDO mode:<br>user access (write 0 to 0x2000/3) or automatic after<br>first SDO upload was finished |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA C1_SdoRel <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description  |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | C1_SdoRel | String | 9             | when to release read result data in SDO mode:<br>user access (write 0 to 0x2000/3) or automatic after<br>first SDO upload was finished |
| Variable Data           | data      | Bool   | 1             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN C1_SdoRel <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name   |
| Command              | C1_SdoRel | String | 9             | when to release read result data in SDO mode:<br>user access (write 0 to 0x2000/3) or automatic after<br>first SDO upload was finished |
| Variable Data        | data      | Bool   | 1             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA C1_SdoRel            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description  |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | C1_SdoRel | String | 9             | when to release read result data in SDO mode:<br>user access (write 0 to 0x2000/3) or automatic after<br>first SDO upload was finished |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_SdoRel[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_SdoRel 0[ETX] |
| Write Variable:   | [STX]sWN C1_SdoRel 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_SdoRel[ETX]   |



### 2.9.2.6. Variable: CAN1PdoNum

The following section contains a detailed description of the variable CAN1PdoNum.

#### Variable Overview

| Variable Name | Description  |
|---------------|--|
| CAN1PdoNum    | Number of PDOs to be sent if send mode is TX_BY_PDO. Each PDO has 7 bytes of read result |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_PdoNum   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 351   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |      |
|----------------------|------|
| Value Range          | 1..7 |
| Initialisation       | 1    |
| Physical Unit        |      |
| Physical Unit Factor | 0.0  |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN C1_PdoNum  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name  |
| Command        | C1_PdoNum | String | 9             | Number of PDOs to be sent if send mode is TX_BY_PDO. Each PDO has 7 bytes of read result |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA C1_PdoNum <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description  |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | C1_PdoNum | String | 9             | Number of PDOs to be sent if send mode is TX_BY_PDO. Each PDO has 7 bytes of read result |
| Variable Data           | data      | USInt  | 1             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN C1_PdoNum <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name   |
| Command              | C1_PdoNum | String | 9             | Number of PDOs to be sent if send mode is TX_BY_PDO. Each PDO has 7 bytes of read result |
| Variable Data        | data      | USInt  | 1             |  |



| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA C1_PdoNum            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description  |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | C1_PdoNum | String | 9             | Number of PDOs to be sent if send mode is TX_BY_PDO. Each PDO has 7 bytes of read result |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_PdoNum[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_PdoNum 1[ETX] |
| Write Variable:   | [STX]sWN C1_PdoNum 1[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_PdoNum[ETX]   |

### 2.9.2.7. Variable: CAN1PdoID

The following section contains a detailed description of the variable CAN1PdoID.

#### Variable Overview

| Variable Name | Description  |
|---------------|--|
| CAN1PdoID     | COB-id of the first PDO of the read result PDO set. The other PDOs have successive identifiers |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_Pdold  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 352   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |       |
|----------------------|-------|
| Value Range          | 0..0  |
| Initialisation       | 0x480 |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN C1_PdoId   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name  |
| Command        | C1_PdoId | String | 8             | COB-id of the first PDO of the read result PDO set. The other PDOs have successive identifiers |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA C1_PdoId <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description  |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | C1_PdoId | String | 8             | COB-id of the first PDO of the read result PDO set. The other PDOs have successive identifiers |
| Variable Data           | data     | UInt   | 2             |  |

| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN C1_PdoId <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name   |
| Command             | C1_PdoId | String | 8             | COB-id of the first PDO of the read result PDO set. The other PDOs have successive identifiers |
| Variable Data       | data     | UInt   | 2             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA C1_PdoId             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | C1_PdoId | String | 8             | COB-id of the first PDO of the read result PDO set. The other PDOs have successive identifiers |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_PdoId[ETX]     |
| Read Variable Response:                                     | [STX]sRA C1_PdoId 480[ETX] |
| Write Variable:   | [STX]sWN C1_PdoId 480[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_PdoId[ETX]     |



### 2.9.2.8. Variable: CAN1PdoTrmType

The following section contains a detailed description of the variable CAN1PdoTrmType.

#### Variable Overview

| Variable Name  | Description                                  |
|----------------|--|
| CAN1PdoTrmType | Transmission type for all read result TPDOs. |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_PdoTT  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 353   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |        |
|----------------------|--------|
| Value Range          | 0..255 |
| Initialisation       | 0xFE   |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN C1_PdoTT   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                                  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                  |
| Command        | C1_PdoTT | String | 8             | Transmission type for all read result TPDOs. |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA C1_PdoTT <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                                  |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge              |
| Command                 | C1_PdoTT | String | 8             | Transmission type for all read result TPDOs. |
| Variable Data           | data     | USInt  | 1             |  |

| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN C1_PdoTT <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                 |
| Command             | C1_PdoTT | String | 8             | Transmission type for all read result TPDOs. |
| Variable Data       | data     | USInt  | 1             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA C1_PdoTT             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                                  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge             |
| Command                  | C1_PdoTT | String | 8             | Transmission type for all read result TPDOs. |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_PdoIT[ETX]    |
| Read Variable Response:                                     | [STX]sRA C1_PdoIT FE[ETX] |
| Write Variable:   | [STX]sWN C1_PdoIT FE[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_PdoIT[ETX]    |

### 2.9.2.9. Variable: CAN1PdoInhibitTime

The following section contains a detailed description of the variable CAN1PdoInhibitTime.

#### Variable Overview

| Variable Name      | Description   |
|--------------------|---|
| CAN1PdoInhibitTime | Inhibit time for all read result TPDOs. Unit 100 us |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_PdoIT  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 354   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0x00     |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN C1_PdoIT   |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                         |
| Command        | C1_PdoIT | String | 8             | Inhibit time for all read result TPDOs. Unit 100 us |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA C1_PdoIT <data>     |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description   |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                     |
| Command                 | C1_PdoIT | String | 8             | Inhibit time for all read result TPDOs. Unit 100 us |
| Variable Data           | data     | UInt   | 2             |   |



| Write Variable:     |          |        |               |   |
|---------------------|----------|--------|---------------|---|
| sWN C1_PdoIT <data> |          |        |               |   |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description   |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                        |
| Command             | C1_PdoIT | String | 8             | Inhibit time for all read result TPDOs. Unit 100 us |
| Variable Data       | data     | UInt   | 2             |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA C1_PdoIT             |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description   |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                    |
| Command                  | C1_PdoIT | String | 8             | Inhibit time for all read result TPDOs. Unit 100 us |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| <b>Read Variable:</b>                                       | [STX]sRN C1_PdoIT[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA C1_PdoIT 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN C1_PdoIT 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA C1_PdoIT[ETX]   |

### 2.9.2.10. Variable: CAN1PdoEventTime

The following section contains a detailed description of the variable CAN1PdoEventTime.

#### Variable Overview

| Variable Name    | Description                                     |
|------------------|---|
| CAN1PdoEventTime | Event time for all read result TPDOs. Unit 1 ms |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_PdoET  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 355   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0x00     |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN C1_PdoET   |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                                     |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                     |
| Command        | C1_PdoET | String | 8             | Event time for all read result TPDOs. Unit 1 ms |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA C1_PdoET <data>     |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                 |
| Command                 | C1_PdoET | String | 8             | Event time for all read result TPDOs. Unit 1 ms |
| Variable Data           | data     | UInt   | 2             |   |

| Write Variable:     |          |        |               |   |
|---------------------|----------|--------|---------------|---|
| sWN C1_PdoET <data> |          |        |               |   |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                                     |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                    |
| Command             | C1_PdoET | String | 8             | Event time for all read result TPDOs. Unit 1 ms |
| Variable Data       | data     | UInt   | 2             |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA C1_PdoET             |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                                     |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                |
| Command                  | C1_PdoET | String | 8             | Event time for all read result TPDOs. Unit 1 ms |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN C1_PdoET[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_PdoET 0[ETX] |
| Write Variable:   | [STX]sWN C1_PdoET 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_PdoET[ETX]   |

### 2.9.2.11. Variable: CAN1DiagEnable

The following section contains a detailed description of the variable CAN1DiagEnable.

#### Variable Overview

| Variable Name  | Description  |
|----------------|--|
| CAN1DiagEnable | If true, device fills object 0x2010 with diagnosis data string. It sends a 'data available PDO' to initiate SDO upload |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_DiagEna  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 356   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN C1_DiagEna |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description  |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name  |
| Command        | C1_DiagEna | String | 10            | If true, device fills object 0x2010 with diagnosis data string. It sends a 'data available PDO' to initiate SDO upload |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA C1_DiagEna <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description  |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | C1_DiagEna | String | 10            | If true, device fills object 0x2010 with diagnosis data string. It sends a 'data available PDO' to initiate SDO upload |
| Variable Data           | data       | Bool   | 1             |  |

| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN C1_DiagEna <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name   |
| Command               | C1_DiagEna | String | 10            | If true, device fills object 0x2010 with diagnosis data string. It sends a 'data available PDO' to initiate SDO upload |
| Variable Data         | data       | Bool   | 1             |  |



| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA C1_DiagEna           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description  |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | C1_DiagEna | String | 10            | If true, device fills object 0x2010 with diagnosis data string. It sends a 'data available PDO' to initiate SDO upload |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_DiagEna[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_DiagEna 0[ETX] |
| Write Variable:   | [STX]sWN C1_DiagEna 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_DiagEna[ETX]   |

### 2.9.2.12. Variable: CAN1\_DiagDataTimeout

The following section contains a detailed description of the variable CAN1\_DiagDataTimeout.

#### Variable Overview

| Variable Name        | Description   |
|----------------------|---|
| CAN1_DiagDataTimeout | Timeout in ms for read result upload after Data available PDO was startet |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_DiagTmo  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 357   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |           |
|----------------------|-----------|
| Value Range          | 50..10000 |
| Initialisation       | 2000      |
| Physical Unit        |           |
| Physical Unit Factor | 0.0       |



## Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN C1_DiagTmo |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description   |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name   |
| Command        | C1_DiagTmo | String | 10            | Timeout in ms for read result upload after Data available PDO was startet |

| Read Variable Response: |            |        |               |   |
|-------------------------|------------|--------|---------------|---|
| sRA C1_DiagTmo <data>   |            |        |               |   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description   |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | C1_DiagTmo | String | 10            | Timeout in ms for read result upload after Data available PDO was startet |
| Variable Data           | data       | UInt   | 2             |   |

| Write Variable:       |            |        |               |   |
|-----------------------|------------|--------|---------------|---|
| sWN C1_DiagTmo <data> |            |        |               |   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description   |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name  |
| Command               | C1_DiagTmo | String | 10            | Timeout in ms for read result upload after Data available PDO was startet |
| Variable Data         | data       | UInt   | 2             |   |

| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA C1_DiagTmo           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description   |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | C1_DiagTmo | String | 10            | Timeout in ms for read result upload after Data available PDO was startet |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN C1_DiagTmo[ETX]     |
| Read Variable Response:                                     | [STX]sRA C1_DiagTmo 7D0[ETX] |
| Write Variable:   | [STX]sWN C1_DiagTmo 7D0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_DiagTmo[ETX]     |

### 2.9.2.13. Variable: CAN1CmdRespEnable

The following section contains a detailed description of the variable CAN1CmdRespEnable.

#### Variable Overview

| Variable Name     | Description  |
|-------------------|--|
| CAN1CmdRespEnable | If true, device fills object 0x2020 with command response data string after a command was received via object 0x2200. It sends a 'data available PDO' to initiate SDO upload |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_CmdRespEna   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 358   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |  |
|-------------------|---------------|--------|---------------|--|
| sRN C1_CmdRespEna |               |        |               |  |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description  |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name  |
| Command           | C1_CmdRespEna | String | 13            | If true, device fills object 0x2020 with command response data string after a command was received via object 0x2200. It sends a 'data available PDO' to initiate SDO upload |

| Read Variable Response:  |               |        |               |  |
|--------------------------|---------------|--------|---------------|--|
| sRA C1_CmdRespEna <data> |               |        |               |  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description  |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                  | C1_CmdRespEna | String | 13            | If true, device fills object 0x2020 with command response data string after a command was received via object 0x2200. It sends a 'data available PDO' to initiate SDO upload |
| Variable Data            | data          | Bool   | 1             |  |

| Write Variable:          |               |        |               |  |
|--------------------------|---------------|--------|---------------|--|
| sWN C1_CmdRespEna <data> |               |        |               |  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description  |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name   |
| Command                  | C1_CmdRespEna | String | 13            | If true, device fills object 0x2020 with command response data string after a command was received via object 0x2200. It sends a 'data available PDO' to initiate SDO upload |
| Variable Data            | data          | Bool   | 1             |  |





| Write Variable Response: |               |        |               |  |
|--------------------------|---------------|--------|---------------|--|
| sWA C1_CmdRespEna        |               |        |               |  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description  |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | C1_CmdRespEna | String | 13            | If true, device fills object 0x2020 with command response data string after a command was received via object 0x2200. It sends a 'data available PDO' to initiate SDO upload |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN C1_CmdRespEna[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_CmdRespEna 1[ETX] |
| Write Variable:   | [STX]sWN C1_CmdRespEna 1[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_CmdRespEna[ETX]   |

### 2.9.2.14. Variable: CAN1\_CmdResponseTimeout

The following section contains a detailed description of the variable CAN1\_CmdResponseTimeout.

#### Variable Overview

| Variable Name           | Description   |
|-------------------------|---|
| CAN1_CmdResponseTimeout | Timeout in ms for command response (0x2020) upload after Data available PDO was startet |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_CmdRespTmo   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 359   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |           |
|----------------------|-----------|
| Value Range          | 50..10000 |
| Initialisation       | 2000      |
| Physical Unit        |           |
| Physical Unit Factor | 0.0       |

## Variable Telegram Syntax

| Read Variable:    |               |        |               |   |
|-------------------|---------------|--------|---------------|---|
| sRN C1_CmdRespTmo |               |        |               |   |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description   |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name   |
| Command           | C1_CmdRespTmo | String | 13            | Timeout in ms for command response (0x2020) upload after Data available PDO was startet |

| Read Variable Response:  |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sRA C1_CmdRespTmo <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description   |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                  | C1_CmdRespTmo | String | 13            | Timeout in ms for command response (0x2020) upload after Data available PDO was startet |
| Variable Data            | data          | UInt   | 2             |   |

| Write Variable:          |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWN C1_CmdRespTmo <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description   |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name  |
| Command                  | C1_CmdRespTmo | String | 13            | Timeout in ms for command response (0x2020) upload after Data available PDO was startet |
| Variable Data            | data          | UInt   | 2             |   |

| Write Variable Response: |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWA C1_CmdRespTmo        |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description   |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | C1_CmdRespTmo | String | 13            | Timeout in ms for command response (0x2020) upload after Data available PDO was startet |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN C1_CmdRespTmo[ETX]     |
| Read Variable Response:                                     | [STX]sRA C1_CmdRespTmo 7D0[ETX] |
| Write Variable:   | [STX]sWN C1_CmdRespTmo 7D0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_CmdRespTmo[ETX]     |



### 2.9.2.15. Variable: CAN1EmcyID

The following section contains a detailed description of the variable CAN1EmcyID.

#### Variable Overview

| Variable Name | Description   |
|---------------|---|
| CAN1EmcyID    | COB-id of the Emergency object: Default value = 0: used default ID = 0x80 + Node ID |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_EmcyId   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 360   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |      |
|----------------------|------|
| Value Range          | 0..0 |
| Initialisation       | 0x00 |
| Physical Unit        |      |
| Physical Unit Factor | 0.0  |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN C1_EmcyId  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name   |
| Command        | C1_EmcyId | String | 9             | COB-id of the Emergency object: Default value = 0: used default ID = 0x80 + Node ID |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA C1_EmcyId <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description   |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | C1_EmcyId | String | 9             | COB-id of the Emergency object: Default value = 0: used default ID = 0x80 + Node ID |
| Variable Data           | data      | UInt   | 2             |   |

| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN C1_EmcyId <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description   |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name  |
| Command              | C1_EmcyId | String | 9             | COB-id of the Emergency object: Default value = 0: used default ID = 0x80 + Node ID |
| Variable Data        | data      | UInt   | 2             |   |

| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA C1_EmcylId           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description   |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | C1_EmcylId | String | 9             | COB-id of the Emergency object: Default value = 0: used default ID = 0x80 + Node ID |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| <b>Read Variable:</b>                                       | [STX]sRN C1_EmcylId[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA C1_EmcylId 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN C1_EmcylId 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA C1_EmcylId[ETX]   |

### 2.9.2.16. Variable: CAN1EmcylInhibitTime

The following section contains a detailed description of the variable CAN1EmcylInhibitTime.

#### Variable Overview

| Variable Name        | Description   |
|----------------------|---|
| CAN1EmcylInhibitTime | Inhibit time for all read result TPDOs. Unit 100 us |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_EmcylIT  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 361   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0x00     |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN C1_EmcyIT  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                         |
| Command        | C1_EmcyIT | String | 9             | Inhibit time for all read result TPDOs. Unit 100 us |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA C1_EmcyIT <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description   |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                     |
| Command                 | C1_EmcyIT | String | 9             | Inhibit time for all read result TPDOs. Unit 100 us |
| Variable Data           | data      | UInt   | 2             |   |

| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN C1_EmcyIT <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description   |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                        |
| Command              | C1_EmcyIT | String | 9             | Inhibit time for all read result TPDOs. Unit 100 us |
| Variable Data        | data      | UInt   | 2             |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA C1_EmcyIT            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                    |
| Command                  | C1_EmcyIT | String | 9             | Inhibit time for all read result TPDOs. Unit 100 us |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_EmcyIT[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_EmcyIT 0[ETX] |
| Write Variable:   | [STX]sWN C1_EmcyIT 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_EmcyIT[ETX]   |



### 2.9.3. Group: CAN1BusTPDO

#### 2.9.3.1. Variable: C1\_TPDO1\_MapNum

The following section contains a detailed description of the variable C1\_TPDO1\_MapNum.

##### Variable Overview

| Variable Name   | Description                         |
|-----------------|-------------------------------------|
| C1_TPDO1_MapNum | Number of mapping entries for TPDO1 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP1_MN   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 362   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |      |
|----------------------|------|
| Value Range          | 0..8 |
| Initialisation       | 0    |
| Physical Unit        |      |
| Physical Unit Factor | 0.0  |

##### Variable Telegram Syntax

| Read Variable: |           |        |               |                                     |
|----------------|-----------|--------|---------------|-------------------------------------|
| sRN C1_TP1_MN  |           |        |               |                                     |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name         |
| Command        | C1_TP1_MN | String | 9             | Number of mapping entries for TPDO1 |

| Read Variable Response: |           |        |               |                                     |
|-------------------------|-----------|--------|---------------|-------------------------------------|
| sRA C1_TP1_MN <data>    |           |        |               |                                     |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | C1_TP1_MN | String | 9             | Number of mapping entries for TPDO1 |
| Variable Data           | data      | USInt  | 1             |                                     |

| Write Variable:      |           |        |               |                                     |
|----------------------|-----------|--------|---------------|-------------------------------------|
| sWN C1_TP1_MN <data> |           |        |               |                                     |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name        |
| Command              | C1_TP1_MN | String | 9             | Number of mapping entries for TPDO1 |
| Variable Data        | data      | USInt  | 1             |                                     |



| Write Variable Response: |           |        |               |                                     |
|--------------------------|-----------|--------|---------------|-------------------------------------|
| sWA C1_TP1_MN            |           |        |               |                                     |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | C1_TP1_MN | String | 9             | Number of mapping entries for TPDO1 |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_TP1_MN[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_TP1_MN 0[ETX] |
| Write Variable:   | [STX]sWN C1_TP1_MN 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP1_MN[ETX]   |

### 2.9.3.2. Variable: C1\_TPDO1\_MapObjs

The following section contains a detailed description of the variable C1\_TPDO1\_MapObjs.

#### Variable Overview

| Variable Name    | Description                           |
|------------------|---------------------------------------|
| C1_TPDO1_MapObjs | array[8] of mapping objects for TPDO1 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP1_MOBJ   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 363   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |               |
|--------|----------------------|---------------|
| Length |                      | 8             |
|        | UDInt                |               |
|        | Value Range          | 0..4294967295 |
|        | Initialisation       | 0x00000000    |
|        | Physical Unit        |               |
|        | Physical Unit Factor | 0.0           |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                       |
|-----------------|-------------|--------|---------------|---------------------------------------|
| sRN C1_TP1_MOBJ |             |        |               |                                       |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name           |
| Command         | C1_TP1_MOBJ | String | 11            | array[8] of mapping objects for TPDO1 |

| Read Variable Response: |             |        |               |                                       |
|-------------------------|-------------|--------|---------------|---------------------------------------|
| sRA C1_TP1_MOBJ <data>  |             |        |               |                                       |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | C1_TP1_MOBJ | String | 11            | array[8] of mapping objects for TPDO1 |
| Variable Data           | data        | Array  | 32            |                                       |

| Write Variable:        |             |        |               |                                       |
|------------------------|-------------|--------|---------------|---------------------------------------|
| sWN C1_TP1_MOBJ <data> |             |        |               |                                       |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name          |
| Command                | C1_TP1_MOBJ | String | 11            | array[8] of mapping objects for TPDO1 |
| Variable Data          | data        | Array  | 32            |                                       |

| Write Variable Response: |             |        |               |                                       |
|--------------------------|-------------|--------|---------------|---------------------------------------|
| sWA C1_TP1_MOBJ          |             |        |               |                                       |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | C1_TP1_MOBJ | String | 11            | array[8] of mapping objects for TPDO1 |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN C1_TP1_MOBJ[ETX]                 |
| Read Variable Response:                                     | [STX]sRA C1_TP1_MOBJ 0 0 0 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN C1_TP1_MOBJ 0 0 0 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP1_MOBJ[ETX]                 |



### 2.9.3.3. Variable: C1\_TPDO1\_PreConnSet

The following section contains a detailed description of the variable C1\_TPDO1\_PreConnSet.

#### Variable Overview

| Variable Name       | Description                             |
|---------------------|---|
| C1_TPDO1_PreConnSet | Define use of predefined connection set |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP1_PCS  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 364   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UserType            |   |
|---------------------|---|
| eUsePredConnSetType | See the chapter "User Types" for details. |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN C1_TP1_PCS |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name             |
| Command        | C1_TP1_PCS | String | 10            | Define use of predefined connection set |

| Read Variable Response: |            |                     |               |   |
|-------------------------|------------|---------------------|---------------|---|
| sRA C1_TP1_PCS <data>   |            |                     |               |   |
| Telegram Part           | Telegram   | Type                | Length [Byte] | Description                             |
| Command Type            | sRA        | String              | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | C1_TP1_PCS | String              | 10            | Define use of predefined connection set |
| Variable Data           | data       | eUsePredConnSetType | 1             |   |

| Write Variable:       |            |                     |               |   |
|-----------------------|------------|---------------------|---------------|---|
| sWN C1_TP1_PCS <data> |            |                     |               |   |
| Telegram Part         | Telegram   | Type                | Length [Byte] | Description                             |
| Command Type          | sWN        | String              | 3             | Write SOPAS Variable by Name            |
| Command               | C1_TP1_PCS | String              | 10            | Define use of predefined connection set |
| Variable Data         | data       | eUsePredConnSetType | 1             |   |

| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA C1_TP1_PCS           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | C1_TP1_PCS | String | 10            | Define use of predefined connection set |



## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_TP1_PCS[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_TP1_PCS 1[ETX] |
| Write Variable:   | [STX]sWN C1_TP1_PCS 1[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP1_PCS[ETX]   |

### 2.9.3.4. Variable: C1\_TPDO1\_CobId

The following section contains a detailed description of the variable C1\_TPDO1\_CobId.

#### Variable Overview

| Variable Name  | Description              |
|----------------|--------------------------|
| C1_TPDO1_CobId | Can identifier for TPDO1 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP1_ID   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 365   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |               |
|----------------------|---------------|
| Value Range          | 0..4294967295 |
| Initialisation       | 0x80000000    |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_TP1_ID  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_TP1_ID | String | 9             | Can identifier for TPDO1    |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_TP1_ID <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_TP1_ID | String | 9             | Can identifier for TPDO1        |
| Variable Data           | data      | UDInt  | 4             |                                 |



| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_TP1_ID <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_TP1_ID | String | 9             | Can identifier for TPDO1     |
| Variable Data        | data      | UDInt  | 4             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_TP1_ID            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_TP1_ID | String | 9             | Can identifier for TPDO1         |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN C1_TP1_ID[ETX]          |
| Read Variable Response:                                     | [STX]sRA C1_TP1_ID 80000000[ETX] |
| Write Variable:   | [STX]sWN C1_TP1_ID 80000000[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP1_ID[ETX]          |

### 2.9.3.5. Variable: C1\_TPDO1\_TrmType

The following section contains a detailed description of the variable C1\_TPDO1\_TrmType.

#### Variable Overview

| Variable Name    | Description                 |
|------------------|-----------------------------|
| C1_TPDO1_TrmType | Transmission type for TPDO1 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP1_TT   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 366   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |        |
|----------------------|--------|
| Value Range          | 0..255 |
| Initialisation       | 0xFE   |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_TP1_TT  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_TP1_TT | String | 9             | Transmission type for TPDO1 |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_TP1_TT <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_TP1_TT | String | 9             | Transmission type for TPDO1     |
| Variable Data           | data      | USInt  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_TP1_TT <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_TP1_TT | String | 9             | Transmission type for TPDO1  |
| Variable Data        | data      | USInt  | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_TP1_TT            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_TP1_TT | String | 9             | Transmission type for TPDO1      |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_TP1_TT[ETX]    |
| Read Variable Response:                                     | [STX]sRA C1_TP1_TT FE[ETX] |
| Write Variable:   | [STX]sWN C1_TP1_TT FE[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP1_TT[ETX]    |

### 2.9.3.6. Variable: C1\_TPDO1\_InhibtTime

The following section contains a detailed description of the variable C1\_TPDO1\_InhibtTime.

#### Variable Overview

| Variable Name       | Description           |
|---------------------|-----------------------|
| C1_TPDO1_InhibtTime | Inhibt time for TPDO1 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP1_IT   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 367   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0x00     |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_TP1_IT  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_TP1_IT | String | 9             | Inhibt time for TPDO1       |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_TP1_IT <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_TP1_IT | String | 9             | Inhibt time for TPDO1           |
| Variable Data           | data      | UInt   | 2             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_TP1_IT <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_TP1_IT | String | 9             | Inhibt time for TPDO1        |
| Variable Data        | data      | UInt   | 2             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_TP1_IT            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_TP1_IT | String | 9             | Inhibt time for TPDO1            |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_TP1_ET[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_TP1_ET 0[ETX] |
| Write Variable:   | [STX]sWN C1_TP1_ET 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP1_ET[ETX]   |

### 2.9.3.7. Variable: C1\_TPDO1\_EventTime

The following section contains a detailed description of the variable C1\_TPDO1\_EventTime.

#### Variable Overview

| Variable Name      | Description          |
|--------------------|----------------------|
| C1_TPDO1_EventTime | Event time for TPDO1 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP1_ET   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 368   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0x00     |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_TP1_ET  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_TP1_ET | String | 9             | Event time for TPDO1        |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_TP1_ET <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_TP1_ET | String | 9             | Event time for TPDO1            |
| Variable Data           | data      | UInt   | 2             |                                 |



| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_TP1_ET <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_TP1_ET | String | 9             | Event time for TPDO1         |
| Variable Data        | data      | UInt   | 2             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_TP1_ET            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_TP1_ET | String | 9             | Event time for TPDO1             |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_TP1_ET[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_TP1_ET 0[ETX] |
| Write Variable:   | [STX]sWN C1_TP1_ET 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP1_ET[ETX]   |

### 2.9.3.8. Variable: C1\_TPDO2\_MapNum

The following section contains a detailed description of the variable C1\_TPDO2\_MapNum.

#### Variable Overview

| Variable Name   | Description                         |
|-----------------|-------------------------------------|
| C1_TPDO2_MapNum | Number of mapping entries for TPDO2 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP2_MN   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 369   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |      |
|----------------------|------|
| Value Range          | 0..8 |
| Initialisation       | 0    |
| Physical Unit        |      |
| Physical Unit Factor | 0.0  |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                                     |
|----------------|-----------|--------|---------------|-------------------------------------|
| sRN C1_TP2_MN  |           |        |               |                                     |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name         |
| Command        | C1_TP2_MN | String | 9             | Number of mapping entries for TPDO2 |

| Read Variable Response: |           |        |               |                                     |
|-------------------------|-----------|--------|---------------|-------------------------------------|
| sRA C1_TP2_MN <data>    |           |        |               |                                     |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | C1_TP2_MN | String | 9             | Number of mapping entries for TPDO2 |
| Variable Data           | data      | USInt  | 1             |                                     |

| Write Variable:      |           |        |               |                                     |
|----------------------|-----------|--------|---------------|-------------------------------------|
| sWN C1_TP2_MN <data> |           |        |               |                                     |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name        |
| Command              | C1_TP2_MN | String | 9             | Number of mapping entries for TPDO2 |
| Variable Data        | data      | USInt  | 1             |                                     |

| Write Variable Response: |           |        |               |                                     |
|--------------------------|-----------|--------|---------------|-------------------------------------|
| sWA C1_TP2_MN            |           |        |               |                                     |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | C1_TP2_MN | String | 9             | Number of mapping entries for TPDO2 |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_TP2_MN[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_TP2_MN 0[ETX] |
| Write Variable:   | [STX]sWN C1_TP2_MN 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP2_MN[ETX]   |



### 2.9.3.9. Variable: C1\_TPDO2\_MapObjs

The following section contains a detailed description of the variable C1\_TPDO2\_MapObjs.

#### Variable Overview

| Variable Name    | Description                           |
|------------------|---------------------------------------|
| C1_TPDO2_MapObjs | array[8] of mapping objects for TPDO2 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP2_MOBJ   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 370   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |               |
|----------------------|---------------|
| Length               | 8             |
| <b>UDInt</b>         |               |
| Value Range          | 0..4294967295 |
| Initialisation       | 0x00000000    |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                                       |
|-----------------|-------------|--------|---------------|---------------------------------------|
| sRN C1_TP2_MOBJ |             |        |               |                                       |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name           |
| Command         | C1_TP2_MOBJ | String | 11            | array[8] of mapping objects for TPDO2 |

| Read Variable Response: |             |        |               |                                       |
|-------------------------|-------------|--------|---------------|---------------------------------------|
| sRA C1_TP2_MOBJ <data>  |             |        |               |                                       |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | C1_TP2_MOBJ | String | 11            | array[8] of mapping objects for TPDO2 |
| Variable Data           | data        | Array  | 32            |                                       |

| Write Variable:        |             |        |               |                                       |
|------------------------|-------------|--------|---------------|---------------------------------------|
| sWN C1_TP2_MOBJ <data> |             |        |               |                                       |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name          |
| Command                | C1_TP2_MOBJ | String | 11            | array[8] of mapping objects for TPDO2 |
| Variable Data          | data        | Array  | 32            |                                       |



| Write Variable Response: |             |        |               |                                       |
|--------------------------|-------------|--------|---------------|---------------------------------------|
| sWA C1_TP2_MOBJ          |             |        |               |                                       |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | C1_TP2_MOBJ | String | 11            | array[8] of mapping objects for TPDO2 |

### Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| <b>Read Variable:</b>                                       | [STX]sRN C1_TP2_MOBJ[ETX]                 |
| <b>Read Variable Response:</b>                              | [STX]sRA C1_TP2_MOBJ 0 0 0 0 0 0 0 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN C1_TP2_MOBJ 0 0 0 0 0 0 0 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA C1_TP2_MOBJ[ETX]                 |

### 2.9.3.10. Variable: C1\_TPDO2\_PreConnSet

The following section contains a detailed description of the variable C1\_TPDO2\_PreConnSet.

#### Variable Overview

| Variable Name       | Description                             |
|---------------------|---|
| C1_TPDO2_PreConnSet | Define use of predefined connection set |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP2_PCS  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 371   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UserType            |   |
|---------------------|---|
| eUsePredConnSetType | See the chapter "User Types" for details. |



## Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN C1_TP2_PCS |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name             |
| Command        | C1_TP2_PCS | String | 10            | Define use of predefined connection set |

| Read Variable Response: |            |                         |               |   |
|-------------------------|------------|-------------------------|---------------|---|
| sRA C1_TP2_PCS <data>   |            |                         |               |   |
| Telegram Part           | Telegram   | Type                    | Length [Byte] | Description                             |
| Command Type            | sRA        | String                  | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | C1_TP2_PCS | String                  | 10            | Define use of predefined connection set |
| Variable Data           | data       | eUsePredC<br>onnSetType | 1             |   |

| Write Variable:       |            |                         |               |   |
|-----------------------|------------|-------------------------|---------------|---|
| sWN C1_TP2_PCS <data> |            |                         |               |   |
| Telegram Part         | Telegram   | Type                    | Length [Byte] | Description                             |
| Command Type          | sWN        | String                  | 3             | Write SOPAS Variable by Name            |
| Command               | C1_TP2_PCS | String                  | 10            | Define use of predefined connection set |
| Variable Data         | data       | eUsePredC<br>onnSetType | 1             |   |

| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA C1_TP2_PCS           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | C1_TP2_PCS | String | 10            | Define use of predefined connection set |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_TP2_PCS[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_TP2_PCS 1[ETX] |
| Write Variable:   | [STX]sWN C1_TP2_PCS 1[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP2_PCS[ETX]   |



### 2.9.3.11. Variable: C1\_TPDO2\_CobId

The following section contains a detailed description of the variable C1\_TPDO2\_CobId.

#### Variable Overview

| Variable Name  | Description              |
|----------------|--------------------------|
| C1_TPDO2_CobId | Can identifier for TPDO2 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP2_ID   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 372   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |               |
|----------------------|---------------|
| Value Range          | 0..4294967295 |
| Initialisation       | 0x80000000    |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_TP2_ID  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_TP2_ID | String | 9             | Can identifier for TPDO2    |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_TP2_ID <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_TP2_ID | String | 9             | Can identifier for TPDO2        |
| Variable Data           | data      | UDInt  | 4             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_TP2_ID <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_TP2_ID | String | 9             | Can identifier for TPDO2     |
| Variable Data        | data      | UDInt  | 4             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_TP2_ID            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_TP2_ID | String | 9             | Can identifier for TPDO2         |



## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN C1_TP2_ID[ETX]          |
| Read Variable Response:                                     | [STX]sRA C1_TP2_ID 80000000[ETX] |
| Write Variable:   | [STX]sWN C1_TP2_ID 80000000[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP2_ID[ETX]          |

### 2.9.3.12. Variable: C1\_TPDO2\_TrmType

The following section contains a detailed description of the variable C1\_TPDO2\_TrmType.

#### Variable Overview

| Variable Name    | Description                 |
|------------------|-----------------------------|
| C1_TPDO2_TrmType | Transmission type for TPDO2 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP2_TT   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 373   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |        |
|----------------------|--------|
| Value Range          | 0..255 |
| Initialisation       | 0xFE   |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_TP2_TT  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_TP2_TT | String | 9             | Transmission type for TPDO2 |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_TP2_TT <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_TP2_TT | String | 9             | Transmission type for TPDO2     |
| Variable Data           | data      | USInt  | 1             |                                 |



| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_TP2_TT <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_TP2_TT | String | 9             | Transmission type for TPDO2  |
| Variable Data        | data      | UInt   | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_TP2_TT            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_TP2_TT | String | 9             | Transmission type for TPDO2      |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_TP2_TT[ETX]    |
| Read Variable Response:                                     | [STX]sRA C1_TP2_TT FE[ETX] |
| Write Variable:   | [STX]sWN C1_TP2_TT FE[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP2_TT[ETX]    |

### 2.9.3.13. Variable: C1\_TPDO2\_InhibitTime

The following section contains a detailed description of the variable C1\_TPDO2\_InhibitTime.

#### Variable Overview

| Variable Name        | Description            |
|----------------------|------------------------|
| C1_TPDO2_InhibitTime | Inhibit time for TPDO2 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP2_IT   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 374   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0x00     |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_TP2_IT  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_TP2_IT | String | 9             | Inhibit time for TPDO2      |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_TP2_IT <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_TP2_IT | String | 9             | Inhibit time for TPDO2          |
| Variable Data           | data      | UInt   | 2             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_TP2_IT <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_TP2_IT | String | 9             | Inhibit time for TPDO2       |
| Variable Data        | data      | UInt   | 2             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_TP2_IT            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_TP2_IT | String | 9             | Inhibit time for TPDO2           |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_TP2_IT[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_TP2_IT 0[ETX] |
| Write Variable:   | [STX]sWN C1_TP2_IT 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP2_IT[ETX]   |



### 2.9.3.14. Variable: C1\_TPDO2\_EventTime

The following section contains a detailed description of the variable C1\_TPDO2\_EventTime.

#### Variable Overview

| Variable Name      | Description          |
|--------------------|----------------------|
| C1_TPDO2_EventTime | Event time for TPDO2 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP2_ET   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 375   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0x00     |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_TP2_ET  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_TP2_ET | String | 9             | Event time for TPDO2        |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_TP2_ET <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_TP2_ET | String | 9             | Event time for TPDO2            |
| Variable Data           | data      | UInt   | 2             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_TP2_ET <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_TP2_ET | String | 9             | Event time for TPDO2         |
| Variable Data        | data      | UInt   | 2             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_TP2_ET            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_TP2_ET | String | 9             | Event time for TPDO2             |





## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_TP2_ET[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_TP2_ET 0[ETX] |
| Write Variable:   | [STX]sWN C1_TP2_ET 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP2_ET[ETX]   |

### 2.9.3.15. Variable: C1\_TPDO3\_MapNum

The following section contains a detailed description of the variable C1\_TPDO3\_MapNum.

#### Variable Overview

| Variable Name   | Description                         |
|-----------------|-------------------------------------|
| C1_TPDO3_MapNum | Number of mapping entries for TPDO3 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP3_MN   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 376   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |      |
|----------------------|------|
| Value Range          | 0..8 |
| Initialisation       | 0    |
| Physical Unit        |      |
| Physical Unit Factor | 0.0  |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                                     |
|----------------|-----------|--------|---------------|-------------------------------------|
| sRN C1_TP3_MN  |           |        |               |                                     |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name         |
| Command        | C1_TP3_MN | String | 9             | Number of mapping entries for TPDO3 |

| Read Variable Response: |           |        |               |                                     |
|-------------------------|-----------|--------|---------------|-------------------------------------|
| sRA C1_TP3_MN <data>    |           |        |               |                                     |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | C1_TP3_MN | String | 9             | Number of mapping entries for TPDO3 |
| Variable Data           | data      | USInt  | 1             |                                     |



| Write Variable:      |           |        |               |                                     |
|----------------------|-----------|--------|---------------|-------------------------------------|
| sWN C1_TP3_MN <data> |           |        |               |                                     |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name        |
| Command              | C1_TP3_MN | String | 9             | Number of mapping entries for TPDO3 |
| Variable Data        | data      | USInt  | 1             |                                     |

| Write Variable Response: |           |        |               |                                     |
|--------------------------|-----------|--------|---------------|-------------------------------------|
| sWA C1_TP3_MN            |           |        |               |                                     |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | C1_TP3_MN | String | 9             | Number of mapping entries for TPDO3 |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_TP3_MN[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_TP3_MN 0[ETX] |
| Write Variable:   | [STX]sWN C1_TP3_MN 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP3_MN[ETX]   |

### 2.9.3.16. Variable: C1\_TPDO3\_MapObjs

The following section contains a detailed description of the variable C1\_TPDO3\_MapObjs.

#### Variable Overview

| Variable Name    | Description                           |
|------------------|---------------------------------------|
| C1_TPDO3_MapObjs | array[8] of mapping objects for TPDO3 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP3_MOBJ   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 377   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |               |
|--------|----------------------|---------------|
| Length |                      | 8             |
|        | UDInt                |               |
|        | Value Range          | 0..4294967295 |
|        | Initialisation       | 0x00000000    |
|        | Physical Unit        |               |
|        | Physical Unit Factor | 0.0           |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                       |
|-----------------|-------------|--------|---------------|---------------------------------------|
| sRN C1_TP3_MOBJ |             |        |               |                                       |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name           |
| Command         | C1_TP3_MOBJ | String | 11            | array[8] of mapping objects for TPDO3 |

| Read Variable Response: |             |        |               |                                       |
|-------------------------|-------------|--------|---------------|---------------------------------------|
| sRA C1_TP3_MOBJ <data>  |             |        |               |                                       |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | C1_TP3_MOBJ | String | 11            | array[8] of mapping objects for TPDO3 |
| Variable Data           | data        | Array  | 32            |                                       |

| Write Variable:        |             |        |               |                                       |
|------------------------|-------------|--------|---------------|---------------------------------------|
| sWN C1_TP3_MOBJ <data> |             |        |               |                                       |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name          |
| Command                | C1_TP3_MOBJ | String | 11            | array[8] of mapping objects for TPDO3 |
| Variable Data          | data        | Array  | 32            |                                       |

| Write Variable Response: |             |        |               |                                       |
|--------------------------|-------------|--------|---------------|---------------------------------------|
| sWA C1_TP3_MOBJ          |             |        |               |                                       |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | C1_TP3_MOBJ | String | 11            | array[8] of mapping objects for TPDO3 |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN C1_TP3_MOBJ[ETX]                 |
| Read Variable Response:                                     | [STX]sRA C1_TP3_MOBJ 0 0 0 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN C1_TP3_MOBJ 0 0 0 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP3_MOBJ[ETX]                 |

### 2.9.3.17. Variable: C1\_TPDO3\_PreConnSet

The following section contains a detailed description of the variable C1\_TPDO3\_PreConnSet.

#### Variable Overview

| Variable Name       | Description                             |
|---------------------|---|
| C1_TPDO3_PreConnSet | Define use of predefined connection set |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP3_PCS  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 378   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UserType            |   |
|---------------------|---|
| eUsePredConnSetType | See the chapter "User Types" for details. |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN C1_TP3_PCS |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name             |
| Command        | C1_TP3_PCS | String | 10            | Define use of predefined connection set |

| Read Variable Response: |            |                     |               |   |
|-------------------------|------------|---------------------|---------------|---|
| sRA C1_TP3_PCS <data>   |            |                     |               |   |
| Telegram Part           | Telegram   | Type                | Length [Byte] | Description                             |
| Command Type            | sRA        | String              | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | C1_TP3_PCS | String              | 10            | Define use of predefined connection set |
| Variable Data           | data       | eUsePredConnSetType | 1             |   |

| Write Variable:       |            |                     |               |   |
|-----------------------|------------|---------------------|---------------|---|
| sWN C1_TP3_PCS <data> |            |                     |               |   |
| Telegram Part         | Telegram   | Type                | Length [Byte] | Description                             |
| Command Type          | sWN        | String              | 3             | Write SOPAS Variable by Name            |
| Command               | C1_TP3_PCS | String              | 10            | Define use of predefined connection set |
| Variable Data         | data       | eUsePredConnSetType | 1             |   |

| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA C1_TP3_PCS           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | C1_TP3_PCS | String | 10            | Define use of predefined connection set |



## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_TP3_PCS[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_TP3_PCS 1[ETX] |
| Write Variable:   | [STX]sWN C1_TP3_PCS 1[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP3_PCS[ETX]   |

### 2.9.3.18. Variable: C1\_TPDO3\_CobId

The following section contains a detailed description of the variable C1\_TPDO3\_CobId.

#### Variable Overview

| Variable Name  | Description              |
|----------------|--------------------------|
| C1_TPDO3_CobId | Can identifier for TPDO3 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP3_ID   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 379   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |               |
|----------------------|---------------|
| Value Range          | 0..4294967295 |
| Initialisation       | 0x80000000    |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_TP3_ID  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_TP3_ID | String | 9             | Can identifier for TPDO3    |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_TP3_ID <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_TP3_ID | String | 9             | Can identifier for TPDO3        |
| Variable Data           | data      | UDInt  | 4             |                                 |



| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_TP3_ID <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_TP3_ID | String | 9             | Can identifier for TPDO3     |
| Variable Data        | data      | UDInt  | 4             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_TP3_ID            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_TP3_ID | String | 9             | Can identifier for TPDO3         |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN C1_TP3_ID[ETX]          |
| Read Variable Response:                                     | [STX]sRA C1_TP3_ID 80000000[ETX] |
| Write Variable:   | [STX]sWN C1_TP3_ID 80000000[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP3_ID[ETX]          |

### 2.9.3.19. Variable: C1\_TPDO3\_TrmType

The following section contains a detailed description of the variable C1\_TPDO3\_TrmType.

#### Variable Overview

| Variable Name    | Description                 |
|------------------|-----------------------------|
| C1_TPDO3_TrmType | Transmission type for TPDO3 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP3_TT   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 380   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |        |
|----------------------|--------|
| Value Range          | 0..255 |
| Initialisation       | 0xFE   |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_TP3_TT  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_TP3_TT | String | 9             | Transmission type for TPDO3 |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_TP3_TT <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_TP3_TT | String | 9             | Transmission type for TPDO3     |
| Variable Data           | data      | USInt  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_TP3_TT <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_TP3_TT | String | 9             | Transmission type for TPDO3  |
| Variable Data        | data      | USInt  | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_TP3_TT            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_TP3_TT | String | 9             | Transmission type for TPDO3      |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_TP3_TT[ETX]    |
| Read Variable Response:                                     | [STX]sRA C1_TP3_TT FE[ETX] |
| Write Variable:   | [STX]sWN C1_TP3_TT FE[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP3_TT[ETX]    |

### 2.9.3.20. Variable: C1\_TPDO3\_InhibtTime

The following section contains a detailed description of the variable C1\_TPDO3\_InhibtTime.

#### Variable Overview

| Variable Name       | Description           |
|---------------------|-----------------------|
| C1_TPDO3_InhibtTime | Inhibt time for TPDO3 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP3_IT   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 381   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0x00     |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_TP3_IT  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_TP3_IT | String | 9             | Inhibt time for TPDO3       |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_TP3_IT <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_TP3_IT | String | 9             | Inhibt time for TPDO3           |
| Variable Data           | data      | UInt   | 2             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_TP3_IT <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_TP3_IT | String | 9             | Inhibt time for TPDO3        |
| Variable Data        | data      | UInt   | 2             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_TP3_IT            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_TP3_IT | String | 9             | Inhibt time for TPDO3            |





## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_TP3_IT[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_TP3_IT 0[ETX] |
| Write Variable:   | [STX]sWN C1_TP3_IT 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP3_IT[ETX]   |

### 2.9.3.21. Variable: C1\_TPDO3\_EventTime

The following section contains a detailed description of the variable C1\_TPDO3\_EventTime.

#### Variable Overview

| Variable Name      | Description          |
|--------------------|----------------------|
| C1_TPDO3_EventTime | Event time for TPDO3 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP3_ET   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 382   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0x00     |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_TP3_ET  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_TP3_ET | String | 9             | Event time for TPDO3        |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_TP3_ET <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_TP3_ET | String | 9             | Event time for TPDO3            |
| Variable Data           | data      | UInt   | 2             |                                 |



| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_TP3_ET <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_TP3_ET | String | 9             | Event time for TPDO3         |
| Variable Data        | data      | UInt   | 2             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_TP3_ET            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_TP3_ET | String | 9             | Event time for TPDO3             |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_TP3_ET[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_TP3_ET 0[ETX] |
| Write Variable:   | [STX]sWN C1_TP3_ET 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP3_ET[ETX]   |

### 2.9.3.22. Variable: C1\_TPDO4\_MapNum

The following section contains a detailed description of the variable C1\_TPDO4\_MapNum.

#### Variable Overview

| Variable Name   | Description                         |
|-----------------|-------------------------------------|
| C1_TPDO4_MapNum | Number of mapping entries for TPDO4 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP4_MN   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 383   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |      |
|----------------------|------|
| Value Range          | 0..8 |
| Initialisation       | 0    |
| Physical Unit        |      |
| Physical Unit Factor | 0.0  |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                                     |
|----------------|-----------|--------|---------------|-------------------------------------|
| sRN C1_TP4_MN  |           |        |               |                                     |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name         |
| Command        | C1_TP4_MN | String | 9             | Number of mapping entries for TPDO4 |

| Read Variable Response: |           |        |               |                                     |
|-------------------------|-----------|--------|---------------|-------------------------------------|
| sRA C1_TP4_MN <data>    |           |        |               |                                     |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | C1_TP4_MN | String | 9             | Number of mapping entries for TPDO4 |
| Variable Data           | data      | USInt  | 1             |                                     |

| Write Variable:      |           |        |               |                                     |
|----------------------|-----------|--------|---------------|-------------------------------------|
| sWN C1_TP4_MN <data> |           |        |               |                                     |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name        |
| Command              | C1_TP4_MN | String | 9             | Number of mapping entries for TPDO4 |
| Variable Data        | data      | USInt  | 1             |                                     |

| Write Variable Response: |           |        |               |                                     |
|--------------------------|-----------|--------|---------------|-------------------------------------|
| sWA C1_TP4_MN            |           |        |               |                                     |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | C1_TP4_MN | String | 9             | Number of mapping entries for TPDO4 |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_TP4_MN[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_TP4_MN 0[ETX] |
| Write Variable:   | [STX]sWN C1_TP4_MN 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP4_MN[ETX]   |

### 2.9.3.23. Variable: C1\_TPDO4\_MapObjs

The following section contains a detailed description of the variable C1\_TPDO4\_MapObjs.

#### Variable Overview

| Variable Name    | Description                           |
|------------------|---------------------------------------|
| C1_TPDO4_MapObjs | array[8] of mapping objects for TPDO4 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP4_MOBJ   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 384   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |               |
|----------------------|---------------|
| Length               | 8             |
| <b>UDInt</b>         |               |
| Value Range          | 0..4294967295 |
| Initialisation       | 0x00000000    |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                                       |
|-----------------|-------------|--------|---------------|---------------------------------------|
| sRN C1_TP4_MOBJ |             |        |               |                                       |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name           |
| Command         | C1_TP4_MOBJ | String | 11            | array[8] of mapping objects for TPDO4 |

| Read Variable Response: |             |        |               |                                       |
|-------------------------|-------------|--------|---------------|---------------------------------------|
| sRA C1_TP4_MOBJ <data>  |             |        |               |                                       |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | C1_TP4_MOBJ | String | 11            | array[8] of mapping objects for TPDO4 |
| Variable Data           | data        | Array  | 32            |                                       |

| Write Variable:        |             |        |               |                                       |
|------------------------|-------------|--------|---------------|---------------------------------------|
| sWN C1_TP4_MOBJ <data> |             |        |               |                                       |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name          |
| Command                | C1_TP4_MOBJ | String | 11            | array[8] of mapping objects for TPDO4 |
| Variable Data          | data        | Array  | 32            |                                       |



| Write Variable Response: |             |        |               |                                       |
|--------------------------|-------------|--------|---------------|---------------------------------------|
| sWA C1_TP4_MOBJ          |             |        |               |                                       |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | C1_TP4_MOBJ | String | 11            | array[8] of mapping objects for TPDO4 |

### Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| <b>Read Variable:</b>                                       | [STX]sRN C1_TP4_MOBJ[ETX]                 |
| <b>Read Variable Response:</b>                              | [STX]sRA C1_TP4_MOBJ 0 0 0 0 0 0 0 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN C1_TP4_MOBJ 0 0 0 0 0 0 0 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA C1_TP4_MOBJ[ETX]                 |

### 2.9.3.24. Variable: C1\_TPDO4\_PreConnSet

The following section contains a detailed description of the variable C1\_TPDO4\_PreConnSet.

#### Variable Overview

| Variable Name       | Description                             |
|---------------------|---|
| C1_TPDO4_PreConnSet | Define use of predefined connection set |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP4_PCS  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 385   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UserType            |   |
|---------------------|---|
| eUsePredConnSetType | See the chapter "User Types" for details. |



## Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN C1_TP4_PCS |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name             |
| Command        | C1_TP4_PCS | String | 10            | Define use of predefined connection set |

| Read Variable Response: |            |                         |               |   |
|-------------------------|------------|-------------------------|---------------|---|
| sRA C1_TP4_PCS <data>   |            |                         |               |   |
| Telegram Part           | Telegram   | Type                    | Length [Byte] | Description                             |
| Command Type            | sRA        | String                  | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | C1_TP4_PCS | String                  | 10            | Define use of predefined connection set |
| Variable Data           | data       | eUsePredC<br>onnSetType | 1             |   |

| Write Variable:       |            |                         |               |   |
|-----------------------|------------|-------------------------|---------------|---|
| sWN C1_TP4_PCS <data> |            |                         |               |   |
| Telegram Part         | Telegram   | Type                    | Length [Byte] | Description                             |
| Command Type          | sWN        | String                  | 3             | Write SOPAS Variable by Name            |
| Command               | C1_TP4_PCS | String                  | 10            | Define use of predefined connection set |
| Variable Data         | data       | eUsePredC<br>onnSetType | 1             |   |

| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA C1_TP4_PCS           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | C1_TP4_PCS | String | 10            | Define use of predefined connection set |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_TP4_PCS[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_TP4_PCS 1[ETX] |
| Write Variable:   | [STX]sWN C1_TP4_PCS 1[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP4_PCS[ETX]   |

### 2.9.3.25. Variable: C1\_TPDO4\_CobId

The following section contains a detailed description of the variable C1\_TPDO4\_CobId.

#### Variable Overview

| Variable Name  | Description              |
|----------------|--------------------------|
| C1_TPDO4_CobId | Can identifier for TPDO4 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP4_ID   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 386   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |               |
|----------------------|---------------|
| Value Range          | 0..4294967295 |
| Initialisation       | 0x80000000    |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_TP4_ID  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_TP4_ID | String | 9             | Can identifier for TPDO4    |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_TP4_ID <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_TP4_ID | String | 9             | Can identifier for TPDO4        |
| Variable Data           | data      | UDInt  | 4             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_TP4_ID <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_TP4_ID | String | 9             | Can identifier for TPDO4     |
| Variable Data        | data      | UDInt  | 4             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_TP4_ID            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_TP4_ID | String | 9             | Can identifier for TPDO4         |



## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN C1_TP4_ID[ETX]          |
| Read Variable Response:                                     | [STX]sRA C1_TP4_ID 80000000[ETX] |
| Write Variable:   | [STX]sWN C1_TP4_ID 80000000[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP4_ID[ETX]          |

### 2.9.3.26. Variable: C1\_TPDO4\_TrmType

The following section contains a detailed description of the variable C1\_TPDO4\_TrmType.

#### Variable Overview

| Variable Name    | Description                 |
|------------------|-----------------------------|
| C1_TPDO4_TrmType | Transmission type for TPDO4 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP4_TT   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 387   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |        |
|----------------------|--------|
| Value Range          | 0..255 |
| Initialisation       | 0xFE   |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_TP4_TT  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_TP4_TT | String | 9             | Transmission type for TPDO4 |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_TP4_TT <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_TP4_TT | String | 9             | Transmission type for TPDO4     |
| Variable Data           | data      | USInt  | 1             |                                 |





| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_TP4_TT <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_TP4_TT | String | 9             | Transmission type for TPDO4  |
| Variable Data        | data      | USInt  | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_TP4_TT            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_TP4_TT | String | 9             | Transmission type for TPDO4      |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_TP4_TT[ETX]    |
| Read Variable Response:                                     | [STX]sRA C1_TP4_TT FE[ETX] |
| Write Variable:   | [STX]sWN C1_TP4_TT FE[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP4_TT[ETX]    |

### 2.9.3.27. Variable: C1\_TPDO4\_InhibitTime

The following section contains a detailed description of the variable C1\_TPDO4\_InhibitTime.

#### Variable Overview

| Variable Name        | Description            |
|----------------------|------------------------|
| C1_TPDO4_InhibitTime | Inhibit time for TPDO4 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP4_IT   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 388   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0x00     |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_TP4_IT  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_TP4_IT | String | 9             | Inhibit time for TPDO4      |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_TP4_IT <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_TP4_IT | String | 9             | Inhibit time for TPDO4          |
| Variable Data           | data      | UInt   | 2             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_TP4_IT <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_TP4_IT | String | 9             | Inhibit time for TPDO4       |
| Variable Data        | data      | UInt   | 2             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_TP4_IT            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_TP4_IT | String | 9             | Inhibit time for TPDO4           |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_TP4_IT[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_TP4_IT 0[ETX] |
| Write Variable:   | [STX]sWN C1_TP4_IT 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP4_IT[ETX]   |



### 2.9.3.28. Variable: C1\_TPDO4\_EventTime

The following section contains a detailed description of the variable C1\_TPDO4\_EventTime.

#### Variable Overview

| Variable Name      | Description          |
|--------------------|----------------------|
| C1_TPDO4_EventTime | Event time for TPDO4 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_TP4_ET   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 389   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0x00     |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_TP4_ET  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_TP4_ET | String | 9             | Event time for TPDO4        |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_TP4_ET <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_TP4_ET | String | 9             | Event time for TPDO4            |
| Variable Data           | data      | UInt   | 2             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_TP4_ET <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_TP4_ET | String | 9             | Event time for TPDO4         |
| Variable Data        | data      | UInt   | 2             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_TP4_ET            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_TP4_ET | String | 9             | Event time for TPDO4             |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_TP4_ET[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_TP4_ET 0[ETX] |
| Write Variable:   | [STX]sWN C1_TP4_ET 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_TP4_ET[ETX]   |



## 2.9.4. Group: CAN1BusRPDO

### 2.9.4.1. Variable: C1\_RPDO1\_MapNum

The following section contains a detailed description of the variable C1\_RPDO1\_MapNum.

#### Variable Overview

| Variable Name   | Description                         |
|-----------------|-------------------------------------|
| C1_RPDO1_MapNum | Number of mapping entries for RPDO1 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP1_MN   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 390   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |      |
|----------------------|------|
| Value Range          | 0..8 |
| Initialisation       | 0    |
| Physical Unit        |      |
| Physical Unit Factor | 0.0  |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                                     |
|----------------|-----------|--------|---------------|-------------------------------------|
| sRN C1_RP1_MN  |           |        |               |                                     |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name         |
| Command        | C1_RP1_MN | String | 9             | Number of mapping entries for RPDO1 |

| Read Variable Response: |           |        |               |                                     |
|-------------------------|-----------|--------|---------------|-------------------------------------|
| sRA C1_RP1_MN <data>    |           |        |               |                                     |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | C1_RP1_MN | String | 9             | Number of mapping entries for RPDO1 |
| Variable Data           | data      | USInt  | 1             |                                     |

| Write Variable:      |           |        |               |                                     |
|----------------------|-----------|--------|---------------|-------------------------------------|
| sWN C1_RP1_MN <data> |           |        |               |                                     |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name        |
| Command              | C1_RP1_MN | String | 9             | Number of mapping entries for RPDO1 |
| Variable Data        | data      | USInt  | 1             |                                     |



| Write Variable Response: |           |        |               |                                     |
|--------------------------|-----------|--------|---------------|-------------------------------------|
| sWA C1_RP1_MN            |           |        |               |                                     |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | C1_RP1_MN | String | 9             | Number of mapping entries for RPDO1 |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_RP1_MN[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_RP1_MN 0[ETX] |
| Write Variable:   | [STX]sWN C1_RP1_MN 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP1_MN[ETX]   |

### 2.9.4.2. Variable: C1\_RPDO1\_MapObjs

The following section contains a detailed description of the variable C1\_RPDO1\_MapObjs.

#### Variable Overview

| Variable Name    | Description                           |
|------------------|---------------------------------------|
| C1_RPDO1_MapObjs | array[8] of mapping objects for RPDO1 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP1_MOBJ   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 391   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |               |
|--------|----------------------|---------------|
| Length |                      | 8             |
|        | UDInt                |               |
|        | Value Range          | 0..4294967295 |
|        | Initialisation       | 0x00000000    |
|        | Physical Unit        |               |
|        | Physical Unit Factor | 0.0           |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                       |
|-----------------|-------------|--------|---------------|---------------------------------------|
| sRN C1_RP1_MOBJ |             |        |               |                                       |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name           |
| Command         | C1_RP1_MOBJ | String | 11            | array[8] of mapping objects for RPDO1 |

| Read Variable Response: |             |        |               |                                       |
|-------------------------|-------------|--------|---------------|---------------------------------------|
| sRA C1_RP1_MOBJ <data>  |             |        |               |                                       |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | C1_RP1_MOBJ | String | 11            | array[8] of mapping objects for RPDO1 |
| Variable Data           | data        | Array  | 32            |                                       |

| Write Variable:        |             |        |               |                                       |
|------------------------|-------------|--------|---------------|---------------------------------------|
| sWN C1_RP1_MOBJ <data> |             |        |               |                                       |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name          |
| Command                | C1_RP1_MOBJ | String | 11            | array[8] of mapping objects for RPDO1 |
| Variable Data          | data        | Array  | 32            |                                       |

| Write Variable Response: |             |        |               |                                       |
|--------------------------|-------------|--------|---------------|---------------------------------------|
| sWA C1_RP1_MOBJ          |             |        |               |                                       |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | C1_RP1_MOBJ | String | 11            | array[8] of mapping objects for RPDO1 |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN C1_RP1_MOBJ[ETX]                   |
| Read Variable Response:                                     | [STX]sRA C1_RP1_MOBJ 0 0 0 0 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN C1_RP1_MOBJ 0 0 0 0 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP1_MOBJ[ETX]                   |

### 2.9.4.3. Variable: C1\_RPDO1\_PreConnSet

The following section contains a detailed description of the variable C1\_RPDO1\_PreConnSet.

#### Variable Overview

| Variable Name       | Description                             |
|---------------------|---|
| C1_RPDO1_PreConnSet | Define use of predefined connection set |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP1_PCS  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 392   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UserType            |   |
|---------------------|---|
| eUsePredConnSetType | See the chapter "User Types" for details. |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN C1_RP1_PCS |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name             |
| Command        | C1_RP1_PCS | String | 10            | Define use of predefined connection set |

| Read Variable Response: |            |                     |               |   |
|-------------------------|------------|---------------------|---------------|---|
| sRA C1_RP1_PCS <data>   |            |                     |               |   |
| Telegram Part           | Telegram   | Type                | Length [Byte] | Description                             |
| Command Type            | sRA        | String              | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | C1_RP1_PCS | String              | 10            | Define use of predefined connection set |
| Variable Data           | data       | eUsePredConnSetType | 1             |   |

| Write Variable:       |            |                     |               |   |
|-----------------------|------------|---------------------|---------------|---|
| sWN C1_RP1_PCS <data> |            |                     |               |   |
| Telegram Part         | Telegram   | Type                | Length [Byte] | Description                             |
| Command Type          | sWN        | String              | 3             | Write SOPAS Variable by Name            |
| Command               | C1_RP1_PCS | String              | 10            | Define use of predefined connection set |
| Variable Data         | data       | eUsePredConnSetType | 1             |   |

| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA C1_RP1_PCS           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | C1_RP1_PCS | String | 10            | Define use of predefined connection set |





## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_RP1_PCS[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_RP1_PCS 1[ETX] |
| Write Variable:   | [STX]sWN C1_RP1_PCS 1[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP1_PCS[ETX]   |

### 2.9.4.4. Variable: C1\_RPDO1\_CobId

The following section contains a detailed description of the variable C1\_RPDO1\_CobId.

#### Variable Overview

| Variable Name  | Description              |
|----------------|--------------------------|
| C1_RPDO1_CobId | Can identifier for RPDO1 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP1_ID   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 393   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |               |
|----------------------|---------------|
| Value Range          | 0..4294967295 |
| Initialisation       | 0x80000000    |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_RP1_ID  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_RP1_ID | String | 9             | Can identifier for RPDO1    |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_RP1_ID <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_RP1_ID | String | 9             | Can identifier for RPDO1        |
| Variable Data           | data      | UDInt  | 4             |                                 |



| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_RP1_ID <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_RP1_ID | String | 9             | Can identifier for RPDO1     |
| Variable Data        | data      | UDInt  | 4             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_RP1_ID            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_RP1_ID | String | 9             | Can identifier for RPDO1         |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN C1_RP1_ID[ETX]          |
| Read Variable Response:                                     | [STX]sRA C1_RP1_ID 80000000[ETX] |
| Write Variable:   | [STX]sWN C1_RP1_ID 80000000[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP1_ID[ETX]          |

### 2.9.4.5. Variable: C1\_RPDO1\_TrmType

The following section contains a detailed description of the variable C1\_RPDO1\_TrmType.

#### Variable Overview

| Variable Name    | Description                 |
|------------------|-----------------------------|
| C1_RPDO1_TrmType | Transmission type for RPDO1 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP1_TT   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 394   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |        |
|----------------------|--------|
| Value Range          | 0..255 |
| Initialisation       | 0xFE   |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_RP1_TT  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_RP1_TT | String | 9             | Transmission type for RPDO1 |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_RP1_TT <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_RP1_TT | String | 9             | Transmission type for RPDO1     |
| Variable Data           | data      | USInt  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_RP1_TT <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_RP1_TT | String | 9             | Transmission type for RPDO1  |
| Variable Data        | data      | USInt  | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_RP1_TT            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_RP1_TT | String | 9             | Transmission type for RPDO1      |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_RP1_TT[ETX]    |
| Read Variable Response:                                     | [STX]sRA C1_RP1_TT FE[ETX] |
| Write Variable:   | [STX]sWN C1_RP1_TT FE[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP1_TT[ETX]    |



#### 2.9.4.6. Variable: C1\_RPDO2\_MapNum

The following section contains a detailed description of the variable C1\_RPDO2\_MapNum.

##### Variable Overview

| Variable Name   | Description                         |
|-----------------|-------------------------------------|
| C1_RPDO2_MapNum | Number of mapping entries for RPDO2 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP2_MN   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 395   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |      |
|----------------------|------|
| Value Range          | 0..8 |
| Initialisation       | 0    |
| Physical Unit        |      |
| Physical Unit Factor | 0.0  |

##### Variable Telegram Syntax

| Read Variable: |           |        |               |                                     |
|----------------|-----------|--------|---------------|-------------------------------------|
| sRN C1_RP2_MN  |           |        |               |                                     |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name         |
| Command        | C1_RP2_MN | String | 9             | Number of mapping entries for RPDO2 |

| Read Variable Response: |           |        |               |                                     |
|-------------------------|-----------|--------|---------------|-------------------------------------|
| sRA C1_RP2_MN <data>    |           |        |               |                                     |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | C1_RP2_MN | String | 9             | Number of mapping entries for RPDO2 |
| Variable Data           | data      | USInt  | 1             |                                     |

| Write Variable:      |           |        |               |                                     |
|----------------------|-----------|--------|---------------|-------------------------------------|
| sWN C1_RP2_MN <data> |           |        |               |                                     |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name        |
| Command              | C1_RP2_MN | String | 9             | Number of mapping entries for RPDO2 |
| Variable Data        | data      | USInt  | 1             |                                     |

| Write Variable Response: |           |        |               |                                     |
|--------------------------|-----------|--------|---------------|-------------------------------------|
| sWA C1_RP2_MN            |           |        |               |                                     |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | C1_RP2_MN | String | 9             | Number of mapping entries for RPDO2 |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_RP2_MN[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_RP2_MN 0[ETX] |
| Write Variable:   | [STX]sWN C1_RP2_MN 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP2_MN[ETX]   |

### 2.9.4.7. Variable: C1\_RPDO2\_MapObjs

The following section contains a detailed description of the variable C1\_RPDO2\_MapObjs.

#### Variable Overview

| Variable Name    | Description                           |
|------------------|---------------------------------------|
| C1_RPDO2_MapObjs | array[8] of mapping objects for RPDO2 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP2_MOBJ   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 396   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |               |
|--------|----------------------|---------------|
| Length |                      | 8             |
|        | UDInt                |               |
|        | Value Range          | 0..4294967295 |
|        | Initialisation       | 0x00000000    |
|        | Physical Unit        |               |
|        | Physical Unit Factor | 0.0           |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                       |
|-----------------|-------------|--------|---------------|---------------------------------------|
| sRN C1_RP2_MOBJ |             |        |               |                                       |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name           |
| Command         | C1_RP2_MOBJ | String | 11            | array[8] of mapping objects for RPDO2 |

| Read Variable Response: |             |        |               |                                       |
|-------------------------|-------------|--------|---------------|---------------------------------------|
| sRA C1_RP2_MOBJ <data>  |             |        |               |                                       |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | C1_RP2_MOBJ | String | 11            | array[8] of mapping objects for RPDO2 |
| Variable Data           | data        | Array  | 32            |                                       |

| Write Variable:        |             |        |               |                                       |
|------------------------|-------------|--------|---------------|---------------------------------------|
| sWN C1_RP2_MOBJ <data> |             |        |               |                                       |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name          |
| Command                | C1_RP2_MOBJ | String | 11            | array[8] of mapping objects for RPDO2 |
| Variable Data          | data        | Array  | 32            |                                       |

| Write Variable Response: |             |        |               |                                       |
|--------------------------|-------------|--------|---------------|---------------------------------------|
| sWA C1_RP2_MOBJ          |             |        |               |                                       |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | C1_RP2_MOBJ | String | 11            | array[8] of mapping objects for RPDO2 |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN C1_RP2_MOBJ[ETX]                   |
| Read Variable Response:                                     | [STX]sRA C1_RP2_MOBJ 0 0 0 0 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN C1_RP2_MOBJ 0 0 0 0 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP2_MOBJ[ETX]                   |

## 2.9.4.8. Variable: C1\_RPDO2\_PreConnSet

The following section contains a detailed description of the variable C1\_RPDO2\_PreConnSet.

### Variable Overview

| Variable Name       | Description                             |
|---------------------|---|
| C1_RPDO2_PreConnSet | Define use of predefined connection set |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP2_PCS  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 397   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UserType            |   |
|---------------------|---|
| eUsePredConnSetType | See the chapter "User Types" for details. |

### Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN C1_RP2_PCS |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name             |
| Command        | C1_RP2_PCS | String | 10            | Define use of predefined connection set |

| Read Variable Response: |            |                     |               |   |
|-------------------------|------------|---------------------|---------------|---|
| sRA C1_RP2_PCS <data>   |            |                     |               |   |
| Telegram Part           | Telegram   | Type                | Length [Byte] | Description                             |
| Command Type            | sRA        | String              | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | C1_RP2_PCS | String              | 10            | Define use of predefined connection set |
| Variable Data           | data       | eUsePredConnSetType | 1             |   |

| Write Variable:       |            |                     |               |   |
|-----------------------|------------|---------------------|---------------|---|
| sWN C1_RP2_PCS <data> |            |                     |               |   |
| Telegram Part         | Telegram   | Type                | Length [Byte] | Description                             |
| Command Type          | sWN        | String              | 3             | Write SOPAS Variable by Name            |
| Command               | C1_RP2_PCS | String              | 10            | Define use of predefined connection set |
| Variable Data         | data       | eUsePredConnSetType | 1             |   |

| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA C1_RP2_PCS           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | C1_RP2_PCS | String | 10            | Define use of predefined connection set |



## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_RP2_PCS[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_RP2_PCS 1[ETX] |
| Write Variable:   | [STX]sWN C1_RP2_PCS 1[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP2_PCS[ETX]   |

### 2.9.4.9. Variable: C1\_RPDO2\_CobId

The following section contains a detailed description of the variable C1\_RPDO2\_CobId.

#### Variable Overview

| Variable Name  | Description              |
|----------------|--------------------------|
| C1_RPDO2_CobId | Can identifier for RPDO2 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP2_ID   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 398   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |               |
|----------------------|---------------|
| Value Range          | 0..4294967295 |
| Initialisation       | 0x80000000    |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_RP2_ID  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_RP2_ID | String | 9             | Can identifier for RPDO2    |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_RP2_ID <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_RP2_ID | String | 9             | Can identifier for RPDO2        |
| Variable Data           | data      | UDInt  | 4             |                                 |





| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_RP2_ID <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_RP2_ID | String | 9             | Can identifier for RPDO2     |
| Variable Data        | data      | UDInt  | 4             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_RP2_ID            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_RP2_ID | String | 9             | Can identifier for RPDO2         |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN C1_RP2_ID[ETX]          |
| Read Variable Response:                                     | [STX]sRA C1_RP2_ID 80000000[ETX] |
| Write Variable:   | [STX]sWN C1_RP2_ID 80000000[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP2_ID[ETX]          |

### 2.9.4.10. Variable: C1\_RPDO2\_TrmType

The following section contains a detailed description of the variable C1\_RPDO2\_TrmType.

#### Variable Overview

| Variable Name    | Description                 |
|------------------|-----------------------------|
| C1_RPDO2_TrmType | Transmission type for RPDO2 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP2_TT   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 399   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |        |
|----------------------|--------|
| Value Range          | 0..255 |
| Initialisation       | 0xFE   |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_RP2_TT  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_RP2_TT | String | 9             | Transmission type for RPDO2 |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_RP2_TT <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_RP2_TT | String | 9             | Transmission type for RPDO2     |
| Variable Data           | data      | USInt  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_RP2_TT <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_RP2_TT | String | 9             | Transmission type for RPDO2  |
| Variable Data        | data      | USInt  | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_RP2_TT            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_RP2_TT | String | 9             | Transmission type for RPDO2      |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_RP2_TT[ETX]    |
| Read Variable Response:                                     | [STX]sRA C1_RP2_TT FE[ETX] |
| Write Variable:   | [STX]sWN C1_RP2_TT FE[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP2_TT[ETX]    |

### 2.9.4.11. Variable: C1\_RPDO3\_MapNum

The following section contains a detailed description of the variable C1\_RPDO3\_MapNum.

#### Variable Overview

| Variable Name   | Description                         |
|-----------------|-------------------------------------|
| C1_RPDO3_MapNum | Number of mapping entries for RPDO3 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP3_MN   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 400   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |      |
|----------------------|------|
| Value Range          | 0..8 |
| Initialisation       | 0    |
| Physical Unit        |      |
| Physical Unit Factor | 0.0  |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                                     |
|----------------|-----------|--------|---------------|-------------------------------------|
| sRN C1_RP3_MN  |           |        |               |                                     |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name         |
| Command        | C1_RP3_MN | String | 9             | Number of mapping entries for RPDO3 |

| Read Variable Response: |           |        |               |                                     |
|-------------------------|-----------|--------|---------------|-------------------------------------|
| sRA C1_RP3_MN <data>    |           |        |               |                                     |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | C1_RP3_MN | String | 9             | Number of mapping entries for RPDO3 |
| Variable Data           | data      | USInt  | 1             |                                     |

| Write Variable:      |           |        |               |                                     |
|----------------------|-----------|--------|---------------|-------------------------------------|
| sWN C1_RP3_MN <data> |           |        |               |                                     |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name        |
| Command              | C1_RP3_MN | String | 9             | Number of mapping entries for RPDO3 |
| Variable Data        | data      | USInt  | 1             |                                     |

| Write Variable Response: |           |        |               |                                     |
|--------------------------|-----------|--------|---------------|-------------------------------------|
| sWA C1_RP3_MN            |           |        |               |                                     |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | C1_RP3_MN | String | 9             | Number of mapping entries for RPDO3 |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_RP3_MN[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_RP3_MN 0[ETX] |
| Write Variable:   | [STX]sWN C1_RP3_MN 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP3_MN[ETX]   |

### 2.9.4.12. Variable: C1\_RPDO3\_MapObjs

The following section contains a detailed description of the variable C1\_RPDO3\_MapObjs.

#### Variable Overview

| Variable Name    | Description                           |
|------------------|---------------------------------------|
| C1_RPDO3_MapObjs | array[8] of mapping objects for RPDO3 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP3_MOBJ   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 401   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |               |
|--------|----------------------|---------------|
| Length |                      | 8             |
|        | UDInt                |               |
|        | Value Range          | 0..4294967295 |
|        | Initialisation       | 0x00000000    |
|        | Physical Unit        |               |
|        | Physical Unit Factor | 0.0           |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                       |
|-----------------|-------------|--------|---------------|---------------------------------------|
| sRN C1_RP3_MOBJ |             |        |               |                                       |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name           |
| Command         | C1_RP3_MOBJ | String | 11            | array[8] of mapping objects for RPDO3 |

| Read Variable Response: |             |        |               |                                       |
|-------------------------|-------------|--------|---------------|---------------------------------------|
| sRA C1_RP3_MOBJ <data>  |             |        |               |                                       |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | C1_RP3_MOBJ | String | 11            | array[8] of mapping objects for RPDO3 |
| Variable Data           | data        | Array  | 32            |                                       |

| Write Variable:        |             |        |               |                                       |
|------------------------|-------------|--------|---------------|---------------------------------------|
| sWN C1_RP3_MOBJ <data> |             |        |               |                                       |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name          |
| Command                | C1_RP3_MOBJ | String | 11            | array[8] of mapping objects for RPDO3 |
| Variable Data          | data        | Array  | 32            |                                       |

| Write Variable Response: |             |        |               |                                       |
|--------------------------|-------------|--------|---------------|---------------------------------------|
| sWA C1_RP3_MOBJ          |             |        |               |                                       |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | C1_RP3_MOBJ | String | 11            | array[8] of mapping objects for RPDO3 |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN C1_RP3_MOBJ[ETX]                   |
| Read Variable Response:                                     | [STX]sRA C1_RP3_MOBJ 0 0 0 0 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN C1_RP3_MOBJ 0 0 0 0 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP3_MOBJ[ETX]                   |

### 2.9.4.13. Variable: C1\_RPDO3\_PreConnSet

The following section contains a detailed description of the variable C1\_RPDO3\_PreConnSet.

#### Variable Overview

| Variable Name       | Description                             |
|---------------------|---|
| C1_RPDO3_PreConnSet | Define use of predefined connection set |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP3_PCS  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 402   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UserType            |   |
|---------------------|---|
| eUsePredConnSetType | See the chapter "User Types" for details. |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN C1_RP3_PCS |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name             |
| Command        | C1_RP3_PCS | String | 10            | Define use of predefined connection set |

| Read Variable Response: |            |                     |               |   |
|-------------------------|------------|---------------------|---------------|---|
| sRA C1_RP3_PCS <data>   |            |                     |               |   |
| Telegram Part           | Telegram   | Type                | Length [Byte] | Description                             |
| Command Type            | sRA        | String              | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | C1_RP3_PCS | String              | 10            | Define use of predefined connection set |
| Variable Data           | data       | eUsePredConnSetType | 1             |   |

| Write Variable:       |            |                     |               |   |
|-----------------------|------------|---------------------|---------------|---|
| sWN C1_RP3_PCS <data> |            |                     |               |   |
| Telegram Part         | Telegram   | Type                | Length [Byte] | Description                             |
| Command Type          | sWN        | String              | 3             | Write SOPAS Variable by Name            |
| Command               | C1_RP3_PCS | String              | 10            | Define use of predefined connection set |
| Variable Data         | data       | eUsePredConnSetType | 1             |   |

| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA C1_RP3_PCS           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | C1_RP3_PCS | String | 10            | Define use of predefined connection set |



## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_RP3_PCS[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_RP3_PCS 1[ETX] |
| Write Variable:   | [STX]sWN C1_RP3_PCS 1[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP3_PCS[ETX]   |

### 2.9.4.14. Variable: C1\_RPDO3\_CobId

The following section contains a detailed description of the variable C1\_RPDO3\_CobId.

#### Variable Overview

| Variable Name  | Description              |
|----------------|--------------------------|
| C1_RPDO3_CobId | Can identifier for RPDO3 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP3_ID   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 403   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |               |
|----------------------|---------------|
| Value Range          | 0..4294967295 |
| Initialisation       | 0x80000000    |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_RP3_ID  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_RP3_ID | String | 9             | Can identifier for RPDO3    |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_RP3_ID <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_RP3_ID | String | 9             | Can identifier for RPDO3        |
| Variable Data           | data      | UDInt  | 4             |                                 |



| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_RP3_ID <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_RP3_ID | String | 9             | Can identifier for RPDO3     |
| Variable Data        | data      | UDInt  | 4             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_RP3_ID            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_RP3_ID | String | 9             | Can identifier for RPDO3         |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN C1_RP3_ID[ETX]          |
| Read Variable Response:                                     | [STX]sRA C1_RP3_ID 80000000[ETX] |
| Write Variable:   | [STX]sWN C1_RP3_ID 80000000[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP3_ID[ETX]          |

### 2.9.4.15. Variable: C1\_RPDO3\_TrmType

The following section contains a detailed description of the variable C1\_RPDO3\_TrmType.

#### Variable Overview

| Variable Name    | Description                 |
|------------------|-----------------------------|
| C1_RPDO3_TrmType | Transmission type for RPDO3 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP3_TT   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 404   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |        |
|----------------------|--------|
| Value Range          | 0..255 |
| Initialisation       | 0xFE   |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |





## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_RP3_TT  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_RP3_TT | String | 9             | Transmission type for RPDO3 |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_RP3_TT <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_RP3_TT | String | 9             | Transmission type for RPDO3     |
| Variable Data           | data      | USInt  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_RP3_TT <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_RP3_TT | String | 9             | Transmission type for RPDO3  |
| Variable Data        | data      | USInt  | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_RP3_TT            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_RP3_TT | String | 9             | Transmission type for RPDO3      |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_RP3_TT[ETX]    |
| Read Variable Response:                                     | [STX]sRA C1_RP3_TT FE[ETX] |
| Write Variable:   | [STX]sWN C1_RP3_TT FE[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP3_TT[ETX]    |

## 2.9.4.16. Variable: C1\_RPDO4\_MapNum

The following section contains a detailed description of the variable C1\_RPDO4\_MapNum.

### Variable Overview

| Variable Name   | Description                         |
|-----------------|-------------------------------------|
| C1_RPDO4_MapNum | Number of mapping entries for RPDO4 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP4_MN   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 405   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |      |
|----------------------|------|
| Value Range          | 0..8 |
| Initialisation       | 0    |
| Physical Unit        |      |
| Physical Unit Factor | 0.0  |

### Variable Telegram Syntax

| Read Variable: |           |        |               |                                     |
|----------------|-----------|--------|---------------|-------------------------------------|
| sRN C1_RP4_MN  |           |        |               |                                     |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name         |
| Command        | C1_RP4_MN | String | 9             | Number of mapping entries for RPDO4 |

| Read Variable Response: |           |        |               |                                     |
|-------------------------|-----------|--------|---------------|-------------------------------------|
| sRA C1_RP4_MN <data>    |           |        |               |                                     |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | C1_RP4_MN | String | 9             | Number of mapping entries for RPDO4 |
| Variable Data           | data      | USInt  | 1             |                                     |

| Write Variable:      |           |        |               |                                     |
|----------------------|-----------|--------|---------------|-------------------------------------|
| sWN C1_RP4_MN <data> |           |        |               |                                     |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name        |
| Command              | C1_RP4_MN | String | 9             | Number of mapping entries for RPDO4 |
| Variable Data        | data      | USInt  | 1             |                                     |

| Write Variable Response: |           |        |               |                                     |
|--------------------------|-----------|--------|---------------|-------------------------------------|
| sWA C1_RP4_MN            |           |        |               |                                     |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | C1_RP4_MN | String | 9             | Number of mapping entries for RPDO4 |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN C1_RP4_MN[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_RP4_MN 0[ETX] |
| Write Variable:   | [STX]sWN C1_RP4_MN 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP4_MN[ETX]   |

### 2.9.4.17. Variable: C1\_RPDO4\_MapObjs

The following section contains a detailed description of the variable C1\_RPDO4\_MapObjs.

#### Variable Overview

| Variable Name    | Description                           |
|------------------|---------------------------------------|
| C1_RPDO4_MapObjs | array[8] of mapping objects for RPDO4 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP4_MOBJ   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 406   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |               |
|--------|----------------------|---------------|
| Length |                      | 8             |
|        | UDInt                |               |
|        | Value Range          | 0..4294967295 |
|        | Initialisation       | 0x00000000    |
|        | Physical Unit        |               |
|        | Physical Unit Factor | 0.0           |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                       |
|-----------------|-------------|--------|---------------|---------------------------------------|
| sRN C1_RP4_MOBJ |             |        |               |                                       |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name           |
| Command         | C1_RP4_MOBJ | String | 11            | array[8] of mapping objects for RPDO4 |

| Read Variable Response: |             |        |               |                                       |
|-------------------------|-------------|--------|---------------|---------------------------------------|
| sRA C1_RP4_MOBJ <data>  |             |        |               |                                       |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | C1_RP4_MOBJ | String | 11            | array[8] of mapping objects for RPDO4 |
| Variable Data           | data        | Array  | 32            |                                       |

| Write Variable:        |             |        |               |                                       |
|------------------------|-------------|--------|---------------|---------------------------------------|
| sWN C1_RP4_MOBJ <data> |             |        |               |                                       |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name          |
| Command                | C1_RP4_MOBJ | String | 11            | array[8] of mapping objects for RPDO4 |
| Variable Data          | data        | Array  | 32            |                                       |

| Write Variable Response: |             |        |               |                                       |
|--------------------------|-------------|--------|---------------|---------------------------------------|
| sWA C1_RP4_MOBJ          |             |        |               |                                       |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                           |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | C1_RP4_MOBJ | String | 11            | array[8] of mapping objects for RPDO4 |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN C1_RP4_MOBJ[ETX]                   |
| Read Variable Response:                                     | [STX]sRA C1_RP4_MOBJ 0 0 0 0 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN C1_RP4_MOBJ 0 0 0 0 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP4_MOBJ[ETX]                   |

## 2.9.4.18. Variable: C1\_RPDO4\_PreConnSet

The following section contains a detailed description of the variable C1\_RPDO4\_PreConnSet.

### Variable Overview

| Variable Name       | Description                             |
|---------------------|---|
| C1_RPDO4_PreConnSet | Define use of predefined connection set |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP4_PCS  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 407   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UserType            |   |
|---------------------|---|
| eUsePredConnSetType | See the chapter "User Types" for details. |

### Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN C1_RP4_PCS |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name             |
| Command        | C1_RP4_PCS | String | 10            | Define use of predefined connection set |

| Read Variable Response: |            |                     |               |   |
|-------------------------|------------|---------------------|---------------|---|
| sRA C1_RP4_PCS <data>   |            |                     |               |   |
| Telegram Part           | Telegram   | Type                | Length [Byte] | Description                             |
| Command Type            | sRA        | String              | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | C1_RP4_PCS | String              | 10            | Define use of predefined connection set |
| Variable Data           | data       | eUsePredConnSetType | 1             |   |

| Write Variable:       |            |                     |               |   |
|-----------------------|------------|---------------------|---------------|---|
| sWN C1_RP4_PCS <data> |            |                     |               |   |
| Telegram Part         | Telegram   | Type                | Length [Byte] | Description                             |
| Command Type          | sWN        | String              | 3             | Write SOPAS Variable by Name            |
| Command               | C1_RP4_PCS | String              | 10            | Define use of predefined connection set |
| Variable Data         | data       | eUsePredConnSetType | 1             |   |

| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA C1_RP4_PCS           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | C1_RP4_PCS | String | 10            | Define use of predefined connection set |



## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_RP4_PCS[ETX]   |
| Read Variable Response:                                     | [STX]sRA C1_RP4_PCS 1[ETX] |
| Write Variable:   | [STX]sWN C1_RP4_PCS 1[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP4_PCS[ETX]   |

### 2.9.4.19. Variable: C1\_RPDO4\_CobId

The following section contains a detailed description of the variable C1\_RPDO4\_CobId.

#### Variable Overview

| Variable Name  | Description              |
|----------------|--------------------------|
| C1_RPDO4_CobId | Can identifier for RPDO4 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP4_ID   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 408   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |               |
|----------------------|---------------|
| Value Range          | 0..4294967295 |
| Initialisation       | 0x80000000    |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_RP4_ID  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_RP4_ID | String | 9             | Can identifier for RPDO4    |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_RP4_ID <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_RP4_ID | String | 9             | Can identifier for RPDO4        |
| Variable Data           | data      | UDInt  | 4             |                                 |



| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_RP4_ID <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_RP4_ID | String | 9             | Can identifier for RPDO4     |
| Variable Data        | data      | UDInt  | 4             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_RP4_ID            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_RP4_ID | String | 9             | Can identifier for RPDO4         |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN C1_RP4_ID[ETX]          |
| Read Variable Response:                                     | [STX]sRA C1_RP4_ID 80000000[ETX] |
| Write Variable:   | [STX]sWN C1_RP4_ID 80000000[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP4_ID[ETX]          |

### 2.9.4.20. Variable: C1\_RPDO4\_TrmType

The following section contains a detailed description of the variable C1\_RPDO4\_TrmType.

#### Variable Overview

| Variable Name    | Description                 |
|------------------|-----------------------------|
| C1_RPDO4_TrmType | Transmission type for RPDO4 |

|                       |   |
|-----------------------|---|
| Communication Name    | C1_RP4_TT   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 409   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |        |
|----------------------|--------|
| Value Range          | 0..255 |
| Initialisation       | 0xFE   |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN C1_RP4_TT  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | C1_RP4_TT | String | 9             | Transmission type for RPDO4 |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA C1_RP4_TT <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | C1_RP4_TT | String | 9             | Transmission type for RPDO4     |
| Variable Data           | data      | USInt  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN C1_RP4_TT <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | C1_RP4_TT | String | 9             | Transmission type for RPDO4  |
| Variable Data        | data      | USInt  | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA C1_RP4_TT            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | C1_RP4_TT | String | 9             | Transmission type for RPDO4      |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN C1_RP4_TT[ETX]    |
| Read Variable Response:                                     | [STX]sRA C1_RP4_TT FE[ETX] |
| Write Variable:   | [STX]sWN C1_RP4_TT FE[ETX] |
| Write Variable Response:                                    | [STX]sWA C1_RP4_TT[ETX]    |



## 2.10. Interface Block: GeneralCfgSerialBase

### 2.10.1. Group: SerialBase

#### 2.10.1.1. Variable: SerHostProtocol

The following section contains a detailed description of the variable SerHostProtocol.

#### Variable Overview

| Variable Name   | Description              |
|-----------------|--------------------------|
| SerHostProtocol | Protocol for Serial Host |

|                       |   |
|-----------------------|---|
| Communication Name    | SIHstProt   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 410   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | 1                      |             |
|               | Value | Name                   | Description |
|               | 0     | TX_NO_OUTPUT           |             |
|               | 1     | TX_OUTPUT_FORMAT_DEF_1 |             |
|               | 2     | TX_OUTPUT_FORMAT_DEF_2 |             |
|               | 3     | TX_USERDEF_FORMAT      |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN SIHstProt  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | SIHstProt | String | 9             | Protocol for Serial Host    |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA SIHstProt <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | SIHstProt | String | 9             | Protocol for Serial Host        |
| Variable Data           | data      | Enum8  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN SIHstProt <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | SIHstProt | String | 9             | Protocol for Serial Host     |
| Variable Data        | data      | Enum8  | 1             |                              |



| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA SIHstProt            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | SIHstProt | String | 9             | Protocol for Serial Host         |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN SIHstProt[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIHstProt 1[ETX] |
| Write Variable:   | [STX]sWN SIHstProt 1[ETX] |
| Write Variable Response:                                    | [STX]sWA SIHstProt[ETX]   |

### 2.10.1.2. Variable: SerHostMultiplex

The following section contains a detailed description of the variable SerHostMultiplex.

#### Variable Overview

| Variable Name    | Description                            |
|------------------|--|
| SerHostMultiplex | Output multiplexer data on serial host |

|                       |   |
|-----------------------|---|
| Communication Name    | SIHstMux  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 411   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN SIHstMux   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                            |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name            |
| Command        | SIHstMux | String | 8             | Output multiplexer data on serial host |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA SIHstMux <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                            |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge        |
| Command                 | SIHstMux | String | 8             | Output multiplexer data on serial host |
| Variable Data           | data     | Bool   | 1             |  |

| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN SIHstMux <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                            |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name           |
| Command             | SIHstMux | String | 8             | Output multiplexer data on serial host |
| Variable Data       | data     | Bool   | 1             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA SIHstMux             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                            |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge       |
| Command                  | SIHstMux | String | 8             | Output multiplexer data on serial host |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN SIHstMux[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIHstMux 1[ETX] |
| Write Variable:   | [STX]sWN SIHstMux 1[ETX] |
| Write Variable Response:                                    | [STX]sWA SIHstMux[ETX]   |



### 2.10.1.3. Variable: SerHostBaudrate

The following section contains a detailed description of the variable SerHostBaudrate.

#### Variable Overview

| Variable Name   | Description   |
|-----------------|---|
| SerHostBaudrate | Baudrate for HostInterface (300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115k Baud) |

|                       |   |
|-----------------------|---|
| Communication Name    | SIHstBaud   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 412   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |        |             |
|---------------|-------|--------|-------------|
| Default Value |       | 8      |             |
|               | Value | Name   | Description |
|               | 0     | 300    |             |
|               | 1     | 600    |             |
|               | 2     | 1200   |             |
|               | 3     | 2400   |             |
|               | 4     | 4800   |             |
|               | 5     | 9600   |             |
|               | 6     | 19200  |             |
|               | 7     | 38400  |             |
|               | 8     | 57600  |             |
|               | 9     | 115200 |             |
|               | 10    | 250000 |             |
|               | 11    | 500000 |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN SIHstBaud  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name   |
| Command        | SIHstBaud | String | 9             | Baudrate for HostInterface (300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115k Baud) |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA SIHstBaud <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description   |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | SIHstBaud | String | 9             | Baudrate for HostInterface (300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115k Baud) |
| Variable Data           | data      | Enum8  | 1             |   |



| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN SIHstBaud <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description   |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name  |
| Command              | SIHstBaud | String | 9             | Baudrate for HostInterface (300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115k Baud) |
| Variable Data        | data      | Enum8  | 1             |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA SIHstBaud            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | SIHstBaud | String | 9             | Baudrate for HostInterface (300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115k Baud) |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN SIHstBaud[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIHstBaud 8[ETX] |
| Write Variable:   | [STX]sWN SIHstBaud 8[ETX] |
| Write Variable Response:                                    | [STX]sWA SIHstBaud[ETX]   |

### 2.10.1.4. Variable: SerHostStopbits

The following section contains a detailed description of the variable SerHostStopbits.

#### Variable Overview

| Variable Name   | Description                |
|-----------------|----------------------------|
| SerHostStopbits | Number of Stop Bits (1, 2) |

|                       |   |
|-----------------------|---|
| Communication Name    | SIHstStop   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 413   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |      |             |
|---------------|-------|------|-------------|
| Default Value |       | 0    |             |
|               | Value | Name | Description |
|               | 0     | 1    |             |
|               | 1     | 2    |             |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN SIHstStop  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | SIHstStop | String | 9             | Number of Stop Bits (1, 2)  |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA SIHstStop <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | SIHstStop | String | 9             | Number of Stop Bits (1, 2)      |
| Variable Data           | data      | Enum8  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN SIHstStop <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | SIHstStop | String | 9             | Number of Stop Bits (1, 2)   |
| Variable Data        | data      | Enum8  | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA SIHstStop            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | SIHstStop | String | 9             | Number of Stop Bits (1, 2)       |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN SIHstStop[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIHstStop 0[ETX] |
| Write Variable:   | [STX]sWN SIHstStop 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SIHstStop[ETX]   |



### 2.10.1.5. Variable: SerHostParity

The following section contains a detailed description of the variable SerHostParity.

#### Variable Overview

| Variable Name | Description  |
|---------------|--|
| SerHostParity | Combination of Number of Data Bits and Parity settings |

|                       |   |
|-----------------------|---|
| Communication Name    | SIHstPar  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 414   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                       |             |
|---------------|-------|-----------------------|-------------|
| Default Value |       | 0                     |             |
|               | Value | Name                  | Description |
|               | 0     | TX_DATA8_NO_PARITY    |             |
|               | 1     | TX_DATA8_EVEN_PARITY  |             |
|               | 2     | TX_DATA7_EVEN_PARITY  |             |
|               | 3     | TX_DATA8_ODD_PARITY   |             |
|               | 4     | TX_DATA7_ODD_PARITY   |             |
|               | 5     | TX_DATA7_MARK_PARITY  |             |
|               | 6     | TX_DATA7_SPACE_PARITY |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN SIHstPar   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                            |
| Command        | SIHstPar | String | 8             | Combination of Number of Data Bits and Parity settings |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA SIHstPar <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description  |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                        |
| Command                 | SIHstPar | String | 8             | Combination of Number of Data Bits and Parity settings |
| Variable Data           | data     | Enum8  | 1             |  |

| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN SIHstPar <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                           |
| Command             | SIHstPar | String | 8             | Combination of Number of Data Bits and Parity settings |
| Variable Data       | data     | Enum8  | 1             |  |



| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA SIHstPar             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                       |
| Command                  | SIHstPar | String | 8             | Combination of Number of Data Bits and Parity settings |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN SIHstPar[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIHstPar 0[ETX] |
| Write Variable:   | [STX]sWN SIHstPar 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SIHstPar[ETX]   |

### 2.10.1.6. Variable: SerHostHardware

The following section contains a detailed description of the variable SerHostHardware.

#### Variable Overview

| Variable Name   | Description   |
|-----------------|---|
| SerHostHardware | Hardware settings for Host Interface (RS232, RS422 / 485) |

|                       |   |
|-----------------------|---|
| Communication Name    | SIHstHw   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 415   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                    |             |
|---------------|-------|--------------------|-------------|
| Default Value |       | 0                  |             |
|               | Value | Name               | Description |
|               | 0     | TX_RS232           |             |
|               | 1     | TX_RS485_2WIRE     |             |
|               | 2     | TX_RS422_485_4WIRE |             |





## Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN SIHstHw    |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                               |
| Command        | SIHstHw  | String | 7             | Hardware settings for Host Interface (RS232, RS422 / 485) |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA SIHstHw <data>      |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description   |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                           |
| Command                 | SIHstHw  | String | 7             | Hardware settings for Host Interface (RS232, RS422 / 485) |
| Variable Data           | data     | Enum8  | 1             |   |

| Write Variable:    |          |        |               |   |
|--------------------|----------|--------|---------------|---|
| sWN SIHstHw <data> |          |        |               |   |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description   |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name                              |
| Command            | SIHstHw  | String | 7             | Hardware settings for Host Interface (RS232, RS422 / 485) |
| Variable Data      | data     | Enum8  | 1             |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA SIHstHw              |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description   |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                          |
| Command                  | SIHstHw  | String | 7             | Hardware settings for Host Interface (RS232, RS422 / 485) |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN SIHstHw[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIHstHw 0[ETX] |
| Write Variable:   | [STX]sWN SIHstHw 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SIHstHw[ETX]   |



### 2.10.1.7. Variable: SerHostEnHB

The following section contains a detailed description of the variable SerHostEnHB.

#### Variable Overview

| Variable Name | Description                       |
|---------------|-----------------------------------|
| SerHostEnHB   | Enable heartbeat on Hostinterface |

|                       |   |
|-----------------------|---|
| Communication Name    | SIHstEnHB   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 416   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                                   |
|----------------|-----------|--------|---------------|-----------------------------------|
| sRN SIHstEnHB  |           |        |               |                                   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name       |
| Command        | SIHstEnHB | String | 9             | Enable heartbeat on Hostinterface |

| Read Variable Response: |           |        |               |                                   |
|-------------------------|-----------|--------|---------------|-----------------------------------|
| sRA SIHstEnHB <data>    |           |        |               |                                   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | SIHstEnHB | String | 9             | Enable heartbeat on Hostinterface |
| Variable Data           | data      | Bool   | 1             |                                   |

| Write Variable:      |           |        |               |                                   |
|----------------------|-----------|--------|---------------|-----------------------------------|
| sWN SIHstEnHB <data> |           |        |               |                                   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name      |
| Command              | SIHstEnHB | String | 9             | Enable heartbeat on Hostinterface |
| Variable Data        | data      | Bool   | 1             |                                   |

| Write Variable Response: |           |        |               |                                   |
|--------------------------|-----------|--------|---------------|-----------------------------------|
| sWA SIHstEnHB            |           |        |               |                                   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | SIHstEnHB | String | 9             | Enable heartbeat on Hostinterface |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN SIHstEnHB[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIHstEnHB 0[ETX] |
| Write Variable:   | [STX]sWN SIHstEnHB 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SIHstEnHB[ETX]   |

### 2.10.1.8. Variable: SerHostHBInterval

The following section contains a detailed description of the variable SerHostHBInterval.

#### Variable Overview

| Variable Name     | Description                         |
|-------------------|-------------------------------------|
| SerHostHBInterval | Heartbeat interval on Hostinterface |

|                       |   |
|-----------------------|---|
| Communication Name    | SIHstHBInt  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 417   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..600 |
| Initialisation       | 30     |
| Physical Unit        | s      |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                                     |
|----------------|------------|--------|---------------|-------------------------------------|
| sRN SIHstHBInt |            |        |               |                                     |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                         |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name         |
| Command        | SIHstHBInt | String | 10            | Heartbeat interval on Hostinterface |

| Read Variable Response: |            |        |               |                                     |
|-------------------------|------------|--------|---------------|-------------------------------------|
| sRA SIHstHBInt <data>   |            |        |               |                                     |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                         |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | SIHstHBInt | String | 10            | Heartbeat interval on Hostinterface |
| Variable Data           | data       | UInt   | 2             |                                     |



| Write Variable:       |            |        |               |                                     |
|-----------------------|------------|--------|---------------|-------------------------------------|
| sWN SIHstHBInt <data> |            |        |               |                                     |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                         |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name        |
| Command               | SIHstHBInt | String | 10            | Heartbeat interval on Hostinterface |
| Variable Data         | data       | UInt   | 2             |                                     |

| Write Variable Response: |            |        |               |                                     |
|--------------------------|------------|--------|---------------|-------------------------------------|
| sWA SIHstHBInt           |            |        |               |                                     |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                         |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | SIHstHBInt | String | 10            | Heartbeat interval on Hostinterface |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN SIHstHBInt[ETX]    |
| Read Variable Response:                                     | [STX]sRA SIHstHBInt 1E[ETX] |
| Write Variable:   | [STX]sWN SIHstHBInt 1E[ETX] |
| Write Variable Response:                                    | [STX]sWA SIHstHBInt[ETX]    |

### 2.10.1.9. Variable: SerHostRetrHB

The following section contains a detailed description of the variable SerHostRetrHB.

#### Variable Overview

| Variable Name | Description                          |
|---------------|--------------------------------------|
| SerHostRetrHB | Retrigger heartbeat on Hostinterface |

|                       |   |
|-----------------------|---|
| Communication Name    | SIHstRetrHB   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 418   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                      |
|-----------------|-------------|--------|---------------|--------------------------------------|
| sRN SIHstRetrHB |             |        |               |                                      |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                          |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name          |
| Command         | SIHstRetrHB | String | 11            | Retrigger heartbeat on Hostinterface |

| Read Variable Response: |             |        |               |                                      |
|-------------------------|-------------|--------|---------------|--------------------------------------|
| sRA SIHstRetrHB <data>  |             |        |               |                                      |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                          |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge      |
| Command                 | SIHstRetrHB | String | 11            | Retrigger heartbeat on Hostinterface |
| Variable Data           | data        | Bool   | 1             |                                      |

| Write Variable:        |             |        |               |                                      |
|------------------------|-------------|--------|---------------|--------------------------------------|
| sWN SIHstRetrHB <data> |             |        |               |                                      |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                          |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name         |
| Command                | SIHstRetrHB | String | 11            | Retrigger heartbeat on Hostinterface |
| Variable Data          | data        | Bool   | 1             |                                      |

| Write Variable Response: |             |        |               |                                      |
|--------------------------|-------------|--------|---------------|--------------------------------------|
| sWA SIHstRetrHB          |             |        |               |                                      |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                          |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge     |
| Command                  | SIHstRetrHB | String | 11            | Retrigger heartbeat on Hostinterface |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN SIHstRetrHB[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIHstRetrHB 1[ETX] |
| Write Variable:   | [STX]sWN SIHstRetrHB 1[ETX] |
| Write Variable Response:                                    | [STX]sWA SIHstRetrHB[ETX]   |



## 2.10.1.10. Variable: SerHostInputHandling

The following section contains a detailed description of the variable SerHostInputHandling.

### Variable Overview

| Variable Name        | Description   |
|----------------------|---|
| SerHostInputHandling | Handling method for Input data on Serial Host interface |

|                       |   |
|-----------------------|---|
| Communication Name    | SIHstInp  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 419   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                                     |             |
|---------------|-------|-------------------------------------|-------------|
| Default Value |       | 0                                   |             |
|               | Value | Name                                | Description |
|               | 0     | TX_NO_INPUT_DATA                    |             |
|               | 1     | TX_INPUT_DATA_FORWARDING            |             |
|               | 2     | TX_INPUT_DATA_AUXRESULT             |             |
|               | 3     | TX_INPUT_DATA_STRING_FOR_OUTFORM AT |             |

### Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN SIHstInp   |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                             |
| Command        | SIHstInp | String | 8             | Handling method for Input data on Serial Host interface |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA SIHstInp <data>     |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description   |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                         |
| Command                 | SIHstInp | String | 8             | Handling method for Input data on Serial Host interface |
| Variable Data           | data     | Enum8  | 1             |   |

| Write Variable:     |          |        |               |   |
|---------------------|----------|--------|---------------|---|
| sWN SIHstInp <data> |          |        |               |   |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description   |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                            |
| Command             | SIHstInp | String | 8             | Handling method for Input data on Serial Host interface |
| Variable Data       | data     | Enum8  | 1             |   |



| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA SIHstInp             |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description   |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                        |
| Command                  | SIHstInp | String | 8             | Handling method for Input data on Serial Host interface |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN SIHstInp[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIHstInp 0[ETX] |
| Write Variable:   | [STX]sWN SIHstInp 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SIHstInp[ETX]   |

### 2.10.1.11. Variable: SerAuxProtocol

The following section contains a detailed description of the variable SerAuxProtocol.

#### Variable Overview

| Variable Name  | Description                      |
|----------------|----------------------------------|
| SerAuxProtocol | Protocol of serial aux interface |

|                       |   |
|-----------------------|---|
| Communication Name    | SIAuxProt   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 420   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                         |             |
|---------------|-------|-------------------------|-------------|
| Default Value |       | 1                       |             |
|               | Value | Name                    | Description |
|               | 0     | TX_NO_OUTPUT            |             |
|               | 1     | TX_READ_DIAG            |             |
|               | 2     | TX_MONITOR_SERIAL_HOST1 |             |
|               | 3     | TX_RDT400_PROTOCOL      |             |
|               | 4     | TX_OUTPUT_FORMAT_DEF_1  |             |
|               | 5     | TX_OUTPUT_FORMAT_DEF_2  |             |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                                  |
|----------------|-----------|--------|---------------|----------------------------------|
| sRN SIAuxProt  |           |        |               |                                  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name      |
| Command        | SIAuxProt | String | 9             | Protocol of serial aux interface |

| Read Variable Response: |           |        |               |                                  |
|-------------------------|-----------|--------|---------------|----------------------------------|
| sRA SIAuxProt <data>    |           |        |               |                                  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | SIAuxProt | String | 9             | Protocol of serial aux interface |
| Variable Data           | data      | Enum8  | 1             |                                  |

| Write Variable:      |           |        |               |                                  |
|----------------------|-----------|--------|---------------|----------------------------------|
| sWN SIAuxProt <data> |           |        |               |                                  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name     |
| Command              | SIAuxProt | String | 9             | Protocol of serial aux interface |
| Variable Data        | data      | Enum8  | 1             |                                  |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA SIAuxProt            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | SIAuxProt | String | 9             | Protocol of serial aux interface |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN SIAuxProt[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIAuxProt 1[ETX] |
| Write Variable:   | [STX]sWN SIAuxProt 1[ETX] |
| Write Variable Response:                                    | [STX]sWA SIAuxProt[ETX]   |





### 2.10.1.12. Variable: SerAuxBaudrate

The following section contains a detailed description of the variable SerAuxBaudrate.

#### Variable Overview

| Variable Name  | Description  |
|----------------|--|
| SerAuxBaudrate | Baudrate for AuxInterface (300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115k Baud) |

|                       |   |
|-----------------------|---|
| Communication Name    | SIAuxBaud   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 421   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |        |             |
|---------------|-------|--------|-------------|
| Default Value |       | 8      |             |
|               | Value | Name   | Description |
|               | 0     | 300    |             |
|               | 1     | 600    |             |
|               | 2     | 1200   |             |
|               | 3     | 2400   |             |
|               | 4     | 4800   |             |
|               | 5     | 9600   |             |
|               | 6     | 19200  |             |
|               | 7     | 38400  |             |
|               | 8     | 57600  |             |
|               | 9     | 115200 |             |
|               | 10    | 250000 |             |
|               | 11    | 500000 |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN SIAuxBaud  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name  |
| Command        | SIAuxBaud | String | 9             | Baudrate for AuxInterface (300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115k Baud) |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA SIAuxBaud <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description  |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | SIAuxBaud | String | 9             | Baudrate for AuxInterface (300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115k Baud) |
| Variable Data           | data      | Enum8  | 1             |  |



| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN SIAuxBaud <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name   |
| Command              | SIAuxBaud | String | 9             | Baudrate for AuxInterface (300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115k Baud) |
| Variable Data        | data      | Enum8  | 1             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA SIAuxBaud            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description  |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | SIAuxBaud | String | 9             | Baudrate for AuxInterface (300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115k Baud) |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN SIAuxBaud[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIAuxBaud 8[ETX] |
| Write Variable:   | [STX]sWN SIAuxBaud 8[ETX] |
| Write Variable Response:                                    | [STX]sWA SIAuxBaud[ETX]   |

### 2.10.1.13. Variable: SerAuxStopbits

The following section contains a detailed description of the variable SerAuxStopbits.

#### Variable Overview

| Variable Name  | Description                |
|----------------|----------------------------|
| SerAuxStopbits | Number of Stop Bits (1, 2) |

|                       |   |
|-----------------------|---|
| Communication Name    | SIAuxStop   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 422   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |      |             |
|---------------|-------|------|-------------|
| Default Value |       | 0    |             |
|               | Value | Name | Description |
|               | 0     | 1    |             |
|               | 1     | 2    |             |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN SIAuxStop  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | SIAuxStop | String | 9             | Number of Stop Bits (1, 2)  |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA SIAuxStop <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | SIAuxStop | String | 9             | Number of Stop Bits (1, 2)      |
| Variable Data           | data      | Enum8  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN SIAuxStop <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | SIAuxStop | String | 9             | Number of Stop Bits (1, 2)   |
| Variable Data        | data      | Enum8  | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA SIAuxStop            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | SIAuxStop | String | 9             | Number of Stop Bits (1, 2)       |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN SIAuxStop[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIAuxStop 0[ETX] |
| Write Variable:   | [STX]sWN SIAuxStop 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SIAuxStop[ETX]   |



#### 2.10.1.14. Variable: SerAuxParity

The following section contains a detailed description of the variable SerAuxParity.

##### Variable Overview

| Variable Name | Description  |
|---------------|--|
| SerAuxParity  | Combination of Number of Data Bits and Parity settings |

|                       |   |
|-----------------------|---|
| Communication Name    | SIAuxPar  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 423   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                       |             |
|---------------|-------|-----------------------|-------------|
| Default Value |       | 0                     |             |
|               | Value | Name                  | Description |
|               | 0     | TX_DATA8_NO_PARITY    |             |
|               | 1     | TX_DATA8_EVEN_PARITY  |             |
|               | 2     | TX_DATA7_EVEN_PARITY  |             |
|               | 3     | TX_DATA8_ODD_PARITY   |             |
|               | 4     | TX_DATA7_ODD_PARITY   |             |
|               | 5     | TX_DATA7_MARK_PARITY  |             |
|               | 6     | TX_DATA7_SPACE_PARITY |             |

##### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN SIAuxPar   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                            |
| Command        | SIAuxPar | String | 8             | Combination of Number of Data Bits and Parity settings |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA SIAuxPar <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description  |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                        |
| Command                 | SIAuxPar | String | 8             | Combination of Number of Data Bits and Parity settings |
| Variable Data           | data     | Enum8  | 1             |  |

| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN SIAuxPar <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                           |
| Command             | SIAuxPar | String | 8             | Combination of Number of Data Bits and Parity settings |
| Variable Data       | data     | Enum8  | 1             |  |



| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA SIAuxPar             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                       |
| Command                  | SIAuxPar | String | 8             | Combination of Number of Data Bits and Parity settings |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN SIAuxPar[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIAuxPar 0[ETX] |
| Write Variable:   | [STX]sWN SIAuxPar 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SIAuxPar[ETX]   |

### 2.10.1.15. Variable: SerAuxHardware

The following section contains a detailed description of the variable SerAuxHardware.

#### Variable Overview

| Variable Name  | Description  |
|----------------|--|
| SerAuxHardware | Hardware settings for Aux Interface (RS232, RS422 / 485) |

|                       |   |
|-----------------------|---|
| Communication Name    | SIAuxHw   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 424   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                    |             |
|---------------|-------|--------------------|-------------|
| Default Value |       | 0                  |             |
|               | Value | Name               | Description |
|               | 0     | TX_RS232           |             |
|               | 1     | TX_RS485_2WIRE     |             |
|               | 2     | TX_RS422_485_4WIRE |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN SIAuxHw    |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                              |
| Command        | SIAuxHw  | String | 7             | Hardware settings for Aux Interface (RS232, RS422 / 485) |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA SIAuxHw <data>      |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description  |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                          |
| Command                 | SIAuxHw  | String | 7             | Hardware settings for Aux Interface (RS232, RS422 / 485) |
| Variable Data           | data     | Enum8  | 1             |  |

| Write Variable:    |          |        |               |  |
|--------------------|----------|--------|---------------|--|
| sWN SIAuxHw <data> |          |        |               |  |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name                             |
| Command            | SIAuxHw  | String | 7             | Hardware settings for Aux Interface (RS232, RS422 / 485) |
| Variable Data      | data     | Enum8  | 1             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA SIAuxHw              |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                         |
| Command                  | SIAuxHw  | String | 7             | Hardware settings for Aux Interface (RS232, RS422 / 485) |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN SIAuxHw[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIAuxHw 0[ETX] |
| Write Variable:   | [STX]sWN SIAuxHw 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SIAuxHw[ETX]   |



## 2.10.1.16. Variable: SerAuxEnHB

The following section contains a detailed description of the variable SerAuxEnHB.

### Variable Overview

| Variable Name | Description                      |
|---------------|----------------------------------|
| SerAuxEnHB    | Enable heartbeat on Auxinterface |

|                       |   |
|-----------------------|---|
| Communication Name    | SIAuxEnHB   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 425   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

### Variable Telegram Syntax

| Read Variable: |           |        |               |                                  |
|----------------|-----------|--------|---------------|----------------------------------|
| sRN SIAuxEnHB  |           |        |               |                                  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name      |
| Command        | SIAuxEnHB | String | 9             | Enable heartbeat on Auxinterface |

| Read Variable Response: |           |        |               |                                  |
|-------------------------|-----------|--------|---------------|----------------------------------|
| sRA SIAuxEnHB <data>    |           |        |               |                                  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | SIAuxEnHB | String | 9             | Enable heartbeat on Auxinterface |
| Variable Data           | data      | Bool   | 1             |                                  |

| Write Variable:      |           |        |               |                                  |
|----------------------|-----------|--------|---------------|----------------------------------|
| sWN SIAuxEnHB <data> |           |        |               |                                  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name     |
| Command              | SIAuxEnHB | String | 9             | Enable heartbeat on Auxinterface |
| Variable Data        | data      | Bool   | 1             |                                  |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA SIAuxEnHB            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | SIAuxEnHB | String | 9             | Enable heartbeat on Auxinterface |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN SIAuxEnHB[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIAuxEnHB 0[ETX] |
| Write Variable:   | [STX]sWN SIAuxEnHB 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SIAuxEnHB[ETX]   |

### 2.10.1.17. Variable: SerAuxHBInterval

The following section contains a detailed description of the variable SerAuxHBInterval.

#### Variable Overview

| Variable Name    | Description                        |
|------------------|------------------------------------|
| SerAuxHBInterval | Heartbeat interval on Auxinterface |

|                       |   |
|-----------------------|---|
| Communication Name    | SIAuxHBInt  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 426   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..600 |
| Initialisation       | 30     |
| Physical Unit        | s      |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                                    |
|----------------|------------|--------|---------------|------------------------------------|
| sRN SIAuxHBInt |            |        |               |                                    |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                        |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name        |
| Command        | SIAuxHBInt | String | 10            | Heartbeat interval on Auxinterface |

| Read Variable Response: |            |        |               |                                    |
|-------------------------|------------|--------|---------------|------------------------------------|
| sRA SIAuxHBInt <data>   |            |        |               |                                    |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                        |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                 | SIAuxHBInt | String | 10            | Heartbeat interval on Auxinterface |
| Variable Data           | data       | UInt   | 2             |                                    |





| Write Variable:       |            |        |               |                                    |
|-----------------------|------------|--------|---------------|------------------------------------|
| sWN SIAuxHBInt <data> |            |        |               |                                    |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                        |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name       |
| Command               | SIAuxHBInt | String | 10            | Heartbeat interval on Auxinterface |
| Variable Data         | data       | UInt   | 2             |                                    |

| Write Variable Response: |            |        |               |                                    |
|--------------------------|------------|--------|---------------|------------------------------------|
| sWA SIAuxHBInt           |            |        |               |                                    |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                        |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | SIAuxHBInt | String | 10            | Heartbeat interval on Auxinterface |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN SIAuxHBInt[ETX]    |
| Read Variable Response:                                     | [STX]sRA SIAuxHBInt 1E[ETX] |
| Write Variable:   | [STX]sWN SIAuxHBInt 1E[ETX] |
| Write Variable Response:                                    | [STX]sWA SIAuxHBInt[ETX]    |

### 2.10.1.18. Variable: SerAuxRetrHB

The following section contains a detailed description of the variable SerAuxRetrHB.

#### Variable Overview

| Variable Name | Description                         |
|---------------|-------------------------------------|
| SerAuxRetrHB  | Retrigger heartbeat on Auxinterface |

|                       |   |
|-----------------------|---|
| Communication Name    | SIAuxRetrHB   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 427   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                     |
|-----------------|-------------|--------|---------------|-------------------------------------|
| sRN SIAuxRetrHB |             |        |               |                                     |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                         |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name         |
| Command         | SIAuxRetrHB | String | 11            | Retrigger heartbeat on Auxinterface |

| Read Variable Response: |             |        |               |                                     |
|-------------------------|-------------|--------|---------------|-------------------------------------|
| sRA SIAuxRetrHB <data>  |             |        |               |                                     |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                         |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | SIAuxRetrHB | String | 11            | Retrigger heartbeat on Auxinterface |
| Variable Data           | data        | Bool   | 1             |                                     |

| Write Variable:        |             |        |               |                                     |
|------------------------|-------------|--------|---------------|-------------------------------------|
| sWN SIAuxRetrHB <data> |             |        |               |                                     |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                         |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name        |
| Command                | SIAuxRetrHB | String | 11            | Retrigger heartbeat on Auxinterface |
| Variable Data          | data        | Bool   | 1             |                                     |

| Write Variable Response: |             |        |               |                                     |
|--------------------------|-------------|--------|---------------|-------------------------------------|
| sWA SIAuxRetrHB          |             |        |               |                                     |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                         |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | SIAuxRetrHB | String | 11            | Retrigger heartbeat on Auxinterface |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN SIAuxRetrHB[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIAuxRetrHB 1[ETX] |
| Write Variable:   | [STX]sWN SIAuxRetrHB 1[ETX] |
| Write Variable Response:                                    | [STX]sWA SIAuxRetrHB[ETX]   |



### 2.10.1.19. Variable: SerAuxInputHandling

The following section contains a detailed description of the variable SerAuxInputHandling.

#### Variable Overview

| Variable Name       | Description  |
|---------------------|--|
| SerAuxInputHandling | Handling method for Input data on serial aux interface |

|                       |   |
|-----------------------|---|
| Communication Name    | SIAuxtInp   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 428   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                                     |             |
|---------------|-------|-------------------------------------|-------------|
| Default Value |       | 0                                   |             |
|               | Value | Name                                | Description |
|               | 0     | TX_NO_INPUT_DATA                    |             |
|               | 1     | TX_INPUT_DATA_FORWARDING            |             |
|               | 2     | TX_INPUT_DATA_AUXRESULT             |             |
|               | 3     | TX_INPUT_DATA_STRING_FOR_OUTFORM AT |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN SIAuxtInp  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                            |
| Command        | SIAuxtInp | String | 9             | Handling method for Input data on serial aux interface |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA SIAuxtInp <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description  |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                        |
| Command                 | SIAuxtInp | String | 9             | Handling method for Input data on serial aux interface |
| Variable Data           | data      | Enum8  | 1             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN SIAuxtInp <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                           |
| Command              | SIAuxtInp | String | 9             | Handling method for Input data on serial aux interface |
| Variable Data        | data      | Enum8  | 1             |  |



| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA SIAuxtInp            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description  |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                       |
| Command                  | SIAuxtInp | String | 9             | Handling method for Input data on serial aux interface |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN SIAuxtInp[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIAuxtInp 0[ETX] |
| Write Variable:   | [STX]sWN SIAuxtInp 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SIAuxtInp[ETX]   |

## 2.11. Interface Block: GeneralCfgEthernetBase

### 2.11.1. Group: EthernetBase

#### 2.11.1.1. Variable: EtherIPAddress

The following section contains a detailed description of the variable EtherIPAddress.

#### Variable Overview

| Variable Name  | Description              |
|----------------|--------------------------|
| EtherIPAddress | IP-Address of the Device |

|                       |   |
|-----------------------|---|
| Communication Name    | EIIPAddr  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 429   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array         |                      |               |
|---------------|----------------------|---------------|
| Length        |                      | 4             |
| Default Value |                      | {192,168,0,1} |
|               | USInt                |               |
|               | Value Range          | 0..255        |
|               | Initialisation       |               |
|               | Physical Unit        |               |
|               | Physical Unit Factor | 0.0           |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN EIIPAddr   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | EIIPAddr | String | 8             | IP-Address of the Device    |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA EIIPAddr <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | EIIPAddr | String | 8             | IP-Address of the Device        |
| Variable Data           | data     | Array  | 4             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN EIIPAddr <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | EIIPAddr | String | 8             | IP-Address of the Device     |



| Write Variable:     |          |       |               |             |
|---------------------|----------|-------|---------------|-------------|
| sWN EIIPAddr <data> |          |       |               |             |
| Telegram Part       | Telegram | Type  | Length [Byte] | Description |
| Variable Data       | data     | Array | 4             |             |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EIIPAddr             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EIIPAddr | String | 8             | IP-Address of the Device         |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN EIIPAddr[ETX]           |
| Read Variable Response:                                     | [STX]sRA EIIPAddr C0 A8 0 1[ETX] |
| Write Variable:   | [STX]sWN EIIPAddr C0 A8 0 1[ETX] |
| Write Variable Response:                                    | [STX]sWA EIIPAddr[ETX]           |

### 2.11.1.2. Variable: EtherIPGateAddress

The following section contains a detailed description of the variable EtherIPGateAddress.

#### Variable Overview

| Variable Name      | Description                        |
|--------------------|------------------------------------|
| EtherIPGateAddress | IP-Address of the Ethernet Gateway |

|                       |   |
|-----------------------|---|
| Communication Name    | Elgate  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 430   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array         |                      |           |
|---------------|----------------------|-----------|
| Length        |                      | 4         |
| Default Value |                      | {0,0,0,0} |
|               | USInt                |           |
|               | Value Range          | 0..255    |
|               | Initialisation       |           |
|               | Physical Unit        |           |
|               | Physical Unit Factor | 0.0       |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                                    |
|----------------|----------|--------|---------------|------------------------------------|
| sRN EGate      |          |        |               |                                    |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                        |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name        |
| Command        | EGate    | String | 6             | IP-Address of the Ethernet Gateway |

| Read Variable Response: |          |        |               |                                    |
|-------------------------|----------|--------|---------------|------------------------------------|
| sRA EGate <data>        |          |        |               |                                    |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                        |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                 | EGate    | String | 6             | IP-Address of the Ethernet Gateway |
| Variable Data           | data     | Array  | 4             |                                    |

| Write Variable:  |          |        |               |                                    |
|------------------|----------|--------|---------------|------------------------------------|
| sWN EGate <data> |          |        |               |                                    |
| Telegram Part    | Telegram | Type   | Length [Byte] | Description                        |
| Command Type     | sWN      | String | 3             | Write SOPAS Variable by Name       |
| Command          | EGate    | String | 6             | IP-Address of the Ethernet Gateway |
| Variable Data    | data     | Array  | 4             |                                    |

| Write Variable Response: |          |        |               |                                    |
|--------------------------|----------|--------|---------------|------------------------------------|
| sWA EGate                |          |        |               |                                    |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                        |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | EGate    | String | 6             | IP-Address of the Ethernet Gateway |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN EGate[ETX]         |
| Read Variable Response:                                     | [STX]sRA EGate 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN EGate 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EGate[ETX]         |

### 2.11.1.3. Variable: EtherIPMask

The following section contains a detailed description of the variable EtherIPMask.

#### Variable Overview

| Variable Name | Description |
|---------------|-------------|
| EtherIPMask   | Netmask     |

|                       |   |
|-----------------------|---|
| Communication Name    | Elmask  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 431   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array         |                      |
|---------------|----------------------|
| Length        | 4                    |
| Default Value | {255,255,255,0}      |
|               | <b>USInt</b>         |
|               | Value Range          |
|               | Initialisation       |
|               | Physical Unit        |
|               | Physical Unit Factor |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN EImask     |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | EImask   | String | 6             | Netmask                     |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA EImask <data>       |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | EImask   | String | 6             | Netmask                         |
| Variable Data           | data     | Array  | 4             |                                 |

| Write Variable:   |          |        |               |                              |
|-------------------|----------|--------|---------------|------------------------------|
| sWN EImask <data> |          |        |               |                              |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description                  |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command           | EImask   | String | 6             | Netmask                      |
| Variable Data     | data     | Array  | 4             |                              |





| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EImask               |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EImask   | String | 6             | Netmask                          |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN EImask[ETX]            |
| Read Variable Response:                                     | [STX]sRA EImask FF FF FF 0[ETX] |
| Write Variable:   | [STX]sWN EImask FF FF FF 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EImask[ETX]            |

### 2.11.1.4. Variable: EtherIPSpeedDuplex

The following section contains a detailed description of the variable EtherIPSpeedDuplex.

#### Variable Overview

| Variable Name      | Description               |
|--------------------|---------------------------|
| EtherIPSpeedDuplex | Speed and Duplex settings |

|                       |   |
|-----------------------|---|
| Communication Name    | EISpdDpx  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 432   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |               |             |
|---------------|-------|---------------|-------------|
| Default Value |       | 0             |             |
|               | Value | Name          | Description |
|               | 0     | TX_AUTO       |             |
|               | 1     | TX_10MB_HALF  |             |
|               | 2     | TX_10MB_FULL  |             |
|               | 3     | TX_100MB_HALF |             |
|               | 4     | TX_100MB_FULL |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN EISpdDpx   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | EISpdDpx | String | 8             | Speed and Duplex settings   |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA EISpdDpx <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | EISpdDpx | String | 8             | Speed and Duplex settings       |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN EISpdDpx <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | EISpdDpx | String | 8             | Speed and Duplex settings    |
| Variable Data       | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EISpdDpx             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EISpdDpx | String | 8             | Speed and Duplex settings        |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN EISpdDpx[ETX]   |
| Read Variable Response:                                     | [STX]sRA EISpdDpx 0[ETX] |
| Write Variable:   | [STX]sWN EISpdDpx 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EISpdDpx[ETX]   |



### 2.11.1.5. Variable: EtherHostProtocol

The following section contains a detailed description of the variable EtherHostProtocol.

#### Variable Overview

| Variable Name     | Description                |
|-------------------|----------------------------|
| EtherHostProtocol | Protocol for Ethernet Host |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstProt   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 434   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | 1                      |             |
|               | Value | Name                   | Description |
|               | 0     | TX_NO_OUTPUT           |             |
|               | 1     | TX_OUTPUT_FORMAT_DEF_1 |             |
|               | 2     | TX_OUTPUT_FORMAT_DEF_2 |             |
|               | 3     | TX_USERDEF_FORMAT      |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN EIHstProt  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | EIHstProt | String | 9             | Protocol for Ethernet Host  |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA EIHstProt <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | EIHstProt | String | 9             | Protocol for Ethernet Host      |
| Variable Data           | data      | Enum8  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN EIHstProt <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | EIHstProt | String | 9             | Protocol for Ethernet Host   |
| Variable Data        | data      | Enum8  | 1             |                              |



| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA EIHstProt            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EIHstProt | String | 9             | Protocol for Ethernet Host       |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN EIHstProt[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIHstProt 1[ETX] |
| Write Variable:   | [STX]sWN EIHstProt 1[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstProt[ETX]   |

### 2.11.1.6. Variable: EtherHostFTPProtocol

The following section contains a detailed description of the variable EtherHostFTPProtocol.

#### Variable Overview

| Variable Name        | Description                           |
|----------------------|---------------------------------------|
| EtherHostFTPProtocol | Protocol for Ethernet Host FTP client |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstFTPProt  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 435   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | 0                      |             |
|               | Value | Name                   | Description |
|               | 0     | TX_NO_OUTPUT           |             |
|               | 1     | TX_OUTPUT_FORMAT_DEF_1 |             |
|               | 2     | TX_OUTPUT_FORMAT_DEF_2 |             |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |                                       |
|------------------|--------------|--------|---------------|---------------------------------------|
| sRN EIHstFTPProt |              |        |               |                                       |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name           |
| Command          | EIHstFTPProt | String | 12            | Protocol for Ethernet Host FTP client |

| Read Variable Response: |              |        |               |                                       |
|-------------------------|--------------|--------|---------------|---------------------------------------|
| sRA EIHstFTPProt <data> |              |        |               |                                       |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | EIHstFTPProt | String | 12            | Protocol for Ethernet Host FTP client |
| Variable Data           | data         | Enum8  | 1             |                                       |

| Write Variable:         |              |        |               |                                       |
|-------------------------|--------------|--------|---------------|---------------------------------------|
| sWN EIHstFTPProt <data> |              |        |               |                                       |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name          |
| Command                 | EIHstFTPProt | String | 12            | Protocol for Ethernet Host FTP client |
| Variable Data           | data         | Enum8  | 1             |                                       |

| Write Variable Response: |              |        |               |                                       |
|--------------------------|--------------|--------|---------------|---------------------------------------|
| sWA EIHstFTPProt         |              |        |               |                                       |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                           |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | EIHstFTPProt | String | 12            | Protocol for Ethernet Host FTP client |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN EIHstFTPProt[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIHstFTPProt 0[ETX] |
| Write Variable:   | [STX]sWN EIHstFTPProt 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstFTPProt[ETX]   |



### 2.11.1.7. Variable: EtherHostFTPUsername

The following section contains a detailed description of the variable EtherHostFTPUsername.

#### Variable Overview

| Variable Name        | Description                 |
|----------------------|-----------------------------|
| EtherHostFTPUsername | Username of Host FTP client |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstFTPCIntUsrNm                                       |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 436   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |           |
|----------------|-----------|
| Length         | 0..20     |
| Initialisation | anonymous |

#### Variable Telegram Syntax

| Read Variable:        |                   |        |               |                             |
|-----------------------|-------------------|--------|---------------|-----------------------------|
| sRN EIHstFTPCIntUsrNm |                   |        |               |                             |
| Telegram Part         | Telegram          | Type   | Length [Byte] | Description                 |
| Command Type          | sRN               | String | 3             | Read SOPAS Variable by Name |
| Command               | EIHstFTPCIntUsrNm | String | 17            | Username of Host FTP client |

| Read Variable Response:      |                   |            |               |                                 |
|------------------------------|-------------------|------------|---------------|---------------------------------|
| sRA EIHstFTPCIntUsrNm <data> |                   |            |               |                                 |
| Telegram Part                | Telegram          | Type       | Length [Byte] | Description                     |
| Command Type                 | sRA               | String     | 3             | SOPAS Variable Read Acknowledge |
| Command                      | EIHstFTPCIntUsrNm | String     | 17            | Username of Host FTP client     |
| Variable Data                | data              | FlexString | 20            |                                 |

| Write Variable:              |                   |            |               |                              |
|------------------------------|-------------------|------------|---------------|------------------------------|
| sWN EIHstFTPCIntUsrNm <data> |                   |            |               |                              |
| Telegram Part                | Telegram          | Type       | Length [Byte] | Description                  |
| Command Type                 | sWN               | String     | 3             | Write SOPAS Variable by Name |
| Command                      | EIHstFTPCIntUsrNm | String     | 17            | Username of Host FTP client  |
| Variable Data                | data              | FlexString | 20            |                              |

| Write Variable Response: |                   |        |               |                                  |
|--------------------------|-------------------|--------|---------------|----------------------------------|
| sWA EIHstFTPCIntUsrNm    |                   |        |               |                                  |
| Telegram Part            | Telegram          | Type   | Length [Byte] | Description                      |
| Command Type             | sWA               | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EIHstFTPCIntUsrNm | String | 17            | Username of Host FTP client      |



## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN EIHstFTPCIntUsrNm[ETX]              |
| Read Variable Response:                                     | [STX]sRA EIHstFTPCIntUsrNm 9 anonymous[ETX]  |
| Write Variable:   | [STX]sWN EIHstFTPCIntUsrNm +9 anonymous[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstFTPCIntUsrNm[ETX]              |

### 2.11.1.8. Variable: EtherHostFTPPassword

The following section contains a detailed description of the variable EtherHostFTPPassword.

#### Variable Overview

| Variable Name        | Description                 |
|----------------------|-----------------------------|
| EtherHostFTPPassword | Password of Host FTP client |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstFTPCIntPasWd                                       |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 437   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |           |
|----------------|-----------|
| Length         | 0..20     |
| Initialisation | anonymous |

#### Variable Telegram Syntax

| Read Variable:        |                   |        |               |                             |
|-----------------------|-------------------|--------|---------------|-----------------------------|
| sRN EIHstFTPCIntPasWd |                   |        |               |                             |
| Telegram Part         | Telegram          | Type   | Length [Byte] | Description                 |
| Command Type          | sRN               | String | 3             | Read SOPAS Variable by Name |
| Command               | EIHstFTPCIntPasWd | String | 17            | Password of Host FTP client |

| Read Variable Response:      |                   |            |               |                                 |
|------------------------------|-------------------|------------|---------------|---------------------------------|
| sRA EIHstFTPCIntPasWd <data> |                   |            |               |                                 |
| Telegram Part                | Telegram          | Type       | Length [Byte] | Description                     |
| Command Type                 | sRA               | String     | 3             | SOPAS Variable Read Acknowledge |
| Command                      | EIHstFTPCIntPasWd | String     | 17            | Password of Host FTP client     |
| Variable Data                | data              | FlexString | 20            |                                 |



| Write Variable:              |                   |            |               |                              |
|------------------------------|-------------------|------------|---------------|------------------------------|
| sWN EIHstFTPCIntPasWd <data> |                   |            |               |                              |
| Telegram Part                | Telegram          | Type       | Length [Byte] | Description                  |
| Command Type                 | sWN               | String     | 3             | Write SOPAS Variable by Name |
| Command                      | EIHstFTPCIntPasWd | String     | 17            | Password of Host FTP client  |
| Variable Data                | data              | FlexString | 20            |                              |

| Write Variable Response: |                   |        |               |                                  |
|--------------------------|-------------------|--------|---------------|----------------------------------|
| sWA EIHstFTPCIntPasWd    |                   |        |               |                                  |
| Telegram Part            | Telegram          | Type   | Length [Byte] | Description                      |
| Command Type             | sWA               | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EIHstFTPCIntPasWd | String | 17            | Password of Host FTP client      |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN EIHstFTPCIntPasWd[ETX]              |
| Read Variable Response:                                     | [STX]sRA EIHstFTPCIntPasWd 9 anonymous[ETX]  |
| Write Variable:   | [STX]sWN EIHstFTPCIntPasWd +9 anonymous[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstFTPCIntPasWd[ETX]              |

### 2.11.1.9. Variable: EtherHostFTPUploadPath

The following section contains a detailed description of the variable EtherHostFTPUploadPath.

#### Variable Overview

| Variable Name          | Description                    |
|------------------------|--------------------------------|
| EtherHostFTPUploadPath | Upload Path of Host FTP client |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstFTPCIntUpPath                                      |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 438   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |        |
|----------------|--------|
| Length         | 0..100 |
| Initialisation |        |





## Variable Telegram Syntax

| Read Variable:         |                    |        |               |                                |
|------------------------|--------------------|--------|---------------|--------------------------------|
| sRN EIHstFTPCIntUpPath |                    |        |               |                                |
| Telegram Part          | Telegram           | Type   | Length [Byte] | Description                    |
| Command Type           | sRN                | String | 3             | Read SOPAS Variable by Name    |
| Command                | EIHstFTPCIntUpPath | String | 18            | Upload Path of Host FTP client |

| Read Variable Response:       |                    |            |               |                                 |
|-------------------------------|--------------------|------------|---------------|---------------------------------|
| sRA EIHstFTPCIntUpPath <data> |                    |            |               |                                 |
| Telegram Part                 | Telegram           | Type       | Length [Byte] | Description                     |
| Command Type                  | sRA                | String     | 3             | SOPAS Variable Read Acknowledge |
| Command                       | EIHstFTPCIntUpPath | String     | 18            | Upload Path of Host FTP client  |
| Variable Data                 | data               | FlexString | 100           |                                 |

| Write Variable:               |                    |            |               |                                |
|-------------------------------|--------------------|------------|---------------|--------------------------------|
| sWN EIHstFTPCIntUpPath <data> |                    |            |               |                                |
| Telegram Part                 | Telegram           | Type       | Length [Byte] | Description                    |
| Command Type                  | sWN                | String     | 3             | Write SOPAS Variable by Name   |
| Command                       | EIHstFTPCIntUpPath | String     | 18            | Upload Path of Host FTP client |
| Variable Data                 | data               | FlexString | 100           |                                |

| Write Variable Response: |                    |        |               |                                  |
|--------------------------|--------------------|--------|---------------|----------------------------------|
| sWA EIHstFTPCIntUpPath   |                    |        |               |                                  |
| Telegram Part            | Telegram           | Type   | Length [Byte] | Description                      |
| Command Type             | sWA                | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EIHstFTPCIntUpPath | String | 18            | Upload Path of Host FTP client   |

## Variable Telegram Examples

| Example: Default Values                                     |                                       |
|---|---------------------------------------|
| Variable telegram examples with data set to default values. |                                       |
| Read Variable:  | [STX]sRN EIHstFTPCIntUpPath[ETX]      |
| Read Variable Response:                                     | [STX]sRA EIHstFTPCIntUpPath 0[ETX]    |
| Write Variable:   | [STX]sWN EIHstFTPCIntUpPath +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstFTPCIntUpPath[ETX]      |



### 2.11.1.10. Variable: EtherHostFTPFilename

The following section contains a detailed description of the variable EtherHostFTPFilename.

#### Variable Overview

| Variable Name        | Description                          |
|----------------------|--------------------------------------|
| EtherHostFTPFilename | Selector for the filename generation |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstFTPFINm  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 439   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                         |             |
|---------------|-------|-------------------------|-------------|
| Default Value |       | 0                       |             |
|               | Value | Name                    | Description |
|               | 0     | TX_DEFAULT              |             |
|               | 1     | TX_FILENAME_FORMATTER_1 |             |
|               | 2     | TX_FILENAME_FORMATTER_2 |             |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |                                      |
|------------------|--------------|--------|---------------|--------------------------------------|
| sRN EIHstFTPFlNm |              |        |               |                                      |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                          |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name          |
| Command          | EIHstFTPFINm | String | 12            | Selector for the filename generation |

| Read Variable Response: |              |        |               |                                      |
|-------------------------|--------------|--------|---------------|--------------------------------------|
| sRA EIHstFTPFlNm <data> |              |        |               |                                      |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                          |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge      |
| Command                 | EIHstFTPFINm | String | 12            | Selector for the filename generation |
| Variable Data           | data         | Enum8  | 1             |                                      |

| Write Variable:         |              |        |               |                                      |
|-------------------------|--------------|--------|---------------|--------------------------------------|
| sWN EIHstFTPFlNm <data> |              |        |               |                                      |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                          |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name         |
| Command                 | EIHstFTPFINm | String | 12            | Selector for the filename generation |
| Variable Data           | data         | Enum8  | 1             |                                      |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EIHstFTPFlNm         |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |              |        |               |                                      |
|--------------------------|--------------|--------|---------------|--------------------------------------|
| sWA EIHstFTPFlNm         |              |        |               |                                      |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                          |
| Command                  | EIHstFTPFlNm | String | 12            | Selector for the filename generation |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| <b>Read Variable:</b>                                       | [STX]sRN EIHstFTPFlNm[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA EIHstFTPFlNm 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN EIHstFTPFlNm 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA EIHstFTPFlNm[ETX]   |

### 2.11.1.11. Variable: EtherHostFTPIPPort

The following section contains a detailed description of the variable EtherHostFTPIPPort.

#### Variable Overview

| Variable Name      | Description                     |
|--------------------|---------------------------------|
| EtherHostFTPIPPort | Port for FTP communication Host |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstFTPPort  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 440   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 21       |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |                                 |
|------------------|--------------|--------|---------------|---------------------------------|
| sRN EIHstFTPPort |              |        |               |                                 |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name     |
| Command          | EIHstFTPPort | String | 12            | Port for FTP communication Host |

| Read Variable Response: |              |        |               |                                 |
|-------------------------|--------------|--------|---------------|---------------------------------|
| sRA EIHstFTPPort <data> |              |        |               |                                 |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | EIHstFTPPort | String | 12            | Port for FTP communication Host |
| Variable Data           | data         | UInt   | 2             |                                 |

| Write Variable:         |              |        |               |                                 |
|-------------------------|--------------|--------|---------------|---------------------------------|
| sWN EIHstFTPPort <data> |              |        |               |                                 |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name    |
| Command                 | EIHstFTPPort | String | 12            | Port for FTP communication Host |
| Variable Data           | data         | UInt   | 2             |                                 |

| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA EIHstFTPPort         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EIHstFTPPort | String | 12            | Port for FTP communication Host  |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN EIHstFTPPort[ETX]    |
| Read Variable Response:                                     | [STX]sRA EIHstFTPPort 15[ETX] |
| Write Variable:   | [STX]sWN EIHstFTPPort 15[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstFTPPort[ETX]    |



## 2.11.1.12. Variable: EtherHostMultiplex

The following section contains a detailed description of the variable EtherHostMultiplex.

### Variable Overview

| Variable Name      | Description                              |
|--------------------|--|
| EtherHostMultiplex | Output multiplexer data on ethernet host |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstMux  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 441   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN EIHstMux   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                              |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name              |
| Command        | EIHstMux | String | 8             | Output multiplexer data on ethernet host |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA EIHstMux <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                              |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge          |
| Command                 | EIHstMux | String | 8             | Output multiplexer data on ethernet host |
| Variable Data           | data     | Bool   | 1             |  |

| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN EIHstMux <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                              |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name             |
| Command             | EIHstMux | String | 8             | Output multiplexer data on ethernet host |
| Variable Data       | data     | Bool   | 1             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA EIHstMux             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                              |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | EIHstMux | String | 8             | Output multiplexer data on ethernet host |



## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN EIHstMux[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIHstMux 0[ETX] |
| Write Variable:   | [STX]sWN EIHstMux 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstMux[ETX]   |

### 2.11.1.13. Variable: EtherHostServerClient

The following section contains a detailed description of the variable EtherHostServerClient.

#### Variable Overview

| Variable Name         | Description                                  |
|-----------------------|--|
| EtherHostServerClient | Selects if Ethernet Host is server or client |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstSrvClnt  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 442   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |               |             |
|---------------|-------|---------------|-------------|
| Default Value |       | 0             |             |
|               | Value | Name          | Description |
|               | 0     | TX_SERVER     |             |
|               | 1     | TX_CLIENT     |             |
|               | 2     | TX_FTP_CLIENT |             |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |  |
|------------------|--------------|--------|---------------|--|
| sRN EIHstSrvClnt |              |        |               |  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                                  |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name                  |
| Command          | EIHstSrvClnt | String | 12            | Selects if Ethernet Host is server or client |

| Read Variable Response: |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sRA EIHstSrvClnt <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                  |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge              |
| Command                 | EIHstSrvClnt | String | 12            | Selects if Ethernet Host is server or client |
| Variable Data           | data         | Enum8  | 1             |  |



| Write Variable:         |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sWN EIHstSrvClnt <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                  |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name                 |
| Command                 | EIHstSrvClnt | String | 12            | Selects if Ethernet Host is server or client |
| Variable Data           | data         | Enum8  | 1             |  |

| Write Variable Response: |              |        |               |  |
|--------------------------|--------------|--------|---------------|--|
| sWA EIHstSrvClnt         |              |        |               |  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                                  |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge             |
| Command                  | EIHstSrvClnt | String | 12            | Selects if Ethernet Host is server or client |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN EIHstSrvClnt[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIHstSrvClnt 0[ETX] |
| Write Variable:   | [STX]sWN EIHstSrvClnt 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstSrvClnt[ETX]   |

### 2.11.1.14. Variable: EtherHostIPPort

The following section contains a detailed description of the variable EtherHostIPPort.

#### Variable Overview

| Variable Name   | Description                       |
|-----------------|-----------------------------------|
| EtherHostIPPort | Port for TCP/IP communication Aux |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstPort   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 443   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 2112     |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                                   |
|----------------|-----------|--------|---------------|-----------------------------------|
| sRN EIHstPort  |           |        |               |                                   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name       |
| Command        | EIHstPort | String | 9             | Port for TCP/IP communication Aux |

| Read Variable Response: |           |        |               |                                   |
|-------------------------|-----------|--------|---------------|-----------------------------------|
| sRA EIHstPort <data>    |           |        |               |                                   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | EIHstPort | String | 9             | Port for TCP/IP communication Aux |
| Variable Data           | data      | UInt   | 2             |                                   |

| Write Variable:      |           |        |               |                                   |
|----------------------|-----------|--------|---------------|-----------------------------------|
| sWN EIHstPort <data> |           |        |               |                                   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name      |
| Command              | EIHstPort | String | 9             | Port for TCP/IP communication Aux |
| Variable Data        | data      | UInt   | 2             |                                   |

| Write Variable Response: |           |        |               |                                   |
|--------------------------|-----------|--------|---------------|-----------------------------------|
| sWA EIHstPort            |           |        |               |                                   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | EIHstPort | String | 9             | Port for TCP/IP communication Aux |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN EIHstPort[ETX]     |
| Read Variable Response:                                     | [STX]sRA EIHstPort 840[ETX] |
| Write Variable:   | [STX]sWN EIHstPort 840[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstPort[ETX]     |



### 2.11.1.15. Variable: EtherHostIPServerAddress

The following section contains a detailed description of the variable EtherHostIPServerAddress.

#### Variable Overview

| Variable Name            | Description                            |
|--------------------------|--|
| EtherHostIPServerAddress | Server address needed if client active |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstSrvAddr  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 444   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array         |                      |
|---------------|----------------------|
| Length        | 4                    |
| Default Value | {192,168,0,11}       |
|               | <b>USInt</b>         |
|               | Value Range          |
|               | Initialisation       |
|               | Physical Unit        |
|               | Physical Unit Factor |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |  |
|------------------|--------------|--------|---------------|--|
| sRN EIHstSrvAddr |              |        |               |  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                            |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name            |
| Command          | EIHstSrvAddr | String | 12            | Server address needed if client active |

| Read Variable Response: |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sRA EIHstSrvAddr <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                            |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge        |
| Command                 | EIHstSrvAddr | String | 12            | Server address needed if client active |
| Variable Data           | data         | Array  | 4             |  |

| Write Variable:         |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sWN EIHstSrvAddr <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                            |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name           |
| Command                 | EIHstSrvAddr | String | 12            | Server address needed if client active |
| Variable Data           | data         | Array  | 4             |  |



| Write Variable Response: |              |        |               |  |
|--------------------------|--------------|--------|---------------|--|
| sWA EIHstSrvAddr         |              |        |               |  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                            |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge       |
| Command                  | EIHstSrvAddr | String | 12            | Server address needed if client active |

## Variable Telegram Examples

| Example: Default Values                                     |                                      |
|---|--------------------------------------|
| Variable telegram examples with data set to default values. |                                      |
| Read Variable:  | [STX]sRN EIHstSrvAddr[ETX]           |
| Read Variable Response:                                     | [STX]sRA EIHstSrvAddr C0 A8 0 B[ETX] |
| Write Variable:   | [STX]sWN EIHstSrvAddr C0 A8 0 B[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstSrvAddr[ETX]           |

### 2.11.1.16. Variable: EtherHostCoLaDialect

The following section contains a detailed description of the variable EtherHostCoLaDialect.

#### Variable Overview

| Variable Name        | Description                                |
|----------------------|--|
| EtherHostCoLaDialect | Selects if Ethernet Host is CoLaA or CoLaB |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstCola   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 445   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_COLA_ASCII  |             |
|               | 1     | TX_COLA_BINARY |             |



## Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN EIHstCola  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                                |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                |
| Command        | EIHstCola | String | 9             | Selects if Ethernet Host is CoLaA or CoLaB |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA EIHstCola <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                                |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge            |
| Command                 | EIHstCola | String | 9             | Selects if Ethernet Host is CoLaA or CoLaB |
| Variable Data           | data      | Enum8  | 1             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN EIHstCola <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                                |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name               |
| Command              | EIHstCola | String | 9             | Selects if Ethernet Host is CoLaA or CoLaB |
| Variable Data        | data      | Enum8  | 1             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA EIHstCola            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                                |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge           |
| Command                  | EIHstCola | String | 9             | Selects if Ethernet Host is CoLaA or CoLaB |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN EIHstCola[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIHstCola 0[ETX] |
| Write Variable:   | [STX]sWN EIHstCola 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstCola[ETX]   |



### 2.11.1.17. Variable: EtherHostEnHB

The following section contains a detailed description of the variable EtherHostEnHB.

#### Variable Overview

| Variable Name | Description                       |
|---------------|-----------------------------------|
| EtherHostEnHB | Enable heartbeat on Ethernet Host |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstEnHB   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 446   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                                   |
|----------------|-----------|--------|---------------|-----------------------------------|
| sRN EIHstEnHB  |           |        |               |                                   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name       |
| Command        | EIHstEnHB | String | 9             | Enable heartbeat on Ethernet Host |

| Read Variable Response: |           |        |               |                                   |
|-------------------------|-----------|--------|---------------|-----------------------------------|
| sRA EIHstEnHB <data>    |           |        |               |                                   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | EIHstEnHB | String | 9             | Enable heartbeat on Ethernet Host |
| Variable Data           | data      | Bool   | 1             |                                   |

| Write Variable:      |           |        |               |                                   |
|----------------------|-----------|--------|---------------|-----------------------------------|
| sWN EIHstEnHB <data> |           |        |               |                                   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name      |
| Command              | EIHstEnHB | String | 9             | Enable heartbeat on Ethernet Host |
| Variable Data        | data      | Bool   | 1             |                                   |

| Write Variable Response: |           |        |               |                                   |
|--------------------------|-----------|--------|---------------|-----------------------------------|
| sWA EIHstEnHB            |           |        |               |                                   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | EIHstEnHB | String | 9             | Enable heartbeat on Ethernet Host |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN EIHstEnHB[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIHstEnHB 0[ETX] |
| Write Variable:   | [STX]sWN EIHstEnHB 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstEnHB[ETX]   |

### 2.11.1.18. Variable: EtherHostHBInterval

The following section contains a detailed description of the variable EtherHostHBInterval.

#### Variable Overview

| Variable Name       | Description                         |
|---------------------|-------------------------------------|
| EtherHostHBInterval | Heartbeat interval on Ethernet Host |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstHBInt  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 447   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..600 |
| Initialisation       | 30     |
| Physical Unit        | s      |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                                     |
|----------------|------------|--------|---------------|-------------------------------------|
| sRN EIHstHBInt |            |        |               |                                     |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                         |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name         |
| Command        | EIHstHBInt | String | 10            | Heartbeat interval on Ethernet Host |

| Read Variable Response: |            |        |               |                                     |
|-------------------------|------------|--------|---------------|-------------------------------------|
| sRA EIHstHBInt <data>   |            |        |               |                                     |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                         |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | EIHstHBInt | String | 10            | Heartbeat interval on Ethernet Host |
| Variable Data           | data       | UInt   | 2             |                                     |



| Write Variable:       |            |        |               |                                     |
|-----------------------|------------|--------|---------------|-------------------------------------|
| sWN EIHstHBInt <data> |            |        |               |                                     |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                         |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name        |
| Command               | EIHstHBInt | String | 10            | Heartbeat interval on Ethernet Host |
| Variable Data         | data       | UInt   | 2             |                                     |

| Write Variable Response: |            |        |               |                                     |
|--------------------------|------------|--------|---------------|-------------------------------------|
| sWA EIHstHBInt           |            |        |               |                                     |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                         |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | EIHstHBInt | String | 10            | Heartbeat interval on Ethernet Host |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN EIHstHBInt[ETX]    |
| Read Variable Response:                                     | [STX]sRA EIHstHBInt 1E[ETX] |
| Write Variable:   | [STX]sWN EIHstHBInt 1E[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstHBInt[ETX]    |

### 2.11.1.19. Variable: EtherHostRetrHB

The following section contains a detailed description of the variable EtherHostRetrHB.

#### Variable Overview

| Variable Name   | Description                          |
|-----------------|--------------------------------------|
| EtherHostRetrHB | Retrigger heartbeat on Ethernet Host |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstRetrHB   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 448   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                      |
|-----------------|-------------|--------|---------------|--------------------------------------|
| sRN EIHstRetrHB |             |        |               |                                      |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                          |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name          |
| Command         | EIHstRetrHB | String | 11            | Retrigger heartbeat on Ethernet Host |

| Read Variable Response: |             |        |               |                                      |
|-------------------------|-------------|--------|---------------|--------------------------------------|
| sRA EIHstRetrHB <data>  |             |        |               |                                      |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                          |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge      |
| Command                 | EIHstRetrHB | String | 11            | Retrigger heartbeat on Ethernet Host |
| Variable Data           | data        | Bool   | 1             |                                      |

| Write Variable:        |             |        |               |                                      |
|------------------------|-------------|--------|---------------|--------------------------------------|
| sWN EIHstRetrHB <data> |             |        |               |                                      |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                          |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name         |
| Command                | EIHstRetrHB | String | 11            | Retrigger heartbeat on Ethernet Host |
| Variable Data          | data        | Bool   | 1             |                                      |

| Write Variable Response: |             |        |               |                                      |
|--------------------------|-------------|--------|---------------|--------------------------------------|
| sWA EIHstRetrHB          |             |        |               |                                      |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                          |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge     |
| Command                  | EIHstRetrHB | String | 11            | Retrigger heartbeat on Ethernet Host |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN EIHstRetrHB[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIHstRetrHB 1[ETX] |
| Write Variable:   | [STX]sWN EIHstRetrHB 1[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstRetrHB[ETX]   |



### 2.11.1.20. Variable: EtherHostInputHandling

The following section contains a detailed description of the variable EtherHostInputHandling.

#### Variable Overview

| Variable Name          | Description   |
|------------------------|---|
| EtherHostInputHandling | Handling method for Input data on ethernet host interface |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstInp  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 449   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                                     |             |
|---------------|-------|-------------------------------------|-------------|
| Default Value |       | 0                                   |             |
|               | Value | Name                                | Description |
|               | 0     | TX_NO_INPUT_DATA                    |             |
|               | 1     | TX_INPUT_DATA_FORWARDING            |             |
|               | 2     | TX_INPUT_DATA_AUXRESULT             |             |
|               | 3     | TX_INPUT_DATA_STRING_FOR_OUTFORM AT |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN EIHstInp   |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                               |
| Command        | EIHstInp | String | 8             | Handling method for Input data on ethernet host interface |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA EIHstInp <data>     |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description   |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                           |
| Command                 | EIHstInp | String | 8             | Handling method for Input data on ethernet host interface |
| Variable Data           | data     | Enum8  | 1             |   |

| Write Variable:     |          |        |               |   |
|---------------------|----------|--------|---------------|---|
| sWN EIHstInp <data> |          |        |               |   |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description   |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                              |
| Command             | EIHstInp | String | 8             | Handling method for Input data on ethernet host interface |
| Variable Data       | data     | Enum8  | 1             |   |





| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA EIHstInp             |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description   |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                          |
| Command                  | EIHstInp | String | 8             | Handling method for Input data on ethernet host interface |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN EIHstInp[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIHstInp 0[ETX] |
| Write Variable:   | [STX]sWN EIHstInp 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstInp[ETX]   |

### 2.11.1.21. Variable: EtherAuxProtocol

The following section contains a detailed description of the variable EtherAuxProtocol.

#### Variable Overview

| Variable Name    | Description               |
|------------------|---------------------------|
| EtherAuxProtocol | Protocol for Ethernet Aux |

|                       |   |
|-----------------------|---|
| Communication Name    | EIAuxProt   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 450   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | 1                      |             |
|               | Value | Name                   | Description |
|               | 0     | TX_NO_OUTPUT           |             |
|               | 1     | TX_READ_DIAG           |             |
|               | 2     | TX_OUTPUT_FORMAT_DEF_1 |             |
|               | 3     | TX_OUTPUT_FORMAT_DEF_2 |             |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN EIAuxProt  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | EIAuxProt | String | 9             | Protocol for Ethernet Aux   |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA EIAuxProt <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | EIAuxProt | String | 9             | Protocol for Ethernet Aux       |
| Variable Data           | data      | Enum8  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN EIAuxProt <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | EIAuxProt | String | 9             | Protocol for Ethernet Aux    |
| Variable Data        | data      | Enum8  | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA EIAuxProt            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EIAuxProt | String | 9             | Protocol for Ethernet Aux        |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN EIAuxProt[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIAuxProt 1[ETX] |
| Write Variable:   | [STX]sWN EIAuxProt 1[ETX] |
| Write Variable Response:                                    | [STX]sWA EIAuxProt[ETX]   |

## 2.11.1.22. Variable: EtherAuxIPPort

The following section contains a detailed description of the variable EtherAuxIPPort.

### Variable Overview

| Variable Name  | Description                       |
|----------------|-----------------------------------|
| EtherAuxIPPort | Port for TCP/IP communication Aux |

|                       |   |
|-----------------------|---|
| Communication Name    | EIAuxPort   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 451   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 2111     |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

### Variable Telegram Syntax

| Read Variable: |           |        |               |                                   |
|----------------|-----------|--------|---------------|-----------------------------------|
| sRN EIAuxPort  |           |        |               |                                   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name       |
| Command        | EIAuxPort | String | 9             | Port for TCP/IP communication Aux |

| Read Variable Response: |           |        |               |                                   |
|-------------------------|-----------|--------|---------------|-----------------------------------|
| sRA EIAuxPort <data>    |           |        |               |                                   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | EIAuxPort | String | 9             | Port for TCP/IP communication Aux |
| Variable Data           | data      | UInt   | 2             |                                   |

| Write Variable:      |           |        |               |                                   |
|----------------------|-----------|--------|---------------|-----------------------------------|
| sWN EIAuxPort <data> |           |        |               |                                   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name      |
| Command              | EIAuxPort | String | 9             | Port for TCP/IP communication Aux |
| Variable Data        | data      | UInt   | 2             |                                   |

| Write Variable Response: |           |        |               |                                   |
|--------------------------|-----------|--------|---------------|-----------------------------------|
| sWA EIAuxPort            |           |        |               |                                   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | EIAuxPort | String | 9             | Port for TCP/IP communication Aux |



## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN EIAuxPort[ETX]     |
| Read Variable Response:                                     | [STX]sRA EIAuxPort 83F[ETX] |
| Write Variable:   | [STX]sWN EIAuxPort 83F[ETX] |
| Write Variable Response:                                    | [STX]sWA EIAuxPort[ETX]     |

### 2.11.1.23. Variable: EtherAuxCoLaDialect

The following section contains a detailed description of the variable EtherAuxCoLaDialect.

#### Variable Overview

| Variable Name       | Description                               |
|---------------------|---|
| EtherAuxCoLaDialect | Selects if Ethernet Aux is CoLaA or CoLaB |

|                       |   |
|-----------------------|---|
| Communication Name    | EIAuxCola   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 453   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_COLA_ASCII  |             |
|               | 1     | TX_COLA_BINARY |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN EIAuxCola  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                               |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name               |
| Command        | EIAuxCola | String | 9             | Selects if Ethernet Aux is CoLaA or CoLaB |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA EIAuxCola <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                               |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                 | EIAuxCola | String | 9             | Selects if Ethernet Aux is CoLaA or CoLaB |
| Variable Data           | data      | Enum8  | 1             |   |



| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN EIAuxCola <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                               |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name              |
| Command              | EIAuxCola | String | 9             | Selects if Ethernet Aux is CoLaA or CoLaB |
| Variable Data        | data      | Enum8  | 1             |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA EIAuxCola            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                               |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge          |
| Command                  | EIAuxCola | String | 9             | Selects if Ethernet Aux is CoLaA or CoLaB |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN EIAuxCola[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIAuxCola 0[ETX] |
| Write Variable:   | [STX]sWN EIAuxCola 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIAuxCola[ETX]   |

### 2.11.1.24. Variable: EtherAuxInputHandling

The following section contains a detailed description of the variable EtherAuxInputHandling.

#### Variable Overview

| Variable Name         | Description  |
|-----------------------|--|
| EtherAuxInputHandling | Handling method for Input data on Ethernet Aux interface |

|                       |   |
|-----------------------|---|
| Communication Name    | EIAuxInp  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 454   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                                     |             |
|---------------|-------|-------------------------------------|-------------|
| Default Value |       | 0                                   |             |
|               | Value | Name                                | Description |
|               | 0     | TX_NO_INPUT_DATA                    |             |
|               | 1     | TX_INPUT_DATA_FORWARDING            |             |
|               | 2     | TX_INPUT_DATA_AUXRESULT             |             |
|               | 3     | TX_INPUT_DATA_STRING_FOR_OUTFORM AT |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN EIAuxInp   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                              |
| Command        | EIAuxInp | String | 8             | Handling method for Input data on Ethernet Aux interface |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA EIAuxInp <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description  |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                          |
| Command                 | EIAuxInp | String | 8             | Handling method for Input data on Ethernet Aux interface |
| Variable Data           | data     | Enum8  | 1             |  |

| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN EIAuxInp <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                             |
| Command             | EIAuxInp | String | 8             | Handling method for Input data on Ethernet Aux interface |
| Variable Data       | data     | Enum8  | 1             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA EIAuxInp             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                         |
| Command                  | EIAuxInp | String | 8             | Handling method for Input data on Ethernet Aux interface |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN EIAuxInp[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIAuxInp 0[ETX] |
| Write Variable:   | [STX]sWN EIAuxInp 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIAuxInp[ETX]   |



### 2.11.1.25. Variable: EtherRDTServerClient

The following section contains a detailed description of the variable EtherRDTServerClient.

#### Variable Overview

| Variable Name        | Description                                      |
|----------------------|--|
| EtherRDTServerClient | Selects if Ethernet RDT400 is inactive or client |

|                       |   |
|-----------------------|---|
| Communication Name    | EIRDTSrvCInt  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 455   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_DISABLED |             |
|               | 1     | TX_CLIENT   |             |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |  |
|------------------|--------------|--------|---------------|--|
| sRN EIRDTSrvCInt |              |        |               |  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                                      |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name                      |
| Command          | EIRDTSrvCInt | String | 12            | Selects if Ethernet RDT400 is inactive or client |

| Read Variable Response: |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sRA EIRDTSrvCInt <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                      |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge                  |
| Command                 | EIRDTSrvCInt | String | 12            | Selects if Ethernet RDT400 is inactive or client |
| Variable Data           | data         | Enum8  | 1             |  |

| Write Variable:         |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sWN EIRDTSrvCInt <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                      |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name                     |
| Command                 | EIRDTSrvCInt | String | 12            | Selects if Ethernet RDT400 is inactive or client |
| Variable Data           | data         | Enum8  | 1             |  |

| Write Variable Response: |              |        |               |  |
|--------------------------|--------------|--------|---------------|--|
| sWA EIRDTSrvCInt         |              |        |               |  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge                 |
| Command                  | EIRDTSrvCInt | String | 12            | Selects if Ethernet RDT400 is inactive or client |



## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN EIRDTsRvCInt[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIRDTsRvCInt 0[ETX] |
| Write Variable:   | [STX]sWN EIRDTsRvCInt 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIRDTsRvCInt[ETX]   |

### 2.11.1.26. Variable: EtherRDT\_ID

The following section contains a detailed description of the variable EtherRDT\_ID.

#### Variable Overview

| Variable Name | Description                        |
|---------------|------------------------------------|
| EtherRDT_ID   | ID for RDT400 communication RDT400 |

|                       |   |
|-----------------------|---|
| Communication Name    | EIRDTID   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 456   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |       |
|----------------------|-------|
| Value Range          | 0..99 |
| Initialisation       | 0     |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                                    |
|----------------|----------|--------|---------------|------------------------------------|
| sRN EIRDTID    |          |        |               |                                    |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                        |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name        |
| Command        | EIRDTID  | String | 7             | ID for RDT400 communication RDT400 |

| Read Variable Response: |          |        |               |                                    |
|-------------------------|----------|--------|---------------|------------------------------------|
| sRA EIRDTID <data>      |          |        |               |                                    |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                        |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                 | EIRDTID  | String | 7             | ID for RDT400 communication RDT400 |
| Variable Data           | data     | UInt   | 2             |                                    |





| Write Variable:    |          |        |               |                                    |
|--------------------|----------|--------|---------------|------------------------------------|
| sWN EIRDTID <data> |          |        |               |                                    |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                        |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name       |
| Command            | EIRDTID  | String | 7             | ID for RDT400 communication RDT400 |
| Variable Data      | data     | UInt   | 2             |                                    |

| Write Variable Response: |          |        |               |                                    |
|--------------------------|----------|--------|---------------|------------------------------------|
| sWA EIRDTID              |          |        |               |                                    |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                        |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | EIRDTID  | String | 7             | ID for RDT400 communication RDT400 |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN EIRDTID[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIRDTID 0[ETX] |
| Write Variable:   | [STX]sWN EIRDTID 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIRDTID[ETX]   |

### 2.11.1.27. Variable: EtherRDTIPPort

The following section contains a detailed description of the variable EtherRDTIPPort.

#### Variable Overview

| Variable Name  | Description                          |
|----------------|--------------------------------------|
| EtherRDTIPPort | Port for TCP/IP communication RDT400 |

|                       |   |
|-----------------------|---|
| Communication Name    | EIRDTPort   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 457   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 2001     |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                                      |
|----------------|-----------|--------|---------------|--------------------------------------|
| sRN EIRDTPort  |           |        |               |                                      |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                          |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name          |
| Command        | EIRDTPort | String | 9             | Port for TCP/IP communication RDT400 |

| Read Variable Response: |           |        |               |                                      |
|-------------------------|-----------|--------|---------------|--------------------------------------|
| sRA EIRDTPort <data>    |           |        |               |                                      |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                          |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge      |
| Command                 | EIRDTPort | String | 9             | Port for TCP/IP communication RDT400 |
| Variable Data           | data      | UInt   | 2             |                                      |

| Write Variable:      |           |        |               |                                      |
|----------------------|-----------|--------|---------------|--------------------------------------|
| sWN EIRDTPort <data> |           |        |               |                                      |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                          |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name         |
| Command              | EIRDTPort | String | 9             | Port for TCP/IP communication RDT400 |
| Variable Data        | data      | UInt   | 2             |                                      |

| Write Variable Response: |           |        |               |                                      |
|--------------------------|-----------|--------|---------------|--------------------------------------|
| sWA EIRDTPort            |           |        |               |                                      |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                          |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge     |
| Command                  | EIRDTPort | String | 9             | Port for TCP/IP communication RDT400 |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN EIRDTPort[ETX]     |
| Read Variable Response:                                     | [STX]sRA EIRDTPort 7D1[ETX] |
| Write Variable:   | [STX]sWN EIRDTPort 7D1[ETX] |
| Write Variable Response:                                    | [STX]sWA EIRDTPort[ETX]     |

### 2.11.1.28. Variable: EtherRDTIPServerAddress

The following section contains a detailed description of the variable EtherRDTIPServerAddress.

#### Variable Overview

| Variable Name           | Description                            |
|-------------------------|--|
| EtherRDTIPServerAddress | Server address needed if client active |

|                       |   |
|-----------------------|---|
| Communication Name    | EIRDTSrvAddr  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 458   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |                |
|----------------------|----------------|
| Length               | 4              |
| Default Value        | {192,168,0,20} |
| <b>USInt</b>         |                |
| Value Range          | 0..255         |
| Initialisation       |                |
| Physical Unit        |                |
| Physical Unit Factor | 0.0            |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |  |
|------------------|--------------|--------|---------------|--|
| sRN EIRDTSrvAddr |              |        |               |  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                            |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name            |
| Command          | EIRDTSrvAddr | String | 12            | Server address needed if client active |

| Read Variable Response: |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sRA EIRDTSrvAddr <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                            |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge        |
| Command                 | EIRDTSrvAddr | String | 12            | Server address needed if client active |
| Variable Data           | data         | Array  | 4             |  |

| Write Variable:         |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sWN EIRDTSrvAddr <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                            |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name           |
| Command                 | EIRDTSrvAddr | String | 12            | Server address needed if client active |
| Variable Data           | data         | Array  | 4             |  |



| Write Variable Response: |              |        |               |  |
|--------------------------|--------------|--------|---------------|--|
| sWA EIRDTSrvAddr         |              |        |               |  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                            |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge       |
| Command                  | EIRDTSrvAddr | String | 12            | Server address needed if client active |

## Variable Telegram Examples

| Example: Default Values                                     |                                       |
|---|---------------------------------------|
| Variable telegram examples with data set to default values. |                                       |
| Read Variable:  | [STX]sRN EIRDTSrvAddr[ETX]            |
| Read Variable Response:                                     | [STX]sRA EIRDTSrvAddr C0 A8 0 14[ETX] |
| Write Variable:   | [STX]sWN EIRDTSrvAddr C0 A8 0 14[ETX] |
| Write Variable Response:                                    | [STX]sWA EIRDTSrvAddr[ETX]            |

### 2.11.1.29. Method: EthernetUpdate

The following section contains a detailed description of the method EthernetUpdate.

#### Method Overview

| Method Name    | Description                     |
|----------------|---------------------------------|
| EthernetUpdate | updates the ethernet connection |

  

|                    |                  |
|--------------------|------------------|
| Communication Name | mEthUpdt         |
| Sopas Index        | 66               |
| Invocation Access  | AuthorizedClient |

#### Method Telegram Syntax

| Method Invocation: |          |        |               |                                 |
|--------------------|----------|--------|---------------|---------------------------------|
| sMN mEthUpdt       |          |        |               |                                 |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                     |
| Command Type       | sMN      | String | 3             | Request (SOPAS Method by Name)  |
| Command            | mEthUpdt | String | 8             | updates the ethernet connection |

  

| Method Return Value: |          |        |               |                                 |
|----------------------|----------|--------|---------------|---------------------------------|
| sAN mEthUpdt         |          |        |               |                                 |
| Telegram Part        | Telegram | Type   | Length [Byte] | Description                     |
| Command Type         | sAN      | String | 3             | Result (SOPAS Method Result)    |
| Command              | mEthUpdt | String | 8             | updates the ethernet connection |



## Method Telegram Examples

| Example: Default Values   |                        |
|---|------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                        |
| Method Invocation:  | [STX]sMN mEthUpdt[ETX] |
| Method Return Value:  | [STX]sAN mEthUpdt[ETX] |



## 2.11.2. Group: FTPServer

### 2.11.2.1. Variable: FTPSrvEnabled

The following section contains a detailed description of the variable FTPSrvEnabled.

#### Variable Overview

| Variable Name | Description                       |
|---------------|-----------------------------------|
| FTPSrvEnabled | Enables / disables the FTP server |

|                       |   |
|-----------------------|---|
| Communication Name    | FTPSEnable  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 475   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                                   |
|----------------|------------|--------|---------------|-----------------------------------|
| sRN FTPSEnable |            |        |               |                                   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                       |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name       |
| Command        | FTPSEnable | String | 10            | Enables / disables the FTP server |

| Read Variable Response: |            |        |               |                                   |
|-------------------------|------------|--------|---------------|-----------------------------------|
| sRA FTPSEnable <data>   |            |        |               |                                   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                       |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | FTPSEnable | String | 10            | Enables / disables the FTP server |
| Variable Data           | data       | Bool   | 1             |                                   |

| Write Variable:       |            |        |               |                                   |
|-----------------------|------------|--------|---------------|-----------------------------------|
| sWN FTPSEnable <data> |            |        |               |                                   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                       |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name      |
| Command               | FTPSEnable | String | 10            | Enables / disables the FTP server |
| Variable Data         | data       | Bool   | 1             |                                   |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA FTPSEnable           |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |            |        |               |                                   |
|--------------------------|------------|--------|---------------|-----------------------------------|
| sWA FTPSEnable           |            |        |               |                                   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                       |
| Command                  | FTPSEnable | String | 10            | Enables / disables the FTP server |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN FTPSEnable[ETX]   |
| Read Variable Response:                                     | [STX]sRA FTPSEnable 0[ETX] |
| Write Variable:   | [STX]sWN FTPSEnable 0[ETX] |
| Write Variable Response:                                    | [STX]sWA FTPSEnable[ETX]   |

### 2.11.2.2. Variable: FTPSrvUsrPassword

The following section contains a detailed description of the variable FTPSrvUsrPassword.

#### Variable Overview

| Variable Name     | Description                 |
|-------------------|-----------------------------|
| FTPSrvUsrPassword | Password of FTP server user |

|                       |   |
|-----------------------|---|
| Communication Name    | FTPSUsrPasWd  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 476   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |           |
|----------------|-----------|
| Length         | 0..20     |
| Initialisation | anonymous |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |                             |
|------------------|--------------|--------|---------------|-----------------------------|
| sRN FTPSUsrPasWd |              |        |               |                             |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                 |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name |
| Command          | FTPSUsrPasWd | String | 12            | Password of FTP server user |

| Read Variable Response: |              |            |               |                                 |
|-------------------------|--------------|------------|---------------|---------------------------------|
| sRA FTPSUsrPasWd <data> |              |            |               |                                 |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                     |
| Command Type            | sRA          | String     | 3             | SOPAS Variable Read Acknowledge |
| Command                 | FTPSUsrPasWd | String     | 12            | Password of FTP server user     |
| Variable Data           | data         | FlexString | 20            |                                 |

| Write Variable:         |              |            |               |                              |
|-------------------------|--------------|------------|---------------|------------------------------|
| sWN FTPSUsrPasWd <data> |              |            |               |                              |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                  |
| Command Type            | sWN          | String     | 3             | Write SOPAS Variable by Name |
| Command                 | FTPSUsrPasWd | String     | 12            | Password of FTP server user  |
| Variable Data           | data         | FlexString | 20            |                              |

| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA FTPSUsrPasWd         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | FTPSUsrPasWd | String | 12            | Password of FTP server user      |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN FTPSUsrPasWd[ETX]              |
| Read Variable Response:                                     | [STX]sRA FTPSUsrPasWd 9 anonymous[ETX]  |
| Write Variable:   | [STX]sWN FTPSUsrPasWd +9 anonymous[ETX] |
| Write Variable Response:                                    | [STX]sWA FTPSUsrPasWd[ETX]              |





### 2.11.2.3. Variable: FTPSrvUserName

The following section contains a detailed description of the variable FTPSrvUserName.

#### Variable Overview

| Variable Name  | Description                 |
|----------------|-----------------------------|
| FTPSrvUserName | Username of FTP server user |

|                       |   |
|-----------------------|---|
| Communication Name    | FTPSUsrNm   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 477   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |           |
|----------------|-----------|
| Length         | 0..20     |
| Initialisation | anonymous |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN FTPSUsrNm  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | FTPSUsrNm | String | 9             | Username of FTP server user |

| Read Variable Response: |           |            |               |                                 |
|-------------------------|-----------|------------|---------------|---------------------------------|
| sRA FTPSUsrNm <data>    |           |            |               |                                 |
| Telegram Part           | Telegram  | Type       | Length [Byte] | Description                     |
| Command Type            | sRA       | String     | 3             | SOPAS Variable Read Acknowledge |
| Command                 | FTPSUsrNm | String     | 9             | Username of FTP server user     |
| Variable Data           | data      | FlexString | 20            |                                 |

| Write Variable:      |           |            |               |                              |
|----------------------|-----------|------------|---------------|------------------------------|
| sWN FTPSUsrNm <data> |           |            |               |                              |
| Telegram Part        | Telegram  | Type       | Length [Byte] | Description                  |
| Command Type         | sWN       | String     | 3             | Write SOPAS Variable by Name |
| Command              | FTPSUsrNm | String     | 9             | Username of FTP server user  |
| Variable Data        | data      | FlexString | 20            |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA FTPSUsrNm            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | FTPSUsrNm | String | 9             | Username of FTP server user      |



## Variable Telegram Examples

| Example: Default Values                                     |                                      |
|---|--------------------------------------|
| Variable telegram examples with data set to default values. |                                      |
| Read Variable:  | [STX]sRN FTPSUsrNm[ETX]              |
| Read Variable Response:                                     | [STX]sRA FTPSUsrNm 9 anonymous[ETX]  |
| Write Variable:   | [STX]sWN FTPSUsrNm +9 anonymous[ETX] |
| Write Variable Response:                                    | [STX]sWA FTPSUsrNm[ETX]              |

### 2.11.2.4. Variable: FTPSrvPort

The following section contains a detailed description of the variable FTPSrvPort.

#### Variable Overview

| Variable Name | Description         |
|---------------|---------------------|
| FTPSrvPort    | Port for FTP server |

|                       |   |
|-----------------------|---|
| Communication Name    | FTPSPort  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 478   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 21       |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN FTPSPort   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | FTPSPort | String | 8             | Port for FTP server         |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA FTPSPort <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | FTPSPort | String | 8             | Port for FTP server             |
| Variable Data           | data     | UInt   | 2             |                                 |



| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN FTPSPort <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | FTPSPort | String | 8             | Port for FTP server          |
| Variable Data       | data     | UInt   | 2             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA FTPSPort             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | FTPSPort | String | 8             | Port for FTP server              |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN FTPSPort[ETX]    |
| Read Variable Response:                                     | [STX]sRA FTPSPort 15[ETX] |
| Write Variable:   | [STX]sWN FTPSPort 15[ETX] |
| Write Variable Response:                                    | [STX]sWA FTPSPort[ETX]    |

### 2.11.2.5. Variable: FTPRootPath

The following section contains a detailed description of the variable FTPRootPath.

#### Variable Overview

| Variable Name | Description              |
|---------------|--------------------------|
| FTPRootPath   | Root path for FTP server |

|                       |   |
|-----------------------|---|
| Communication Name    | FTPSRootPath  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 479   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |              |
|----------------|--------------|
| Length         | 0..100       |
| Initialisation | ram:/FTProot |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |                             |
|------------------|--------------|--------|---------------|-----------------------------|
| sRN FTPSRootPath |              |        |               |                             |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                 |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name |
| Command          | FTPSRootPath | String | 12            | Root path for FTP server    |

| Read Variable Response: |              |            |               |                                 |
|-------------------------|--------------|------------|---------------|---------------------------------|
| sRA FTPSRootPath <data> |              |            |               |                                 |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                     |
| Command Type            | sRA          | String     | 3             | SOPAS Variable Read Acknowledge |
| Command                 | FTPSRootPath | String     | 12            | Root path for FTP server        |
| Variable Data           | data         | FlexString | 100           |                                 |

| Write Variable:         |              |            |               |                              |
|-------------------------|--------------|------------|---------------|------------------------------|
| sWN FTPSRootPath <data> |              |            |               |                              |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                  |
| Command Type            | sWN          | String     | 3             | Write SOPAS Variable by Name |
| Command                 | FTPSRootPath | String     | 12            | Root path for FTP server     |
| Variable Data           | data         | FlexString | 100           |                              |

| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA FTPSRootPath         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | FTPSRootPath | String | 12            | Root path for FTP server         |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN FTPSRootPath[ETX]                  |
| Read Variable Response:                                     | [STX]sRA FTPSRootPath C ram:/FTProot[ETX]   |
| Write Variable:   | [STX]sWN FTPSRootPath +12 ram:/FTProot[ETX] |
| Write Variable Response:                                    | [STX]sWA FTPSRootPath[ETX]                  |



## 2.12. Interface Block: GeneralCfgTrigCtrlBase

### 2.12.1. Group: TrigCtrlBase

#### 2.12.1.1. Variable: TrigControl

The following section contains a detailed description of the variable TrigControl.

#### Variable Overview

| Variable Name | Description                                       |
|---------------|---|
| TrigControl   | Switch wether trigger is time or track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | TCControl   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 480   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_TIME_BASED  |             |
|               | 1     | TX_TRACK_BASED |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN TCControl  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                                       |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                       |
| Command        | TCControl | String | 9             | Switch wether trigger is time or track controlled |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA TCControl <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                                       |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                   |
| Command                 | TCControl | String | 9             | Switch wether trigger is time or track controlled |
| Variable Data           | data      | Enum8  | 1             |   |

| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN TCControl <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                                       |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                      |
| Command              | TCControl | String | 9             | Switch wether trigger is time or track controlled |
| Variable Data        | data      | Enum8  | 1             |   |



| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA TCControl            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                                       |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                  |
| Command                  | TCControl | String | 9             | Switch wether trigger is time or track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN TCControl[ETX]   |
| Read Variable Response:                                     | [STX]sRA TCControl 0[ETX] |
| Write Variable:   | [STX]sWN TCControl 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TCControl[ETX]   |

### 2.12.1.2. Variable: TrigStartDelayTime

The following section contains a detailed description of the variable TrigStartDelayTime.

#### Variable Overview

| Variable Name      | Description                          |
|--------------------|--------------------------------------|
| TrigStartDelayTime | Start delay value if time controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | TCStartDelTm  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 481   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..10000 |
| Initialisation       | 0        |
| Physical Unit        | ms       |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |                                      |
|------------------|--------------|--------|---------------|--------------------------------------|
| sRN TCStartDelTm |              |        |               |                                      |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                          |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name          |
| Command          | TCStartDelTm | String | 12            | Start delay value if time controlled |

| Read Variable Response: |              |        |               |                                      |
|-------------------------|--------------|--------|---------------|--------------------------------------|
| sRA TCStartDelTm <data> |              |        |               |                                      |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                          |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge      |
| Command                 | TCStartDelTm | String | 12            | Start delay value if time controlled |
| Variable Data           | data         | UInt   | 2             |                                      |

| Write Variable:         |              |        |               |                                      |
|-------------------------|--------------|--------|---------------|--------------------------------------|
| sWN TCStartDelTm <data> |              |        |               |                                      |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                          |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name         |
| Command                 | TCStartDelTm | String | 12            | Start delay value if time controlled |
| Variable Data           | data         | UInt   | 2             |                                      |

| Write Variable Response: |              |        |               |                                      |
|--------------------------|--------------|--------|---------------|--------------------------------------|
| sWA TCStartDelTm         |              |        |               |                                      |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                          |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge     |
| Command                  | TCStartDelTm | String | 12            | Start delay value if time controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN TCStartDelTm[ETX]   |
| Read Variable Response:                                     | [STX]sRA TCStartDelTm 0[ETX] |
| Write Variable:   | [STX]sWN TCStartDelTm 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TCStartDelTm[ETX]   |



### 2.12.1.3. Variable: TrigStartDelayTrack

The following section contains a detailed description of the variable TrigStartDelayTrack.

#### Variable Overview

| Variable Name       | Description                           |
|---------------------|---------------------------------------|
| TrigStartDelayTrack | Start delay value if track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | TCStartDelTrk   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 482   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..10000 |
| Initialisation       | 0        |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |                                       |
|-------------------|---------------|--------|---------------|---------------------------------------|
| sRN TCStartDelTrk |               |        |               |                                       |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name           |
| Command           | TCStartDelTrk | String | 13            | Start delay value if track controlled |

| Read Variable Response:  |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sRA TCStartDelTrk <data> |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                  | TCStartDelTrk | String | 13            | Start delay value if track controlled |
| Variable Data            | data          | UInt   | 2             |                                       |

| Write Variable:          |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sWN TCStartDelTrk <data> |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name          |
| Command                  | TCStartDelTrk | String | 13            | Start delay value if track controlled |
| Variable Data            | data          | UInt   | 2             |                                       |

| Write Variable Response: |               |        |               |                                       |
|--------------------------|---------------|--------|---------------|---------------------------------------|
| sWA TCStartDelTrk        |               |        |               |                                       |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                           |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | TCStartDelTrk | String | 13            | Start delay value if track controlled |





## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN TCStartDelTrk[ETX]   |
| Read Variable Response:                                     | [STX]sRA TCStartDelTrk 0[ETX] |
| Write Variable:   | [STX]sWN TCStartDelTrk 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TCStartDelTrk[ETX]   |

### 2.12.1.4. Variable: TrigStopTimerTime

The following section contains a detailed description of the variable TrigStopTimerTime.

#### Variable Overview

| Variable Name     | Description                         |
|-------------------|-------------------------------------|
| TrigStopTimerTime | Stop timer value if time controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | TCStopTimerTm   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 483   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 1..50000 |
| Initialisation       | 1000     |
| Physical Unit        | ms       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |                                     |
|-------------------|---------------|--------|---------------|-------------------------------------|
| sRN TCStopTimerTm |               |        |               |                                     |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                         |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name         |
| Command           | TCStopTimerTm | String | 13            | Stop timer value if time controlled |

| Read Variable Response:  |               |        |               |                                     |
|--------------------------|---------------|--------|---------------|-------------------------------------|
| sRA TCStopTimerTm <data> |               |        |               |                                     |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                         |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                  | TCStopTimerTm | String | 13            | Stop timer value if time controlled |
| Variable Data            | data          | UInt   | 2             |                                     |



| Write Variable:          |               |        |               |                                     |
|--------------------------|---------------|--------|---------------|-------------------------------------|
| sWN TCStopTimerTm <data> |               |        |               |                                     |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                         |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name        |
| Command                  | TCStopTimerTm | String | 13            | Stop timer value if time controlled |
| Variable Data            | data          | UInt   | 2             |                                     |

| Write Variable Response: |               |        |               |                                     |
|--------------------------|---------------|--------|---------------|-------------------------------------|
| sWA TCStopTimerTm        |               |        |               |                                     |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                         |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | TCStopTimerTm | String | 13            | Stop timer value if time controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN TCStopTimerTm[ETX]     |
| Read Variable Response:                                     | [STX]sRA TCStopTimerTm 3E8[ETX] |
| Write Variable:   | [STX]sWN TCStopTimerTm 3E8[ETX] |
| Write Variable Response:                                    | [STX]sWA TCStopTimerTm[ETX]     |

### 2.12.1.5. Variable: TrigStopTimerTrack

The following section contains a detailed description of the variable TrigStopTimerTrack.

#### Variable Overview

| Variable Name      | Description                          |
|--------------------|--------------------------------------|
| TrigStopTimerTrack | Stop timer value if track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | TCStopTimerTrk  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 484   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 1..50000 |
| Initialisation       | 1000     |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |                                      |
|--------------------|----------------|--------|---------------|--------------------------------------|
| sRN TCStopTimerTrk |                |        |               |                                      |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                          |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name          |
| Command            | TCStopTimerTrk | String | 14            | Stop timer value if track controlled |

| Read Variable Response:   |                |        |               |                                      |
|---------------------------|----------------|--------|---------------|--------------------------------------|
| sRA TCStopTimerTrk <data> |                |        |               |                                      |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                          |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge      |
| Command                   | TCStopTimerTrk | String | 14            | Stop timer value if track controlled |
| Variable Data             | data           | UInt   | 2             |                                      |

| Write Variable:           |                |        |               |                                      |
|---------------------------|----------------|--------|---------------|--------------------------------------|
| sWN TCStopTimerTrk <data> |                |        |               |                                      |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                          |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name         |
| Command                   | TCStopTimerTrk | String | 14            | Stop timer value if track controlled |
| Variable Data             | data           | UInt   | 2             |                                      |

| Write Variable Response: |                |        |               |                                      |
|--------------------------|----------------|--------|---------------|--------------------------------------|
| sWA TCStopTimerTrk       |                |        |               |                                      |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                          |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge     |
| Command                  | TCStopTimerTrk | String | 14            | Stop timer value if track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN TCStopTimerTrk[ETX]     |
| Read Variable Response:                                     | [STX]sRA TCStopTimerTrk 3E8[ETX] |
| Write Variable:   | [STX]sWN TCStopTimerTrk 3E8[ETX] |
| Write Variable Response:                                    | [STX]sWA TCStopTimerTrk[ETX]     |

### 2.12.1.6. Variable: TrigStopDelayTime

The following section contains a detailed description of the variable TrigStopDelayTime.

#### Variable Overview

| Variable Name     | Description                         |
|-------------------|-------------------------------------|
| TrigStopDelayTime | Stop delay value if time controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | TCStopDelTm   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 485   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..10000 |
| Initialisation       | 0        |
| Physical Unit        | ms       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                                     |
|-----------------|-------------|--------|---------------|-------------------------------------|
| sRN TCStopDelTm |             |        |               |                                     |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                         |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name         |
| Command         | TCStopDelTm | String | 11            | Stop delay value if time controlled |

| Read Variable Response: |             |        |               |                                     |
|-------------------------|-------------|--------|---------------|-------------------------------------|
| sRA TCStopDelTm <data>  |             |        |               |                                     |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                         |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | TCStopDelTm | String | 11            | Stop delay value if time controlled |
| Variable Data           | data        | UInt   | 2             |                                     |

| Write Variable:        |             |        |               |                                     |
|------------------------|-------------|--------|---------------|-------------------------------------|
| sWN TCStopDelTm <data> |             |        |               |                                     |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                         |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name        |
| Command                | TCStopDelTm | String | 11            | Stop delay value if time controlled |
| Variable Data          | data        | UInt   | 2             |                                     |

| Write Variable Response: |             |        |               |                                     |
|--------------------------|-------------|--------|---------------|-------------------------------------|
| sWA TCStopDelTm          |             |        |               |                                     |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                         |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | TCStopDelTm | String | 11            | Stop delay value if time controlled |



## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN TCStopDelTm[ETX]   |
| Read Variable Response:                                     | [STX]sRA TCStopDelTm 0[ETX] |
| Write Variable:   | [STX]sWN TCStopDelTm 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TCStopDelTm[ETX]   |

### 2.12.1.7. Variable: TrigStopDelayTrack

The following section contains a detailed description of the variable TrigStopDelayTrack.

#### Variable Overview

| Variable Name      | Description                          |
|--------------------|--------------------------------------|
| TrigStopDelayTrack | Stop delay value if track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | TCStopDelTrk  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 486   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..10000 |
| Initialisation       | 0        |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |                                      |
|------------------|--------------|--------|---------------|--------------------------------------|
| sRN TCStopDelTrk |              |        |               |                                      |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                          |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name          |
| Command          | TCStopDelTrk | String | 12            | Stop delay value if track controlled |

| Read Variable Response: |              |        |               |                                      |
|-------------------------|--------------|--------|---------------|--------------------------------------|
| sRA TCStopDelTrk <data> |              |        |               |                                      |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                          |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge      |
| Command                 | TCStopDelTrk | String | 12            | Stop delay value if track controlled |
| Variable Data           | data         | UInt   | 2             |                                      |



| Write Variable:         |              |        |               |                                      |
|-------------------------|--------------|--------|---------------|--------------------------------------|
| sWN TCStopDelTrk <data> |              |        |               |                                      |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                          |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name         |
| Command                 | TCStopDelTrk | String | 12            | Stop delay value if track controlled |
| Variable Data           | data         | UInt   | 2             |                                      |

| Write Variable Response: |              |        |               |                                      |
|--------------------------|--------------|--------|---------------|--------------------------------------|
| sWA TCStopDelTrk         |              |        |               |                                      |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                          |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge     |
| Command                  | TCStopDelTrk | String | 12            | Stop delay value if track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN TCStopDelTrk[ETX]   |
| Read Variable Response:                                     | [STX]sRA TCStopDelTrk 0[ETX] |
| Write Variable:   | [STX]sWN TCStopDelTrk 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TCStopDelTrk[ETX]   |

### 2.12.1.8. Variable: TrigAutoCyclePulseTime

The following section contains a detailed description of the variable TrigAutoCyclePulseTime.

#### Variable Overview

| Variable Name          | Description   |
|------------------------|---|
| TrigAutoCyclePulseTime | Duration of Pulse if autocycle mode and time controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | TCacPlsTm   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 487   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |           |
|----------------------|-----------|
| Value Range          | 50..10000 |
| Initialisation       | 1000      |
| Physical Unit        | ms        |
| Physical Unit Factor | 0.0       |



## Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN TCacPlsTm  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                             |
| Command        | TCacPlsTm | String | 9             | Duration of Pulse if autocyple mode and time controlled |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA TCacPlsTm <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description   |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                         |
| Command                 | TCacPlsTm | String | 9             | Duration of Pulse if autocyple mode and time controlled |
| Variable Data           | data      | UInt   | 2             |   |

| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN TCacPlsTm <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description   |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                            |
| Command              | TCacPlsTm | String | 9             | Duration of Pulse if autocyple mode and time controlled |
| Variable Data        | data      | UInt   | 2             |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA TCacPlsTm            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                        |
| Command                  | TCacPlsTm | String | 9             | Duration of Pulse if autocyple mode and time controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN TCacPlsTm[ETX]     |
| Read Variable Response:                                     | [STX]sRA TCacPlsTm 3E8[ETX] |
| Write Variable:   | [STX]sWN TCacPlsTm 3E8[ETX] |
| Write Variable Response:                                    | [STX]sWA TCacPlsTm[ETX]     |



### 2.12.1.9. Variable: TrigAutoCyclePauseTime

The following section contains a detailed description of the variable TrigAutoCyclePauseTime.

#### Variable Overview

| Variable Name          | Description  |
|------------------------|--|
| TrigAutoCyclePauseTime | Duration of Pause if autcycle mode and time controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | TCacPauTm   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 488   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |           |
|----------------------|-----------|
| Value Range          | 50..10000 |
| Initialisation       | 1000      |
| Physical Unit        | ms        |
| Physical Unit Factor | 0.0       |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN TCacPauTm  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                            |
| Command        | TCacPauTm | String | 9             | Duration of Pause if autcycle mode and time controlled |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA TCacPauTm <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description  |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                        |
| Command                 | TCacPauTm | String | 9             | Duration of Pause if autcycle mode and time controlled |
| Variable Data           | data      | UInt   | 2             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN TCacPauTm <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                           |
| Command              | TCacPauTm | String | 9             | Duration of Pause if autcycle mode and time controlled |
| Variable Data        | data      | UInt   | 2             |  |





| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA TCacPauTm            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                        |
| Command                  | TCacPauTm | String | 9             | Duration of Pause if autocycle mode and time controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN TCacPauTm[ETX]     |
| Read Variable Response:                                     | [STX]sRA TCacPauTm 3E8[ETX] |
| Write Variable:   | [STX]sWN TCacPauTm 3E8[ETX] |
| Write Variable Response:                                    | [STX]sWA TCacPauTm[ETX]     |

### 2.12.1.10. Variable: TrigAutoCyclePulseTrack

The following section contains a detailed description of the variable TrigAutoCyclePulseTrack.

#### Variable Overview

| Variable Name           | Description  |
|-------------------------|--|
| TrigAutoCyclePulseTrack | Duration of Pulse if autocycle mode and track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | TCacPlsTrk  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 489   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |           |
|----------------------|-----------|
| Value Range          | 50..10000 |
| Initialisation       | 1000      |
| Physical Unit        | mm        |
| Physical Unit Factor | 0.0       |



## Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN TCacPlsTrk |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description  |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                              |
| Command        | TCacPlsTrk | String | 10            | Duration of Pulse if autocyple mode and track controlled |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA TCacPlsTrk <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description  |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                          |
| Command                 | TCacPlsTrk | String | 10            | Duration of Pulse if autocyple mode and track controlled |
| Variable Data           | data       | UInt   | 2             |  |

| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN TCacPlsTrk <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                             |
| Command               | TCacPlsTrk | String | 10            | Duration of Pulse if autocyple mode and track controlled |
| Variable Data         | data       | UInt   | 2             |  |

| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA TCacPlsTrk           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description  |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                         |
| Command                  | TCacPlsTrk | String | 10            | Duration of Pulse if autocyple mode and track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN TCacPlsTrk[ETX]     |
| Read Variable Response:                                     | [STX]sRA TCacPlsTrk 3E8[ETX] |
| Write Variable:   | [STX]sWN TCacPlsTrk 3E8[ETX] |
| Write Variable Response:                                    | [STX]sWA TCacPlsTrk[ETX]     |



### 2.12.1.11. Variable: TrigAutoCyclePauseTrack

The following section contains a detailed description of the variable TrigAutoCyclePauseTrack.

#### Variable Overview

| Variable Name           | Description  |
|-------------------------|--|
| TrigAutoCyclePauseTrack | Duration of Pause if autocycle mode and track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | TCacPauTrk  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 490   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |           |
|----------------------|-----------|
| Value Range          | 50..10000 |
| Initialisation       | 1000      |
| Physical Unit        | mm        |
| Physical Unit Factor | 0.0       |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN TCacPauTrk |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description  |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                              |
| Command        | TCacPauTrk | String | 10            | Duration of Pause if autocycle mode and track controlled |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA TCacPauTrk <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description  |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                          |
| Command                 | TCacPauTrk | String | 10            | Duration of Pause if autocycle mode and track controlled |
| Variable Data           | data       | UInt   | 2             |  |

| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN TCacPauTrk <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                             |
| Command               | TCacPauTrk | String | 10            | Duration of Pause if autocycle mode and track controlled |
| Variable Data         | data       | UInt   | 2             |  |



| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA TCacPauTrk           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description  |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                         |
| Command                  | TCacPauTrk | String | 10            | Duration of Pause if autocycle mode and track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN TCacPauTrk[ETX]     |
| Read Variable Response:                                     | [STX]sRA TCacPauTrk 3E8[ETX] |
| Write Variable:   | [STX]sWN TCacPauTrk 3E8[ETX] |
| Write Variable Response:                                    | [STX]sWA TCacPauTrk[ETX]     |

### 2.12.1.12. Variable: TrigCANSource

The following section contains a detailed description of the variable TrigCANSource.

#### Variable Overview

| Variable Name | Description                                   |
|---------------|---|
| TrigCANSource | Object trigger distribution source on CAN-Bus |

|                       |   |
|-----------------------|---|
| Communication Name    | TCcantrgsrsc  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 491   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |       |
|----------------------|-------|
| Value Range          | 1..63 |
| Initialisation       | 1     |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN TCcantrgsrc |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                   |
| Command         | TCcantrgsrc | String | 11            | Object trigger distribution source on CAN-Bus |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA TCcantrgsrc <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge               |
| Command                 | TCcantrgsrc | String | 11            | Object trigger distribution source on CAN-Bus |
| Variable Data           | data        | USInt  | 1             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN TCcantrgsrc <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                  |
| Command                | TCcantrgsrc | String | 11            | Object trigger distribution source on CAN-Bus |
| Variable Data          | data        | USInt  | 1             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA TCcantrgsrc          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge              |
| Command                  | TCcantrgsrc | String | 11            | Object trigger distribution source on CAN-Bus |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN TCcantrgsrc[ETX]   |
| Read Variable Response:                                     | [STX]sRA TCcantrgsrc 1[ETX] |
| Write Variable:   | [STX]sWN TCcantrgsrc 1[ETX] |
| Write Variable Response:                                    | [STX]sWA TCcantrgsrc[ETX]   |

### 2.12.1.13. Variable: TrigDistribute

The following section contains a detailed description of the variable TrigDistribute.

#### Variable Overview

| Variable Name  | Description                            |
|----------------|--|
| TrigDistribute | Object trigger distribution on CAN-Bus |

|                       |   |
|-----------------------|---|
| Communication Name    | TCtrgdist   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 492   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_DISABLED |             |
|               | 1     | TX_CAN_1    |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN TCtrgdist  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                            |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name            |
| Command        | TCtrgdist | String | 9             | Object trigger distribution on CAN-Bus |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA TCtrgdist <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                            |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge        |
| Command                 | TCtrgdist | String | 9             | Object trigger distribution on CAN-Bus |
| Variable Data           | data      | Enum8  | 1             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN TCtrgdist <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                            |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name           |
| Command              | TCtrgdist | String | 9             | Object trigger distribution on CAN-Bus |
| Variable Data        | data      | Enum8  | 1             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA TCtrgdist            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                            |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge       |
| Command                  | TCtrgdist | String | 9             | Object trigger distribution on CAN-Bus |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN TCtrgdist[ETX]   |
| Read Variable Response:                                     | [STX]sRA TCtrgdist 0[ETX] |
| Write Variable:   | [STX]sWN TCtrgdist 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TCtrgdist[ETX]   |

### 2.12.1.14. Variable: TrigExpansionTime

The following section contains a detailed description of the variable TrigExpansionTime.

#### Variable Overview

| Variable Name     | Description   |
|-------------------|---|
| TrigExpansionTime | Object trigger expansion behind object if time controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | TCExpansTm  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 493   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |         |
|----------------------|---------|
| Value Range          | 0..3000 |
| Initialisation       | 0       |
| Physical Unit        | ms      |
| Physical Unit Factor | 0.0     |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN TCExpansTm |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description   |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                               |
| Command        | TCExpansTm | String | 10            | Object trigger expansion behind object if time controlled |

| Read Variable Response: |            |        |               |   |
|-------------------------|------------|--------|---------------|---|
| sRA TCExpansTm <data>   |            |        |               |   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description   |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                           |
| Command                 | TCExpansTm | String | 10            | Object trigger expansion behind object if time controlled |
| Variable Data           | data       | UInt   | 2             |   |



| Write Variable:       |            |        |               |   |
|-----------------------|------------|--------|---------------|---|
| sWN TCExpansTm <data> |            |        |               |   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description   |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                              |
| Command               | TCExpansTm | String | 10            | Object trigger expansion behind object if time controlled |
| Variable Data         | data       | UInt   | 2             |   |

| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA TCExpansTm           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description   |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                          |
| Command                  | TCExpansTm | String | 10            | Object trigger expansion behind object if time controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN TCExpansTm[ETX]   |
| Read Variable Response:                                     | [STX]sRA TCExpansTm 0[ETX] |
| Write Variable:   | [STX]sWN TCExpansTm 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TCExpansTm[ETX]   |

### 2.12.1.15. Variable: TrigExpansionTrack

The following section contains a detailed description of the variable TrigExpansionTrack.

#### Variable Overview

| Variable Name      | Description  |
|--------------------|--|
| TrigExpansionTrack | Object trigger expansion behind object if track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | TCExpansTrk   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 494   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..30000 |
| Initialisation       | 50       |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |





## Variable Telegram Syntax

| Read Variable:  |             |        |               |  |
|-----------------|-------------|--------|---------------|--|
| sRN TCExpansTrk |             |        |               |  |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description  |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                                |
| Command         | TCExpansTrk | String | 11            | Object trigger expansion behind object if track controlled |

| Read Variable Response: |             |        |               |  |
|-------------------------|-------------|--------|---------------|--|
| sRA TCExpansTrk <data>  |             |        |               |  |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description  |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge                            |
| Command                 | TCExpansTrk | String | 11            | Object trigger expansion behind object if track controlled |
| Variable Data           | data        | UInt   | 2             |  |

| Write Variable:        |             |        |               |  |
|------------------------|-------------|--------|---------------|--|
| sWN TCExpansTrk <data> |             |        |               |  |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                               |
| Command                | TCExpansTrk | String | 11            | Object trigger expansion behind object if track controlled |
| Variable Data          | data        | UInt   | 2             |  |

| Write Variable Response: |             |        |               |  |
|--------------------------|-------------|--------|---------------|--|
| sWA TCExpansTrk          |             |        |               |  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description  |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge                           |
| Command                  | TCExpansTrk | String | 11            | Object trigger expansion behind object if track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN TCExpansTrk[ETX]    |
| Read Variable Response:                                     | [STX]sRA TCExpansTrk 32[ETX] |
| Write Variable:   | [STX]sWN TCExpansTrk 32[ETX] |
| Write Variable Response:                                    | [STX]sWA TCExpansTrk[ETX]    |

### 2.12.1.16. Variable: TrigPreExpansionTime

The following section contains a detailed description of the variable TrigPreExpansionTime.

#### Variable Overview

| Variable Name        | Description  |
|----------------------|--|
| TrigPreExpansionTime | Object trigger expansion before if time controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | TCExpPreTm  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 495   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |         |
|----------------------|---------|
| Value Range          | 0..3000 |
| Initialisation       | 0       |
| Physical Unit        | ms      |
| Physical Unit Factor | 0.0     |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN TCExpPreTm |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description  |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                        |
| Command        | TCExpPreTm | String | 10            | Object trigger expansion before if time controlled |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA TCExpPreTm <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description  |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                    |
| Command                 | TCExpPreTm | String | 10            | Object trigger expansion before if time controlled |
| Variable Data           | data       | UInt   | 2             |  |

| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN TCExpPreTm <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                       |
| Command               | TCExpPreTm | String | 10            | Object trigger expansion before if time controlled |
| Variable Data         | data       | UInt   | 2             |  |

| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA TCExpPreTm           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description  |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                   |
| Command                  | TCExpPreTm | String | 10            | Object trigger expansion before if time controlled |



## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| <b>Read Variable:</b>                                       | [STX]sRN TCExpPreTrk[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA TCExpPreTrk 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN TCExpPreTrk 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA TCExpPreTrk[ETX]   |

### 2.12.1.17. Variable: TrigPreExpansionTrack

The following section contains a detailed description of the variable TrigPreExpansionTrack.

#### Variable Overview

| Variable Name         | Description   |
|-----------------------|---|
| TrigPreExpansionTrack | Object trigger expansion before if track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | TCExpPreTrk   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 496   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..30000 |
| Initialisation       | 50       |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN TCExpPreTrk |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                         |
| Command         | TCExpPreTrk | String | 11            | Object trigger expansion before if track controlled |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA TCExpPreTrk <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description   |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge                     |
| Command                 | TCExpPreTrk | String | 11            | Object trigger expansion before if track controlled |
| Variable Data           | data        | UInt   | 2             |   |



| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN TCExpPreTrk <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                        |
| Command                | TCExpPreTrk | String | 11            | Object trigger expansion before if track controlled |
| Variable Data          | data        | UInt   | 2             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA TCExpPreTrk          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge                    |
| Command                  | TCExpPreTrk | String | 11            | Object trigger expansion before if track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN TCExpPreTrk[ETX]    |
| Read Variable Response:                                     | [STX]sRA TCExpPreTrk 32[ETX] |
| Write Variable:   | [STX]sWN TCExpPreTrk 32[ETX] |
| Write Variable Response:                                    | [STX]sWA TCExpPreTrk[ETX]    |

### 2.12.1.18. Variable: ObjTrigSource

The following section contains a detailed description of the variable ObjTrigSource.

#### Variable Overview

| Variable Name | Description                              |
|---------------|--|
| ObjTrigSource | Defines the source of the object trigger |

|                       |   |
|-----------------------|---|
| Communication Name    | TCObjTrigSrc  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 497   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                    |             |
|---------------|-------|--------------------|-------------|
| Default Value |       | 0                  |             |
|               | Value | Name               | Description |
|               | 0     | TX_CLUSTER_TRIGGER |             |
|               | 1     | TX_POLYGON         |             |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |  |
|------------------|--------------|--------|---------------|--|
| sRN TCObjTrigSrc |              |        |               |  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                              |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name              |
| Command          | TCObjTrigSrc | String | 12            | Defines the source of the object trigger |

| Read Variable Response: |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sRA TCObjTrigSrc <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                              |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge          |
| Command                 | TCObjTrigSrc | String | 12            | Defines the source of the object trigger |
| Variable Data           | data         | Enum8  | 1             |  |

| Write Variable:         |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sWN TCObjTrigSrc <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                              |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name             |
| Command                 | TCObjTrigSrc | String | 12            | Defines the source of the object trigger |
| Variable Data           | data         | Enum8  | 1             |  |

| Write Variable Response: |              |        |               |  |
|--------------------------|--------------|--------|---------------|--|
| sWA TCObjTrigSrc         |              |        |               |  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                              |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | TCObjTrigSrc | String | 12            | Defines the source of the object trigger |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN TCObjTrigSrc[ETX]   |
| Read Variable Response:                                     | [STX]sRA TCObjTrigSrc 0[ETX] |
| Write Variable:   | [STX]sWN TCObjTrigSrc 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TCObjTrigSrc[ETX]   |

### 2.12.1.19. Variable: MaxIndexValue

The following section contains a detailed description of the variable MaxIndexValue.

#### Variable Overview

| Variable Name | Description                                  |
|---------------|--|
| MaxIndexValue | Defines the max. value of the internal index |

|                       |   |
|-----------------------|---|
| Communication Name    | TCMaxIdxVal   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 498   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |               |
|----------------------|---------------|
| Value Range          | 1..2147483647 |
| Initialisation       | 99999999      |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |  |
|-----------------|-------------|--------|---------------|--|
| sRN TCMaxIdxVal |             |        |               |  |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                  |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                  |
| Command         | TCMaxIdxVal | String | 11            | Defines the max. value of the internal index |

| Read Variable Response: |             |        |               |  |
|-------------------------|-------------|--------|---------------|--|
| sRA TCMaxIdxVal <data>  |             |        |               |  |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                  |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge              |
| Command                 | TCMaxIdxVal | String | 11            | Defines the max. value of the internal index |
| Variable Data           | data        | DInt   | 4             |  |

| Write Variable:        |             |        |               |  |
|------------------------|-------------|--------|---------------|--|
| sWN TCMaxIdxVal <data> |             |        |               |  |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                 |
| Command                | TCMaxIdxVal | String | 11            | Defines the max. value of the internal index |
| Variable Data          | data        | DInt   | 4             |  |

| Write Variable Response: |             |        |               |  |
|--------------------------|-------------|--------|---------------|--|
| sWA TCMaxIdxVal          |             |        |               |  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                  |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge             |
| Command                  | TCMaxIdxVal | String | 11            | Defines the max. value of the internal index |



## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| Read Variable:  | [STX]sRN TCMaxIdxVal[ETX]           |
| Read Variable Response:                                     | [STX]sRA TCMaxIdxVal 5F5E0FF[ETX]   |
| Write Variable:   | [STX]sWN TCMaxIdxVal +99999999[ETX] |
| Write Variable Response:                                    | [STX]sWA TCMaxIdxVal[ETX]           |

### 2.12.1.20. Variable: InvalidIndex

The following section contains a detailed description of the variable InvalidIndex.

#### Variable Overview

| Variable Name | Description   |
|---------------|---|
| InvalidIndex  | Defines the invalid index for external index telegram |

|                       |   |
|-----------------------|---|
| Communication Name    | TCInvalidIdx  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 499   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |               |
|----------------------|---------------|
| Value Range          | 0..2147483647 |
| Initialisation       | 9999          |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |   |
|------------------|--------------|--------|---------------|---|
| sRN TCInvalidIdx |              |        |               |   |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description   |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name                           |
| Command          | TCInvalidIdx | String | 12            | Defines the invalid index for external index telegram |

| Read Variable Response: |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sRA TCInvalidIdx <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description   |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge                       |
| Command                 | TCInvalidIdx | String | 12            | Defines the invalid index for external index telegram |
| Variable Data           | data         | DInt   | 4             |   |



| Write Variable:         |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sWN TCInvalidIdx <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description   |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name                          |
| Command                 | TCInvalidIdx | String | 12            | Defines the invalid index for external index telegram |
| Variable Data           | data         | DInt   | 4             |   |

| Write Variable Response: |              |        |               |   |
|--------------------------|--------------|--------|---------------|---|
| sWA TCInvalidIdx         |              |        |               |   |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description   |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge                      |
| Command                  | TCInvalidIdx | String | 12            | Defines the invalid index for external index telegram |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN TCInvalidIdx[ETX]       |
| Read Variable Response:                                     | [STX]sRA TCInvalidIdx 270F[ETX]  |
| Write Variable:   | [STX]sWN TCInvalidIdx +9999[ETX] |
| Write Variable Response:                                    | [STX]sWA TCInvalidIdx[ETX]       |

### 2.12.1.21. Method: ReadingGateOn

The following section contains a detailed description of the method ReadingGateOn.

#### Method Overview

| Method Name   | Description                           |
|---------------|---------------------------------------|
| ReadingGateOn | starts a reading gate if parametrized |

|                    |           |
|--------------------|-----------|
| Communication Name | mTCgateon |
| Sopas Index        | 67        |
| Invocation Access  | Always    |

| Return Values |                |
|---------------|----------------|
| Success       |                |
| <b>Bool</b>   |                |
|               | Value Range    |
|               | Initialisation |
|               | False, True    |
|               | False          |





## Method Telegram Syntax

| Method Invocation: |           |        |               |                                       |
|--------------------|-----------|--------|---------------|---------------------------------------|
| sMN mTCgateon      |           |        |               |                                       |
| Telegram Part      | Telegram  | Type   | Length [Byte] | Description                           |
| Command Type       | sMN       | String | 3             | Request (SOPAS Method by Name)        |
| Command            | mTCgateon | String | 9             | starts a reading gate if parametrized |

| Method Return Value:    |           |        |               |                                       |
|-------------------------|-----------|--------|---------------|---------------------------------------|
| sAN mTCgateon <Success> |           |        |               |                                       |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                           |
| Command Type            | sAN       | String | 3             | Result (SOPAS Method Result)          |
| Command                 | mTCgateon | String | 9             | starts a reading gate if parametrized |
| Return Value 1          | Success   | Bool   | 1             |                                       |

## Method Telegram Examples

| Example: Default Values   |                           |
|---|---------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                           |
| Method Invocation:  | [STX]sMN mTCgateon[ETX]   |
| Method Return Value:  | [STX]sAN mTCgateon 0[ETX] |

### 2.12.1.22. Method: ReadingGateOff

The following section contains a detailed description of the method ReadingGateOff.

#### Method Overview

| Method Name    | Description                          |
|----------------|--------------------------------------|
| ReadingGateOff | stops a reading gate if parametrized |

|                    |            |
|--------------------|------------|
| Communication Name | mTCgateoff |
| Sopas Index        | 68         |
| Invocation Access  | Always     |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |



## Method Telegram Syntax

| Method Invocation: |            |        |               |                                      |
|--------------------|------------|--------|---------------|--------------------------------------|
| sMN mTCgateoff     |            |        |               |                                      |
| Telegram Part      | Telegram   | Type   | Length [Byte] | Description                          |
| Command Type       | sMN        | String | 3             | Request (SOPAS Method by Name)       |
| Command            | mTCgateoff | String | 10            | stops a reading gate if parametrized |

| Method Return Value:     |            |        |               |                                      |
|--------------------------|------------|--------|---------------|--------------------------------------|
| sAN mTCgateoff <Success> |            |        |               |                                      |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                          |
| Command Type             | sAN        | String | 3             | Result (SOPAS Method Result)         |
| Command                  | mTCgateoff | String | 10            | stops a reading gate if parametrized |
| Return Value 1           | Success    | Bool   | 1             |                                      |

## Method Telegram Examples

| Example: Default Values   |                            |
|---|----------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                            |
| Method Invocation:  | [STX]sMN mTCgateoff[ETX]   |
| Method Return Value:  | [STX]sAN mTCgateoff 0[ETX] |

### 2.12.1.23. Method: ReadingGateOnDiag

The following section contains a detailed description of the method ReadingGateOnDiag.

#### Method Overview

| Method Name       | Description                  |
|-------------------|------------------------------|
| ReadingGateOnDiag | starts a reading gate always |

|                    |              |
|--------------------|--------------|
| Communication Name | mTCgateondia |
| Sopas Index        | 69           |
| Invocation Access  | Always       |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |



## Method Telegram Syntax

| Method Invocation: |              |        |               |                                |
|--------------------|--------------|--------|---------------|--------------------------------|
| sMN mTCgateondia   |              |        |               |                                |
| Telegram Part      | Telegram     | Type   | Length [Byte] | Description                    |
| Command Type       | sMN          | String | 3             | Request (SOPAS Method by Name) |
| Command            | mTCgateondia | String | 13            | starts a reading gate always   |

| Method Return Value:       |              |        |               |                              |
|----------------------------|--------------|--------|---------------|------------------------------|
| sAN mTCgateondia <Success> |              |        |               |                              |
| Telegram Part              | Telegram     | Type   | Length [Byte] | Description                  |
| Command Type               | sAN          | String | 3             | Result (SOPAS Method Result) |
| Command                    | mTCgateondia | String | 13            | starts a reading gate always |
| Return Value 1             | Success      | Bool   | 1             |                              |

## Method Telegram Examples

| Example: Default Values   |                              |
|---|------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                              |
| Method Invocation:  | [STX]sMN mTCgateondia[ETX]   |
| Method Return Value:  | [STX]sAN mTCgateondia 0[ETX] |

### 2.12.1.24. Method: ReadingGateOffDia

The following section contains a detailed description of the method ReadingGateOffDia.

#### Method Overview

| Method Name       | Description                 |
|-------------------|-----------------------------|
| ReadingGateOffDia | stops a reading gate always |

|                    |               |
|--------------------|---------------|
| Communication Name | mTCgateoffdia |
| Sopas Index        | 70            |
| Invocation Access  | Always        |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |



## Method Telegram Syntax

| Method Invocation: |                |        |               |                                |
|--------------------|----------------|--------|---------------|--------------------------------|
| sMN mTCgateoffdiag |                |        |               |                                |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                    |
| Command Type       | sMN            | String | 3             | Request (SOPAS Method by Name) |
| Command            | mTCgateoffdiag | String | 14            | stops a reading gate always    |

| Method Return Value:         |                |        |               |                              |
|------------------------------|----------------|--------|---------------|------------------------------|
| sAN mTCgateoffdiag <Success> |                |        |               |                              |
| Telegram Part                | Telegram       | Type   | Length [Byte] | Description                  |
| Command Type                 | sAN            | String | 3             | Result (SOPAS Method Result) |
| Command                      | mTCgateoffdiag | String | 14            | stops a reading gate always  |
| Return Value 1               | Success        | Bool   | 1             |                              |

## Method Telegram Examples

| Example: Default Values   |                                |
|---|--------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                |
| Method Invocation:  | [STX]sMN mTCgateoffdiag[ETX]   |
| Method Return Value:  | [STX]sAN mTCgateoffdiag 0[ETX] |

### 2.12.1.25. Method: DoDiagReading

The following section contains a detailed description of the method DoDiagReading.

#### Method Overview

| Method Name   | Description   |
|---------------|---|
| DoDiagReading | starts the diagnostic reading for the number of reading gates |

|                    |               |
|--------------------|---------------|
| Communication Name | mTCdodiagread |
| Sopas Index        | 71            |
| Invocation Access  | Always        |

| Parameters           |           |
|----------------------|-----------|
| NbrReadingGates      |           |
| UDInt                |           |
| Value Range          | 1..100000 |
| Initialisation       | 100       |
| Physical Unit        |           |
| Physical Unit Factor | 0.0       |



| Parameters           |           |
|----------------------|-----------|
| Timeout              |           |
| <b>UDInt</b>         |           |
| Value Range          | 1..100000 |
| Initialisation       | 10        |
| Physical Unit        | s         |
| Physical Unit Factor | 0.0       |

## Method Telegram Syntax

| Method Invocation:                            |                 |        |               |   |
|---|-----------------|--------|---------------|---|
| sMN mTCdodiagread <NbrReadingGates> <Timeout> |                 |        |               |   |
| Telegram Part                                 | Telegram        | Type   | Length [Byte] | Description   |
| Command Type                                  | sMN             | String | 3             | Request (SOPAS Method by Name)                                |
| Command                                       | mTCdodiagread   | String | 13            | starts the diagnostic reading for the number of reading gates |
| Parameter 1                                   | NbrReadingGates | UDInt  | 4             |   |
| Parameter 2                                   | Timeout         | UDInt  | 4             |   |

| Method Return Value: |               |        |               |   |
|----------------------|---------------|--------|---------------|---|
| sAN mTCdodiagread    |               |        |               |   |
| Telegram Part        | Telegram      | Type   | Length [Byte] | Description   |
| Command Type         | sAN           | String | 3             | Result (SOPAS Method Result)                                  |
| Command              | mTCdodiagread | String | 13            | starts the diagnostic reading for the number of reading gates |

## Method Telegram Examples

| Example: Default Values   |                                  |
|---|----------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                  |
| Method Invocation:  | [STX]sMN mTCdodiagread 64 A[ETX] |
| Method Return Value:  | [STX]sAN mTCdodiagread[ETX]      |

## 2.12.1.26. Method: StartDiagReading

The following section contains a detailed description of the method StartDiagReading.

### Method Overview

| Method Name      | Description  |
|------------------|--|
| StartDiagReading | starts the diagnostic reading for the number of reading gates and restarts immediately the diagnostic reading, until the EndDiagReading method is called |

|                    |                  |
|--------------------|------------------|
| Communication Name | mTCstartdiagread |
| Sopas Index        | 72               |
| Invocation Access  | Always           |

| Parameters           |           |
|----------------------|-----------|
| NbrReadingGates      |           |
| UDInt                |           |
| Value Range          | 1..100000 |
| Initialisation       | 100       |
| Physical Unit        |           |
| Physical Unit Factor | 0.0       |

### Method Telegram Syntax

| Method Invocation:                     |                  |        |               |  |
|--|------------------|--------|---------------|--|
| sMN mTCstartdiagread <NbrReadingGates> |                  |        |               |  |
| Telegram Part                          | Telegram         | Type   | Length [Byte] | Description  |
| Command Type                           | sMN              | String | 3             | Request (SOPAS Method by Name)   |
| Command                                | mTCstartdiagread | String | 16            | starts the diagnostic reading for the number of reading gates and restarts immediately the diagnostic reading, until the EndDiagReading method is called |
| Parameter 1                            | NbrReadingGates  | UDInt  | 4             |  |

| Method Return Value: |                  |        |               |  |
|----------------------|------------------|--------|---------------|--|
| sAN mTCstartdiagread |                  |        |               |  |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description  |
| Command Type         | sAN              | String | 3             | Result (SOPAS Method Result)   |
| Command              | mTCstartdiagread | String | 16            | starts the diagnostic reading for the number of reading gates and restarts immediately the diagnostic reading, until the EndDiagReading method is called |



## Method Telegram Examples

| Example: Default Values   |                                   |
|---|-----------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                   |
| Method Invocation:  | [STX]sMN mTCstartdiagread 64[ETX] |
| Method Return Value:  | [STX]sAN mTCstartdiagread[ETX]    |

### 2.12.1.27. Method: EndDiagReading

The following section contains a detailed description of the method EndDiagReading.

#### Method Overview

| Method Name    | Description                     |
|----------------|---------------------------------|
| EndDiagReading | finishes the diagnostic reading |

  

|                    |                |
|--------------------|----------------|
| Communication Name | mTCenddiagread |
| Sopas Index        | 73             |
| Invocation Access  | Always         |

#### Method Telegram Syntax

| Method Invocation: |                |        |               |                                 |
|--------------------|----------------|--------|---------------|---------------------------------|
| sMN mTCenddiagread |                |        |               |                                 |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                     |
| Command Type       | sMN            | String | 3             | Request (SOPAS Method by Name)  |
| Command            | mTCenddiagread | String | 14            | finishes the diagnostic reading |

  

| Method Return Value: |                |        |               |                                 |
|----------------------|----------------|--------|---------------|---------------------------------|
| sAN mTCenddiagread   |                |        |               |                                 |
| Telegram Part        | Telegram       | Type   | Length [Byte] | Description                     |
| Command Type         | sAN            | String | 3             | Result (SOPAS Method Result)    |
| Command              | mTCenddiagread | String | 14            | finishes the diagnostic reading |

## Method Telegram Examples

| Example: Default Values   |                              |
|---|------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                              |
| Method Invocation:  | [STX]sMN mTCenddiagread[ETX] |
| Method Return Value:  | [STX]sAN mTCenddiagread[ETX] |

## 2.13. Interface Block: GeneralCfgFileSystemBase

### 2.13.1. Group: FileSystemBase

#### 2.13.1.1. Method: CreateFSInfo

The following section contains a detailed description of the method CreateFSInfo.

##### Method Overview

| Method Name  | Description          |
|--------------|----------------------|
| CreateFSInfo | Creates the XML file |

|                    |             |
|--------------------|-------------|
| Communication Name | mFSCrtFSnfo |
| Sopas Index        | 74          |
| Invocation Access  | Always      |

| Return Values        |               |
|----------------------|---------------|
| FileHandle           |               |
| UDInt                |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |
| Size                 |               |
| UDInt                |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

##### Method Telegram Syntax

| Method Invocation: |             |        |               |                                |
|--------------------|-------------|--------|---------------|--------------------------------|
| sMN mFSCrtFSnfo    |             |        |               |                                |
| Telegram Part      | Telegram    | Type   | Length [Byte] | Description                    |
| Command Type       | sMN         | String | 3             | Request (SOPAS Method by Name) |
| Command            | mFSCrtFSnfo | String | 11            | Creates the XML file           |

| Method Response: |             |        |               |                                     |
|------------------|-------------|--------|---------------|-------------------------------------|
| sMA mFSCrtFSnfo  |             |        |               |                                     |
| Telegram Part    | Telegram    | Type   | Length [Byte] | Description                         |
| Command Type     | sMA         | String | 3             | Response (SOPAS Method Acknowledge) |
| Command          | mFSCrtFSnfo | String | 11            | Creates the XML file                |





| Method Return Value:                |             |        |               |                              |
|-------------------------------------|-------------|--------|---------------|------------------------------|
| sAN mFSCrtFSnfo <FileHandle> <Size> |             |        |               |                              |
| Telegram Part                       | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type                        | sAN         | String | 3             | Result (SOPAS Method Result) |
| Command                             | mFSCrtFSnfo | String | 11            | Creates the XML file         |
| Return Value 1                      | FileHandle  | UDInt  | 4             |                              |
| Return Value 2                      | Size        | UDInt  | 4             |                              |

## Method Telegram Examples

| Example: Default Values   |                               |
|---|-------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                               |
| Method Invocation:  | [STX]sMN mFSCrtFSnfo[ETX]     |
| Method Response:  | [STX]sMA mFSCrtFSnfo[ETX]     |
| Method Return Value:  | [STX]sAN mFSCrtFSnfo 0 0[ETX] |

### 2.13.1.2. Method: GetFSInfo

The following section contains a detailed description of the method GetFSInfo.

#### Method Overview

| Method Name | Description                                       |
|-------------|---|
| GetFSInfo   | get the xml file created by method "CreateFSInfo" |

|                    |             |
|--------------------|-------------|
| Communication Name | mFSGetFSnfo |
| Sopas Index        | 75          |
| Invocation Access  | Always      |

| Parameters |                           |
|------------|---------------------------|
| FileHandle |                           |
|            | <b>UDInt</b>              |
|            | Value Range 0..4294967295 |
|            | Initialisation            |
|            | Physical Unit             |
|            | Physical Unit Factor 0.0  |

| Return Values |                          |
|---------------|--------------------------|
| State         |                          |
|               | <b>UInt</b>              |
|               | Value Range 0..65535     |
|               | Initialisation           |
|               | Physical Unit            |
|               | Physical Unit Factor 0.0 |



| Return Values  |                   |
|----------------|-------------------|
| Data           |                   |
|                |                   |
|                | <b>FlexString</b> |
|                | Length 0..1024    |
| Initialisation |                   |

## Method Telegram Syntax

| Method Invocation:           |             |        |               |   |
|------------------------------|-------------|--------|---------------|---|
| sMN mFSGetFSnfo <FileHandle> |             |        |               |   |
| Telegram Part                | Telegram    | Type   | Length [Byte] | Description                                       |
| Command Type                 | sMN         | String | 3             | Request (SOPAS Method by Name)                    |
| Command                      | mFSGetFSnfo | String | 11            | get the xml file created by method "CreateFSInfo" |
| Parameter 1                  | FileHandle  | UDInt  | 4             |   |

| Method Response: |             |        |               |   |
|------------------|-------------|--------|---------------|---|
| sMA mFSGetFSnfo  |             |        |               |   |
| Telegram Part    | Telegram    | Type   | Length [Byte] | Description                                       |
| Command Type     | sMA         | String | 3             | Response (SOPAS Method Acknowledge)               |
| Command          | mFSGetFSnfo | String | 11            | get the xml file created by method "CreateFSInfo" |

| Method Return Value:           |             |            |               |   |
|--------------------------------|-------------|------------|---------------|---|
| sAN mFSGetFSnfo <State> <Data> |             |            |               |   |
| Telegram Part                  | Telegram    | Type       | Length [Byte] | Description                                       |
| Command Type                   | sAN         | String     | 3             | Result (SOPAS Method Result)                      |
| Command                        | mFSGetFSnfo | String     | 11            | get the xml file created by method "CreateFSInfo" |
| Return Value 1                 | State       | UInt       | 2             |   |
| Return Value 2                 | Data        | FlexString | 1024          |   |

## Method Telegram Examples

| Example: Default Values   |                               |
|---|-------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                               |
| Method Invocation:  | [STX]sMN mFSGetFSnfo 0[ETX]   |
| Method Response:  | [STX]sMA mFSGetFSnfo[ETX]     |
| Method Return Value:  | [STX]sAN mFSGetFSnfo 0 0[ETX] |



### 2.13.1.3. Method: OpenFile

The following section contains a detailed description of the method OpenFile.

#### Method Overview

| Method Name | Description        |
|-------------|--------------------|
| OpenFile    | Open selected file |

|                    |           |
|--------------------|-----------|
| Communication Name | mFSOpFile |
| Sopas Index        | 76        |
| Invocation Access  | Always    |

| Parameters     |        |
|----------------|--------|
| Path           |        |
| FlexString     |        |
| Length         | 0..256 |
| Initialisation |        |
| Mode           |        |
| FlexString     |        |
| Length         | 0..5   |
| Initialisation |        |

| Return Values        |               |
|----------------------|---------------|
| State                |               |
| UInt                 |               |
| Value Range          | 0..65535      |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |
| FileHandle           |               |
| UDInt                |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |



## Method Telegram Syntax

| Method Invocation:          |           |            |               |                                |
|-----------------------------|-----------|------------|---------------|--------------------------------|
| sMN mFSOpFile <Path> <Mode> |           |            |               |                                |
| Telegram Part               | Telegram  | Type       | Length [Byte] | Description                    |
| Command Type                | sMN       | String     | 3             | Request (SOPAS Method by Name) |
| Command                     | mFSOpFile | String     | 9             | Open selected file             |
| Parameter 1                 | Path      | FlexString | 256           |                                |
| Parameter 2                 | Mode      | FlexString | 5             |                                |

| Method Response: |           |        |               |                                     |
|------------------|-----------|--------|---------------|-------------------------------------|
| sMA mFSOpFile    |           |        |               |                                     |
| Telegram Part    | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type     | sMA       | String | 3             | Response (SOPAS Method Acknowledge) |
| Command          | mFSOpFile | String | 9             | Open selected file                  |

| Method Return Value:               |            |        |               |                              |
|------------------------------------|------------|--------|---------------|------------------------------|
| sAN mFSOpFile <State> <FileHandle> |            |        |               |                              |
| Telegram Part                      | Telegram   | Type   | Length [Byte] | Description                  |
| Command Type                       | sAN        | String | 3             | Result (SOPAS Method Result) |
| Command                            | mFSOpFile  | String | 9             | Open selected file           |
| Return Value 1                     | State      | UInt   | 2             |                              |
| Return Value 2                     | FileHandle | UDInt  | 4             |                              |

## Method Telegram Examples

| Example: Default Values   |                                   |
|---|-----------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                   |
| Method Invocation:  | [STX]sMN mFSOpFile +0 0 +0 0[ETX] |
| Method Response:  | [STX]sMA mFSOpFile[ETX]           |
| Method Return Value:  | [STX]sAN mFSOpFile 0 0[ETX]       |



#### 2.13.1.4. Method: CloseFile

The following section contains a detailed description of the method CloseFile.

##### Method Overview

| Method Name | Description         |
|-------------|---------------------|
| CloseFile   | Close selected file |

|                    |           |
|--------------------|-----------|
| Communication Name | mFSClFile |
| Sopas Index        | 77        |
| Invocation Access  | Always    |

| Parameters           |               |
|----------------------|---------------|
| FileHandle           |               |
| <b>UDInt</b>         |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

| Return Values        |          |
|----------------------|----------|
| State                |          |
| <b>UInt</b>          |          |
| Value Range          | 0..65535 |
| Initialisation       |          |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

##### Method Telegram Syntax

| Method Invocation:         |            |        |               |                                |
|----------------------------|------------|--------|---------------|--------------------------------|
| sMN mFSClFile <FileHandle> |            |        |               |                                |
| Telegram Part              | Telegram   | Type   | Length [Byte] | Description                    |
| Command Type               | sMN        | String | 3             | Request (SOPAS Method by Name) |
| Command                    | mFSClFile  | String | 9             | Close selected file            |
| Parameter 1                | FileHandle | UDInt  | 4             |                                |

| Method Response: |           |        |               |                                     |
|------------------|-----------|--------|---------------|-------------------------------------|
| sMA mFSClFile    |           |        |               |                                     |
| Telegram Part    | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type     | sMA       | String | 3             | Response (SOPAS Method Acknowledge) |
| Command          | mFSClFile | String | 9             | Close selected file                 |

| Method Return Value:  |           |        |               |                              |
|-----------------------|-----------|--------|---------------|------------------------------|
| sAN mFSClFile <State> |           |        |               |                              |
| Telegram Part         | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type          | sAN       | String | 3             | Result (SOPAS Method Result) |
| Command               | mFSClFile | String | 9             | Close selected file          |



| Method Return Value:  |          |      |               |             |
|-----------------------|----------|------|---------------|-------------|
| sAN mFSClFile <State> |          |      |               |             |
| Telegram Part         | Telegram | Type | Length [Byte] | Description |
| Return Value 1        | State    | UInt | 2             |             |

## Method Telegram Examples

| Example: Default Values   |                           |
|---|---------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                           |
| Method Invocation:  | [STX]sMN mFSClFile 0[ETX] |
| Method Response:  | [STX]sMA mFSClFile[ETX]   |
| Method Return Value:  | [STX]sAN mFSClFile 0[ETX] |

### 2.13.1.5. Method: DeleteFile

The following section contains a detailed description of the method DeleteFile.

#### Method Overview

| Method Name | Description          |
|-------------|----------------------|
| DeleteFile  | Delete selected file |

|                    |            |
|--------------------|------------|
| Communication Name | mFSDelFile |
| Sopas Index        | 78         |
| Invocation Access  | Always     |

| Parameters    |                      |
|---------------|----------------------|
| FileHandle    |                      |
|               | <b>UInt</b>          |
|               | Value Range          |
|               | 0..4294967295        |
|               | Initialisation       |
|               |                      |
| Physical Unit |                      |
|               | Physical Unit Factor |
|               | 0.0                  |

| Return Values |                      |
|---------------|----------------------|
| State         |                      |
|               | <b>UInt</b>          |
|               | Value Range          |
|               | 0..65535             |
|               | Initialisation       |
|               |                      |
| Physical Unit |                      |
|               | Physical Unit Factor |
|               | 0.0                  |



## Method Telegram Syntax

| Method Invocation:          |            |        |               |                                |
|-----------------------------|------------|--------|---------------|--------------------------------|
| sMN mFSDelFile <FileHandle> |            |        |               |                                |
| Telegram Part               | Telegram   | Type   | Length [Byte] | Description                    |
| Command Type                | sMN        | String | 3             | Request (SOPAS Method by Name) |
| Command                     | mFSDelFile | String | 10            | Delete selected file           |
| Parameter 1                 | FileHandle | UDInt  | 4             |                                |

| Method Response: |            |        |               |                                     |
|------------------|------------|--------|---------------|-------------------------------------|
| sMA mFSDelFile   |            |        |               |                                     |
| Telegram Part    | Telegram   | Type   | Length [Byte] | Description                         |
| Command Type     | sMA        | String | 3             | Response (SOPAS Method Acknowledge) |
| Command          | mFSDelFile | String | 10            | Delete selected file                |

| Method Return Value:   |            |        |               |                              |
|------------------------|------------|--------|---------------|------------------------------|
| sAN mFSDelFile <State> |            |        |               |                              |
| Telegram Part          | Telegram   | Type   | Length [Byte] | Description                  |
| Command Type           | sAN        | String | 3             | Result (SOPAS Method Result) |
| Command                | mFSDelFile | String | 10            | Delete selected file         |
| Return Value 1         | State      | UInt   | 2             |                              |

## Method Telegram Examples

| Example: Default Values   |                            |
|---|----------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                            |
| Method Invocation:  | [STX]sMN mFSDelFile 0[ETX] |
| Method Response:  | [STX]sMA mFSDelFile[ETX]   |
| Method Return Value:  | [STX]sAN mFSDelFile 0[ETX] |

### 2.13.1.6. Method: ReadFile

The following section contains a detailed description of the method ReadFile.

#### Method Overview

| Method Name | Description        |
|-------------|--------------------|
| ReadFile    | Read selected file |

|                    |           |
|--------------------|-----------|
| Communication Name | mFSRdFile |
| Sopas Index        | 79        |
| Invocation Access  | Always    |



| Parameters           |               |
|----------------------|---------------|
| FileHandle           |               |
| <b>UDInt</b>         |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

| Return Values        |               |
|----------------------|---------------|
| State                |               |
| <b>UInt</b>          |               |
| Value Range          | 0..65535      |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |
| Data                 |               |
| <b>FlexString</b>    |               |
| Length               | 0..1024       |
| Initialisation       |               |
| SequenceNumber       |               |
| <b>UDInt</b>         |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

## Method Telegram Syntax

| Method Invocation:         |            |        |               |                                |
|----------------------------|------------|--------|---------------|--------------------------------|
| sMN mFSRdFile <FileHandle> |            |        |               |                                |
| Telegram Part              | Telegram   | Type   | Length [Byte] | Description                    |
| Command Type               | sMN        | String | 3             | Request (SOPAS Method by Name) |
| Command                    | mFSRdFile  | String | 9             | Read selected file             |
| Parameter 1                | FileHandle | UDInt  | 4             |                                |

| Method Response: |           |        |               |                                     |
|------------------|-----------|--------|---------------|-------------------------------------|
| sMA mFSRdFile    |           |        |               |                                     |
| Telegram Part    | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type     | sMA       | String | 3             | Response (SOPAS Method Acknowledge) |
| Command          | mFSRdFile | String | 9             | Read selected file                  |

| Method Return Value:                          |                |            |               |                              |
|---|----------------|------------|---------------|------------------------------|
| sAN mFSRdFile <State> <Data> <SequenceNumber> |                |            |               |                              |
| Telegram Part                                 | Telegram       | Type       | Length [Byte] | Description                  |
| Command Type                                  | sAN            | String     | 3             | Result (SOPAS Method Result) |
| Command                                       | mFSRdFile      | String     | 9             | Read selected file           |
| Return Value 1                                | State          | UInt       | 2             |                              |
| Return Value 2                                | Data           | FlexString | 1024          |                              |
| Return Value 3                                | SequenceNumber | UDInt      | 4             |                              |





## Method Telegram Examples

| Example: Default Values   |                               |
|---|-------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                               |
| Method Invocation:  | [STX]sMN mFSRdFile 0[ETX]     |
| Method Response:  | [STX]sMA mFSRdFile[ETX]       |
| Method Return Value:  | [STX]sAN mFSRdFile 0 0 0[ETX] |

### 2.13.1.7. Method: WriteFile

The following section contains a detailed description of the method WriteFile.

#### Method Overview

| Method Name | Description         |
|-------------|---------------------|
| WriteFile   | Write selected file |

|                    |           |
|--------------------|-----------|
| Communication Name | mFSWrFile |
| Sopas Index        | 80        |
| Invocation Access  | Always    |

| Parameters           |               |
|----------------------|---------------|
| FileHandle           |               |
| UDInt                |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |
| Data                 |               |
| FlexString           |               |
| Length               | 0..1024       |
| Initialisation       |               |
| SequenceNumber       |               |
| UDInt                |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

| Return Values        |          |
|----------------------|----------|
| State                |          |
| UInt                 |          |
| Value Range          | 0..65535 |
| Initialisation       |          |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |



## Method Telegram Syntax

| Method Invocation:                                 |                |            |               |                                |
|--|----------------|------------|---------------|--------------------------------|
| sMN mFSWrFile <FileHandle> <Data> <SequenceNumber> |                |            |               |                                |
| Telegram Part                                      | Telegram       | Type       | Length [Byte] | Description                    |
| Command Type                                       | sMN            | String     | 3             | Request (SOPAS Method by Name) |
| Command  | mFSWrFile      | String     | 9             | Write selected file            |
| Parameter 1  | FileHandle     | UDInt      | 4             |                                |
| Parameter 2  | Data           | FlexString | 1024          |                                |
| Parameter 3  | SequenceNumber | UDInt      | 4             |                                |

| Method Response: |           |        |               |                                     |
|------------------|-----------|--------|---------------|-------------------------------------|
| sMA mFSWrFile    |           |        |               |                                     |
| Telegram Part    | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type     | sMA       | String | 3             | Response (SOPAS Method Acknowledge) |
| Command          | mFSWrFile | String | 9             | Write selected file                 |

| Method Return Value:  |           |        |               |                              |
|-----------------------|-----------|--------|---------------|------------------------------|
| sAN mFSWrFile <State> |           |        |               |                              |
| Telegram Part         | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type          | sAN       | String | 3             | Result (SOPAS Method Result) |
| Command               | mFSWrFile | String | 9             | Write selected file          |
| Return Value 1        | State     | UInt   | 2             |                              |

## Method Telegram Examples

| Example: Default Values   |                                  |
|---|----------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                  |
| Method Invocation:  | [STX]sMN mFSWrFile 0 +0 0 0[ETX] |
| Method Response:  | [STX]sMA mFSWrFile[ETX]          |
| Method Return Value:  | [STX]sAN mFSWrFile 0[ETX]        |



### 2.13.1.8. Method: CreateDirectory

The following section contains a detailed description of the method CreateDirectory.

#### Method Overview

| Method Name     | Description        |
|-----------------|--------------------|
| CreateDirectory | Create a directory |

|                    |          |
|--------------------|----------|
| Communication Name | mFSCrDir |
| Sopas Index        | 81       |
| Invocation Access  | Always   |

| Parameters     |        |
|----------------|--------|
| Path           |        |
| FlexString     |        |
| Length         | 0..256 |
| Initialisation |        |
| DirName        |        |
| FlexString     |        |
| Length         | 0..12  |
| Initialisation |        |

| Return Values        |          |
|----------------------|----------|
| State                |          |
| UInt                 |          |
| Value Range          | 0..65535 |
| Initialisation       |          |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

#### Method Telegram Syntax

| Method Invocation:            |          |            |               |                                |
|-------------------------------|----------|------------|---------------|--------------------------------|
| sMN mFSCrDir <Path> <DirName> |          |            |               |                                |
| Telegram Part                 | Telegram | Type       | Length [Byte] | Description                    |
| Command Type                  | sMN      | String     | 3             | Request (SOPAS Method by Name) |
| Command                       | mFSCrDir | String     | 8             | Create a directory             |
| Parameter 1                   | Path     | FlexString | 256           |                                |
| Parameter 2                   | DirName  | FlexString | 12            |                                |

| Method Response: |          |        |               |                                     |
|------------------|----------|--------|---------------|-------------------------------------|
| sMA mFSCrDir     |          |        |               |                                     |
| Telegram Part    | Telegram | Type   | Length [Byte] | Description                         |
| Command Type     | sMA      | String | 3             | Response (SOPAS Method Acknowledge) |
| Command          | mFSCrDir | String | 8             | Create a directory                  |



| Method Return Value: |          |        |               |                              |
|----------------------|----------|--------|---------------|------------------------------|
| sAN mFSCrDir <State> |          |        |               |                              |
| Telegram Part        | Telegram | Type   | Length [Byte] | Description                  |
| Command Type         | sAN      | String | 3             | Result (SOPAS Method Result) |
| Command              | mFSCrDir | String | 8             | Create a directory           |
| Return Value 1       | State    | UInt   | 2             |                              |

## Method Telegram Examples

| Example: Default Values   |                                  |
|---|----------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                  |
| Method Invocation:  | [STX]sMN mFSCrDir +0 0 +0 0[ETX] |
| Method Response:  | [STX]sMA mFSCrDir[ETX]           |
| Method Return Value:  | [STX]sAN mFSCrDir 0[ETX]         |

### 2.13.1.9. Method: DeleteDirectory

The following section contains a detailed description of the method DeleteDirectory.

#### Method Overview

| Method Name     | Description               |
|-----------------|---------------------------|
| DeleteDirectory | Delete selected directory |

|                    |           |
|--------------------|-----------|
| Communication Name | mFSDelDir |
| Sopas Index        | 82        |
| Invocation Access  | Always    |

| Parameters |                   |
|------------|-------------------|
| Path       |                   |
|            | <b>FlexString</b> |
|            | Length 0..256     |
|            | Initialisation    |
| DirName    |                   |
|            | <b>FlexString</b> |
|            | Length 0..12      |
|            | Initialisation    |

| Return Values |                          |
|---------------|--------------------------|
| State         |                          |
|               | <b>UInt</b>              |
|               | Value Range 0..65535     |
|               | Initialisation           |
|               | Physical Unit            |
|               | Physical Unit Factor 0.0 |



## Method Telegram Syntax

| Method Invocation:             |           |            |               |                                |
|--------------------------------|-----------|------------|---------------|--------------------------------|
| sMN mFSDelDir <Path> <DirName> |           |            |               |                                |
| Telegram Part                  | Telegram  | Type       | Length [Byte] | Description                    |
| Command Type                   | sMN       | String     | 3             | Request (SOPAS Method by Name) |
| Command                        | mFSDelDir | String     | 9             | Delete selected directory      |
| Parameter 1                    | Path      | FlexString | 256           |                                |
| Parameter 2                    | DirName   | FlexString | 12            |                                |

| Method Response: |           |        |               |                                     |
|------------------|-----------|--------|---------------|-------------------------------------|
| sMA mFSDelDir    |           |        |               |                                     |
| Telegram Part    | Telegram  | Type   | Length [Byte] | Description                         |
| Command Type     | sMA       | String | 3             | Response (SOPAS Method Acknowledge) |
| Command          | mFSDelDir | String | 9             | Delete selected directory           |

| Method Return Value:  |           |        |               |                              |
|-----------------------|-----------|--------|---------------|------------------------------|
| sAN mFSDelDir <State> |           |        |               |                              |
| Telegram Part         | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type          | sAN       | String | 3             | Result (SOPAS Method Result) |
| Command               | mFSDelDir | String | 9             | Delete selected directory    |
| Return Value 1        | State     | UInt   | 2             |                              |

## Method Telegram Examples

| Example: Default Values   |                                   |
|---|-----------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                   |
| Method Invocation:  | [STX]sMN mFSDelDir +0 0 +0 0[ETX] |
| Method Response:  | [STX]sMA mFSDelDir[ETX]           |
| Method Return Value:  | [STX]sAN mFSDelDir 0[ETX]         |



### 2.13.1.10. Method: CreateDirInfo

The following section contains a detailed description of the method CreateDirInfo.

#### Method Overview

| Method Name   | Description                               |
|---------------|---|
| CreateDirInfo | Creates the XML file for a specified path |

|                    |               |
|--------------------|---------------|
| Communication Name | mFSCrtDirInfo |
| Sopas Index        | 83            |
| Invocation Access  | Always        |

| Parameters     |        |
|----------------|--------|
| Path           |        |
| FlexString     |        |
| Length         | 0..256 |
| Initialisation |        |

| Return Values        |               |
|----------------------|---------------|
| FileHandle           |               |
| UDInt                |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |
| Size                 |               |
| UDInt                |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

#### Method Telegram Syntax

| Method Invocation:       |               |            |               |   |
|--------------------------|---------------|------------|---------------|---|
| sMN mFSCrtDirInfo <Path> |               |            |               |   |
| Telegram Part            | Telegram      | Type       | Length [Byte] | Description                               |
| Command Type             | sMN           | String     | 3             | Request (SOPAS Method by Name)            |
| Command                  | mFSCrtDirInfo | String     | 13            | Creates the XML file for a specified path |
| Parameter 1              | Path          | FlexString | 256           |   |

| Method Response:  |               |        |               |   |
|-------------------|---------------|--------|---------------|---|
| sMA mFSCrtDirInfo |               |        |               |   |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                               |
| Command Type      | sMA           | String | 3             | Response (SOPAS Method Acknowledge)       |
| Command           | mFSCrtDirInfo | String | 13            | Creates the XML file for a specified path |



| Method Return Value:                  |               |        |               |   |
|---------------------------------------|---------------|--------|---------------|---|
| sAN mFSCrtDirInfo <FileHandle> <Size> |               |        |               |   |
| Telegram Part                         | Telegram      | Type   | Length [Byte] | Description                               |
| Command Type                          | sAN           | String | 3             | Result (SOPAS Method Result)              |
| Command                               | mFSCrtDirInfo | String | 13            | Creates the XML file for a specified path |
| Return Value 1                        | FileHandle    | UDInt  | 4             |   |
| Return Value 2                        | Size          | UDInt  | 4             |   |

## Method Telegram Examples

| Example: Default Values   |                                  |
|---|----------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                  |
| <b>Method Invocation:</b>   | [STX]sMN mFSCrtDirInfo +0 0[ETX] |
| <b>Method Response:</b>   | [STX]sMA mFSCrtDirInfo[ETX]      |
| <b>Method Return Value:</b>   | [STX]sAN mFSCrtDirInfo 0 0[ETX]  |

## 2.14. Interface Block: GeneralCfgFocusCtrlBase

### 2.14.1. Group: FocusControlBaseCfg

#### 2.14.1.1. Variable: FocusControlMode

The following section contains a detailed description of the variable FocusControlMode.

#### Variable Overview

| Variable Name    | Description                 |
|------------------|-----------------------------|
| FocusControlMode | Major mode of focus control |

|                       |   |
|-----------------------|---|
| Communication Name    | FCctrlmd  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 518   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                  |             |
|---------------|-------|------------------|-------------|
| Default Value |       | 0                |             |
|               | Value | Name             | Description |
|               | 0     | TX_FIX_FOCUS     |             |
|               | 1     | TX_DYNAMIC_FOCUS |             |
|               | 2     | TX_AUTOFOCUS     |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN FCctrlmd   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | FCctrlmd | String | 8             | Major mode of focus control |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA FCctrlmd <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | FCctrlmd | String | 8             | Major mode of focus control     |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN FCctrlmd <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | FCctrlmd | String | 8             | Major mode of focus control  |
| Variable Data       | data     | Enum8  | 1             |                              |





| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA FCctrlmd             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | FCctrlmd | String | 8             | Major mode of focus control      |

### Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN FCctrlmd[ETX]   |
| Read Variable Response:                                     | [STX]sRA FCctrlmd 0[ETX] |
| Write Variable:   | [STX]sWN FCctrlmd 0[ETX] |
| Write Variable Response:                                    | [STX]sWA FCctrlmd[ETX]   |

#### 2.14.1.2. Variable: FocusControlDefaultDistance

The following section contains a detailed description of the variable FocusControlDefaultDistance.

#### Variable Overview

| Variable Name               | Description                  |
|-----------------------------|------------------------------|
| FocusControlDefaultDistance | default focus distance in mm |

|                       |   |
|-----------------------|---|
| Communication Name    | FCdefdis  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 519   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |         |
|----------------------|---------|
| Value Range          | 20..500 |
| Initialisation       | 285     |
| Physical Unit        | mm      |
| Physical Unit Factor | 0.0     |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                              |
|----------------|----------|--------|---------------|------------------------------|
| sRN FCdefdis   |          |        |               |                              |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name  |
| Command        | FCdefdis | String | 8             | default focus distance in mm |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA FCdefdis <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | FCdefdis | String | 8             | default focus distance in mm    |
| Variable Data           | data     | UInt   | 2             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN FCdefdis <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | FCdefdis | String | 8             | default focus distance in mm |
| Variable Data       | data     | UInt   | 2             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA FCdefdis             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | FCdefdis | String | 8             | default focus distance in mm     |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN FCdefdis[ETX]     |
| Read Variable Response:                                     | [STX]sRA FCdefdis 11D[ETX] |
| Write Variable:   | [STX]sWN FCdefdis 11D[ETX] |
| Write Variable Response:                                    | [STX]sWA FCdefdis[ETX]     |

### 2.14.1.3. Variable: FocusControlDynDistConfigs

The following section contains a detailed description of the variable FocusControlDynDistConfigs.

#### Variable Overview

| Variable Name              | Description                             |
|----------------------------|---|
| FocusControlDynDistConfigs | List of dynamic distance configurations |

|                       |   |
|-----------------------|---|
| Communication Name    | FCdynconfigs  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 520   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array         |                                   |
|---------------|-----------------------------------|
| Length        | 8                                 |
| Default Value | {150,215,285,285,285,285,285,285} |
|               | <b>UInt</b>                       |
|               | Value Range                       |
|               | Initialisation                    |
|               | Physical Unit                     |
|               | Physical Unit Factor              |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |   |
|------------------|--------------|--------|---------------|---|
| sRN FCdynconfigs |              |        |               |   |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                             |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name             |
| Command          | FCdynconfigs | String | 12            | List of dynamic distance configurations |

| Read Variable Response: |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sRA FCdynconfigs <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                             |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | FCdynconfigs | String | 12            | List of dynamic distance configurations |
| Variable Data           | data         | Array  | 16            |   |

| Write Variable:         |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sWN FCdynconfigs <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                             |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name            |
| Command                 | FCdynconfigs | String | 12            | List of dynamic distance configurations |
| Variable Data           | data         | Array  | 16            |   |



| Write Variable Response: |              |        |               |   |
|--------------------------|--------------|--------|---------------|---|
| sWA FCdynconfigs         |              |        |               |   |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                             |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | FCdynconfigs | String | 12            | List of dynamic distance configurations |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN FCdynconfigs[ETX]                               |
| Read Variable Response:                                     | [STX]sRA FCdynconfigs 96 D7 11D 11D 11D 11D 11D 11D[ETX] |
| Write Variable:   | [STX]sWN FCdynconfigs 96 D7 11D 11D 11D 11D 11D 11D[ETX] |
| Write Variable Response:                                    | [STX]sWA FCdynconfigs[ETX]                               |

## 2.15. Interface Block: GeneralCalibOscMirrorBase

### 2.15.1. Group: OscMirrorBaseCalib

#### 2.15.1.1. Method: OMReferenceCourse

The following section contains a detailed description of the method OMReferenceCourse.

##### Method Overview

| Method Name       | Description   |
|-------------------|---|
| OMReferenceCourse | Forces the oscillating mirror to execute a reference course |

|                    |              |
|--------------------|--------------|
| Communication Name | mOMRefCourse |
| Sopas Index        | 89           |
| Invocation Access  | Always       |

##### Method Telegram Syntax

| Method Invocation: |              |        |               |   |
|--------------------|--------------|--------|---------------|---|
| sMN mOMRefCourse   |              |        |               |   |
| Telegram Part      | Telegram     | Type   | Length [Byte] | Description   |
| Command Type       | sMN          | String | 3             | Request (SOPAS Method by Name)                              |
| Command            | mOMRefCourse | String | 12            | Forces the oscillating mirror to execute a reference course |

| Method Return Value: |              |        |               |   |
|----------------------|--------------|--------|---------------|---|
| sAN mOMRefCourse     |              |        |               |   |
| Telegram Part        | Telegram     | Type   | Length [Byte] | Description   |
| Command Type         | sAN          | String | 3             | Result (SOPAS Method Result)                                |
| Command              | mOMRefCourse | String | 12            | Forces the oscillating mirror to execute a reference course |

##### Method Telegram Examples

| Example: Default Values   |                            |
|---|----------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                            |
| Method Invocation:  | [STX]sMN mOMRefCourse[ETX] |
| Method Return Value:  | [STX]sAN mOMRefCourse[ETX] |



### 2.15.1.2. Method: OMFindZeroIndex

The following section contains a detailed description of the method OMFindZeroIndex.

#### Method Overview

| Method Name     | Description   |
|-----------------|---|
| OMFindZeroIndex | Finds the zero index of the oscillating mirror unit |

|                    |            |
|--------------------|------------|
| Communication Name | mOMFndZero |
| Sopas Index        | 90         |
| Invocation Access  | Always     |

#### Method Telegram Syntax

| Method Invocation: |            |        |               |   |
|--------------------|------------|--------|---------------|---|
| sMN mOMFndZero     |            |        |               |   |
| Telegram Part      | Telegram   | Type   | Length [Byte] | Description   |
| Command Type       | sMN        | String | 3             | Request (SOPAS Method by Name)                      |
| Command            | mOMFndZero | String | 10            | Finds the zero index of the oscillating mirror unit |

| Method Return Value: |            |        |               |   |
|----------------------|------------|--------|---------------|---|
| sAN mOMFndZero       |            |        |               |   |
| Telegram Part        | Telegram   | Type   | Length [Byte] | Description   |
| Command Type         | sAN        | String | 3             | Result (SOPAS Method Result)                        |
| Command              | mOMFndZero | String | 10            | Finds the zero index of the oscillating mirror unit |

#### Method Telegram Examples

| Example: Default Values   |                          |
|---|--------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                          |
| Method Invocation:  | [STX]sMN mOMFndZero[ETX] |
| Method Return Value:  | [STX]sAN mOMFndZero[ETX] |

### 2.15.1.3. Method: OMCheck

The following section contains a detailed description of the method OMCheck.

#### Method Overview

| Method Name | Description  |
|-------------|--|
| OMCheck     | Forces the oscillating mirror to execute a check procedure |

|                    |          |
|--------------------|----------|
| Communication Name | mOMCheck |
| Sopas Index        | 91       |
| Invocation Access  | Always   |

| Parameters |              |             |             |
|------------|--------------|-------------|-------------|
| Mode       |              |             |             |
|            | <b>Enum8</b> |             |             |
|            | Value        | Name        | Description |
|            | 0            | TX_STANDARD |             |
|            | 1            | TX_EXTENDED |             |

| Return Values |                      |
|---------------|----------------------|
| ErrCode       |                      |
|               | <b>SInt</b>          |
|               | Value Range          |
|               | -128..127            |
|               | Initialisation       |
|               |                      |
|               | Physical Unit        |
|               |                      |
|               | Physical Unit Factor |
|               | 0.0                  |

#### Method Telegram Syntax

| Method Invocation:  |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sMN mOMCheck <Mode> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description  |
| Command Type        | sMN      | String | 3             | Request (SOPAS Method by Name)                             |
| Command             | mOMCheck | String | 8             | Forces the oscillating mirror to execute a check procedure |
| Parameter 1         | Mode     | Enum8  | 1             |  |

| Method Return Value:   |          |        |               |  |
|------------------------|----------|--------|---------------|--|
| sAN mOMCheck <ErrCode> |          |        |               |  |
| Telegram Part          | Telegram | Type   | Length [Byte] | Description  |
| Command Type           | sAN      | String | 3             | Result (SOPAS Method Result)                               |
| Command                | mOMCheck | String | 8             | Forces the oscillating mirror to execute a check procedure |
| Return Value 1         | ErrCode  | SInt   | 1             |  |



## Method Telegram Examples

| Example: Default Values   |                          |
|---|--------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                          |
| Method Invocation:  | [STX]sMN mOMCheck 0[ETX] |
| Method Return Value:  | [STX]sAN mOMCheck 0[ETX] |

### 2.15.1.4. Method: OMStep

The following section contains a detailed description of the method OMStep.

#### Method Overview

| Method Name | Description  |
|-------------|--|
| OMStep      | Executes the given steps on the oscillating mirror |

|                    |         |
|--------------------|---------|
| Communication Name | mOMStep |
| Sopas Index        | 92      |
| Invocation Access  | Always  |

| Parameters |  |                      |             |          |             |
|------------|--|----------------------|-------------|----------|-------------|
| AbsRel     |  |                      |             |          |             |
|            |  | Enum8                |             |          |             |
|            |  |                      | Value       | Name     | Description |
|            |  | 0                    | TX_ABSOLUTE |          |             |
|            |  | 1                    | TX_RELATIVE |          |             |
| Direction  |  |                      |             |          |             |
|            |  | Enum8                |             |          |             |
|            |  |                      | Value       | Name     | Description |
|            |  | 0                    | TX_FORWARD  |          |             |
|            |  | 1                    | TX_BACKWARD |          |             |
| OptAll     |  |                      |             |          |             |
|            |  | Enum8                |             |          |             |
|            |  |                      | Value       | Name     | Description |
|            |  | 0                    | TX_OPTIMAL  |          |             |
|            |  | 1                    | TX_ALL      |          |             |
| Number     |  |                      |             |          |             |
|            |  | UInt                 |             |          |             |
|            |  | Value Range          |             | 0..65535 |             |
|            |  | Initialisation       |             |          |             |
|            |  | Physical Unit        |             |          |             |
|            |  | Physical Unit Factor |             | 0.0      |             |





## Method Telegram Syntax

| Method Invocation:                                 |           |        |               |  |
|--|-----------|--------|---------------|--|
| sMN mOMStep <AbsRel> <Direction> <OptAll> <Number> |           |        |               |  |
| Telegram Part                                      | Telegram  | Type   | Length [Byte] | Description  |
| Command Type                                       | sMN       | String | 3             | Request (SOPAS Method by Name)                     |
| Command  | mOMStep   | String | 7             | Executes the given steps on the oscillating mirror |
| Parameter 1  | AbsRel    | Enum8  | 1             |  |
| Parameter 2  | Direction | Enum8  | 1             |  |
| Parameter 3  | OptAll    | Enum8  | 1             |  |
| Parameter 4  | Number    | UInt   | 2             |  |

| Method Return Value: |          |        |               |  |
|----------------------|----------|--------|---------------|--|
| sAN mOMStep          |          |        |               |  |
| Telegram Part        | Telegram | Type   | Length [Byte] | Description  |
| Command Type         | sAN      | String | 3             | Result (SOPAS Method Result)                       |
| Command              | mOMStep  | String | 7             | Executes the given steps on the oscillating mirror |

## Method Telegram Examples

| Example: Default Values   |                               |
|---|-------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                               |
| Method Invocation:  | [STX]sMN mOMStep 0 0 0 0[ETX] |
| Method Return Value:  | [STX]sAN mOMStep[ETX]         |

## 2.16. Interface Block: GeneralCfgOscMirrorBase

### 2.16.1. Group: OscMirrorBaseCfg

#### 2.16.1.1. Variable: OMOperatingMode

The following section contains a detailed description of the variable OMOperatingMode.

#### Variable Overview

| Variable Name   | Description                       |
|-----------------|-----------------------------------|
| OMOperatingMode | Oscillating mirror operating mode |

|                       |   |
|-----------------------|---|
| Communication Name    | OMMode  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 533   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |               |             |
|---------------|-------|---------------|-------------|
| Default Value |       | 0             |             |
|               | Value | Name          | Description |
|               | 0     | TX_CONTINUOUS |             |
|               | 1     | TX_CONTROLLED |             |
|               | 2     | TX_FIX        |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                                   |
|----------------|----------|--------|---------------|-----------------------------------|
| sRN OMMode     |          |        |               |                                   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                       |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name       |
| Command        | OMMode   | String | 6             | Oscillating mirror operating mode |

| Read Variable Response: |          |        |               |                                   |
|-------------------------|----------|--------|---------------|-----------------------------------|
| sRA OMMode <data>       |          |        |               |                                   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                       |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | OMMode   | String | 6             | Oscillating mirror operating mode |
| Variable Data           | data     | Enum8  | 1             |                                   |

| Write Variable:   |          |        |               |                                   |
|-------------------|----------|--------|---------------|-----------------------------------|
| sWN OMMode <data> |          |        |               |                                   |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description                       |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name      |
| Command           | OMMode   | String | 6             | Oscillating mirror operating mode |
| Variable Data     | data     | Enum8  | 1             |                                   |



| Write Variable Response: |          |        |               |                                   |
|--------------------------|----------|--------|---------------|-----------------------------------|
| sWA OMMode               |          |        |               |                                   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                       |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | OMMode   | String | 6             | Oscillating mirror operating mode |

## Variable Telegram Examples

| Example: Default Values                                     |                        |
|---|------------------------|
| Variable telegram examples with data set to default values. |                        |
| Read Variable:  | [STX]sRN OMMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA OMMode 0[ETX] |
| Write Variable:   | [STX]sWN OMMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OMMode[ETX]   |

### 2.16.1.2. Variable: OMStartCondition

The following section contains a detailed description of the variable OMStartCondition.

#### Variable Overview

| Variable Name    | Description                        |
|------------------|------------------------------------|
| OMStartCondition | Oscillating mirror start condition |

|                       |   |
|-----------------------|---|
| Communication Name    | OMStartCond   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 534   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                    |             |
|---------------|-------|--------------------|-------------|
| Default Value |       | 0                  |             |
|               | Value | Name               | Description |
|               | 0     | TX_READING_TRIGGER |             |
|               | 1     | TX_SENSOR_2_HI     |             |
|               | 2     | TX_SENSOR_2_LO     |             |
|               | 3     | TX_COMMAND         |             |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                    |
|-----------------|-------------|--------|---------------|------------------------------------|
| sRN OMStartCond |             |        |               |                                    |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name        |
| Command         | OMStartCond | String | 11            | Oscillating mirror start condition |

| Read Variable Response: |             |        |               |                                    |
|-------------------------|-------------|--------|---------------|------------------------------------|
| sRA OMStartCond <data>  |             |        |               |                                    |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                 | OMStartCond | String | 11            | Oscillating mirror start condition |
| Variable Data           | data        | Enum8  | 1             |                                    |

| Write Variable:        |             |        |               |                                    |
|------------------------|-------------|--------|---------------|------------------------------------|
| sWN OMStartCond <data> |             |        |               |                                    |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name       |
| Command                | OMStartCond | String | 11            | Oscillating mirror start condition |
| Variable Data          | data        | Enum8  | 1             |                                    |

| Write Variable Response: |             |        |               |                                    |
|--------------------------|-------------|--------|---------------|------------------------------------|
| sWA OMStartCond          |             |        |               |                                    |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | OMStartCond | String | 11            | Oscillating mirror start condition |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN OMStartCond[ETX]   |
| Read Variable Response:                                     | [STX]sRA OMStartCond 0[ETX] |
| Write Variable:   | [STX]sWN OMStartCond 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OMStartCond[ETX]   |



### 2.16.1.3. Variable: OMStartPositionChoice

The following section contains a detailed description of the variable OMStartPositionChoice.

#### Variable Overview

| Variable Name         | Description                              |
|-----------------------|--|
| OMStartPositionChoice | Oscillating mirror start position choice |

|                       |   |
|-----------------------|---|
| Communication Name    | OMStartPosChoice  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 535   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_AMPLITUDE_1 |             |
|               | 1     | TX_AMPLITUDE_2 |             |

#### Variable Telegram Syntax

| Read Variable:       |                  |        |               |  |
|----------------------|------------------|--------|---------------|--|
| sRN OMStartPosChoice |                  |        |               |  |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description                              |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name              |
| Command              | OMStartPosChoice | String | 16            | Oscillating mirror start position choice |

| Read Variable Response:     |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sRA OMStartPosChoice <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                              |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge          |
| Command                     | OMStartPosChoice | String | 16            | Oscillating mirror start position choice |
| Variable Data               | data             | Enum8  | 1             |  |

| Write Variable:             |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sWN OMStartPosChoice <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                              |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name             |
| Command                     | OMStartPosChoice | String | 16            | Oscillating mirror start position choice |
| Variable Data               | data             | Enum8  | 1             |  |

| Write Variable Response: |                  |        |               |  |
|--------------------------|------------------|--------|---------------|--|
| sWA OMStartPosChoice     |                  |        |               |  |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description                              |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | OMStartPosChoice | String | 16            | Oscillating mirror start position choice |



## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN OMStartPosChoice[ETX]   |
| Read Variable Response:                                     | [STX]sRA OMStartPosChoice 0[ETX] |
| Write Variable:   | [STX]sWN OMStartPosChoice 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OMStartPosChoice[ETX]   |

### 2.16.1.4. Variable: OMStartPosition

The following section contains a detailed description of the variable OMStartPosition.

#### Variable Overview

| Variable Name   | Description                       |
|-----------------|-----------------------------------|
| OMStartPosition | Oscillating mirror start position |

|                       |   |
|-----------------------|---|
| Communication Name    | OMStartPos  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 536   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Int                  |           |
|----------------------|-----------|
| Value Range          | -200..200 |
| Initialisation       | 0         |
| Physical Unit        | 1/10 °    |
| Physical Unit Factor | 0.0       |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                                   |
|----------------|------------|--------|---------------|-----------------------------------|
| sRN OMStartPos |            |        |               |                                   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                       |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name       |
| Command        | OMStartPos | String | 10            | Oscillating mirror start position |

| Read Variable Response: |            |        |               |                                   |
|-------------------------|------------|--------|---------------|-----------------------------------|
| sRA OMStartPos <data>   |            |        |               |                                   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                       |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | OMStartPos | String | 10            | Oscillating mirror start position |
| Variable Data           | data       | Int    | 2             |                                   |



| Write Variable:       |            |        |               |                                   |
|-----------------------|------------|--------|---------------|-----------------------------------|
| sWN OMStartPos <data> |            |        |               |                                   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                       |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name      |
| Command               | OMStartPos | String | 10            | Oscillating mirror start position |
| Variable Data         | data       | Int    | 2             |                                   |

| Write Variable Response: |            |        |               |                                   |
|--------------------------|------------|--------|---------------|-----------------------------------|
| sWA OMStartPos           |            |        |               |                                   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                       |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | OMStartPos | String | 10            | Oscillating mirror start position |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN OMStartPos[ETX]    |
| Read Variable Response:                                     | [STX]sRA OMStartPos 0[ETX]  |
| Write Variable:   | [STX]sWN OMStartPos +0[ETX] |
| Write Variable Response:                                    | [STX]sWA OMStartPos[ETX]    |

### 2.16.1.5. Variable: OMStartPositionDyn

The following section contains a detailed description of the variable OMStartPositionDyn.

#### Variable Overview

| Variable Name      | Description                       |
|--------------------|-----------------------------------|
| OMStartPositionDyn | Oscillating mirror start position |

|                       |   |
|-----------------------|---|
| Communication Name    | OMStartPosDyn   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 537   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |
|--------|----------------------|
| Length | 8                    |
| Int    |                      |
|        | Value Range          |
|        | Initialisation       |
|        | Physical Unit        |
|        | Physical Unit Factor |



## Variable Telegram Syntax

| Read Variable:    |               |        |               |                                   |
|-------------------|---------------|--------|---------------|-----------------------------------|
| sRN OMStartPosDyn |               |        |               |                                   |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                       |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name       |
| Command           | OMStartPosDyn | String | 13            | Oscillating mirror start position |

| Read Variable Response:  |               |        |               |                                   |
|--------------------------|---------------|--------|---------------|-----------------------------------|
| sRA OMStartPosDyn <data> |               |        |               |                                   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                       |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                  | OMStartPosDyn | String | 13            | Oscillating mirror start position |
| Variable Data            | data          | Array  | 16            |                                   |

| Write Variable:          |               |        |               |                                   |
|--------------------------|---------------|--------|---------------|-----------------------------------|
| sWN OMStartPosDyn <data> |               |        |               |                                   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                       |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name      |
| Command                  | OMStartPosDyn | String | 13            | Oscillating mirror start position |
| Variable Data            | data          | Array  | 16            |                                   |

| Write Variable Response: |               |        |               |                                   |
|--------------------------|---------------|--------|---------------|-----------------------------------|
| sWA OMStartPosDyn        |               |        |               |                                   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                       |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | OMStartPosDyn | String | 13            | Oscillating mirror start position |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN OMStartPosDyn[ETX]                         |
| Read Variable Response:                                     | [STX]sRA OMStartPosDyn 0 0 0 0 0 0 0 0[ETX]         |
| Write Variable:   | [STX]sWN OMStartPosDyn +0 +0 +0 +0 +0 +0 +0 +0[ETX] |
| Write Variable Response:                                    | [STX]sWA OMStartPosDyn[ETX]                         |



### 2.16.1.6. Variable: OMStopCondition

The following section contains a detailed description of the variable OMStopCondition.

#### Variable Overview

| Variable Name   | Description                       |
|-----------------|-----------------------------------|
| OMStopCondition | Oscillating mirror stop condition |

|                       |   |
|-----------------------|---|
| Communication Name    | OMStopCond  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 538   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |              |             |
|---------------|-------|--------------|-------------|
| Default Value |       | 0            |             |
|               | Value | Name         | Description |
|               | 0     | TX_START_SRC |             |
|               | 1     | TX_N_PERIODS |             |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                                   |
|----------------|------------|--------|---------------|-----------------------------------|
| sRN OMStopCond |            |        |               |                                   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                       |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name       |
| Command        | OMStopCond | String | 10            | Oscillating mirror stop condition |

| Read Variable Response: |            |        |               |                                   |
|-------------------------|------------|--------|---------------|-----------------------------------|
| sRA OMStopCond <data>   |            |        |               |                                   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                       |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | OMStopCond | String | 10            | Oscillating mirror stop condition |
| Variable Data           | data       | Enum8  | 1             |                                   |

| Write Variable:       |            |        |               |                                   |
|-----------------------|------------|--------|---------------|-----------------------------------|
| sWN OMStopCond <data> |            |        |               |                                   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                       |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name      |
| Command               | OMStopCond | String | 10            | Oscillating mirror stop condition |
| Variable Data         | data       | Enum8  | 1             |                                   |

| Write Variable Response: |            |        |               |                                   |
|--------------------------|------------|--------|---------------|-----------------------------------|
| sWA OMStopCond           |            |        |               |                                   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                       |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | OMStopCond | String | 10            | Oscillating mirror stop condition |



## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN OMStopCond[ETX]   |
| Read Variable Response:                                     | [STX]sRA OMStopCond 0[ETX] |
| Write Variable:   | [STX]sWN OMStopCond 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OMStopCond[ETX]   |

### 2.16.1.7. Variable: OMNumPeriods

The following section contains a detailed description of the variable OMNumPeriods.

#### Variable Overview

| Variable Name | Description                          |
|---------------|--------------------------------------|
| OMNumPeriods  | Number of periods for stop condition |

|                       |   |
|-----------------------|---|
| Communication Name    | OMNPeriods  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 539   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |        |
|----------------------|--------|
| Value Range          | 1..255 |
| Initialisation       | 1      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                                      |
|----------------|------------|--------|---------------|--------------------------------------|
| sRN OMNPeriods |            |        |               |                                      |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                          |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name          |
| Command        | OMNPeriods | String | 10            | Number of periods for stop condition |

| Read Variable Response: |            |        |               |                                      |
|-------------------------|------------|--------|---------------|--------------------------------------|
| sRA OMNPeriods <data>   |            |        |               |                                      |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                          |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge      |
| Command                 | OMNPeriods | String | 10            | Number of periods for stop condition |
| Variable Data           | data       | USInt  | 1             |                                      |



| Write Variable:       |            |        |               |                                      |
|-----------------------|------------|--------|---------------|--------------------------------------|
| sWN OMNPeriods <data> |            |        |               |                                      |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                          |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name         |
| Command               | OMNPeriods | String | 10            | Number of periods for stop condition |
| Variable Data         | data       | USInt  | 1             |                                      |

| Write Variable Response: |            |        |               |                                      |
|--------------------------|------------|--------|---------------|--------------------------------------|
| sWA OMNPeriods           |            |        |               |                                      |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                          |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge     |
| Command                  | OMNPeriods | String | 10            | Number of periods for stop condition |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN OMNPeriods[ETX]   |
| Read Variable Response:                                     | [STX]sRA OMNPeriods 1[ETX] |
| Write Variable:   | [STX]sWN OMNPeriods 1[ETX] |
| Write Variable Response:                                    | [STX]sWA OMNPeriods[ETX]   |

### 2.16.1.8. Variable: OMPositiveAmplitude

The following section contains a detailed description of the variable OMPositiveAmplitude.

#### Variable Overview

| Variable Name       | Description                             |
|---------------------|---|
| OMPositiveAmplitude | Positive amplitude (Amplitude phase 1 ) |

|                       |   |
|-----------------------|---|
| Communication Name    | OMPosAmpl   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 540   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Int                  |        |
|----------------------|--------|
| Value Range          | 0..200 |
| Initialisation       | 200    |
| Physical Unit        | 1/10 ° |
| Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN OMPosAmpl  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                             |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name             |
| Command        | OMPosAmpl | String | 9             | Positive amplitude (Amplitude phase 1 ) |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA OMPosAmpl <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                             |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | OMPosAmpl | String | 9             | Positive amplitude (Amplitude phase 1 ) |
| Variable Data           | data      | Int    | 2             |   |

| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN OMPosAmpl <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                             |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name            |
| Command              | OMPosAmpl | String | 9             | Positive amplitude (Amplitude phase 1 ) |
| Variable Data        | data      | Int    | 2             |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA OMPosAmpl            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                             |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | OMPosAmpl | String | 9             | Positive amplitude (Amplitude phase 1 ) |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN OMPosAmpl[ETX]      |
| Read Variable Response:                                     | [STX]sRA OMPosAmpl C8[ETX]   |
| Write Variable:   | [STX]sWN OMPosAmpl +200[ETX] |
| Write Variable Response:                                    | [STX]sWA OMPosAmpl[ETX]      |

### 2.16.1.9. Variable: OMPositiveAmplitudeDyn

The following section contains a detailed description of the variable OMPositiveAmplitudeDyn.

#### Variable Overview

| Variable Name          | Description                                     |
|------------------------|---|
| OMPositiveAmplitudeDyn | Positive amplitude (Amplitude phase 1 ) dynamic |

|                       |   |
|-----------------------|---|
| Communication Name    | OMPosAmplDyn  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 541   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |        |
|----------------------|--------|
| Length               | 8      |
| <b>Int</b>           |        |
| Value Range          | 0..200 |
| Initialisation       | 200    |
| Physical Unit        | 1/10 ° |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |   |
|------------------|--------------|--------|---------------|---|
| sRN OMPosAmplDyn |              |        |               |   |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                                     |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name                     |
| Command          | OMPosAmplDyn | String | 12            | Positive amplitude (Amplitude phase 1 ) dynamic |

| Read Variable Response: |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sRA OMPosAmplDyn <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge                 |
| Command                 | OMPosAmplDyn | String | 12            | Positive amplitude (Amplitude phase 1 ) dynamic |
| Variable Data           | data         | Array  | 16            |   |

| Write Variable:         |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sWN OMPosAmplDyn <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                     |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name                    |
| Command                 | OMPosAmplDyn | String | 12            | Positive amplitude (Amplitude phase 1 ) dynamic |
| Variable Data           | data         | Array  | 16            |   |



| Write Variable Response: |              |        |               |   |
|--------------------------|--------------|--------|---------------|---|
| sWA OMPosAmplDyn         |              |        |               |   |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                                     |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge                |
| Command                  | OMPosAmplDyn | String | 12            | Positive amplitude (Amplitude phase 1 ) dynamic |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| <b>Read Variable:</b>                                       | [STX]sRN OMPosAmplDyn[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA OMPosAmplDyn C8 C8 C8 C8 C8 C8 C8 C8[ETX]                 |
| <b>Write Variable:</b>                                      | [STX]sWN OMPosAmplDyn +200 +200 +200 +200 +200 +200 +200 +200[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA OMPosAmplDyn[ETX]   |

### 2.16.1.10. Variable: OMNegativeAmplitude

The following section contains a detailed description of the variable OMNegativeAmplitude.

#### Variable Overview

| Variable Name       | Description                             |
|---------------------|---|
| OMNegativeAmplitude | Negative amplitude (Amplitude phase 2 ) |

|                       |   |
|-----------------------|---|
| Communication Name    | OMNegAmpl   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 542   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Int                  |         |
|----------------------|---------|
| Value Range          | -200..0 |
| Initialisation       | -200    |
| Physical Unit        | 1/10 °  |
| Physical Unit Factor | 0.0     |



## Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN OMNegAmpl  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                             |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name             |
| Command        | OMNegAmpl | String | 9             | Negative amplitude (Amplitude phase 2 ) |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA OMNegAmpl <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                             |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | OMNegAmpl | String | 9             | Negative amplitude (Amplitude phase 2 ) |
| Variable Data           | data      | Int    | 2             |   |

| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN OMNegAmpl <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                             |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name            |
| Command              | OMNegAmpl | String | 9             | Negative amplitude (Amplitude phase 2 ) |
| Variable Data        | data      | Int    | 2             |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA OMNegAmpl            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                             |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | OMNegAmpl | String | 9             | Negative amplitude (Amplitude phase 2 ) |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN OMNegAmpl[ETX]      |
| Read Variable Response:                                     | [STX]sRA OMNegAmpl FF38[ETX] |
| Write Variable:   | [STX]sWN OMNegAmpl -200[ETX] |
| Write Variable Response:                                    | [STX]sWA OMNegAmpl[ETX]      |

### 2.16.1.11. Variable: OMNegativeAmplitudeDyn

The following section contains a detailed description of the variable OMNegativeAmplitudeDyn.

#### Variable Overview

| Variable Name          | Description                                     |
|------------------------|---|
| OMNegativeAmplitudeDyn | Negative amplitude (Amplitude phase 2 ) dynamic |

|                       |   |
|-----------------------|---|
| Communication Name    | OMNegAmplDyn  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 543   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |         |
|----------------------|---------|
| Length               | 8       |
| <b>Int</b>           |         |
| Value Range          | -200..0 |
| Initialisation       | -200    |
| Physical Unit        | 1/10 °  |
| Physical Unit Factor | 0.0     |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |   |
|------------------|--------------|--------|---------------|---|
| sRN OMNegAmplDyn |              |        |               |   |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                                     |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name                     |
| Command          | OMNegAmplDyn | String | 12            | Negative amplitude (Amplitude phase 2 ) dynamic |

| Read Variable Response: |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sRA OMNegAmplDyn <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge                 |
| Command                 | OMNegAmplDyn | String | 12            | Negative amplitude (Amplitude phase 2 ) dynamic |
| Variable Data           | data         | Array  | 16            |   |

| Write Variable:         |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sWN OMNegAmplDyn <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                     |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name                    |
| Command                 | OMNegAmplDyn | String | 12            | Negative amplitude (Amplitude phase 2 ) dynamic |
| Variable Data           | data         | Array  | 16            |   |





| Write Variable Response: |              |        |               |   |
|--------------------------|--------------|--------|---------------|---|
| sWA OMNegAmplDyn         |              |        |               |   |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                                     |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge                |
| Command                  | OMNegAmplDyn | String | 12            | Negative amplitude (Amplitude phase 2 ) dynamic |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| <b>Read Variable:</b>                                       | [STX]sRN OMNegAmplDyn[ETX]  |
| <b>Read Variable Response:</b>                              | [STX]sRA OMNegAmplDyn FF38 FF38 FF38 FF38 FF38 FF38 FF38 FF38 FF38[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN OMNegAmplDyn -200 -200 -200 -200 -200 -200 -200 -200[ETX]      |
| <b>Write Variable Response:</b>                             | [STX]sWA OMNegAmplDyn[ETX]  |

### 2.16.1.12. Variable: OMPeriodicTime

The following section contains a detailed description of the variable OMPeriodicTime.

#### Variable Overview

| Variable Name  | Description                        |
|----------------|------------------------------------|
| OMPeriodicTime | Periodic time for full oscillation |

|                       |   |
|-----------------------|---|
| Communication Name    | OMPeriod  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 544   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |           |
|----------------------|-----------|
| Value Range          | 160..2000 |
| Initialisation       | 1000      |
| Physical Unit        | ms        |
| Physical Unit Factor | 0.0       |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                                    |
|----------------|----------|--------|---------------|------------------------------------|
| sRN OMPeriod   |          |        |               |                                    |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                        |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name        |
| Command        | OMPeriod | String | 8             | Periodic time for full oscillation |

| Read Variable Response: |          |        |               |                                    |
|-------------------------|----------|--------|---------------|------------------------------------|
| sRA OMPeriod <data>     |          |        |               |                                    |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                        |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                 | OMPeriod | String | 8             | Periodic time for full oscillation |
| Variable Data           | data     | UInt   | 2             |                                    |

| Write Variable:     |          |        |               |                                    |
|---------------------|----------|--------|---------------|------------------------------------|
| sWN OMPeriod <data> |          |        |               |                                    |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                        |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name       |
| Command             | OMPeriod | String | 8             | Periodic time for full oscillation |
| Variable Data       | data     | UInt   | 2             |                                    |

| Write Variable Response: |          |        |               |                                    |
|--------------------------|----------|--------|---------------|------------------------------------|
| sWA OMPeriod             |          |        |               |                                    |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                        |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | OMPeriod | String | 8             | Periodic time for full oscillation |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN OMPeriod[ETX]     |
| Read Variable Response:                                     | [STX]sRA OMPeriod 3E8[ETX] |
| Write Variable:   | [STX]sWN OMPeriod 3E8[ETX] |
| Write Variable Response:                                    | [STX]sWA OMPeriod[ETX]     |



### 2.16.1.13. Variable: OMPeriodicTimeDyn

The following section contains a detailed description of the variable OMPeriodicTimeDyn.

#### Variable Overview

| Variable Name     | Description                        |
|-------------------|------------------------------------|
| OMPeriodicTimeDyn | Periodic time for full oscillation |

|                       |   |
|-----------------------|---|
| Communication Name    | OMPeriodDyn   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 545   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |           |
|--------|----------------------|-----------|
| Length |                      | 8         |
|        | UInt                 |           |
|        | Value Range          | 160..2000 |
|        | Initialisation       | 1000      |
|        | Physical Unit        | ms        |
|        | Physical Unit Factor | 0.0       |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                                    |
|-----------------|-------------|--------|---------------|------------------------------------|
| sRN OMPeriodDyn |             |        |               |                                    |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name        |
| Command         | OMPeriodDyn | String | 11            | Periodic time for full oscillation |

| Read Variable Response: |             |        |               |                                    |
|-------------------------|-------------|--------|---------------|------------------------------------|
| sRA OMPeriodDyn <data>  |             |        |               |                                    |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                 | OMPeriodDyn | String | 11            | Periodic time for full oscillation |
| Variable Data           | data        | Array  | 16            |                                    |

| Write Variable:        |             |        |               |                                    |
|------------------------|-------------|--------|---------------|------------------------------------|
| sWN OMPeriodDyn <data> |             |        |               |                                    |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name       |
| Command                | OMPeriodDyn | String | 11            | Periodic time for full oscillation |
| Variable Data          | data        | Array  | 16            |                                    |



| Write Variable Response: |             |        |               |                                    |
|--------------------------|-------------|--------|---------------|------------------------------------|
| sWA OMPeriodDyn          |             |        |               |                                    |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | OMPeriodDyn | String | 11            | Periodic time for full oscillation |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN OMPeriodDyn[ETX]                                 |
| Read Variable Response:                                     | [STX]sRA OMPeriodDyn 3E8 3E8 3E8 3E8 3E8 3E8 3E8 3E8[ETX] |
| Write Variable:   | [STX]sWN OMPeriodDyn 3E8 3E8 3E8 3E8 3E8 3E8 3E8 3E8[ETX] |
| Write Variable Response:                                    | [STX]sWA OMPeriodDyn[ETX]                                 |

### 2.16.1.14. Variable: OMPeriodicTimeRatio

The following section contains a detailed description of the variable OMPeriodicTimeRatio.

#### Variable Overview

| Variable Name       | Description                     |
|---------------------|---------------------------------|
| OMPeriodicTimeRatio | Time ratio between phase1 and 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | OMTimeRatio   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 546   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 10..90 |
| Initialisation       | 50     |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                 |
|-----------------|-------------|--------|---------------|---------------------------------|
| sRN OMTimeRatio |             |        |               |                                 |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name     |
| Command         | OMTimeRatio | String | 11            | Time ratio between phase1 and 2 |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA OMTimeRatio <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | OMTimeRatio | String | 11            | Time ratio between phase1 and 2 |
| Variable Data           | data        | UInt   | 2             |                                 |

| Write Variable:        |             |        |               |                                 |
|------------------------|-------------|--------|---------------|---------------------------------|
| sWN OMTimeRatio <data> |             |        |               |                                 |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name    |
| Command                | OMTimeRatio | String | 11            | Time ratio between phase1 and 2 |
| Variable Data          | data        | UInt   | 2             |                                 |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA OMTimeRatio          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | OMTimeRatio | String | 11            | Time ratio between phase1 and 2  |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN OMTimeRatio[ETX]    |
| Read Variable Response:                                     | [STX]sRA OMTimeRatio 32[ETX] |
| Write Variable:   | [STX]sWN OMTimeRatio 32[ETX] |
| Write Variable Response:                                    | [STX]sWA OMTimeRatio[ETX]    |

### 2.16.1.15. Variable: OMPeriodicTimeRatioDyn

The following section contains a detailed description of the variable OMPeriodicTimeRatioDyn.

#### Variable Overview

| Variable Name          | Description                     |
|------------------------|---------------------------------|
| OMPeriodicTimeRatioDyn | Time ratio between phase1 and 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | OMTimeRatioDyn  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 547   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |        |
|----------------------|--------|
| Length               | 8      |
| <b>UInt</b>          |        |
| Value Range          | 10..90 |
| Initialisation       | 50     |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |                                 |
|--------------------|----------------|--------|---------------|---------------------------------|
| sRN OMTimeRatioDyn |                |        |               |                                 |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                     |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name     |
| Command            | OMTimeRatioDyn | String | 14            | Time ratio between phase1 and 2 |

| Read Variable Response:   |                |        |               |                                 |
|---------------------------|----------------|--------|---------------|---------------------------------|
| sRA OMTimeRatioDyn <data> |                |        |               |                                 |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                     |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge |
| Command                   | OMTimeRatioDyn | String | 14            | Time ratio between phase1 and 2 |
| Variable Data             | data           | Array  | 16            |                                 |

| Write Variable:           |                |        |               |                                 |
|---------------------------|----------------|--------|---------------|---------------------------------|
| sWN OMTimeRatioDyn <data> |                |        |               |                                 |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                     |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name    |
| Command                   | OMTimeRatioDyn | String | 14            | Time ratio between phase1 and 2 |
| Variable Data             | data           | Array  | 16            |                                 |



| Write Variable Response: |                |        |               |                                  |
|--------------------------|----------------|--------|---------------|----------------------------------|
| sWA OMTIMERatioDyn       |                |        |               |                                  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                      |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | OMTIMERatioDyn | String | 14            | Time ratio between phase1 and 2  |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN OMTIMERatioDyn[ETX]                            |
| Read Variable Response:                                     | [STX]sRA OMTIMERatioDyn 32 32 32 32 32 32 32 32 32[ETX] |
| Write Variable:   | [STX]sWN OMTIMERatioDyn 32 32 32 32 32 32 32 32 32[ETX] |
| Write Variable Response:                                    | [STX]sWA OMTIMERatioDyn[ETX]                            |

### 2.16.1.16. Variable: OMDynCfgEnable

The following section contains a detailed description of the variable OMDynCfgEnable.

#### Variable Overview

| Variable Name  | Description                           |
|----------------|---------------------------------------|
| OMDynCfgEnable | Dynamic osc. mirr. cfg. enable switch |

|                       |   |
|-----------------------|---|
| Communication Name    | OMDynCfgEn  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 548   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable: |            |        |               |                                       |
|----------------|------------|--------|---------------|---------------------------------------|
| sRN OMDynCfgEn |            |        |               |                                       |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                           |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name           |
| Command        | OMDynCfgEn | String | 10            | Dynamic osc. mirr. cfg. enable switch |

| Read Variable Response: |            |        |               |                                       |
|-------------------------|------------|--------|---------------|---------------------------------------|
| sRA OMDynCfgEn <data>   |            |        |               |                                       |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                           |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | OMDynCfgEn | String | 10            | Dynamic osc. mirr. cfg. enable switch |
| Variable Data           | data       | Bool   | 1             |                                       |

| Write Variable:       |            |        |               |                                       |
|-----------------------|------------|--------|---------------|---------------------------------------|
| sWN OMDynCfgEn <data> |            |        |               |                                       |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                           |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name          |
| Command               | OMDynCfgEn | String | 10            | Dynamic osc. mirr. cfg. enable switch |
| Variable Data         | data       | Bool   | 1             |                                       |

| Write Variable Response: |            |        |               |                                       |
|--------------------------|------------|--------|---------------|---------------------------------------|
| sWA OMDynCfgEn           |            |        |               |                                       |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                           |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | OMDynCfgEn | String | 10            | Dynamic osc. mirr. cfg. enable switch |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN OMDynCfgEn[ETX]   |
| Read Variable Response:                                     | [STX]sRA OMDynCfgEn 0[ETX] |
| Write Variable:   | [STX]sWN OMDynCfgEn 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OMDynCfgEn[ETX]   |





### 2.16.1.17. Method: OMStart

The following section contains a detailed description of the method OMStart.

#### Method Overview

| Method Name | Description            |
|-------------|------------------------|
| OMStart     | Starts the Osc. mirror |

|                    |          |
|--------------------|----------|
| Communication Name | mOMStart |
| Sopas Index        | 93       |
| Invocation Access  | Always   |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
| <b>Bool</b>    |             |
| Value Range    | False, True |
| Initialisation | False       |

#### Method Telegram Syntax

| Method Invocation: |          |        |               |                                |
|--------------------|----------|--------|---------------|--------------------------------|
| sMN mOMStart       |          |        |               |                                |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                    |
| Command Type       | sMN      | String | 3             | Request (SOPAS Method by Name) |
| Command            | mOMStart | String | 8             | Starts the Osc. mirror         |

| Method Return Value:   |          |        |               |                              |
|------------------------|----------|--------|---------------|------------------------------|
| sAN mOMStart <Success> |          |        |               |                              |
| Telegram Part          | Telegram | Type   | Length [Byte] | Description                  |
| Command Type           | sAN      | String | 3             | Result (SOPAS Method Result) |
| Command                | mOMStart | String | 8             | Starts the Osc. mirror       |
| Return Value 1         | Success  | Bool   | 1             |                              |

#### Method Telegram Examples

| Example: Default Values   |                          |
|---|--------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                          |
| Method Invocation:  | [STX]sMN mOMStart[ETX]   |
| Method Return Value:  | [STX]sAN mOMStart 0[ETX] |



### 2.16.1.18. Method: OMStop

The following section contains a detailed description of the method OMStop.

#### Method Overview

| Method Name | Description           |
|-------------|-----------------------|
| OMStop      | Stops the Osc. mirror |

|                    |         |
|--------------------|---------|
| Communication Name | mOMStop |
| Sopas Index        | 94      |
| Invocation Access  | Always  |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
| <b>Bool</b>    |             |
| Value Range    | False, True |
| Initialisation | False       |

#### Method Telegram Syntax

| Method Invocation: |          |        |               |                                |
|--------------------|----------|--------|---------------|--------------------------------|
| sMN mOMStop        |          |        |               |                                |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                    |
| Command Type       | sMN      | String | 3             | Request (SOPAS Method by Name) |
| Command            | mOMStop  | String | 7             | Stops the Osc. mirror          |

| Method Return Value:  |          |        |               |                              |
|-----------------------|----------|--------|---------------|------------------------------|
| sAN mOMStop <Success> |          |        |               |                              |
| Telegram Part         | Telegram | Type   | Length [Byte] | Description                  |
| Command Type          | sAN      | String | 3             | Result (SOPAS Method Result) |
| Command               | mOMStop  | String | 7             | Stops the Osc. mirror        |
| Return Value 1        | Success  | Bool   | 1             |                              |

#### Method Telegram Examples

| Example: Default Values   |                         |
|---|-------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                         |
| Method Invocation:  | [STX]sMN mOMStop[ETX]   |
| Method Return Value:  | [STX]sAN mOMStop 0[ETX] |

## 2.17. Interface Block: GeneralCfgNetworkBase

### 2.17.1. Group: NetworkBase

#### 2.17.1.1. Variable: NetDeviceID

The following section contains a detailed description of the variable NetDeviceID.

#### Variable Overview

| Variable Name | Description      |
|---------------|------------------|
| NetDeviceID   | ID of the Device |

|                       |   |
|-----------------------|---|
| Communication Name    | NWDevID   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 549   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..127 |
| Initialisation       | 1      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN NWDevID    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | NWDevID  | String | 7             | ID of the Device            |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA NWDevID <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | NWDevID  | String | 7             | ID of the Device                |
| Variable Data           | data     | UInt   | 2             |                                 |

| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN NWDevID <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | NWDevID  | String | 7             | ID of the Device             |
| Variable Data      | data     | UInt   | 2             |                              |



| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA NWDevID              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | NWDevID  | String | 7             | ID of the Device                 |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN NWDevID[ETX]   |
| Read Variable Response:                                     | [STX]sRA NWDevID 1[ETX] |
| Write Variable:   | [STX]sWN NWDevID 1[ETX] |
| Write Variable Response:                                    | [STX]sWA NWDevID[ETX]   |

### 2.17.1.2. Variable: NetMasterSlave

The following section contains a detailed description of the variable NetMasterSlave.

#### Variable Overview

| Variable Name  | Description           |
|----------------|-----------------------|
| NetMasterSlave | Master/Slave Function |

|                       |   |
|-----------------------|---|
| Communication Name    | NWMstSlv  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 550   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_STAND_ALONE |             |
|               | 1     | TX_SLAVE       |             |
|               | 2     | TX_MASTER      |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN NWMstSlv   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | NWMstSlv | String | 8             | Master/Slave Function       |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA NWMstSlv <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | NWMstSlv | String | 8             | Master/Slave Function           |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN NWMstSlv <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | NWMstSlv | String | 8             | Master/Slave Function        |
| Variable Data       | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA NWMstSlv             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | NWMstSlv | String | 8             | Master/Slave Function            |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN NWMstSlv[ETX]   |
| Read Variable Response:                                     | [STX]sRA NWMstSlv 0[ETX] |
| Write Variable:   | [STX]sWN NWMstSlv 0[ETX] |
| Write Variable Response:                                    | [STX]sWA NWMstSlv[ETX]   |

### 2.17.1.3. Variable: NetworkAssignment

The following section contains a detailed description of the variable NetworkAssignment.

#### Variable Overview

| Variable Name     | Description  |
|-------------------|--|
| NetworkAssignment | Network on which Master/Slave function is assigned |

|                       |   |
|-----------------------|---|
| Communication Name    | NWNtwAsgn   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 551   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |          |             |
|---------------|-------|----------|-------------|
| Default Value |       | 0        |             |
|               | Value | Name     | Description |
|               | 0     | TX_CAN_1 |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN NWNtwAsgn  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                        |
| Command        | NWNtwAsgn | String | 9             | Network on which Master/Slave function is assigned |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA NWNtwAsgn <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description  |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                    |
| Command                 | NWNtwAsgn | String | 9             | Network on which Master/Slave function is assigned |
| Variable Data           | data      | Enum8  | 1             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN NWNtwAsgn <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                       |
| Command              | NWNtwAsgn | String | 9             | Network on which Master/Slave function is assigned |
| Variable Data        | data      | Enum8  | 1             |  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA NWNtwAsgn            |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA NWNtwAsgn            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description  |
| Command                  | NWNtwAsgn | String | 9             | Network on which Master/Slave function is assigned |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN NWNtwAsgn[ETX]   |
| Read Variable Response:                                     | [STX]sRA NWNtwAsgn 0[ETX] |
| Write Variable:   | [STX]sWN NWNtwAsgn 0[ETX] |
| Write Variable Response:                                    | [STX]sWA NWNtwAsgn[ETX]   |

### 2.17.1.4. Variable: NetSlaveList

The following section contains a detailed description of the variable NetSlaveList.

#### Variable Overview

| Variable Name | Description                              |
|---------------|--|
| NetSlaveList  | Slave-List of Master/Slave functionality |

|                       |   |
|-----------------------|---|
| Communication Name    | NWslvst   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 552   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |        |
|----------------|--------|
| Length         | 0..180 |
| Initialisation | 1,2    |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN NWslvlst   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                              |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name              |
| Command        | NWslvlst | String | 8             | Slave-List of Master/Slave functionality |

| Read Variable Response: |          |            |               |  |
|-------------------------|----------|------------|---------------|--|
| sRA NWslvlst <data>     |          |            |               |  |
| Telegram Part           | Telegram | Type       | Length [Byte] | Description                              |
| Command Type            | sRA      | String     | 3             | SOPAS Variable Read Acknowledge          |
| Command                 | NWslvlst | String     | 8             | Slave-List of Master/Slave functionality |
| Variable Data           | data     | FlexString | 180           |  |

| Write Variable:     |          |            |               |  |
|---------------------|----------|------------|---------------|--|
| sWN NWslvlst <data> |          |            |               |  |
| Telegram Part       | Telegram | Type       | Length [Byte] | Description                              |
| Command Type        | sWN      | String     | 3             | Write SOPAS Variable by Name             |
| Command             | NWslvlst | String     | 8             | Slave-List of Master/Slave functionality |
| Variable Data       | data     | FlexString | 180           |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA NWslvlst             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                              |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | NWslvlst | String | 8             | Slave-List of Master/Slave functionality |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN NWslvlst[ETX]        |
| Read Variable Response:                                     | [STX]sRA NWslvlst 3 1,2[ETX]  |
| Write Variable:   | [STX]sWN NWslvlst +3 1,2[ETX] |
| Write Variable Response:                                    | [STX]sWA NWslvlst[ETX]        |





### 2.17.1.5. Variable: NetMultiplexerAssignment

The following section contains a detailed description of the variable NetMultiplexerAssignment.

#### Variable Overview

| Variable Name            | Description                                       |
|--------------------------|---|
| NetMultiplexerAssignment | Network on which Multiplexer function is assigned |

|                       |   |
|-----------------------|---|
| Communication Name    | NWMuxAsgn   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 554   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_DISABLED |             |
|               | 1     | TX_CAN_1    |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN NWMuxAsgn  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                                       |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                       |
| Command        | NWMuxAsgn | String | 9             | Network on which Multiplexer function is assigned |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA NWMuxAsgn <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                                       |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                   |
| Command                 | NWMuxAsgn | String | 9             | Network on which Multiplexer function is assigned |
| Variable Data           | data      | Enum8  | 1             |   |

| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN NWMuxAsgn <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                                       |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                      |
| Command              | NWMuxAsgn | String | 9             | Network on which Multiplexer function is assigned |
| Variable Data        | data      | Enum8  | 1             |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA NWMuxAsgn            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                                       |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                  |
| Command                  | NWMuxAsgn | String | 9             | Network on which Multiplexer function is assigned |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| <b>Read Variable:</b>                                       | [STX]sRN NWMuxAsgn[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA NWMuxAsgn 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN NWMuxAsgn 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA NWMuxAsgn[ETX]   |

### 2.17.1.6. Variable: NetServerList

The following section contains a detailed description of the variable NetServerList.

#### Variable Overview

| Variable Name | Description                              |
|---------------|--|
| NetServerList | Server-List of Multiplexer functionality |

|                       |   |
|-----------------------|---|
| Communication Name    | NWsrvlst  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 555   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |        |
|----------------|--------|
| Length         | 0..180 |
| Initialisation | 1,2    |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN NWsrvlst   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                              |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name              |
| Command        | NWsrvlst | String | 8             | Server-List of Multiplexer functionality |

| Read Variable Response: |          |            |               |  |
|-------------------------|----------|------------|---------------|--|
| sRA NWsrvlst <data>     |          |            |               |  |
| Telegram Part           | Telegram | Type       | Length [Byte] | Description                              |
| Command Type            | sRA      | String     | 3             | SOPAS Variable Read Acknowledge          |
| Command                 | NWsrvlst | String     | 8             | Server-List of Multiplexer functionality |
| Variable Data           | data     | FlexString | 180           |  |



| Write Variable:     |          |            |               |  |
|---------------------|----------|------------|---------------|--|
| sWN NWsrvtst <data> |          |            |               |  |
| Telegram Part       | Telegram | Type       | Length [Byte] | Description                              |
| Command Type        | sWN      | String     | 3             | Write SOPAS Variable by Name             |
| Command             | NWsrvtst | String     | 8             | Server-List of Multiplexer functionality |
| Variable Data       | data     | FlexString | 180           |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA NWsrvtst             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                              |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | NWsrvtst | String | 8             | Server-List of Multiplexer functionality |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN NWsrvtst[ETX]        |
| Read Variable Response:                                     | [STX]sRA NWsrvtst 3 1,2[ETX]  |
| Write Variable:   | [STX]sWN NWsrvtst +3 1,2[ETX] |
| Write Variable Response:                                    | [STX]sWA NWsrvtst[ETX]        |

### 2.17.1.7. Variable: NetMonAssignment1

The following section contains a detailed description of the variable NetMonAssignment1.

#### Variable Overview

| Variable Name     | Description                                      |
|-------------------|--|
| NetMonAssignment1 | Network on which monitoring function is assigned |

|                       |   |
|-----------------------|---|
| Communication Name    | NWmonasgn1  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 556   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_DISABLED |             |
|               | 1     | TX_CAN_1    |             |



## Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN NWmonasgn1 |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                                      |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                      |
| Command        | NWmonasgn1 | String | 10            | Network on which monitoring function is assigned |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA NWmonasgn1 <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                                      |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                  |
| Command                 | NWmonasgn1 | String | 10            | Network on which monitoring function is assigned |
| Variable Data           | data       | Enum8  | 1             |  |

| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN NWmonasgn1 <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                                      |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                     |
| Command               | NWmonasgn1 | String | 10            | Network on which monitoring function is assigned |
| Variable Data         | data       | Enum8  | 1             |  |

| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA NWmonasgn1           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                                      |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                 |
| Command                  | NWmonasgn1 | String | 10            | Network on which monitoring function is assigned |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN NWmonasgn1[ETX]   |
| Read Variable Response:                                     | [STX]sRA NWmonasgn1 0[ETX] |
| Write Variable:   | [STX]sWN NWmonasgn1 0[ETX] |
| Write Variable Response:                                    | [STX]sWA NWmonasgn1[ETX]   |



### 2.17.1.8. Variable: NetMonDevList1

The following section contains a detailed description of the variable NetMonDevList1.

#### Variable Overview

| Variable Name  | Description                         |
|----------------|-------------------------------------|
| NetMonDevList1 | List of devices which are monitored |

|                       |   |
|-----------------------|---|
| Communication Name    | NWmondevlst1  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 557   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |        |
|----------------|--------|
| Length         | 0..180 |
| Initialisation | 1,2    |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |                                     |
|------------------|--------------|--------|---------------|-------------------------------------|
| sRN NWmondevlst1 |              |        |               |                                     |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                         |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name         |
| Command          | NWmondevlst1 | String | 12            | List of devices which are monitored |

| Read Variable Response: |              |            |               |                                     |
|-------------------------|--------------|------------|---------------|-------------------------------------|
| sRA NWmondevlst1 <data> |              |            |               |                                     |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                         |
| Command Type            | sRA          | String     | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | NWmondevlst1 | String     | 12            | List of devices which are monitored |
| Variable Data           | data         | FlexString | 180           |                                     |

| Write Variable:         |              |            |               |                                     |
|-------------------------|--------------|------------|---------------|-------------------------------------|
| sWN NWmondevlst1 <data> |              |            |               |                                     |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                         |
| Command Type            | sWN          | String     | 3             | Write SOPAS Variable by Name        |
| Command                 | NWmondevlst1 | String     | 12            | List of devices which are monitored |
| Variable Data           | data         | FlexString | 180           |                                     |

| Write Variable Response: |              |        |               |                                     |
|--------------------------|--------------|--------|---------------|-------------------------------------|
| sWA NWmondevlst1         |              |        |               |                                     |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                         |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | NWmondevlst1 | String | 12            | List of devices which are monitored |



## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN NWmondev1st1[ETX]        |
| Read Variable Response:                                     | [STX]sRA NWmondev1st1 3 1,2[ETX]  |
| Write Variable:   | [STX]sWN NWmondev1st1 +3 1,2[ETX] |
| Write Variable Response:                                    | [STX]sWA NWmondev1st1[ETX]        |

### 2.17.1.9. Variable: NetMonAssignment2

The following section contains a detailed description of the variable NetMonAssignment2.

#### Variable Overview

| Variable Name     | Description                                      |
|-------------------|--|
| NetMonAssignment2 | Network on which monitoring function is assigned |

|                       |   |
|-----------------------|---|
| Communication Name    | NWmonasgn2  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 558   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_DISABLED |             |
|               | 1     | TX_CAN_1    |             |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN NWmonasgn2 |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                                      |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                      |
| Command        | NWmonasgn2 | String | 10            | Network on which monitoring function is assigned |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA NWmonasgn2 <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                                      |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                  |
| Command                 | NWmonasgn2 | String | 10            | Network on which monitoring function is assigned |
| Variable Data           | data       | Enum8  | 1             |  |



| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN NWmonasgn2 <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                                      |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                     |
| Command               | NWmonasgn2 | String | 10            | Network on which monitoring function is assigned |
| Variable Data         | data       | Enum8  | 1             |  |

| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA NWmonasgn2           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                                      |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                 |
| Command                  | NWmonasgn2 | String | 10            | Network on which monitoring function is assigned |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN NWmonasgn2[ETX]   |
| Read Variable Response:                                     | [STX]sRA NWmonasgn2 0[ETX] |
| Write Variable:   | [STX]sWN NWmonasgn2 0[ETX] |
| Write Variable Response:                                    | [STX]sWA NWmonasgn2[ETX]   |

### 2.17.1.10. Variable: NetMonDevList2

The following section contains a detailed description of the variable NetMonDevList2.

#### Variable Overview

| Variable Name  | Description                         |
|----------------|-------------------------------------|
| NetMonDevList2 | List of devices which are monitored |

|                       |   |
|-----------------------|---|
| Communication Name    | NWmondevlst2  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 559   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |        |
|----------------|--------|
| Length         | 0..180 |
| Initialisation | 1,2    |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |                                     |
|------------------|--------------|--------|---------------|-------------------------------------|
| sRN NWmondevlst2 |              |        |               |                                     |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                         |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name         |
| Command          | NWmondevlst2 | String | 12            | List of devices which are monitored |

| Read Variable Response: |              |            |               |                                     |
|-------------------------|--------------|------------|---------------|-------------------------------------|
| sRA NWmondevlst2 <data> |              |            |               |                                     |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                         |
| Command Type            | sRA          | String     | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | NWmondevlst2 | String     | 12            | List of devices which are monitored |
| Variable Data           | data         | FlexString | 180           |                                     |

| Write Variable:         |              |            |               |                                     |
|-------------------------|--------------|------------|---------------|-------------------------------------|
| sWN NWmondevlst2 <data> |              |            |               |                                     |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                         |
| Command Type            | sWN          | String     | 3             | Write SOPAS Variable by Name        |
| Command                 | NWmondevlst2 | String     | 12            | List of devices which are monitored |
| Variable Data           | data         | FlexString | 180           |                                     |

| Write Variable Response: |              |        |               |                                     |
|--------------------------|--------------|--------|---------------|-------------------------------------|
| sWA NWmondevlst2         |              |        |               |                                     |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                         |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | NWmondevlst2 | String | 12            | List of devices which are monitored |

## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN NWmondevlst2[ETX]        |
| Read Variable Response:                                     | [STX]sRA NWmondevlst2 3 1,2[ETX]  |
| Write Variable:   | [STX]sWN NWmondevlst2 +3 1,2[ETX] |
| Write Variable Response:                                    | [STX]sWA NWmondevlst2[ETX]        |



### 2.17.1.11. Variable: NetMonTimeout

The following section contains a detailed description of the variable NetMonTimeout.

#### Variable Overview

| Variable Name | Description            |
|---------------|------------------------|
| NetMonTimeout | Timeout for monitoring |

|                       |   |
|-----------------------|---|
| Communication Name    | NWmontimeout  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 560   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 0..300 |
| Initialisation       | 80     |
| Physical Unit        | s      |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |                             |
|------------------|--------------|--------|---------------|-----------------------------|
| sRN NWmontimeout |              |        |               |                             |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                 |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name |
| Command          | NWmontimeout | String | 12            | Timeout for monitoring      |

| Read Variable Response: |              |        |               |                                 |
|-------------------------|--------------|--------|---------------|---------------------------------|
| sRA NWmontimeout <data> |              |        |               |                                 |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | NWmontimeout | String | 12            | Timeout for monitoring          |
| Variable Data           | data         | UInt   | 2             |                                 |

| Write Variable:         |              |        |               |                              |
|-------------------------|--------------|--------|---------------|------------------------------|
| sWN NWmontimeout <data> |              |        |               |                              |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                  |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name |
| Command                 | NWmontimeout | String | 12            | Timeout for monitoring       |
| Variable Data           | data         | UInt   | 2             |                              |

| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA NWmontimeout         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | NWmontimeout | String | 12            | Timeout for monitoring           |



## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN NWmontimeout[ETX]    |
| Read Variable Response:                                     | [STX]sRA NWmontimeout 50[ETX] |
| Write Variable:   | [STX]sWN NWmontimeout 50[ETX] |
| Write Variable Response:                                    | [STX]sWA NWmontimeout[ETX]    |



## 2.18. Interface Block: GeneralCfgRDT400Base

### 2.18.1. Group: RDT400ConfigBase

#### 2.18.1.1. Variable: RDTCTCond1Enum

The following section contains a detailed description of the variable RDTCTCond1Enum.

##### Variable Overview

| Variable Name  | Description                             |
|----------------|---|
| RDTCTCond1Enum | Enum of Condition for codetype1 for RDT |

|                       |   |
|-----------------------|---|
| Communication Name    | RCBrdtctcond1enum                                       |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 561   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_NOT_DEFINED |             |
|               | 1     | TX_WILDCARD    |             |

##### Variable Telegram Syntax

| Read Variable:        |                   |        |               |   |
|-----------------------|-------------------|--------|---------------|---|
| sRN RCBrdtctcond1enum |                   |        |               |   |
| Telegram Part         | Telegram          | Type   | Length [Byte] | Description                             |
| Command Type          | sRN               | String | 3             | Read SOPAS Variable by Name             |
| Command               | RCBrdtctcond1enum | String | 17            | Enum of Condition for codetype1 for RDT |

| Read Variable Response:      |                   |        |               |   |
|------------------------------|-------------------|--------|---------------|---|
| sRA RCBrdtctcond1enum <data> |                   |        |               |   |
| Telegram Part                | Telegram          | Type   | Length [Byte] | Description                             |
| Command Type                 | sRA               | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                      | RCBrdtctcond1enum | String | 17            | Enum of Condition for codetype1 for RDT |
| Variable Data                | data              | Enum8  | 1             |   |

| Write Variable:              |                   |        |               |   |
|------------------------------|-------------------|--------|---------------|---|
| sWN RCBrdtctcond1enum <data> |                   |        |               |   |
| Telegram Part                | Telegram          | Type   | Length [Byte] | Description                             |
| Command Type                 | sWN               | String | 3             | Write SOPAS Variable by Name            |
| Command                      | RCBrdtctcond1enum | String | 17            | Enum of Condition for codetype1 for RDT |
| Variable Data                | data              | Enum8  | 1             |   |



| Write Variable Response: |                   |        |               |   |
|--------------------------|-------------------|--------|---------------|---|
| sWA RCBrdtctcondlenum    |                   |        |               |   |
| Telegram Part            | Telegram          | Type   | Length [Byte] | Description                             |
| Command Type             | sWA               | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | RCBrdtctcond1enum | String | 17            | Enum of Condition for codetype1 for RDT |

## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN RCBrdtctcondlenum[ETX]   |
| Read Variable Response:                                     | [STX]sRA RCBrdtctcondlenum 0[ETX] |
| Write Variable:   | [STX]sWN RCBrdtctcondlenum 0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCBrdtctcondlenum[ETX]   |

### 2.18.1.2. Variable: RDTCTCond1Struct

The following section contains a detailed description of the variable RDTCTCond1Struct.

#### Variable Overview

| Variable Name    | Description                               |
|------------------|---|
| RDTCTCond1Struct | Struct of Condition for codetype1 for RDT |

|                       |   |
|-----------------------|---|
| Communication Name    | RCBrdtctcond1struct                                     |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 562   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UserType              |   |
|-----------------------|---|
| SETEditExtendibleEnum | See the chapter "User Types" for details. |



## Variable Telegram Syntax

| Read Variable:          |                     |        |               |   |
|-------------------------|---------------------|--------|---------------|---|
| sRN RCBrdtctcondlstruct |                     |        |               |   |
| Telegram Part           | Telegram            | Type   | Length [Byte] | Description                               |
| Command Type            | sRN                 | String | 3             | Read SOPAS Variable by Name               |
| Command                 | RCBrdtctcond1struct | String | 19            | Struct of Condition for codetype1 for RDT |

| Read Variable Response:        |                     |                       |               |   |
|--------------------------------|---------------------|-----------------------|---------------|---|
| sRA RCBrdtctcondlstruct <data> |                     |                       |               |   |
| Telegram Part                  | Telegram            | Type                  | Length [Byte] | Description                               |
| Command Type                   | sRA                 | String                | 3             | SOPAS Variable Read Acknowledge           |
| Command                        | RCBrdtctcond1struct | String                | 19            | Struct of Condition for codetype1 for RDT |
| Variable Data                  | data                | SETEditExtensibleEnum | 19            |   |

| Write Variable:                |                     |                       |               |   |
|--------------------------------|---------------------|-----------------------|---------------|---|
| sWN RCBrdtctcondlstruct <data> |                     |                       |               |   |
| Telegram Part                  | Telegram            | Type                  | Length [Byte] | Description                               |
| Command Type                   | sWN                 | String                | 3             | Write SOPAS Variable by Name              |
| Command                        | RCBrdtctcond1struct | String                | 19            | Struct of Condition for codetype1 for RDT |
| Variable Data                  | data                | SETEditExtensibleEnum | 19            |   |

| Write Variable Response: |                     |        |               |   |
|--------------------------|---------------------|--------|---------------|---|
| sWA RCBrdtctcondlstruct  |                     |        |               |   |
| Telegram Part            | Telegram            | Type   | Length [Byte] | Description                               |
| Command Type             | sWA                 | String | 3             | SOPAS Variable Write Acknowledge          |
| Command                  | RCBrdtctcond1struct | String | 19            | Struct of Condition for codetype1 for RDT |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN RCBrdtctcondlstruct[ETX]        |
| Read Variable Response:                                     | [STX]sRA RCBrdtctcondlstruct 0 0[ETX]    |
| Write Variable:   | [STX]sWN RCBrdtctcondlstruct 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCBrdtctcondlstruct[ETX]        |

### 2.18.1.3. Variable: RDTCTCond2Enum

The following section contains a detailed description of the variable RDTCTCond2Enum.

#### Variable Overview

| Variable Name  | Description                             |
|----------------|---|
| RDTCTCond2Enum | Enum of Condition for codetype2 for RDT |

|                       |   |
|-----------------------|---|
| Communication Name    | RCBrdtctcond2enum                                       |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 563   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_NOT_DEFINED |             |
|               | 1     | TX_WILDCARD    |             |

#### Variable Telegram Syntax

| Read Variable:        |                   |        |               |   |
|-----------------------|-------------------|--------|---------------|---|
| sRN RCBrdtctcond2enum |                   |        |               |   |
| Telegram Part         | Telegram          | Type   | Length [Byte] | Description                             |
| Command Type          | sRN               | String | 3             | Read SOPAS Variable by Name             |
| Command               | RCBrdtctcond2enum | String | 17            | Enum of Condition for codetype2 for RDT |

| Read Variable Response:      |                   |        |               |   |
|------------------------------|-------------------|--------|---------------|---|
| sRA RCBrdtctcond2enum <data> |                   |        |               |   |
| Telegram Part                | Telegram          | Type   | Length [Byte] | Description                             |
| Command Type                 | sRA               | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                      | RCBrdtctcond2enum | String | 17            | Enum of Condition for codetype2 for RDT |
| Variable Data                | data              | Enum8  | 1             |   |

| Write Variable:              |                   |        |               |   |
|------------------------------|-------------------|--------|---------------|---|
| sWN RCBrdtctcond2enum <data> |                   |        |               |   |
| Telegram Part                | Telegram          | Type   | Length [Byte] | Description                             |
| Command Type                 | sWN               | String | 3             | Write SOPAS Variable by Name            |
| Command                      | RCBrdtctcond2enum | String | 17            | Enum of Condition for codetype2 for RDT |
| Variable Data                | data              | Enum8  | 1             |   |

| Write Variable Response: |                   |        |               |   |
|--------------------------|-------------------|--------|---------------|---|
| sWA RCBrdtctcond2enum    |                   |        |               |   |
| Telegram Part            | Telegram          | Type   | Length [Byte] | Description                             |
| Command Type             | sWA               | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | RCBrdtctcond2enum | String | 17            | Enum of Condition for codetype2 for RDT |



## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN RCBrdtctcond2enum[ETX]   |
| Read Variable Response:                                     | [STX]sRA RCBrdtctcond2enum 0[ETX] |
| Write Variable:   | [STX]sWN RCBrdtctcond2enum 0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCBrdtctcond2enum[ETX]   |

### 2.18.1.4. Variable: RDTCTCond2Struct

The following section contains a detailed description of the variable RDTCTCond2Struct.

#### Variable Overview

| Variable Name    | Description                               |
|------------------|---|
| RDTCTCond2Struct | Struct of Condition for codetype2 for RDT |

|                       |   |
|-----------------------|---|
| Communication Name    | RCBrdtctcond2struct                                     |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 564   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UserType              |   |
|-----------------------|---|
| SETEditExtensibleEnum | See the chapter "User Types" for details. |

#### Variable Telegram Syntax

| Read Variable:          |                     |        |               |   |
|-------------------------|---------------------|--------|---------------|---|
| sRN RCBrdtctcond2struct |                     |        |               |   |
| Telegram Part           | Telegram            | Type   | Length [Byte] | Description                               |
| Command Type            | sRN                 | String | 3             | Read SOPAS Variable by Name               |
| Command                 | RCBrdtctcond2struct | String | 19            | Struct of Condition for codetype2 for RDT |

| Read Variable Response:        |                     |                       |               |   |
|--------------------------------|---------------------|-----------------------|---------------|---|
| sRA RCBrdtctcond2struct <data> |                     |                       |               |   |
| Telegram Part                  | Telegram            | Type                  | Length [Byte] | Description                               |
| Command Type                   | sRA                 | String                | 3             | SOPAS Variable Read Acknowledge           |
| Command                        | RCBrdtctcond2struct | String                | 19            | Struct of Condition for codetype2 for RDT |
| Variable Data                  | data                | SETEditExtensibleEnum | 19            |   |



| Write Variable:                |                     |                       |               |   |
|--------------------------------|---------------------|-----------------------|---------------|---|
| sWN RCBrdtctcond2struct <data> |                     |                       |               |   |
| Telegram Part                  | Telegram            | Type                  | Length [Byte] | Description                               |
| Command Type                   | sWN                 | String                | 3             | Write SOPAS Variable by Name              |
| Command                        | RCBrdtctcond2struct | String                | 19            | Struct of Condition for codetype2 for RDT |
| Variable Data                  | data                | SETEditExtensibleEnum | 19            |   |

| Write Variable Response: |                     |        |               |   |
|--------------------------|---------------------|--------|---------------|---|
| sWA RCBrdtctcond2struct  |                     |        |               |   |
| Telegram Part            | Telegram            | Type   | Length [Byte] | Description                               |
| Command Type             | sWA                 | String | 3             | SOPAS Variable Write Acknowledge          |
| Command                  | RCBrdtctcond2struct | String | 19            | Struct of Condition for codetype2 for RDT |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN RCBrdtctcond2struct[ETX]        |
| Read Variable Response:                                     | [STX]sRA RCBrdtctcond2struct 0 0[ETX]    |
| Write Variable:   | [STX]sWN RCBrdtctcond2struct 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCBrdtctcond2struct[ETX]        |

### 2.18.1.5. Variable: RDTCTCond3Enum

The following section contains a detailed description of the variable RDTCTCond3Enum.

#### Variable Overview

| Variable Name  | Description                             |
|----------------|---|
| RDTCTCond3Enum | Enum of Condition for codetype3 for RDT |

|                       |   |
|-----------------------|---|
| Communication Name    | RCBrdtctcond3enum                                       |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 565   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_NOT_DEFINED |             |
|               | 1     | TX_WILDCARD    |             |





## Variable Telegram Syntax

| Read Variable:        |                   |        |               |   |
|-----------------------|-------------------|--------|---------------|---|
| sRN RCBrdtctcond3enum |                   |        |               |   |
| Telegram Part         | Telegram          | Type   | Length [Byte] | Description                             |
| Command Type          | sRN               | String | 3             | Read SOPAS Variable by Name             |
| Command               | RCBrdtctcond3enum | String | 17            | Enum of Condition for codetype3 for RDT |

| Read Variable Response:      |                   |        |               |   |
|------------------------------|-------------------|--------|---------------|---|
| sRA RCBrdtctcond3enum <data> |                   |        |               |   |
| Telegram Part                | Telegram          | Type   | Length [Byte] | Description                             |
| Command Type                 | sRA               | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                      | RCBrdtctcond3enum | String | 17            | Enum of Condition for codetype3 for RDT |
| Variable Data                | data              | Enum8  | 1             |   |

| Write Variable:              |                   |        |               |   |
|------------------------------|-------------------|--------|---------------|---|
| sWN RCBrdtctcond3enum <data> |                   |        |               |   |
| Telegram Part                | Telegram          | Type   | Length [Byte] | Description                             |
| Command Type                 | sWN               | String | 3             | Write SOPAS Variable by Name            |
| Command                      | RCBrdtctcond3enum | String | 17            | Enum of Condition for codetype3 for RDT |
| Variable Data                | data              | Enum8  | 1             |   |

| Write Variable Response: |                   |        |               |   |
|--------------------------|-------------------|--------|---------------|---|
| sWA RCBrdtctcond3enum    |                   |        |               |   |
| Telegram Part            | Telegram          | Type   | Length [Byte] | Description                             |
| Command Type             | sWA               | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | RCBrdtctcond3enum | String | 17            | Enum of Condition for codetype3 for RDT |

## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN RCBrdtctcond3enum[ETX]   |
| Read Variable Response:                                     | [STX]sRA RCBrdtctcond3enum 0[ETX] |
| Write Variable:   | [STX]sWN RCBrdtctcond3enum 0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCBrdtctcond3enum[ETX]   |

### 2.18.1.6. Variable: RDTCTCond3Struct

The following section contains a detailed description of the variable RDTCTCond3Struct.

#### Variable Overview

| Variable Name    | Description                               |
|------------------|---|
| RDTCTCond3Struct | Struct of Condition for codetype3 for RDT |

|                       |   |
|-----------------------|---|
| Communication Name    | RCBrdtctcond3struct                                     |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 566   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UserType              |   |
|-----------------------|---|
| SETEditExtensibleEnum | See the chapter "User Types" for details. |

#### Variable Telegram Syntax

| Read Variable:          |                     |        |               |   |
|-------------------------|---------------------|--------|---------------|---|
| sRN RCBrdtctcond3struct |                     |        |               |   |
| Telegram Part           | Telegram            | Type   | Length [Byte] | Description                               |
| Command Type            | sRN                 | String | 3             | Read SOPAS Variable by Name               |
| Command                 | RCBrdtctcond3struct | String | 19            | Struct of Condition for codetype3 for RDT |

| Read Variable Response:        |                     |                       |               |   |
|--------------------------------|---------------------|-----------------------|---------------|---|
| sRA RCBrdtctcond3struct <data> |                     |                       |               |   |
| Telegram Part                  | Telegram            | Type                  | Length [Byte] | Description                               |
| Command Type                   | sRA                 | String                | 3             | SOPAS Variable Read Acknowledge           |
| Command                        | RCBrdtctcond3struct | String                | 19            | Struct of Condition for codetype3 for RDT |
| Variable Data                  | data                | SETEditExtensibleEnum | 19            |   |

| Write Variable:                |                     |                       |               |   |
|--------------------------------|---------------------|-----------------------|---------------|---|
| sWN RCBrdtctcond3struct <data> |                     |                       |               |   |
| Telegram Part                  | Telegram            | Type                  | Length [Byte] | Description                               |
| Command Type                   | sWN                 | String                | 3             | Write SOPAS Variable by Name              |
| Command                        | RCBrdtctcond3struct | String                | 19            | Struct of Condition for codetype3 for RDT |
| Variable Data                  | data                | SETEditExtensibleEnum | 19            |   |

| Write Variable Response: |                     |        |               |   |
|--------------------------|---------------------|--------|---------------|---|
| sWA RCBrdtctcond3struct  |                     |        |               |   |
| Telegram Part            | Telegram            | Type   | Length [Byte] | Description                               |
| Command Type             | sWA                 | String | 3             | SOPAS Variable Write Acknowledge          |
| Command                  | RCBrdtctcond3struct | String | 19            | Struct of Condition for codetype3 for RDT |



## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN RCBrdtctcond3struct[ETX]        |
| Read Variable Response:                                     | [STX]sRA RCBrdtctcond3struct 0 0[ETX]    |
| Write Variable:   | [STX]sWN RCBrdtctcond3struct 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCBrdtctcond3struct[ETX]        |

### 2.18.1.7. Variable: RDTSendTraces

The following section contains a detailed description of the variable RDTSendTraces.

#### Variable Overview

| Variable Name | Description                           |
|---------------|---------------------------------------|
| RDTSendTraces | Activates the traces to RDT interface |

|                       |   |
|-----------------------|---|
| Communication Name    | OFrdtsendtraces   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 567   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:      |                 |        |               |                                       |
|---------------------|-----------------|--------|---------------|---------------------------------------|
| sRN OFrdtsendtraces |                 |        |               |                                       |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                           |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name           |
| Command             | OFrdtsendtraces | String | 15            | Activates the traces to RDT interface |

| Read Variable Response:    |                 |        |               |                                       |
|----------------------------|-----------------|--------|---------------|---------------------------------------|
| sRA OFrdtsendtraces <data> |                 |        |               |                                       |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                           |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                    | OFrdtsendtraces | String | 15            | Activates the traces to RDT interface |
| Variable Data              | data            | Bool   | 1             |                                       |



| Write Variable:            |                 |        |               |                                       |
|----------------------------|-----------------|--------|---------------|---------------------------------------|
| sWN OFrdtsendtraces <data> |                 |        |               |                                       |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                           |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name          |
| Command                    | OFrdtsendtraces | String | 15            | Activates the traces to RDT interface |
| Variable Data              | data            | Bool   | 1             |                                       |

| Write Variable Response: |                 |        |               |                                       |
|--------------------------|-----------------|--------|---------------|---------------------------------------|
| sWA OFrdtsendtraces      |                 |        |               |                                       |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                           |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | OFrdtsendtraces | String | 15            | Activates the traces to RDT interface |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN OFrdtsendtraces[ETX]   |
| Read Variable Response:                                     | [STX]sRA OFrdtsendtraces 0[ETX] |
| Write Variable:   | [STX]sWN OFrdtsendtraces 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OFrdtsendtraces[ETX]   |

### 2.18.1.8. Variable: RDTSendCommTraces

The following section contains a detailed description of the variable RDTSendCommTraces.

#### Variable Overview

| Variable Name     | Description   |
|-------------------|---|
| RDTSendCommTraces | Activates the communication traces to RDT interface |

|                       |   |
|-----------------------|---|
| Communication Name    | OFrdtsendcommtraces                                     |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 568   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:          |                     |        |               |   |
|-------------------------|---------------------|--------|---------------|---|
| sRN OFrdtsendcommtraces |                     |        |               |   |
| Telegram Part           | Telegram            | Type   | Length [Byte] | Description   |
| Command Type            | sRN                 | String | 3             | Read SOPAS Variable by Name                         |
| Command                 | OFrdtsendcommtraces | String | 19            | Activates the communication traces to RDT interface |

| Read Variable Response:        |                     |        |               |   |
|--------------------------------|---------------------|--------|---------------|---|
| sRA OFrdtsendcommtraces <data> |                     |        |               |   |
| Telegram Part                  | Telegram            | Type   | Length [Byte] | Description   |
| Command Type                   | sRA                 | String | 3             | SOPAS Variable Read Acknowledge                     |
| Command                        | OFrdtsendcommtraces | String | 19            | Activates the communication traces to RDT interface |
| Variable Data                  | data                | Bool   | 1             |   |

| Write Variable:                |                     |        |               |   |
|--------------------------------|---------------------|--------|---------------|---|
| sWN OFrdtsendcommtraces <data> |                     |        |               |   |
| Telegram Part                  | Telegram            | Type   | Length [Byte] | Description   |
| Command Type                   | sWN                 | String | 3             | Write SOPAS Variable by Name                        |
| Command                        | OFrdtsendcommtraces | String | 19            | Activates the communication traces to RDT interface |
| Variable Data                  | data                | Bool   | 1             |   |

| Write Variable Response: |                     |        |               |   |
|--------------------------|---------------------|--------|---------------|---|
| sWA OFrdtsendcommtraces  |                     |        |               |   |
| Telegram Part            | Telegram            | Type   | Length [Byte] | Description   |
| Command Type             | sWA                 | String | 3             | SOPAS Variable Write Acknowledge                    |
| Command                  | OFrdtsendcommtraces | String | 19            | Activates the communication traces to RDT interface |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| Read Variable:  | [STX]sRN OFrdtsendcommtraces[ETX]   |
| Read Variable Response:                                     | [STX]sRA OFrdtsendcommtraces 0[ETX] |
| Write Variable:   | [STX]sWN OFrdtsendcommtraces 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OFrdtsendcommtraces[ETX]   |

### 2.18.1.9. Variable: RDTEnableErrors

The following section contains a detailed description of the variable RDTEnableErrors.

#### Variable Overview

| Variable Name   | Description  |
|-----------------|--|
| RDTEnableErrors | Activates the error numbers in the telegram of RDT interface |

|                       |   |
|-----------------------|---|
| Communication Name    | OFrdtenaerrors  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 569   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |  |
|--------------------|----------------|--------|---------------|--|
| sRN OFrdtenaerrors |                |        |               |  |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description  |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name                                  |
| Command            | OFrdtenaerrors | String | 14            | Activates the error numbers in the telegram of RDT interface |

| Read Variable Response:   |                |        |               |  |
|---------------------------|----------------|--------|---------------|--|
| sRA OFrdtenaerrors <data> |                |        |               |  |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description  |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge                              |
| Command                   | OFrdtenaerrors | String | 14            | Activates the error numbers in the telegram of RDT interface |
| Variable Data             | data           | Bool   | 1             |  |

| Write Variable:           |                |        |               |  |
|---------------------------|----------------|--------|---------------|--|
| sWN OFrdtenaerrors <data> |                |        |               |  |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description  |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name                                 |
| Command                   | OFrdtenaerrors | String | 14            | Activates the error numbers in the telegram of RDT interface |
| Variable Data             | data           | Bool   | 1             |  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA OFrdtenaerrors       |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |                |        |               |  |
|--------------------------|----------------|--------|---------------|--|
| sWA OFrdtenaerrors       |                |        |               |  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description  |
| Command                  | OFrdtenaerrors | String | 14            | Activates the error numbers in the telegram of RDT interface |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN OFrdtenaerrors[ETX]   |
| Read Variable Response:                                     | [STX]sRA OFrdtenaerrors 1[ETX] |
| Write Variable:   | [STX]sWN OFrdtenaerrors 1[ETX] |
| Write Variable Response:                                    | [STX]sWA OFrdtenaerrors[ETX]   |

### 2.18.1.10. Variable: RDTVMSSendTraces

The following section contains a detailed description of the variable RDTVMSSendTraces.

#### Variable Overview

| Variable Name    | Description                               |
|------------------|---|
| RDTVMSSendTraces | Activates the traces to RDT VMS interface |

|                       |   |
|-----------------------|---|
| Communication Name    | OFrdtmssendtraces                                       |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 570   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

## Variable Telegram Syntax

| Read Variable:        |                   |        |               |   |
|-----------------------|-------------------|--------|---------------|---|
| sRN OFrdtmssendtraces |                   |        |               |   |
| Telegram Part         | Telegram          | Type   | Length [Byte] | Description                               |
| Command Type          | sRN               | String | 3             | Read SOPAS Variable by Name               |
| Command               | OFrdtmssendtraces | String | 18            | Activates the traces to RDT VMS interface |

| Read Variable Response:      |                   |        |               |   |
|------------------------------|-------------------|--------|---------------|---|
| sRA OFrdtmssendtraces <data> |                   |        |               |   |
| Telegram Part                | Telegram          | Type   | Length [Byte] | Description                               |
| Command Type                 | sRA               | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                      | OFrdtmssendtraces | String | 18            | Activates the traces to RDT VMS interface |
| Variable Data                | data              | Bool   | 1             |   |

| Write Variable:              |                   |        |               |   |
|------------------------------|-------------------|--------|---------------|---|
| sWN OFrdtmssendtraces <data> |                   |        |               |   |
| Telegram Part                | Telegram          | Type   | Length [Byte] | Description                               |
| Command Type                 | sWN               | String | 3             | Write SOPAS Variable by Name              |
| Command                      | OFrdtmssendtraces | String | 18            | Activates the traces to RDT VMS interface |
| Variable Data                | data              | Bool   | 1             |   |

| Write Variable Response: |                   |        |               |   |
|--------------------------|-------------------|--------|---------------|---|
| sWA OFrdtmssendtraces    |                   |        |               |   |
| Telegram Part            | Telegram          | Type   | Length [Byte] | Description                               |
| Command Type             | sWA               | String | 3             | SOPAS Variable Write Acknowledge          |
| Command                  | OFrdtmssendtraces | String | 18            | Activates the traces to RDT VMS interface |

## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN OFrdtmssendtraces[ETX]   |
| Read Variable Response:                                     | [STX]sRA OFrdtmssendtraces 0[ETX] |
| Write Variable:   | [STX]sWN OFrdtmssendtraces 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OFrdtmssendtraces[ETX]   |



### 2.18.1.11. Variable: RDTVMSSendCommTraces

The following section contains a detailed description of the variable RDTVMSSendCommTraces.

#### Variable Overview

| Variable Name        | Description   |
|----------------------|---|
| RDTVMSSendCommTraces | Activates the communication traces to RDT VMS interface |

|                       |   |
|-----------------------|---|
| Communication Name    | OFrdtmssendcommtraces                                   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 571   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:            |                       |        |               |   |
|---------------------------|-----------------------|--------|---------------|---|
| sRN OFrdtmssendcommtraces |                       |        |               |   |
| Telegram Part             | Telegram              | Type   | Length [Byte] | Description   |
| Command Type              | sRN                   | String | 3             | Read SOPAS Variable by Name                             |
| Command                   | OFrdtmssendcommtraces | String | 22            | Activates the communication traces to RDT VMS interface |

| Read Variable Response:          |                       |        |               |   |
|----------------------------------|-----------------------|--------|---------------|---|
| sRA OFrdtmssendcommtraces <data> |                       |        |               |   |
| Telegram Part                    | Telegram              | Type   | Length [Byte] | Description   |
| Command Type                     | sRA                   | String | 3             | SOPAS Variable Read Acknowledge                         |
| Command                          | OFrdtmssendcommtraces | String | 22            | Activates the communication traces to RDT VMS interface |
| Variable Data                    | data                  | Bool   | 1             |   |

| Write Variable:                  |                       |        |               |   |
|----------------------------------|-----------------------|--------|---------------|---|
| sWN OFrdtmssendcommtraces <data> |                       |        |               |   |
| Telegram Part                    | Telegram              | Type   | Length [Byte] | Description   |
| Command Type                     | sWN                   | String | 3             | Write SOPAS Variable by Name                            |
| Command                          | OFrdtmssendcommtraces | String | 22            | Activates the communication traces to RDT VMS interface |
| Variable Data                    | data                  | Bool   | 1             |   |

| Write Variable Response:  |          |        |               |                                  |
|---------------------------|----------|--------|---------------|----------------------------------|
| sWA OFrdtmssendcommtraces |          |        |               |                                  |
| Telegram Part             | Telegram | Type   | Length [Byte] | Description                      |
| Command Type              | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response:  |                       |        |               |   |
|---------------------------|-----------------------|--------|---------------|---|
| sWA OFrdtmssendcommtraces |                       |        |               |   |
| Telegram Part             | Telegram              | Type   | Length [Byte] | Description   |
| Command                   | OFrdtmssendcommtraces | String | 22            | Activates the communication traces to RDT VMS interface |

## Variable Telegram Examples

| Example: Default Values                                     |                                       |
|---|---------------------------------------|
| Variable telegram examples with data set to default values. |                                       |
| Read Variable:  | [STX]sRN OFrdtmssendcommtraces[ETX]   |
| Read Variable Response:                                     | [STX]sRA OFrdtmssendcommtraces 0[ETX] |
| Write Variable:   | [STX]sWN OFrdtmssendcommtraces 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OFrdtmssendcommtraces[ETX]   |

### 2.18.1.12. Variable: RDTVMSEnableErrors

The following section contains a detailed description of the variable RDTVMSEnableErrors.

#### Variable Overview

| Variable Name      | Description  |
|--------------------|--|
| RDTVMSEnableErrors | Activates the error numbers in the telegram of RDT VMS interface |

|                       |   |
|-----------------------|---|
| Communication Name    | OFrdtmssenaerrors                                       |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 572   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |



## Variable Telegram Syntax

| Read Variable:        |                   |        |               |  |
|-----------------------|-------------------|--------|---------------|--|
| sRN OFrdtvmsenaerrors |                   |        |               |  |
| Telegram Part         | Telegram          | Type   | Length [Byte] | Description  |
| Command Type          | sRN               | String | 3             | Read SOPAS Variable by Name                                      |
| Command               | OFrdtvmsenaerrors | String | 17            | Activates the error numbers in the telegram of RDT VMS interface |

| Read Variable Response:      |                   |        |               |  |
|------------------------------|-------------------|--------|---------------|--|
| sRA OFrdtvmsenaerrors <data> |                   |        |               |  |
| Telegram Part                | Telegram          | Type   | Length [Byte] | Description  |
| Command Type                 | sRA               | String | 3             | SOPAS Variable Read Acknowledge                                  |
| Command                      | OFrdtvmsenaerrors | String | 17            | Activates the error numbers in the telegram of RDT VMS interface |
| Variable Data                | data              | Bool   | 1             |  |

| Write Variable:              |                   |        |               |  |
|------------------------------|-------------------|--------|---------------|--|
| sWN OFrdtvmsenaerrors <data> |                   |        |               |  |
| Telegram Part                | Telegram          | Type   | Length [Byte] | Description  |
| Command Type                 | sWN               | String | 3             | Write SOPAS Variable by Name                                     |
| Command                      | OFrdtvmsenaerrors | String | 17            | Activates the error numbers in the telegram of RDT VMS interface |
| Variable Data                | data              | Bool   | 1             |  |

| Write Variable Response: |                   |        |               |  |
|--------------------------|-------------------|--------|---------------|--|
| sWA OFrdtvmsenaerrors    |                   |        |               |  |
| Telegram Part            | Telegram          | Type   | Length [Byte] | Description  |
| Command Type             | sWA               | String | 3             | SOPAS Variable Write Acknowledge                                 |
| Command                  | OFrdtvmsenaerrors | String | 17            | Activates the error numbers in the telegram of RDT VMS interface |

## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN OFrdtvmsenaerrors[ETX]   |
| Read Variable Response:                                     | [STX]sRA OFrdtvmsenaerrors 1[ETX] |
| Write Variable:   | [STX]sWN OFrdtvmsenaerrors 1[ETX] |
| Write Variable Response:                                    | [STX]sWA OFrdtvmsenaerrors[ETX]   |

## 2.19. Interface Block: GeneralCfgReadingStatisticBase

### 2.19.1. Group: ReadingStatisticFileView

#### 2.19.1.1. Variable: RSRefreshRunning

The following section contains a detailed description of the variable RSRefreshRunning.

##### Variable Overview

| Variable Name    | Description   |
|------------------|---|
| RSRefreshRunning | Switch that indicates that a refresh is currently running |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 583   |
| Read-Access           | Always  |
| Write-Access          | Always  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

##### Variable Telegram Syntax

| Read Variable:       |                  |        |               |   |
|----------------------|------------------|--------|---------------|---|
| sRN RSRefreshRunning |                  |        |               |   |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description   |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name                               |
| Command              | RSRefreshRunning | String | 16            | Switch that indicates that a refresh is currently running |

| Read Variable Response:     |                  |        |               |   |
|-----------------------------|------------------|--------|---------------|---|
| sRA RSRefreshRunning <data> |                  |        |               |   |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description   |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge                           |
| Command                     | RSRefreshRunning | String | 16            | Switch that indicates that a refresh is currently running |
| Variable Data               | data             | Bool   | 1             |   |

| Write Variable:             |                  |        |               |   |
|-----------------------------|------------------|--------|---------------|---|
| sWN RSRefreshRunning <data> |                  |        |               |   |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description   |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name                              |
| Command                     | RSRefreshRunning | String | 16            | Switch that indicates that a refresh is currently running |
| Variable Data               | data             | Bool   | 1             |   |



| Write Variable Response: |                  |        |               |   |
|--------------------------|------------------|--------|---------------|---|
| sWA RSRefreshRunning     |                  |        |               |   |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description   |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge                          |
| Command                  | RSRefreshRunning | String | 16            | Switch that indicates that a refresh is currently running |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN RSRefreshRunning[ETX]   |
| Read Variable Response:                                     | [STX]sRA RSRefreshRunning 0[ETX] |
| Write Variable:   | [STX]sWN RSRefreshRunning 0[ETX] |
| Write Variable Response:                                    | [STX]sWA RSRefreshRunning[ETX]   |

### 2.19.1.2. Variable: RSRefreshTrigger

The following section contains a detailed description of the variable RSRefreshTrigger.

#### Variable Overview

| Variable Name    | Description   |
|------------------|---|
| RSRefreshTrigger | Switch to signal that a new diagram viewer file for the reading stat is available |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 584   |
| Read-Access           | Always  |
| Write-Access          | Always  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:       |                  |        |               |   |
|----------------------|------------------|--------|---------------|---|
| sRN RSRefreshTrigger |                  |        |               |   |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description   |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name   |
| Command              | RSRefreshTrigger | String | 16            | Switch to signal that a new diagram viewer file for the reading stat is available |

| Read Variable Response:     |                  |        |               |   |
|-----------------------------|------------------|--------|---------------|---|
| sRA RSRefreshTrigger <data> |                  |        |               |   |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description   |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                     | RSRefreshTrigger | String | 16            | Switch to signal that a new diagram viewer file for the reading stat is available |
| Variable Data               | data             | Bool   | 1             |   |

| Write Variable:             |                  |        |               |   |
|-----------------------------|------------------|--------|---------------|---|
| sWN RSRefreshTrigger <data> |                  |        |               |   |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description   |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name  |
| Command                     | RSRefreshTrigger | String | 16            | Switch to signal that a new diagram viewer file for the reading stat is available |
| Variable Data               | data             | Bool   | 1             |   |

| Write Variable Response: |                  |        |               |   |
|--------------------------|------------------|--------|---------------|---|
| sWA RSRefreshTrigger     |                  |        |               |   |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description   |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | RSRefreshTrigger | String | 16            | Switch to signal that a new diagram viewer file for the reading stat is available |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN RSRefreshTrigger[ETX]   |
| Read Variable Response:                                     | [STX]sRA RSRefreshTrigger 0[ETX] |
| Write Variable:   | [STX]sWN RSRefreshTrigger 0[ETX] |
| Write Variable Response:                                    | [STX]sWA RSRefreshTrigger[ETX]   |



### 2.19.1.3. Method: RSRefreshStat

The following section contains a detailed description of the method RSRefreshStat.

#### Method Overview

| Method Name   | Description                              |
|---------------|--|
| RSRefreshStat | Refreshes the statistic data in sopas et |

|                    |                |
|--------------------|----------------|
| Communication Name | mRSRefreshStat |
| Sopas Index        | 96             |
| Invocation Access  | Always         |

| Parameters         |   |                       |             |
|--------------------|---|-----------------------|-------------|
| eStatisticDataType | enum for choosing the statistic data to show in sopas et diagram viewer |                       |             |
|                    | <b>Enum8</b>  |                       |             |
|                    | Value   | Name                  | Description |
|                    | 0   | StatTypeDailyOverview |             |
|                    | 1   | StatTypeDailyHourly   |             |
|                    | 2   | StatTypeDailyPer100   |             |

#### Method Telegram Syntax

| Method Invocation:                      |                    |        |               |   |
|---|--------------------|--------|---------------|---|
| sMN mRSRefreshStat <eStatisticDataType> |                    |        |               |   |
| Telegram Part                           | Telegram           | Type   | Length [Byte] | Description   |
| Command Type                            | sMN                | String | 3             | Request (SOPAS Method by Name)  |
| Command                                 | mRSRefreshStat     | String | 14            | Refreshes the statistic data in sopas et                                |
| Parameter 1                             | eStatisticDataType | Enum8  | 1             | enum for choosing the statistic data to show in sopas et diagram viewer |

| Method Return Value: |                |        |               |  |
|----------------------|----------------|--------|---------------|--|
| sAN mRSRefreshStat   |                |        |               |  |
| Telegram Part        | Telegram       | Type   | Length [Byte] | Description                              |
| Command Type         | sAN            | String | 3             | Result (SOPAS Method Result)             |
| Command              | mRSRefreshStat | String | 14            | Refreshes the statistic data in sopas et |

#### Method Telegram Examples

| Example: Default Values   |                                |
|---|--------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                |
| Method Invocation:  | [STX]sMN mRSRefreshStat 0[ETX] |
| Method Return Value:  | [STX]sAN mRSRefreshStat[ETX]   |

## 2.20. Interface Block: GeneralCfgCDFpublic

### 2.20.1. Group: CDF\_Config

#### 2.20.1.1. Variable: CDF\_FramingHeaderInputSelect\_1

The following section contains a detailed description of the variable CDF\_FramingHeaderInputSelect\_1.

#### Variable Overview

| Variable Name                  | Description  |
|--------------------------------|--|
| CDF_FramingHeaderInputSelect_1 | Status selects wheather CDF_FramingHeaderIn (Bit0)is copied from CDF_PhysicalInputsState or from CDF_PlcLogicalInputState_FH |

|                       |   |
|-----------------------|---|
| Communication Name    | CdfPlcFhInSel_1   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 585   |
| Read-Access           | Always  |
| Write-Access          | Always  |

| Enum8         |       |                     |             |
|---------------|-------|---------------------|-------------|
| Default Value |       | SEL_PIS1_FOR_FH1    |             |
|               | Value | Name                | Description |
|               | 0     | SEL_PIS1_FOR_FH1    |             |
|               | 1     | SEL_PIS2_FOR_FH1    |             |
|               | 2     | SEL_PLCLIS1_FOR_FH1 |             |

#### Variable Telegram Syntax

| Read Variable:      |                 |        |               |  |
|---------------------|-----------------|--------|---------------|--|
| sRN CdfPlcFhInSel_1 |                 |        |               |  |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description  |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name  |
| Command             | CdfPlcFhInSel_1 | String | 15            | Status selects wheather CDF_FramingHeaderIn (Bit0)is copied from CDF_PhysicalInputsState or from CDF_PlcLogicalInputState_FH |

| Read Variable Response:    |                 |        |               |  |
|----------------------------|-----------------|--------|---------------|--|
| sRA CdfPlcFhInSel_1 <data> |                 |        |               |  |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description  |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                    | CdfPlcFhInSel_1 | String | 15            | Status selects wheather CDF_FramingHeaderIn (Bit0)is copied from CDF_PhysicalInputsState or from CDF_PlcLogicalInputState_FH |
| Variable Data              | data            | Enum8  | 1             |  |

| Write Variable:            |          |        |               |                              |
|----------------------------|----------|--------|---------------|------------------------------|
| sWN CdfPlcFhInSel_1 <data> |          |        |               |                              |
| Telegram Part              | Telegram | Type   | Length [Byte] | Description                  |
| Command Type               | sWN      | String | 3             | Write SOPAS Variable by Name |





| Write Variable:            |                 |        |               |  |
|----------------------------|-----------------|--------|---------------|--|
| sWN CdfPlcFhInSel_1 <data> |                 |        |               |  |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description  |
| Command                    | CdfPlcFhInSel_1 | String | 15            | Status selects wheather CDF_FramingHeaderIn (Bit0)is copied from CDF_PhysicalInputsState or from CDF_PlcLogicalInputState_FH |
| Variable Data              | data            | Enum8  | 1             |  |

| Write Variable Response: |                 |        |               |  |
|--------------------------|-----------------|--------|---------------|--|
| sWA CdfPlcFhInSel_1      |                 |        |               |  |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description  |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | CdfPlcFhInSel_1 | String | 15            | Status selects wheather CDF_FramingHeaderIn (Bit0)is copied from CDF_PhysicalInputsState or from CDF_PlcLogicalInputState_FH |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN CdfPlcFhInSel_1[ETX]   |
| Read Variable Response:                                     | [STX]sRA CdfPlcFhInSel_1 0[ETX] |
| Write Variable:   | [STX]sWN CdfPlcFhInSel_1 0[ETX] |
| Write Variable Response:                                    | [STX]sWA CdfPlcFhInSel_1[ETX]   |

### 2.20.1.2. Variable: CDF\_FramingHeaderInputSelect\_2

The following section contains a detailed description of the variable CDF\_FramingHeaderInputSelect\_2.

#### Variable Overview

| Variable Name                  | Description  |
|--------------------------------|--|
| CDF_FramingHeaderInputSelect_2 | Status selects wheather CDF_FramingHeaderIn (Bit1)is copied from CDF_PhysicalInputsState or from CDF_PlcLogicalInputState_FH |

|                       |   |
|-----------------------|---|
| Communication Name    | CdfPlcFhInSel_2   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 586   |
| Read-Access           | Always  |
| Write-Access          | Always  |

| Enum8         |       |                     |             |
|---------------|-------|---------------------|-------------|
| Default Value |       | SEL_PIS2_FOR_FH2    |             |
|               | Value | Name                | Description |
|               | 0     | SEL_PIS1_FOR_FH2    |             |
|               | 1     | SEL_PIS2_FOR_FH2    |             |
|               | 2     | SEL_PLCLIS2_FOR_FH2 |             |



## Variable Telegram Syntax

| Read Variable:      |                 |        |               |  |
|---------------------|-----------------|--------|---------------|--|
| sRN CdfPlcFhInSel_2 |                 |        |               |  |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description  |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name  |
| Command             | CdfPlcFhInSel_2 | String | 15            | Status selects wheather CDF_FramingHeaderIn (Bit1)is copied from CDF_PhysicalInputsState or from CDF_PlcLogicalInputState_FH |

| Read Variable Response:    |                 |        |               |  |
|----------------------------|-----------------|--------|---------------|--|
| sRA CdfPlcFhInSel_2 <data> |                 |        |               |  |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description  |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                    | CdfPlcFhInSel_2 | String | 15            | Status selects wheather CDF_FramingHeaderIn (Bit1)is copied from CDF_PhysicalInputsState or from CDF_PlcLogicalInputState_FH |
| Variable Data              | data            | Enum8  | 1             |  |

| Write Variable:            |                 |        |               |  |
|----------------------------|-----------------|--------|---------------|--|
| sWN CdfPlcFhInSel_2 <data> |                 |        |               |  |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description  |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name   |
| Command                    | CdfPlcFhInSel_2 | String | 15            | Status selects wheather CDF_FramingHeaderIn (Bit1)is copied from CDF_PhysicalInputsState or from CDF_PlcLogicalInputState_FH |
| Variable Data              | data            | Enum8  | 1             |  |

| Write Variable Response: |                 |        |               |  |
|--------------------------|-----------------|--------|---------------|--|
| sWA CdfPlcFhInSel_2      |                 |        |               |  |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description  |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | CdfPlcFhInSel_2 | String | 15            | Status selects wheather CDF_FramingHeaderIn (Bit1)is copied from CDF_PhysicalInputsState or from CDF_PlcLogicalInputState_FH |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN CdfPlcFhInSel_2[ETX]   |
| Read Variable Response:                                     | [STX]sRA CdfPlcFhInSel_2 1[ETX] |
| Write Variable:   | [STX]sWN CdfPlcFhInSel_2 1[ETX] |
| Write Variable Response:                                    | [STX]sWA CdfPlcFhInSel_2[ETX]   |

### 2.20.1.3. Variable: CDF\_PhysOutputSelect\_1

The following section contains a detailed description of the variable CDF\_PhysOutputSelect\_1.

#### Variable Overview

| Variable Name          | Description  |
|------------------------|--|
| CDF_PhysOutputSelect_1 | Status selects wheather CDF_PhysicalOutputsState (Bit0) is copied from CDF_SensorPhysicalOutputState or from CDF_PlcOutputState_FH |

|                       |   |
|-----------------------|---|
| Communication Name    | CdfPhysOutSel_1   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 587   |
| Read-Access           | Always  |
| Write-Access          | Always  |

| Enum8         |       |                       |             |
|---------------|-------|-----------------------|-------------|
| Default Value |       | SEL_FHOUT1_FOR_POS1   |             |
|               | Value | Name                  | Description |
|               | 0     | SEL_PLCOUT1_FOR_POS1  |             |
|               | 1     | SEL_PLCOUT2_FOR_POS1  |             |
|               | 2     | SEL_FHOUT1_FOR_POS1   |             |
|               | 3     | SEL_FHOUT2_FOR_POS1   |             |
|               | 4     | SEL_SENSLOS1_FOR_POS1 |             |

#### Variable Telegram Syntax

| Read Variable:      |                 |        |               |  |
|---------------------|-----------------|--------|---------------|--|
| sRN CdfPhysOutSel_1 |                 |        |               |  |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description  |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name  |
| Command             | CdfPhysOutSel_1 | String | 15            | Status selects wheather CDF_PhysicalOutputsState (Bit0) is copied from CDF_SensorPhysicalOutputState or from CDF_PlcOutputState_FH |

| Read Variable Response:    |                 |        |               |  |
|----------------------------|-----------------|--------|---------------|--|
| sRA CdfPhysOutSel_1 <data> |                 |        |               |  |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description  |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                    | CdfPhysOutSel_1 | String | 15            | Status selects wheather CDF_PhysicalOutputsState (Bit0) is copied from CDF_SensorPhysicalOutputState or from CDF_PlcOutputState_FH |
| Variable Data              | data            | Enum8  | 1             |  |

| Write Variable:            |          |        |               |                              |
|----------------------------|----------|--------|---------------|------------------------------|
| sWN CdfPhysOutSel_1 <data> |          |        |               |                              |
| Telegram Part              | Telegram | Type   | Length [Byte] | Description                  |
| Command Type               | sWN      | String | 3             | Write SOPAS Variable by Name |



| Write Variable:            |                 |        |               |  |
|----------------------------|-----------------|--------|---------------|--|
| sWN CdfPhysOutSel_1 <data> |                 |        |               |  |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description  |
| Command                    | CdfPhysOutSel_1 | String | 15            | Status selects wheather CDF_PhysicalOutputsState (Bit0) is copied from CDF_SensorPhysicalOutputState or from CDF_PlcOutputState_FH |
| Variable Data              | data            | Enum8  | 1             |  |

| Write Variable Response: |                 |        |               |  |
|--------------------------|-----------------|--------|---------------|--|
| sWA CdfPhysOutSel_1      |                 |        |               |  |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description  |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | CdfPhysOutSel_1 | String | 15            | Status selects wheather CDF_PhysicalOutputsState (Bit0) is copied from CDF_SensorPhysicalOutputState or from CDF_PlcOutputState_FH |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN CdfPhysOutSel_1[ETX]   |
| Read Variable Response:                                     | [STX]sRA CdfPhysOutSel_1 2[ETX] |
| Write Variable:   | [STX]sWN CdfPhysOutSel_1 2[ETX] |
| Write Variable Response:                                    | [STX]sWA CdfPhysOutSel_1[ETX]   |

### 2.20.1.4. Variable: CDF\_PhysOutputSelect\_2

The following section contains a detailed description of the variable CDF\_PhysOutputSelect\_2.

#### Variable Overview

| Variable Name          | Description  |
|------------------------|--|
| CDF_PhysOutputSelect_2 | Status selects wheather CDF_PhysicalOutputsState (Bit0) is copied from CDF_SensorPhysicalOutputState or from CDF_PlcOutputState_FH |

  

|                       |   |
|-----------------------|---|
| Communication Name    | CdfPhysOutSel_2   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 588   |
| Read-Access           | Always  |
| Write-Access          | Always  |



| Enum8         |       |                       |             |
|---------------|-------|-----------------------|-------------|
| Default Value |       | SEL_FHOUT2_FOR_POS2   |             |
|               | Value | Name                  | Description |
|               | 0     | SEL_PLCOUT1_FOR_POS2  |             |
|               | 1     | SEL_PLCOUT2_FOR_POS2  |             |
|               | 2     | SEL_FHOUT1_FOR_POS2   |             |
|               | 3     | SEL_FHOUT2_FOR_POS2   |             |
|               | 4     | SEL_SENSLOS2_FOR_POS2 |             |

## Variable Telegram Syntax

| Read Variable:      |                 |        |               |  |
|---------------------|-----------------|--------|---------------|--|
| sRN CdfPhysOutSel_2 |                 |        |               |  |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description  |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name  |
| Command             | CdfPhysOutSel_2 | String | 15            | Status selects wheather CDF_PhysicalOutputsState (Bit0) is copied from CDF_SensorPhysicalOutputState or from CDF_PlcOutputState_FH |

| Read Variable Response:    |                 |        |               |  |
|----------------------------|-----------------|--------|---------------|--|
| sRA CdfPhysOutSel_2 <data> |                 |        |               |  |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description  |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                    | CdfPhysOutSel_2 | String | 15            | Status selects wheather CDF_PhysicalOutputsState (Bit0) is copied from CDF_SensorPhysicalOutputState or from CDF_PlcOutputState_FH |
| Variable Data              | data            | Enum8  | 1             |  |

| Write Variable:            |                 |        |               |  |
|----------------------------|-----------------|--------|---------------|--|
| sWN CdfPhysOutSel_2 <data> |                 |        |               |  |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description  |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name   |
| Command                    | CdfPhysOutSel_2 | String | 15            | Status selects wheather CDF_PhysicalOutputsState (Bit0) is copied from CDF_SensorPhysicalOutputState or from CDF_PlcOutputState_FH |
| Variable Data              | data            | Enum8  | 1             |  |

| Write Variable Response: |                 |        |               |  |
|--------------------------|-----------------|--------|---------------|--|
| sWA CdfPhysOutSel_2      |                 |        |               |  |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description  |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | CdfPhysOutSel_2 | String | 15            | Status selects wheather CDF_PhysicalOutputsState (Bit0) is copied from CDF_SensorPhysicalOutputState or from CDF_PlcOutputState_FH |



## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| <b>Read Variable:</b>                                       | [STX]sRN CdfPhysOutSel_2[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA CdfPhysOutSel_2 3[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN CdfPhysOutSel_2 3[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA CdfPhysOutSel_2[ETX]   |

### 2.20.1.5. Variable: CDF\_PhysInDebounceTime\_1

The following section contains a detailed description of the variable CDF\_PhysInDebounceTime\_1.

#### Variable Overview

| Variable Name            | Description                            |
|--------------------------|--|
| CDF_PhysInDebounceTime_1 | Debouncing time for Input 1 of CDF600. |

|                       |   |
|-----------------------|---|
| Communication Name    | CdfPhysInDeb_1  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 589   |
| Read-Access           | Always  |
| Write-Access          | Always  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..10000 |
| Initialisation       | 10       |
| Physical Unit        | ms       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |  |
|--------------------|----------------|--------|---------------|--|
| sRN CdfPhysInDeb_1 |                |        |               |  |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                            |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name            |
| Command            | CdfPhysInDeb_1 | String | 14            | Debouncing time for Input 1 of CDF600. |

| Read Variable Response:   |                |        |               |  |
|---------------------------|----------------|--------|---------------|--|
| sRA CdfPhysInDeb_1 <data> |                |        |               |  |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                            |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge        |
| Command                   | CdfPhysInDeb_1 | String | 14            | Debouncing time for Input 1 of CDF600. |
| Variable Data             | data           | UInt   | 2             |  |



| Write Variable:           |                |        |               |  |
|---------------------------|----------------|--------|---------------|--|
| sWN CdfPhysInDeb_1 <data> |                |        |               |  |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                            |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name           |
| Command                   | CdfPhysInDeb_1 | String | 14            | Debouncing time for Input 1 of CDF600. |
| Variable Data             | data           | UInt   | 2             |  |

| Write Variable Response: |                |        |               |  |
|--------------------------|----------------|--------|---------------|--|
| sWA CdfPhysInDeb_1       |                |        |               |  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                            |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge       |
| Command                  | CdfPhysInDeb_1 | String | 14            | Debouncing time for Input 1 of CDF600. |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN CdfPhysInDeb_1[ETX]   |
| Read Variable Response:                                     | [STX]sRA CdfPhysInDeb_1 A[ETX] |
| Write Variable:   | [STX]sWN CdfPhysInDeb_1 A[ETX] |
| Write Variable Response:                                    | [STX]sWA CdfPhysInDeb_1[ETX]   |

### 2.20.1.6. Variable: CDF\_PhysInDebounceTime\_2

The following section contains a detailed description of the variable CDF\_PhysInDebounceTime\_2.

#### Variable Overview

| Variable Name            | Description                           |
|--------------------------|---------------------------------------|
| CDF_PhysInDebounceTime_2 | Debouncing time for Input 2 of CDF600 |

|                       |   |
|-----------------------|---|
| Communication Name    | CdfPhysInDeb_2  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 590   |
| Read-Access           | Always  |
| Write-Access          | Always  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..10000 |
| Initialisation       | 10       |
| Physical Unit        | ms       |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |                                       |
|--------------------|----------------|--------|---------------|---------------------------------------|
| sRN CdfPhysInDeb_2 |                |        |               |                                       |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                           |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name           |
| Command            | CdfPhysInDeb_2 | String | 14            | Debouncing time for Input 2 of CDF600 |

| Read Variable Response:   |                |        |               |                                       |
|---------------------------|----------------|--------|---------------|---------------------------------------|
| sRA CdfPhysInDeb_2 <data> |                |        |               |                                       |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                           |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                   | CdfPhysInDeb_2 | String | 14            | Debouncing time for Input 2 of CDF600 |
| Variable Data             | data           | UInt   | 2             |                                       |

| Write Variable:           |                |        |               |                                       |
|---------------------------|----------------|--------|---------------|---------------------------------------|
| sWN CdfPhysInDeb_2 <data> |                |        |               |                                       |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                           |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name          |
| Command                   | CdfPhysInDeb_2 | String | 14            | Debouncing time for Input 2 of CDF600 |
| Variable Data             | data           | UInt   | 2             |                                       |

| Write Variable Response: |                |        |               |                                       |
|--------------------------|----------------|--------|---------------|---------------------------------------|
| sWA CdfPhysInDeb_2       |                |        |               |                                       |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                           |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | CdfPhysInDeb_2 | String | 14            | Debouncing time for Input 2 of CDF600 |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN CdfPhysInDeb_2[ETX]   |
| Read Variable Response:                                     | [STX]sRA CdfPhysInDeb_2 A[ETX] |
| Write Variable:   | [STX]sWN CdfPhysInDeb_2 A[ETX] |
| Write Variable Response:                                    | [STX]sWA CdfPhysInDeb_2[ETX]   |



## 2.20.2. Group: CDF\_IoPublic

### 2.20.2.1. Variable: CDF\_PlcLogicalInputState\_FH

The following section contains a detailed description of the variable CDF\_PlcLogicalInputState\_FH.

#### Variable Overview

| Variable Name               | Description  |
|-----------------------------|--|
| CDF_PlcLogicalInputState_FH | Logical input state of PLC, which may be sent within fieldbus framing header. From sensors point of view, this is an output function: A sensor can map up to two of its output functions to the framing header input bits. |

|                       |   |
|-----------------------|---|
| Communication Name    | CdfLis  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 604   |
| Read-Access           | Always  |
| Write-Access          | Always  |

| USInt                |        |
|----------------------|--------|
| Value Range          | 0..255 |
| Initialisation       | 0      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN CdfLis     |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name  |
| Command        | CdfLis   | String | 6             | Logical input state of PLC, which may be sent within fieldbus framing header. From sensors point of view, this is an output function: A sensor can map up to two of its output functions to the framing header input bits. |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA CdfLis <data>       |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description  |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | CdfLis   | String | 6             | Logical input state of PLC, which may be sent within fieldbus framing header. From sensors point of view, this is an output function: A sensor can map up to two of its output functions to the framing header input bits. |
| Variable Data           | data     | USInt  | 1             |  |

| Write Variable:   |          |        |               |                              |
|-------------------|----------|--------|---------------|------------------------------|
| sWN CdfLis <data> |          |        |               |                              |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description                  |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name |



| Write Variable:   |          |        |               |  |
|-------------------|----------|--------|---------------|--|
| sWN CdfLis <data> |          |        |               |  |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description  |
| Command           | CdfLis   | String | 6             | Logical input state of PLC, which may be sent within fieldbus framing header. From sensors point of view, this is an output function: A sensor can map up to two of its output functions to the framing header input bits. |
| Variable Data     | data     | USInt  | 1             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA CdfLis               |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | CdfLis   | String | 6             | Logical input state of PLC, which may be sent within fieldbus framing header. From sensors point of view, this is an output function: A sensor can map up to two of its output functions to the framing header input bits. |

## Variable Telegram Examples

| Example: Default Values                                     |                        |
|---|------------------------|
| Variable telegram examples with data set to default values. |                        |
| Read Variable:  | [STX]sRN CdfLis[ETX]   |
| Read Variable Response:                                     | [STX]sRA CdfLis 0[ETX] |
| Write Variable:   | [STX]sWN CdfLis 0[ETX] |
| Write Variable Response:                                    | [STX]sWA CdfLis[ETX]   |

### 2.20.2.2. Variable: CDF\_PlcLogicalInputState\_Map

The following section contains a detailed description of the variable CDF\_PlcLogicalInputState\_Map.

#### Variable Overview

| Variable Name                | Description   |
|------------------------------|---|
| CDF_PlcLogicalInputState_Map | Logical input state of PLC, which may be sent as mapped Fieldbus data from CDF to PLC. (16 bit) |

|                       |   |
|-----------------------|---|
| Communication Name    | CdfPlcLisMap  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 606   |
| Read-Access           | Always  |
| Write-Access          | Always  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0        |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |   |
|------------------|--------------|--------|---------------|---|
| sRN CdfPlcLisMap |              |        |               |   |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description   |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name   |
| Command          | CdfPlcLisMap | String | 12            | Logical input state of PLC, which may be sent as mapped Fieldbus data from CDF to PLC. (16 bit) |

| Read Variable Response: |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sRA CdfPlcLisMap <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description   |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | CdfPlcLisMap | String | 12            | Logical input state of PLC, which may be sent as mapped Fieldbus data from CDF to PLC. (16 bit) |
| Variable Data           | data         | UInt   | 2             |   |

| Write Variable:         |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sWN CdfPlcLisMap <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description   |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name  |
| Command                 | CdfPlcLisMap | String | 12            | Logical input state of PLC, which may be sent as mapped Fieldbus data from CDF to PLC. (16 bit) |
| Variable Data           | data         | UInt   | 2             |   |

| Write Variable Response: |              |        |               |   |
|--------------------------|--------------|--------|---------------|---|
| sWA CdfPlcLisMap         |              |        |               |   |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description   |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | CdfPlcLisMap | String | 12            | Logical input state of PLC, which may be sent as mapped Fieldbus data from CDF to PLC. (16 bit) |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN CdfPlcLisMap[ETX]   |
| Read Variable Response:                                     | [STX]sRA CdfPlcLisMap 0[ETX] |
| Write Variable:   | [STX]sWN CdfPlcLisMap 0[ETX] |
| Write Variable Response:                                    | [STX]sWA CdfPlcLisMap[ETX]   |

### 2.20.2.3. Variable: CDF\_SensorPhysicalOutputState

The following section contains a detailed description of the variable CDF\_SensorPhysicalOutputState.

#### Variable Overview

| Variable Name                 | Description   |
|-------------------------------|---|
| CDF_SensorPhysicalOutputState | Output state of sensor, which may be put to physical output, depending on selectors status. |

|                       |   |
|-----------------------|---|
| Communication Name    | CdfSensPos  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 608   |
| Read-Access           | Always  |
| Write-Access          | Always  |

| USInt                |        |
|----------------------|--------|
| Value Range          | 0..255 |
| Initialisation       | 0      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN CdfSensPos |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description   |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name   |
| Command        | CdfSensPos | String | 10            | Output state of sensor, which may be put to physical output, depending on selectors status. |

| Read Variable Response: |            |        |               |   |
|-------------------------|------------|--------|---------------|---|
| sRA CdfSensPos <data>   |            |        |               |   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description   |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | CdfSensPos | String | 10            | Output state of sensor, which may be put to physical output, depending on selectors status. |
| Variable Data           | data       | USInt  | 1             |   |

| Write Variable:       |            |        |               |   |
|-----------------------|------------|--------|---------------|---|
| sWN CdfSensPos <data> |            |        |               |   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description   |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name  |
| Command               | CdfSensPos | String | 10            | Output state of sensor, which may be put to physical output, depending on selectors status. |
| Variable Data         | data       | USInt  | 1             |   |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA CdfSensPos           |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA CdfSensPos           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description   |
| Command                  | CdfSensPos | String | 10            | Output state of sensor, which may be put to physical output, depending on selectors status. |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN CdfSensPos[ETX]   |
| Read Variable Response:                                     | [STX]sRA CdfSensPos 0[ETX] |
| Write Variable:   | [STX]sWN CdfSensPos 0[ETX] |
| Write Variable Response:                                    | [STX]sWA CdfSensPos[ETX]   |

## 2.21. Interface Block: System

### 2.21.1. Group: Clocks

#### 2.21.1.1. Variable: DeviceTime

The following section contains a detailed description of the variable DeviceTime.

##### Variable Overview

| Variable Name | Description  |
|---------------|--|
| DeviceTime    | Timestamp of the device in milliseconds. Must be updated in real time by the device itself |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 611   |
| Read-Access           | Always  |
| Write-Access          | Always  |

| UDInt                |               |
|----------------------|---------------|
| Value Range          | 0..4294967295 |
| Initialisation       | 0             |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

##### Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN DeviceTime |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description  |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name  |
| Command        | DeviceTime | String | 10            | Timestamp of the device in milliseconds. Must be updated in real time by the device itself |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA DeviceTime <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description  |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | DeviceTime | String | 10            | Timestamp of the device in milliseconds. Must be updated in real time by the device itself |
| Variable Data           | data       | UDInt  | 4             |  |

| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN DeviceTime <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name   |
| Command               | DeviceTime | String | 10            | Timestamp of the device in milliseconds. Must be updated in real time by the device itself |
| Variable Data         | data       | UDInt  | 4             |  |



| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA DeviceTime           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description  |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | DeviceTime | String | 10            | Timestamp of the device in milliseconds. Must be updated in real time by the device itself |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN DeviceTime[ETX]   |
| Read Variable Response:                                     | [STX]sRA DeviceTime 0[ETX] |
| Write Variable:   | [STX]sWN DeviceTime 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DeviceTime[ETX]   |

### 2.21.1.2. Variable: DeviceInc

The following section contains a detailed description of the variable DeviceInc.

#### Variable Overview

| Variable Name | Description  |
|---------------|--|
| DeviceInc     | Increment value of the device. Must be updated in real time by the device itself |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 612   |
| Read-Access           | Always  |
| Write-Access          | Always  |

| UDInt                |               |
|----------------------|---------------|
| Value Range          | 0..4294967295 |
| Initialisation       | 0             |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |



## Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN DeviceInc  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name  |
| Command        | DeviceInc | String | 9             | Increment value of the device. Must be updated in real time by the device itself |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA DeviceInc <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description  |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | DeviceInc | String | 9             | Increment value of the device. Must be updated in real time by the device itself |
| Variable Data           | data      | UDInt  | 4             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN DeviceInc <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name   |
| Command              | DeviceInc | String | 9             | Increment value of the device. Must be updated in real time by the device itself |
| Variable Data        | data      | UDInt  | 4             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA DeviceInc            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description  |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | DeviceInc | String | 9             | Increment value of the device. Must be updated in real time by the device itself |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DeviceInc[ETX]   |
| Read Variable Response:                                     | [STX]sRA DeviceInc 0[ETX] |
| Write Variable:   | [STX]sWN DeviceInc 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DeviceInc[ETX]   |



## 2.21.2. Group: GUI

### 2.21.2.1. Variable: SYUIMode

The following section contains a detailed description of the variable SYUIMode.

#### Variable Overview

| Variable Name | Description   |
|---------------|---|
| SYUIMode      | Parameter stores in which mode of the user interface the parameter file has been edited |

|                       |   |
|-----------------------|---|
| Communication Name    | SYUImode  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 613   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                  |             |
|---------------|-------|------------------|-------------|
| Default Value |       | 0                |             |
|               | Value | Name             | Description |
|               | 0     | SINGLE_DEVICE_UI |             |
|               | 1     | STANDARD_UI      |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN SYUImode   |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name   |
| Command        | SYUImode | String | 8             | Parameter stores in which mode of the user interface the parameter file has been edited |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA SYUImode <data>     |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description   |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | SYUImode | String | 8             | Parameter stores in which mode of the user interface the parameter file has been edited |
| Variable Data           | data     | Enum8  | 1             |   |

| Write Variable:     |          |        |               |   |
|---------------------|----------|--------|---------------|---|
| sWN SYUImode <data> |          |        |               |   |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description   |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name  |
| Command             | SYUImode | String | 8             | Parameter stores in which mode of the user interface the parameter file has been edited |
| Variable Data       | data     | Enum8  | 1             |   |



| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA SYUImode             |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description   |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | SYUImode | String | 8             | Parameter stores in which mode of the user interface the parameter file has been edited |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN SYUImode[ETX]   |
| Read Variable Response:                                     | [STX]sRA SYUImode 0[ETX] |
| Write Variable:   | [STX]sWN SYUImode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SYUImode[ETX]   |



## 2.22. Interface Block: Calib

### 2.22.1. Group: FinalTest

#### 2.22.1.1. Method: FTSwitchBeeper

The following section contains a detailed description of the method FTSwitchBeeper.

##### Method Overview

| Method Name    | Description                             |
|----------------|---|
| FTSwitchBeeper | Switch the beeper to the given loudness |

|                    |               |
|--------------------|---------------|
| Communication Name | mFTSwitchBeep |
| Sopas Index        | 109           |
| Invocation Access  | Always        |

| Parameters  |       |          |             |
|-------------|-------|----------|-------------|
| BeeperState |       |          |             |
|             | Enum8 |          |             |
|             | Value | Name     | Description |
|             | 0     | TX_OFF   |             |
|             | 1     | TX_SOFT  |             |
|             | 2     | TX_LOUD  |             |
|             | 3     | TX_SMILE |             |
|             | 4     | TX_UP    |             |
|             | 5     | TX_DOWN  |             |
|             | 6     | TX_SAD   |             |
|             | 7     | TX_ACK   |             |
|             | 8     | TX_START |             |
|             | 9     | TX_STOP  |             |

##### Method Telegram Syntax

| Method Invocation:              |               |        |               |   |
|---------------------------------|---------------|--------|---------------|---|
| sMN mFTSwitchBeep <BeeperState> |               |        |               |   |
| Telegram Part                   | Telegram      | Type   | Length [Byte] | Description                             |
| Command Type                    | sMN           | String | 3             | Request (SOPAS Method by Name)          |
| Command                         | mFTSwitchBeep | String | 13            | Switch the beeper to the given loudness |
| Parameter 1                     | BeeperState   | Enum8  | 1             |   |

| Method Return Value: |               |        |               |   |
|----------------------|---------------|--------|---------------|---|
| sAN mFTSwitchBeep    |               |        |               |   |
| Telegram Part        | Telegram      | Type   | Length [Byte] | Description                             |
| Command Type         | sAN           | String | 3             | Result (SOPAS Method Result)            |
| Command              | mFTSwitchBeep | String | 13            | Switch the beeper to the given loudness |



## Method Telegram Examples

| Example: Default Values   |                               |
|---|-------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                               |
| Method Invocation:  | [STX]SMN mFTSwitchBeep 0[ETX] |
| Method Return Value:  | [STX]SAN mFTSwitchBeep[ETX]   |

### 2.22.1.2. Method: FTMeanByAngleEnhReadableQuick

The following section contains a detailed description of the method FTMeanByAngleEnhReadableQuick.

#### Method Overview

| Method Name                   | Description   |
|-------------------------------|---|
| FTMeanByAngleEnhReadableQuick | This method returns statistical data on up to 80 separate measuring spots. The initial spot is indicated by the start position in degrees. This function is similar to the MeanByAngle function but returns the results in human readable form. |

|                    |                      |
|--------------------|----------------------|
| Communication Name | mFTmeanbyangleenhrdq |
| Sopas Index        | 118                  |
| Invocation Access  | Always               |

| Parameters    |  |   |   |                   |             |
|---------------|--|---|---|-------------------|-------------|
| InPar         |  |   |   |                   |             |
|               |  | <b>UserType</b>   |   |                   |             |
|               |  | MbaEnhInPar_t   | See the chapter "User Types" for details. |                   |             |
| uiOutMsk      |  | The output mask for this function. Each bit toggles the display of the rep. |   |                   |             |
|               |  | <b>UInt</b>   |   |                   |             |
|               |  | Value Range   | 1..1000                                   |                   |             |
|               |  | Initialisation  | 511                                       |                   |             |
|               |  | Physical Unit   |   |                   |             |
|               |  | Physical Unit Factor  | 0.0                                       |                   |             |
| eDataDelim    |  | Data Delimiter selection for the result output                              |   |                   |             |
|               |  | <b>Enum8</b>  |   |                   |             |
|               |  |   | Value                                     | Name              | Description |
|               |  | 0   |   | DatDelimTabulator |             |
|               |  | 1   |   | DatDelimSemicolon |             |
|               |  | 2   |   | DatDelimSpace     |             |
| eDecimalDelim |  | Decimal Delimiter selection for the result output                           |   |                   |             |
|               |  | <b>Enum8</b>  |   |                   |             |
|               |  |   | Value                                     | Name              | Description |
|               |  | 0   |   | DecDelimPoint     |             |
|               |  | 1   |   | DecDelimComma     |             |



| Return Values     |                        |
|-------------------|------------------------|
| Result            | Complete result string |
| <b>FlexString</b> |                        |
| Length            | 0..6000                |
| Initialisation    |                        |

## Method Telegram Syntax

| Method Invocation:   |                      |                |               |   |
|--|----------------------|----------------|---------------|---|
| sMN mFTmeanbyangleenhrdq <InPar> <uiOutMsk> <eDataDelim> <eDecimalDelim> |                      |                |               |   |
| Telegram Part  | Telegram             | Type           | Length [Byte] | Description   |
| Command Type   | sMN                  | String         | 3             | Request (SOPAS Method by Name)  |
| Command  | mFTmeanbyangleenhrdq | String         | 20            | This method returns statistical data on up to 80 separate measuring spots. The initial spot is indicated by the start position in degrees. This function is similar to the MeanByAngle function but returns the results in human readable form. |
| Parameter 1  | InPar                | MbaEnhInP ar_t | 20            |   |
| Parameter 2  | uiOutMsk             | UInt           | 2             | The output mask for this function. Each bit toggles the display of the rep.   |
| Parameter 3  | eDataDelim           | Enum8          | 1             | Data Delimiter selection for the result output  |
| Parameter 4  | eDecimalDelim        | Enum8          | 1             | Decimal Delimiter selection for the result output   |

| Method Return Value:              |                      |            |               |   |
|-----------------------------------|----------------------|------------|---------------|---|
| sAN mFTmeanbyangleenhrdq <Result> |                      |            |               |   |
| Telegram Part                     | Telegram             | Type       | Length [Byte] | Description   |
| Command Type                      | sAN                  | String     | 3             | Result (SOPAS Method Result)  |
| Command                           | mFTmeanbyangleenhrdq | String     | 20            | This method returns statistical data on up to 80 separate measuring spots. The initial spot is indicated by the start position in degrees. This function is similar to the MeanByAngle function but returns the results in human readable form. |
| Return Value 1                    | Result               | FlexString | 6000          | Complete result string  |

## Method Telegram Examples

| Example: Default Values   |   |
|---|---|
| Method telegram examples with parameter data and return value data set to default values. |   |
| <b>Method Invocation:</b>   | [STX]sMN mFTmeanbyangleenhrdq 7 0 +0.0 1 3C FA 0 A 0 0 0 1FF 0 0[ETX] |
| <b>Method Return Value:</b>   | [STX]sAN mFTmeanbyangleenhrdq 0[ETX]                                  |



### 2.22.1.3. Method: FTMeanByAngleEnhQuick

The following section contains a detailed description of the method FTMeanByAngleEnhQuick.

#### Method Overview

| Method Name           | Description  |
|-----------------------|--|
| FTMeanByAngleEnhQuick | This method returns statistical data on up to 80 separate measuring spots. The initial spot is indicated by the start position in degrees. |

|                    |                    |
|--------------------|--------------------|
| Communication Name | mFTmeanbyangleenhq |
| Sopas Index        | 119                |
| Invocation Access  | Always             |

| Parameters      |   |
|-----------------|---|
| InPar           |   |
| <b>UserType</b> |   |
| MbaEnhInPar_t   | See the chapter "User Types" for details. |

| Return Values     |        |
|-------------------|--------|
| aLeader           |        |
| <b>Array</b>      |        |
| Length            | 0..1   |
| <b>FlexString</b> |        |
| Length            | 0..200 |
| Initialisation    |        |



| Return Values        |               |   |  |
|----------------------|---------------|---|--|
| aResult              |               |   |  |
|                      | <b>Array</b>  |   |  |
|                      | Length        | 0..80   |  |
|                      | <b>Struct</b> | Discarded   |  |
|                      |               | <b>UInt</b>   |  |
|                      |               | Value Range   | 0..65535   |
|                      |               | Initialisation  |  |
|                      |               | Physical Unit   |  |
|                      |               | Physical Unit Factor  | 0.0  |
|                      |               | Distance  |  |
|                      |               | <b>Struct</b>   |  |
|                      |               | fMean   |  |
|                      |               | Real  | Return Values[aResult].Array.Struct[Distance].Struct[fMean].Real |
|                      |               | fStd  |  |
|                      |               | Real  | Return Values[aResult].Array.Struct[Distance].Struct[fStd].Real  |
|                      |               | fMin  |  |
|                      |               | Real  | Return Values[aResult].Array.Struct[Distance].Struct[fMin].Real  |
|                      | fMax          |   |  |
|                      | Real          | Return Values[aResult].Array.Struct[Distance].Struct[fMax].Real               |  |
|                      | Rssi          |   |  |
|                      |               | <b>Struct</b>   |  |
|                      |               | fMean   |  |
|                      |               | Real  | Return Values[aResult].Array.Struct[Rssi].Struct[fMean].Real     |
|                      |               | fStd  |  |
|                      |               | Real  | Return Values[aResult].Array.Struct[Rssi].Struct[fStd].Real      |
|                      |               | fMin  |  |
|                      |               | Real  | Return Values[aResult].Array.Struct[Rssi].Struct[fMin].Real      |
|                      |               | fMax  |  |
| Real                 |               | Return Values[aResult].Array.Struct[Rssi].Struct[fMax].Real                   |  |
| ulError              |               | If 0, the function was successful. Other than zero represents LMS error code. |  |
| <b>UDInt</b>         |               |   |  |
| Value Range          | 0..4294967295 |   |  |
| Initialisation       |               |   |  |
| Physical Unit        |               |   |  |
| Physical Unit Factor |               | 0.0   |  |



| Return Values        |   |
|----------------------|---|
| aTrailerStd          |   |
| <b>Array</b>         |   |
| Length               | 0..1  |
| <b>Struct</b>        |   |
| ulRelTime            | Relative Time   |
| <b>UDInt</b>         |   |
| Value Range          | 0..4294967295   |
| Initialisation       |   |
| Physical Unit        | ms  |
| Physical Unit Factor | 0.0   |
| uiOutMsk             | The output mask for this function. Each bit toggles the display of the rep; usually given as input parameter, but here fix set to 0x1FF |
| <b>UInt</b>          |   |
| Value Range          | 0..65535  |
| Initialisation       |   |
| Physical Unit        |   |
| Physical Unit Factor | 0.0   |
| fStartAngle          | The start angle. This angle is independent of any MCL settings.   |
| <b>Real</b>          |   |
| Value Range          | See specification IEEE 754  |
| Initialisation       |   |
| Physical Unit        | °   |
| Physical Unit Factor | 0.0   |
| fAngleRes            | The angular resolution of the measurement values.   |
| <b>Real</b>          |   |
| Value Range          | See specification IEEE 754  |
| Initialisation       |   |
| Physical Unit        | °   |
| Physical Unit Factor | 0.0   |
| uiNumVal             | The number of spots to measure.   |
| <b>UInt</b>          |   |
| Value Range          | 0..65535  |
| Initialisation       |   |
| Physical Unit        |   |
| Physical Unit Factor | 0.0   |
| eFacette             |   |
| <b>UserType</b>      |   |
| eFacetteType         | See the chapter "User Types" for details.   |
| fScanFreq            | Target scan frequency   |
| <b>Real</b>          |   |
| Value Range          | See specification IEEE 754  |
| Initialisation       |   |
| Physical Unit        | Hz  |
| Physical Unit Factor | 0.0   |





| Return Values        |                      |  |             |             |
|----------------------|----------------------|--|-------------|-------------|
|                      | Array                |  |             |             |
|                      | Struct               |  |             |             |
|                      | fCurPause            | The current pause between two measurements in us; this value depends on FSP settings; currently not supported by CLV65x: always 0                |             |             |
|                      | Real                 |  |             |             |
|                      | Value Range          | See specification IEEE 754   |             |             |
|                      | Initialisation       |  |             |             |
|                      | Physical Unit        | us   |             |             |
|                      | Physical Unit Factor | 0.0  |             |             |
|                      | CurFirTap            | Current FIR tap.   |             |             |
|                      | USInt                |  |             |             |
|                      | Value Range          | 0..255   |             |             |
|                      | Initialisation       |  |             |             |
|                      | Physical Unit        |  |             |             |
|                      | Physical Unit Factor | 0.0  |             |             |
|                      | eProcStage           | Processing stage of distance and energy values.  |             |             |
|                      | UserType             |  |             |             |
|                      | ProcStage_t          | See the chapter "User Types" for details.  |             |             |
|                      | eErep                | Kind of requested energy values  |             |             |
|                      | Enum8                |  |             |             |
|                      |                      | Value  | Name        | Description |
|                      |                      | 0  | ErepDigits  |             |
|                      |                      | 1  | ErepPercent |             |
|                      |                      | 2  | ErepNW      |             |
|                      | uiNumHistory         | The requested number of values used for the moving averages, variance, etc. . I.e. the measuring value history.                                  |             |             |
|                      | UInt                 |  |             |             |
|                      | Value Range          | 0..65535   |             |             |
|                      | Initialisation       |  |             |             |
|                      | Physical Unit        |  |             |             |
|                      | Physical Unit Factor | 0.0  |             |             |
|                      | uiMaxTries           | The maximum number of scans measured while trying to reach the requested history depth for every single spot.                                    |             |             |
|                      | UInt                 |  |             |             |
|                      | Value Range          | 0..65535   |             |             |
|                      | Initialisation       |  |             |             |
|                      | Physical Unit        |  |             |             |
|                      | Physical Unit Factor | 0.0  |             |             |
|                      | uiDiscCnt            | The number of scans measured in addition to the requested history depth while trying to reach the requested history depth for every single spot. |             |             |
|                      | UInt                 |  |             |             |
|                      | Value Range          | 0..65535   |             |             |
|                      | Initialisation       |  |             |             |
|                      | Physical Unit        |  |             |             |
| Physical Unit Factor | 0.0                  |  |             |             |



| Return Values |                   |  |
|---------------|-------------------|--|
|               | <b>Array</b>      |  |
|               | <b>Struct</b>     |  |
|               |                   | byUserlevel      The userlevel to be locked on. Note that this telegram is not intended for customer.    |
|               |                   | <b>UInt</b>  |
|               |                   | Value Range      0..255  |
|               |                   | Initialisation   |
|               |                   | Physical Unit  |
|               |                   | Physical Unit Factor      0.0  |
|               | aTrailerReftarget |  |
|               | <b>Array</b>      |  |
|               | Length      0..1  |  |
|               | <b>Struct</b>     |  |
|               |                   | CurDistSig      Current averaged distance value of the reference target; averaged over device's lifetime |
|               |                   | <b>UInt</b>  |
|               |                   | Value Range      0..65535  |
|               |                   | Initialisation   |
|               |                   | Physical Unit      digit   |
|               |                   | Physical Unit Factor      0.0  |
|               |                   | CurRssiSig      Current averaged energy value of the reference target; averaged over device's lifetime   |
|               |                   | <b>UInt</b>  |
|               |                   | Value Range      0..65535  |
|               |                   | Initialisation   |
|               |                   | Physical Unit      digit_or_nW   |
|               |                   | Physical Unit Factor      0.0  |
|               |                   | CurRefTarget   |
|               |                   | <b>Struct</b>  |
|               |                   | Discarded      number of discarded scans for ref target measurement                                      |
|               |                   | UInt      Return Values[aTrailerReftarget].Array.Struct[CurRefTarget].Struct[Discarded].UInt             |
|               |                   | Distance   |
|               |                   | Struct      Return Values[aTrailerReftarget].Array.Struct[CurRefTarget].Struct[Distance].Struct          |
|               |                   | Rssi   |
|               |                   | Struct      Return Values[aTrailerReftarget].Array.Struct[CurRefTarget].Struct[Rssi].Struct              |



| Return Values        |  |
|----------------------|--|
| aTrailerTempData     |  |
| <b>Array</b>         |  |
| Length               | 0..1   |
| <b>Struct</b>        |  |
| Temp7318Int          | current internal temperature measured by ADT7318 |
| <b>DInt</b>          |  |
| Value Range          | -2147483648..2147483647                          |
| Initialisation       |  |
| Physical Unit        | °C   |
| Physical Unit Factor | 0.0  |
| Temp7318Ext          | current external temperature measured by ADT7318 |
| <b>DInt</b>          |  |
| Value Range          | -2147483648..2147483647                          |
| Initialisation       |  |
| Physical Unit        | °C   |
| Physical Unit Factor | 0.0  |
| Temp3                | currently not supported by CLV65x                |
| <b>DInt</b>          |  |
| Value Range          | -2147483648..2147483647                          |
| Initialisation       |  |
| Physical Unit        | °C   |
| Physical Unit Factor | 0.0  |
| Temp4                | currently not supported by CLV65x                |
| <b>DInt</b>          |  |
| Value Range          | -2147483648..2147483647                          |
| Initialisation       |  |
| Physical Unit        | °C   |
| Physical Unit Factor | 0.0  |

|                      |  |
|----------------------|--|
| <b>Real</b>          | Return Values[aResult].Array.Struct[Distance].Struct[fMean].Real |
| Value Range          | See specification IEEE 754                                       |
| Initialisation       |  |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |

|                      |   |
|----------------------|---|
| <b>Real</b>          | Return Values[aResult].Array.Struct[Distance].Struct[fStd].Real |
| Value Range          | See specification IEEE 754                                      |
| Initialisation       |   |
| Physical Unit        |   |
| Physical Unit Factor | 0.0   |

|                      |   |
|----------------------|---|
| <b>Real</b>          | Return Values[aResult].Array.Struct[Distance].Struct[fMin].Real |
| Value Range          | See specification IEEE 754                                      |
| Initialisation       |   |
| Physical Unit        |   |
| Physical Unit Factor | 0.0   |



|                      |   |
|----------------------|---|
| <b>Real</b>          | Return Values[aResult].Array.Struct[Distance].Struct[fMax].Real |
| Value Range          | See specification IEEE 754                                      |
| Initialisation       |   |
| Physical Unit        |   |
| Physical Unit Factor | 0.0   |

|                      |  |
|----------------------|--|
| <b>Real</b>          | Return Values[aResult].Array.Struct[Rssi].Struct[fMean].Real |
| Value Range          | See specification IEEE 754                                   |
| Initialisation       |  |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |

|                      |   |
|----------------------|---|
| <b>Real</b>          | Return Values[aResult].Array.Struct[Rssi].Struct[fStd].Real |
| Value Range          | See specification IEEE 754                                  |
| Initialisation       |   |
| Physical Unit        |   |
| Physical Unit Factor | 0.0   |

|                      |   |
|----------------------|---|
| <b>Real</b>          | Return Values[aResult].Array.Struct[Rssi].Struct[fMin].Real |
| Value Range          | See specification IEEE 754                                  |
| Initialisation       |   |
| Physical Unit        |   |
| Physical Unit Factor | 0.0   |

|                      |   |
|----------------------|---|
| <b>Real</b>          | Return Values[aResult].Array.Struct[Rssi].Struct[fMax].Real |
| Value Range          | See specification IEEE 754                                  |
| Initialisation       |   |
| Physical Unit        |   |
| Physical Unit Factor | 0.0   |

|                      |  |
|----------------------|--|
| <b>UInt</b>          | Return Values[aTrailerReftarget].Array.Struct[CurRefTarget].Struct[Discarded].UInt |
| Value Range          | 0..65535   |
| Initialisation       |  |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |

|                      |   |
|----------------------|---|
| <b>Struct</b>        | Return Values[aTrailerReftarget].Array.Struct[CurRefTarget].Struct[Distance].Struct |
| fMean                |   |
| <b>Real</b>          |   |
| Value Range          | See specification IEEE 754  |
| Initialisation       |   |
| Physical Unit        |   |
| Physical Unit Factor | 0.0   |
| fStd                 |   |
| <b>Real</b>          |   |
| Value Range          | See specification IEEE 754  |
| Initialisation       |   |
| Physical Unit        |   |
| Physical Unit Factor | 0.0   |



|                      |   |
|----------------------|---|
| <b>Struct</b>        | Return Values[aTrailerReftarget].Array.Struct[CurRefTarget].Struct[Distance].Struct |
| fMin                 |   |
| <b>Real</b>          |   |
| Value Range          | See specification IEEE 754  |
| Initialisation       |   |
| Physical Unit        |   |
| Physical Unit Factor | 0.0   |
| fMax                 |   |
| <b>Real</b>          |   |
| Value Range          | See specification IEEE 754  |
| Initialisation       |   |
| Physical Unit        |   |
| Physical Unit Factor | 0.0   |

|                      |   |
|----------------------|---|
| <b>Struct</b>        | Return Values[aTrailerReftarget].Array.Struct[CurRefTarget].Struct[Rssi].Struct |
| fMean                |   |
| <b>Real</b>          |   |
| Value Range          | See specification IEEE 754  |
| Initialisation       |   |
| Physical Unit        |   |
| Physical Unit Factor | 0.0   |
| fStd                 |   |
| <b>Real</b>          |   |
| Value Range          | See specification IEEE 754  |
| Initialisation       |   |
| Physical Unit        |   |
| Physical Unit Factor | 0.0   |
| fMin                 |   |
| <b>Real</b>          |   |
| Value Range          | See specification IEEE 754  |
| Initialisation       |   |
| Physical Unit        |   |
| Physical Unit Factor | 0.0   |
| fMax                 |   |
| <b>Real</b>          |   |
| Value Range          | See specification IEEE 754  |
| Initialisation       |   |
| Physical Unit        |   |
| Physical Unit Factor | 0.0   |



## Method Telegram Syntax

| Method Invocation:             |                    |               |               |  |
|--------------------------------|--------------------|---------------|---------------|--|
| sMN mFTmeanbyangleenhq <InPar> |                    |               |               |  |
| Telegram Part                  | Telegram           | Type          | Length [Byte] | Description  |
| Command Type                   | sMN                | String        | 3             | Request (SOPAS Method by Name)   |
| Command                        | mFTmeanbyangleenhq | String        | 18            | This method returns statistical data on up to 80 separate measuring spots. The initial spot is indicated by the start position in degrees. |
| Parameter 1                    | InPar              | MbaEnhInPar_t | 20            |  |

| Method Return Value:  |                    |        |               |  |
|---|--------------------|--------|---------------|--|
| sAN mFTmeanbyangleenhq <aLeader> <aResult> <ulError> <aTrailerStd> <aTrailerReftarget> <aTrailerTempData> |                    |        |               |  |
| Telegram Part   | Telegram           | Type   | Length [Byte] | Description  |
| Command Type  | sAN                | String | 3             | Result (SOPAS Method Result)   |
| Command   | mFTmeanbyangleenhq | String | 18            | This method returns statistical data on up to 80 separate measuring spots. The initial spot is indicated by the start position in degrees. |
| Return Value 1  | aLeader            | Array  | 200           |  |
| Return Value 2  | aResult            | Array  | 2720          |  |
| Return Value 3  | ulError            | UDInt  | 4             | If 0, the function was successful. Other than zero represents LMS error code.  |
| Return Value 4  | aTrailerStd        | Array  | 35            |  |
| Return Value 5  | aTrailerReftarget  | Array  | 38            |  |
| Return Value 6  | aTrailerTempData   | Array  | 16            |  |

## Method Telegram Examples

| Example: Default Values   |   |
|---|---|
| Method telegram examples with parameter data and return value data set to default values. |   |
| Method Invocation:  | [STX]sMN mFTmeanbyangleenhq 7 0 +0.0 1 3C FA 0 A 0 0 0[ETX] |
| Method Return Value:  | [STX]sAN mFTmeanbyangleenhq 0 0 0 0 0 0[ETX]                |



#### 2.22.1.4. Method: FTGetDigInEdgesCount

The following section contains a detailed description of the method FTGetDigInEdgesCount.

##### Method Overview

| Method Name          | Description   |
|----------------------|---|
| FTGetDigInEdgesCount | Returns a counter of the edges (raising/falling) of in1/in2/extin1/extin2 |

|                    |                   |
|--------------------|-------------------|
| Communication Name | mFTGetDigInEdgCnt |
| Sopas Index        | 124               |
| Invocation Access  | AuthorizedClient  |

| Parameters           |  |
|----------------------|--|
| SensorNr             | Number of sensor: 1=in1, 2=in2, 3=extin1, 4=extin2 |
| <b>UInt</b>          |  |
| Value Range          | 0..65535   |
| Initialisation       |  |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |

| Return Values        |               |
|----------------------|---------------|
| Success              |               |
| <b>Bool</b>          |               |
| Value Range          | False, True   |
| Initialisation       | False         |
| RaisingEdges         |               |
| <b>UDInt</b>         |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |
| FallingEdges         |               |
| <b>UDInt</b>         |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

## Method Telegram Syntax

| Method Invocation:               |                   |        |               |   |
|----------------------------------|-------------------|--------|---------------|---|
| sMN mFTGetDigInEdgCnt <SensorNr> |                   |        |               |   |
| Telegram Part                    | Telegram          | Type   | Length [Byte] | Description   |
| Command Type                     | sMN               | String | 3             | Request (SOPAS Method by Name)  |
| Command                          | mFTGetDigInEdgCnt | String | 17            | Returns a counter of the edges (raising/falling) of in1/in2/extin1/extin2 |
| Parameter 1                      | SensorNr          | UInt   | 2             | Number of sensor: 1=in1, 2=in2, 3=extin1, 4=extin2                        |

| Method Return Value:  |                   |        |               |   |
|---|-------------------|--------|---------------|---|
| sAN mFTGetDigInEdgCnt <Success> <RaisingEdges> <FallingEdges> |                   |        |               |   |
| Telegram Part   | Telegram          | Type   | Length [Byte] | Description   |
| Command Type  | sAN               | String | 3             | Result (SOPAS Method Result)  |
| Command   | mFTGetDigInEdgCnt | String | 17            | Returns a counter of the edges (raising/falling) of in1/in2/extin1/extin2 |
| Return Value 1  | Success           | Bool   | 1             |   |
| Return Value 2  | RaisingEdges      | UDInt  | 4             |   |
| Return Value 3  | FallingEdges      | UDInt  | 4             |   |

## Method Telegram Examples

| Example: Default Values   |                                       |
|---|---------------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                       |
| Method Invocation:  | [STX]sMN mFTGetDigInEdgCnt 0[ETX]     |
| Method Return Value:  | [STX]sAN mFTGetDigInEdgCnt 0 0 0[ETX] |

### 2.22.1.5. Method: FTClearDigInEdgesCount

The following section contains a detailed description of the method FTClearDigInEdgesCount.

#### Method Overview

| Method Name            | Description               |
|------------------------|---------------------------|
| FTClearDigInEdgesCount | Clears the edges counters |

|                    |                   |
|--------------------|-------------------|
| Communication Name | mFTClrDigInEdgCnt |
| Sopas Index        | 125               |
| Invocation Access  | AuthorizedClient  |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |





## Method Telegram Syntax

| Method Invocation:    |                   |        |               |                                |
|-----------------------|-------------------|--------|---------------|--------------------------------|
| sMN mFTClrDigInEdgCnt |                   |        |               |                                |
| Telegram Part         | Telegram          | Type   | Length [Byte] | Description                    |
| Command Type          | sMN               | String | 3             | Request (SOPAS Method by Name) |
| Command               | mFTClrDigInEdgCnt | String | 17            | Clears the edges counters      |

| Method Return Value:            |                   |        |               |                              |
|---------------------------------|-------------------|--------|---------------|------------------------------|
| sAN mFTClrDigInEdgCnt <Success> |                   |        |               |                              |
| Telegram Part                   | Telegram          | Type   | Length [Byte] | Description                  |
| Command Type                    | sAN               | String | 3             | Result (SOPAS Method Result) |
| Command                         | mFTClrDigInEdgCnt | String | 17            | Clears the edges counters    |
| Return Value 1                  | Success           | Bool   | 1             |                              |

## Method Telegram Examples

| Example: Default Values   |                                   |
|---|-----------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                   |
| Method Invocation:  | [STX]sMN mFTClrDigInEdgCnt[ETX]   |
| Method Return Value:  | [STX]sAN mFTClrDigInEdgCnt 0[ETX] |

## 2.22.2. Group: FSP

### 2.22.2.1. Variable: DistCorrDECT

The following section contains a detailed description of the variable DistCorrDECT.

#### Variable Overview

| Variable Name |
|---------------|
| DistCorrDECT  |

|                       |   |
|-----------------------|---|
| Communication Name    | DstCrrDECT  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 782   |
| Storage               | Variable is stored in CalibEEPROMCLV65x                 |
| Read-Access           | Always  |
| Write-Access          | Always  |

| Array  |                      |                            |
|--------|----------------------|----------------------------|
| Length |                      | 700                        |
|        | Real                 |                            |
|        | Value Range          | See specification IEEE 754 |
|        | Initialisation       | 0                          |
|        | Physical Unit        |                            |
|        | Physical Unit Factor | 0.0                        |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                             |
|----------------|------------|--------|---------------|-----------------------------|
| sRN DstCrrDECT |            |        |               |                             |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                 |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name |
| Command        | DstCrrDECT | String | 10            |                             |

| Read Variable Response: |            |        |               |                                 |
|-------------------------|------------|--------|---------------|---------------------------------|
| sRA DstCrrDECT <data>   |            |        |               |                                 |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DstCrrDECT | String | 10            |                                 |
| Variable Data           | data       | Array  | 2800          |                                 |

| Write Variable:       |            |        |               |                              |
|-----------------------|------------|--------|---------------|------------------------------|
| sWN DstCrrDECT <data> |            |        |               |                              |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name |
| Command               | DstCrrDECT | String | 10            |                              |
| Variable Data         | data       | Array  | 2800          |                              |



| Write Variable Response: |            |        |               |                                  |
|--------------------------|------------|--------|---------------|----------------------------------|
| sWA DstCrrDECT           |            |        |               |                                  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DstCrrDECT | String | 10            |                                  |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN DstCrrDECT[ETX] |

[illegible]



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## 2.22.2.2. Variable: DistCorrMinValidDist

The following section contains a detailed description of the variable DistCorrMinValidDist.

### Variable Overview

| Variable Name        |
|----------------------|
| DistCorrMinValidDist |

|                       |   |
|-----------------------|---|
| Communication Name    | DstCrrMinDist   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 783   |
| Storage               | Variable is stored in CalibEEPROMCLV65x                 |
| Read-Access           | Always  |
| Write-Access          | Always  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 30..4000 |
| Initialisation       | 50       |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |

### Variable Telegram Syntax

| Read Variable:    |               |        |               |                             |
|-------------------|---------------|--------|---------------|-----------------------------|
| sRN DstCrrMinDist |               |        |               |                             |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                 |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name |
| Command           | DstCrrMinDist | String | 13            |                             |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA DstCrrMinDist <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | DstCrrMinDist | String | 13            |                                 |
| Variable Data            | data          | UInt   | 2             |                                 |

| Write Variable:          |               |        |               |                              |
|--------------------------|---------------|--------|---------------|------------------------------|
| sWN DstCrrMinDist <data> |               |        |               |                              |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                  |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name |
| Command                  | DstCrrMinDist | String | 13            |                              |
| Variable Data            | data          | UInt   | 2             |                              |

| Write Variable Response: |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sWA DstCrrMinDist        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DstCrrMinDist | String | 13            |                                  |



## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN DstCrrMinDist[ETX]    |
| Read Variable Response:                                     | [STX]sRA DstCrrMinDist 32[ETX] |
| Write Variable:   | [STX]sWN DstCrrMinDist 32[ETX] |
| Write Variable Response:                                    | [STX]sWA DstCrrMinDist[ETX]    |

### 2.22.2.3. Variable: DistCorrMaxValidDist

The following section contains a detailed description of the variable DistCorrMaxValidDist.

#### Variable Overview

| Variable Name        |
|----------------------|
| DistCorrMaxValidDist |

|                       |   |
|-----------------------|---|
| Communication Name    | DstCrrMaxDist   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 784   |
| Storage               | Variable is stored in CalibEEPROMCLV65x                 |
| Read-Access           | Always  |
| Write-Access          | Always  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 30..4000 |
| Initialisation       | 3000     |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |                             |
|-------------------|---------------|--------|---------------|-----------------------------|
| sRN DstCrrMaxDist |               |        |               |                             |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                 |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name |
| Command           | DstCrrMaxDist | String | 13            |                             |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA DstCrrMaxDist <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | DstCrrMaxDist | String | 13            |                                 |
| Variable Data            | data          | UInt   | 2             |                                 |



| Write Variable:          |               |        |               |                              |
|--------------------------|---------------|--------|---------------|------------------------------|
| sWN DstCrrMaxDist <data> |               |        |               |                              |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                  |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name |
| Command                  | DstCrrMaxDist | String | 13            |                              |
| Variable Data            | data          | UInt   | 2             |                              |

| Write Variable Response: |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sWA DstCrrMaxDist        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DstCrrMaxDist | String | 13            |                                  |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN DstCrrMaxDist[ETX]     |
| Read Variable Response:                                     | [STX]sRA DstCrrMaxDist BB8[ETX] |
| Write Variable:   | [STX]sWN DstCrrMaxDist BB8[ETX] |
| Write Variable Response:                                    | [STX]sWA DstCrrMaxDist[ETX]     |



## 2.23. Interface Block: GeneralCfg

### 2.23.1. Group: DigitalOutputsEnhancements

#### 2.23.1.1. Variable: Out1FuncTeachInMatchCodeEnh

The following section contains a detailed description of the variable Out1FuncTeachInMatchCodeEnh.

#### Variable Overview

| Variable Name               |  |
|-----------------------------|--|
| Out1FuncTeachInMatchCodeEnh |  |

|                       |   |
|-----------------------|---|
| Communication Name    | DO1FncTIMCE   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 882   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |       |                   |             |
|----------------|-------|-------------------|-------------|
| EnumValue      |       |                   |             |
|                |       | <b>Enum8</b>      |             |
| Default Value  |       | 0                 |             |
|                | Value | Name              | Description |
|                | 0     | TX_NOTHING        |             |
| UseExtraValue  |       |                   |             |
|                |       | <b>Bool</b>       |             |
| Value Range    |       | False, True       |             |
| Initialisation |       | False             |             |
| ExtraValue     |       |                   |             |
|                |       | <b>FlexString</b> |             |
| Length         |       | 0..18             |             |
| Initialisation |       |                   |             |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN DO1FncTIMCE |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | DO1FncTIMCE | String | 11            |                             |

| Read Variable Response:                                  |               |            |               |                                 |
|--|---------------|------------|---------------|---------------------------------|
| sRA DO1FncTIMCE <EnumValue> <UseExtraValue> <ExtraValue> |               |            |               |                                 |
| Telegram Part  | Telegram      | Type       | Length [Byte] | Description                     |
| Command Type   | sRA           | String     | 3             | SOPAS Variable Read Acknowledge |
| Command  | DO1FncTIMCE   | String     | 11            |                                 |
| Variable Data 1  | EnumValue     | Enum8      | 1             |                                 |
| Variable Data 2  | UseExtraValue | Bool       | 1             |                                 |
| Variable Data 3  | ExtraValue    | FlexString | 18            |                                 |

| Write Variable:  |               |            |               |                              |
|--|---------------|------------|---------------|------------------------------|
| sWN DO1FncTIMCE <EnumValue> <UseExtraValue> <ExtraValue> |               |            |               |                              |
| Telegram Part  | Telegram      | Type       | Length [Byte] | Description                  |
| Command Type   | sWN           | String     | 3             | Write SOPAS Variable by Name |
| Command  | DO1FncTIMCE   | String     | 11            |                              |
| Variable Data 1  | EnumValue     | Enum8      | 1             |                              |
| Variable Data 2  | UseExtraValue | Bool       | 1             |                              |
| Variable Data 3  | ExtraValue    | FlexString | 18            |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DO1FncTIMCE          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DO1FncTIMCE | String | 11            |                                  |

## Variable Telegram Examples

| Example: Default Values                                     |                                    |
|---|------------------------------------|
| Variable telegram examples with data set to default values. |                                    |
| Read Variable:  | [STX]sRN DO1FncTIMCE[ETX]          |
| Read Variable Response:                                     | [STX]sRA DO1FncTIMCE 0 0 0[ETX]    |
| Write Variable:   | [STX]sWN DO1FncTIMCE 0 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DO1FncTIMCE[ETX]          |

### 2.23.1.2. Variable: Out2FuncTeachInMatchCodeEnh

The following section contains a detailed description of the variable Out2FuncTeachInMatchCodeEnh.

#### Variable Overview

| Variable Name               |
|-----------------------------|
| Out2FuncTeachInMatchCodeEnh |

|                       |   |
|-----------------------|---|
| Communication Name    | DO2FncTIMCE   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 883   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |       |                   |             |
|----------------|-------|-------------------|-------------|
| EnumValue      |       |                   |             |
|                |       | <b>Enum8</b>      |             |
| Default Value  |       | 0                 |             |
|                | Value | Name              | Description |
|                | 0     | TX_NOTHING        |             |
| UseExtraValue  |       |                   |             |
|                |       | <b>Bool</b>       |             |
| Value Range    |       | False, True       |             |
| Initialisation |       | False             |             |
| ExtraValue     |       |                   |             |
|                |       | <b>FlexString</b> |             |
| Length         |       | 0..18             |             |
| Initialisation |       |                   |             |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN DO2FncTIMCE |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | DO2FncTIMCE | String | 11            |                             |

| Read Variable Response:                                  |               |            |               |                                 |
|--|---------------|------------|---------------|---------------------------------|
| sRA DO2FncTIMCE <EnumValue> <UseExtraValue> <ExtraValue> |               |            |               |                                 |
| Telegram Part  | Telegram      | Type       | Length [Byte] | Description                     |
| Command Type   | sRA           | String     | 3             | SOPAS Variable Read Acknowledge |
| Command  | DO2FncTIMCE   | String     | 11            |                                 |
| Variable Data 1  | EnumValue     | Enum8      | 1             |                                 |
| Variable Data 2  | UseExtraValue | Bool       | 1             |                                 |
| Variable Data 3  | ExtraValue    | FlexString | 18            |                                 |



| Write Variable:  |               |            |               |                              |
|--|---------------|------------|---------------|------------------------------|
| sWN DO2FncTIMCE <EnumValue> <UseExtraValue> <ExtraValue> |               |            |               |                              |
| Telegram Part  | Telegram      | Type       | Length [Byte] | Description                  |
| Command Type   | sWN           | String     | 3             | Write SOPAS Variable by Name |
| Command  | DO2FncTIMCE   | String     | 11            |                              |
| Variable Data 1  | EnumValue     | Enum8      | 1             |                              |
| Variable Data 2  | UseExtraValue | Bool       | 1             |                              |
| Variable Data 3  | ExtraValue    | FlexString | 18            |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DO2FncTIMCE          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DO2FncTIMCE | String | 11            |                                  |

## Variable Telegram Examples

| Example: Default Values                                     |                                    |
|---|------------------------------------|
| Variable telegram examples with data set to default values. |                                    |
| Read Variable:  | [STX]sRN DO2FncTIMCE[ETX]          |
| Read Variable Response:                                     | [STX]sRA DO2FncTIMCE 0 0 0[ETX]    |
| Write Variable:   | [STX]sWN DO2FncTIMCE 0 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DO2FncTIMCE[ETX]          |

### 2.23.1.3. Variable: ExtOut1FuncTeachInMatchCodeEnh

The following section contains a detailed description of the variable ExtOut1FuncTeachInMatchCodeEnh.

## Variable Overview

| Variable Name                  |
|--------------------------------|
| ExtOut1FuncTeachInMatchCodeEnh |

|                       |   |
|-----------------------|---|
| Communication Name    | DO1FncTIMCE   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 884   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct    |               |            |             |
|-----------|---------------|------------|-------------|
| EnumValue |               |            |             |
|           | Enum8         |            |             |
|           | Default Value | 0          |             |
|           | Value         | Name       | Description |
|           | 0             | TX_NOTHING |             |



| Struct            |             |
|-------------------|-------------|
| UseExtraValue     |             |
| <b>Bool</b>       |             |
| Value Range       | False, True |
| Initialisation    | False       |
| ExtraValue        |             |
| <b>FlexString</b> |             |
| Length            | 0..18       |
| Initialisation    |             |

## Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN DO1FncTIMCE |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | DO1FncTIMCE | String | 11            |                             |

| Read Variable Response:                                  |               |            |               |                                 |
|--|---------------|------------|---------------|---------------------------------|
| sRA DO1FncTIMCE <EnumValue> <UseExtraValue> <ExtraValue> |               |            |               |                                 |
| Telegram Part  | Telegram      | Type       | Length [Byte] | Description                     |
| Command Type   | sRA           | String     | 3             | SOPAS Variable Read Acknowledge |
| Command  | DO1FncTIMCE   | String     | 11            |                                 |
| Variable Data 1  | EnumValue     | Enum8      | 1             |                                 |
| Variable Data 2  | UseExtraValue | Bool       | 1             |                                 |
| Variable Data 3  | ExtraValue    | FlexString | 18            |                                 |

| Write Variable:  |               |            |               |                              |
|--|---------------|------------|---------------|------------------------------|
| sWN DO1FncTIMCE <EnumValue> <UseExtraValue> <ExtraValue> |               |            |               |                              |
| Telegram Part  | Telegram      | Type       | Length [Byte] | Description                  |
| Command Type   | sWN           | String     | 3             | Write SOPAS Variable by Name |
| Command  | DO1FncTIMCE   | String     | 11            |                              |
| Variable Data 1  | EnumValue     | Enum8      | 1             |                              |
| Variable Data 2  | UseExtraValue | Bool       | 1             |                              |
| Variable Data 3  | ExtraValue    | FlexString | 18            |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DO1FncTIMCE          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DO1FncTIMCE | String | 11            |                                  |



## Variable Telegram Examples

| Example: Default Values                                     |                                    |
|---|------------------------------------|
| Variable telegram examples with data set to default values. |                                    |
| Read Variable:  | [STX]sRN DO1FncTIMCE[ETX]          |
| Read Variable Response:                                     | [STX]sRA DO1FncTIMCE 0 0 0[ETX]    |
| Write Variable:   | [STX]sWN DO1FncTIMCE 0 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DO1FncTIMCE[ETX]          |

### 2.23.1.4. Variable: ExtOut2FuncTeachInMatchCodeEnh

The following section contains a detailed description of the variable ExtOut2FuncTeachInMatchCodeEnh.

#### Variable Overview

| Variable Name                  |  |
|--------------------------------|--|
| ExtOut2FuncTeachInMatchCodeEnh |  |

|                       |   |
|-----------------------|---|
| Communication Name    | DO2FncTIMCE   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 885   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |       |                   |             |
|----------------|-------|-------------------|-------------|
| EnumValue      |       |                   |             |
|                |       | <b>Enum8</b>      |             |
| Default Value  |       | 0                 |             |
|                | Value | Name              | Description |
|                | 0     | TX_NOTHING        |             |
| UseExtraValue  |       |                   |             |
|                |       | <b>Bool</b>       |             |
| Value Range    |       | False, True       |             |
| Initialisation |       | False             |             |
| ExtraValue     |       |                   |             |
|                |       | <b>FlexString</b> |             |
| Length         |       | 0..18             |             |
| Initialisation |       |                   |             |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN DO2FncTIMCE |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | DO2FncTIMCE | String | 11            |                             |

| Read Variable Response:                                  |               |            |               |                                 |
|--|---------------|------------|---------------|---------------------------------|
| sRA DO2FncTIMCE <EnumValue> <UseExtraValue> <ExtraValue> |               |            |               |                                 |
| Telegram Part  | Telegram      | Type       | Length [Byte] | Description                     |
| Command Type   | sRA           | String     | 3             | SOPAS Variable Read Acknowledge |
| Command  | DO2FncTIMCE   | String     | 11            |                                 |
| Variable Data 1  | EnumValue     | Enum8      | 1             |                                 |
| Variable Data 2  | UseExtraValue | Bool       | 1             |                                 |
| Variable Data 3  | ExtraValue    | FlexString | 18            |                                 |

| Write Variable:  |               |            |               |                              |
|--|---------------|------------|---------------|------------------------------|
| sWN DO2FncTIMCE <EnumValue> <UseExtraValue> <ExtraValue> |               |            |               |                              |
| Telegram Part  | Telegram      | Type       | Length [Byte] | Description                  |
| Command Type   | sWN           | String     | 3             | Write SOPAS Variable by Name |
| Command  | DO2FncTIMCE   | String     | 11            |                              |
| Variable Data 1  | EnumValue     | Enum8      | 1             |                              |
| Variable Data 2  | UseExtraValue | Bool       | 1             |                              |
| Variable Data 3  | ExtraValue    | FlexString | 18            |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA DO2FncTIMCE          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DO2FncTIMCE | String | 11            |                                  |

## Variable Telegram Examples

| Example: Default Values                                     |                                    |
|---|------------------------------------|
| Variable telegram examples with data set to default values. |                                    |
| Read Variable:  | [STX]sRN DO2FncTIMCE[ETX]          |
| Read Variable Response:                                     | [STX]sRA DO2FncTIMCE 0 0 0[ETX]    |
| Write Variable:   | [STX]sWN DO2FncTIMCE 0 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DO2FncTIMCE[ETX]          |



## 2.23.2. Group: SystemControlEnh

### 2.23.2.1. Variable: LocationNameDefaultValue

The following section contains a detailed description of the variable LocationNameDefaultValue.

#### Variable Overview

| Variable Name            | Description                        |
|--------------------------|------------------------------------|
| LocationNameDefaultValue | Default Value for the LocationName |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 886   |
| Read-Access           | Always  |
| Write-Access          | Always  |

| FlexString     |        |
|----------------|--------|
| Length         | 0..64  |
| Initialisation | CLV6xx |

#### Variable Telegram Syntax

| Read Variable:               |                          |        |               |                                    |
|------------------------------|--------------------------|--------|---------------|------------------------------------|
| sRN LocationNameDefaultValue |                          |        |               |                                    |
| Telegram Part                | Telegram                 | Type   | Length [Byte] | Description                        |
| Command Type                 | sRN                      | String | 3             | Read SOPAS Variable by Name        |
| Command                      | LocationNameDefaultValue | String | 24            | Default Value for the LocationName |

| Read Variable Response:             |                          |            |               |                                    |
|-------------------------------------|--------------------------|------------|---------------|------------------------------------|
| sRA LocationNameDefaultValue <data> |                          |            |               |                                    |
| Telegram Part                       | Telegram                 | Type       | Length [Byte] | Description                        |
| Command Type                        | sRA                      | String     | 3             | SOPAS Variable Read Acknowledge    |
| Command                             | LocationNameDefaultValue | String     | 24            | Default Value for the LocationName |
| Variable Data                       | data                     | FlexString | 64            |                                    |

| Write Variable:                     |                          |            |               |                                    |
|-------------------------------------|--------------------------|------------|---------------|------------------------------------|
| sWN LocationNameDefaultValue <data> |                          |            |               |                                    |
| Telegram Part                       | Telegram                 | Type       | Length [Byte] | Description                        |
| Command Type                        | sWN                      | String     | 3             | Write SOPAS Variable by Name       |
| Command                             | LocationNameDefaultValue | String     | 24            | Default Value for the LocationName |
| Variable Data                       | data                     | FlexString | 64            |                                    |

| Write Variable Response:     |                          |        |               |                                    |
|------------------------------|--------------------------|--------|---------------|------------------------------------|
| sWA LocationNameDefaultValue |                          |        |               |                                    |
| Telegram Part                | Telegram                 | Type   | Length [Byte] | Description                        |
| Command Type                 | sWA                      | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                      | LocationNameDefaultValue | String | 24            | Default Value for the LocationName |





## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN LocationNameDefaultValue[ETX]           |
| Read Variable Response:                                     | [STX]sRA LocationNameDefaultValue 6 CLV6xx[ETX]  |
| Write Variable:   | [STX]sWN LocationNameDefaultValue +6 CLV6xx[ETX] |
| Write Variable Response:                                    | [STX]sWA LocationNameDefaultValue[ETX]           |

### 2.23.2.2. Method: LoadFactoryDefaultsRaw

The following section contains a detailed description of the method LoadFactoryDefaultsRaw.

#### Method Overview

| Method Name            | Description  |
|------------------------|--|
| LoadFactoryDefaultsRaw | See LoadFactoryDefaults, but does not apply customer specific defaults |

|                    |                  |
|--------------------|------------------|
| Communication Name | mSCloadfacdefraw |
| Sopas Index        | 129              |
| Invocation Access  | AuthorizedClient |

#### Method Telegram Syntax

| Method Invocation:   |                  |        |               |  |
|----------------------|------------------|--------|---------------|--|
| sMN mSCloadfacdefraw |                  |        |               |  |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description  |
| Command Type         | sMN              | String | 3             | Request (SOPAS Method by Name)   |
| Command              | mSCloadfacdefraw | String | 16            | See LoadFactoryDefaults, but does not apply customer specific defaults |

| Method Return Value: |                  |        |               |  |
|----------------------|------------------|--------|---------------|--|
| sAN mSCloadfacdefraw |                  |        |               |  |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description  |
| Command Type         | sAN              | String | 3             | Result (SOPAS Method Result)   |
| Command              | mSCloadfacdefraw | String | 16            | See LoadFactoryDefaults, but does not apply customer specific defaults |



## Method Telegram Examples

| Example: Default Values   |                                |
|---|--------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                |
| Method Invocation:  | [STX]sMN mSCloadfacdefraw[ETX] |
| Method Return Value:  | [STX]sAN mSCloadfacdefraw[ETX] |



## 2.23.3. Group: Serial

### 2.23.3.1. Variable: SerHostCustomProtNb

The following section contains a detailed description of the variable SerHostCustomProtNb.

#### Variable Overview

| Variable Name       | Description                             |
|---------------------|---|
| SerHostCustomProtNb | Protocol number for the custom protocol |

|                       |   |
|-----------------------|---|
| Communication Name    | SIHstCstProtNb  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 887   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |         |
|----------------------|---------|
| Value Range          | 1..9999 |
| Initialisation       | 1       |
| Physical Unit        |         |
| Physical Unit Factor | 0.0     |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |   |
|--------------------|----------------|--------|---------------|---|
| sRN SIHstCstProtNb |                |        |               |   |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name             |
| Command            | SIHstCstProtNb | String | 14            | Protocol number for the custom protocol |

| Read Variable Response:   |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sRA SIHstCstProtNb <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                   | SIHstCstProtNb | String | 14            | Protocol number for the custom protocol |
| Variable Data             | data           | UInt   | 2             |   |

| Write Variable:           |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sWN SIHstCstProtNb <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name            |
| Command                   | SIHstCstProtNb | String | 14            | Protocol number for the custom protocol |
| Variable Data             | data           | UInt   | 2             |   |



| Write Variable Response: |                |        |               |   |
|--------------------------|----------------|--------|---------------|---|
| sWA SIHstCstProtNb       |                |        |               |   |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | SIHstCstProtNb | String | 14            | Protocol number for the custom protocol |

### Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN SIHstCstProtNb[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIHstCstProtNb 1[ETX] |
| Write Variable:   | [STX]sWN SIHstCstProtNb 1[ETX] |
| Write Variable Response:                                    | [STX]sWA SIHstCstProtNb[ETX]   |

### 2.23.3.2. Variable: SerHostXonXoff

The following section contains a detailed description of the variable SerHostXonXoff.

#### Variable Overview

| Variable Name  | Description                                  |
|----------------|--|
| SerHostXonXoff | checked if xon xoff is active on serial host |

|                       |   |
|-----------------------|---|
| Communication Name    | SIHstXonXoff  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 888   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:   |              |        |               |  |
|------------------|--------------|--------|---------------|--|
| sRN SIHstXonXoff |              |        |               |  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                                  |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name                  |
| Command          | SIHstXonXoff | String | 12            | checked if xon xoff is active on serial host |

| Read Variable Response: |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sRA SIHstXonXoff <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                  |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge              |
| Command                 | SIHstXonXoff | String | 12            | checked if xon xoff is active on serial host |
| Variable Data           | data         | Bool   | 1             |  |

| Write Variable:         |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sWN SIHstXonXoff <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                  |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name                 |
| Command                 | SIHstXonXoff | String | 12            | checked if xon xoff is active on serial host |
| Variable Data           | data         | Bool   | 1             |  |

| Write Variable Response: |              |        |               |  |
|--------------------------|--------------|--------|---------------|--|
| sWA SIHstXonXoff         |              |        |               |  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                                  |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge             |
| Command                  | SIHstXonXoff | String | 12            | checked if xon xoff is active on serial host |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN SIHstXonXoff[ETX]   |
| Read Variable Response:                                     | [STX]sRA SIHstXonXoff 0[ETX] |
| Write Variable:   | [STX]sWN SIHstXonXoff 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SIHstXonXoff[ETX]   |

### 2.23.3.3. Variable: SerHostHandshakeMode

The following section contains a detailed description of the variable SerHostHandshakeMode.

#### Variable Overview

| Variable Name        | Description                 |
|----------------------|-----------------------------|
| SerHostHandshakeMode | Handshake Mode like Ack/Nak |

|                       |   |
|-----------------------|---|
| Communication Name    | SIHstHndshkMd   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 889   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                 |             |
|---------------|-------|-----------------|-------------|
| Default Value |       | 0               |             |
|               | Value | Name            | Description |
|               | 0     | TX_NO_HANDSHAKE |             |
|               | 1     | TX_NAK          |             |
|               | 2     | TX_ACKNAK       |             |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |                             |
|-------------------|---------------|--------|---------------|-----------------------------|
| sRN SIHstHndshkMd |               |        |               |                             |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                 |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name |
| Command           | SIHstHndshkMd | String | 13            | Handshake Mode like Ack/Nak |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA SIHstHndshkMd <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | SIHstHndshkMd | String | 13            | Handshake Mode like Ack/Nak     |
| Variable Data            | data          | Enum8  | 1             |                                 |

| Write Variable:          |               |        |               |                              |
|--------------------------|---------------|--------|---------------|------------------------------|
| sWN SIHstHndshkMd <data> |               |        |               |                              |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                  |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name |
| Command                  | SIHstHndshkMd | String | 13            | Handshake Mode like Ack/Nak  |
| Variable Data            | data          | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA SIHstHndshkMd        |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |               |        |               |                             |
|--------------------------|---------------|--------|---------------|-----------------------------|
| sWA SIHstHndshkMd        |               |        |               |                             |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                 |
| Command                  | SIHstHndshkMd | String | 13            | Handshake Mode like Ack/Nak |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| <b>Read Variable:</b>                                       | [STX]sRN SIHstHndshkMd[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA SIHstHndshkMd 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN SIHstHndshkMd 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA SIHstHndshkMd[ETX]   |

### 2.23.3.4. Variable: SerHostHandshakeTimeout

The following section contains a detailed description of the variable SerHostHandshakeTimeout.

#### Variable Overview

| Variable Name           | Description                                  |
|-------------------------|--|
| SerHostHandshakeTimeout | checked if xon xoff is active on serial host |

|                       |   |
|-----------------------|---|
| Communication Name    | SIHstHndshkTmout  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 890   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 50       |
| Physical Unit        | ms       |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable:       |                  |        |               |  |
|----------------------|------------------|--------|---------------|--|
| sRN SIHstHndshkTmout |                  |        |               |  |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description                                  |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name                  |
| Command              | SIHstHndshkTmout | String | 16            | checked if xon xoff is active on serial host |

| Read Variable Response:     |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sRA SIHstHndshkTmout <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                                  |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge              |
| Command                     | SIHstHndshkTmout | String | 16            | checked if xon xoff is active on serial host |
| Variable Data               | data             | UInt   | 2             |  |

| Write Variable:             |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sWN SIHstHndshkTmout <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                                  |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name                 |
| Command                     | SIHstHndshkTmout | String | 16            | checked if xon xoff is active on serial host |
| Variable Data               | data             | UInt   | 2             |  |

| Write Variable Response: |                  |        |               |  |
|--------------------------|------------------|--------|---------------|--|
| sWA SIHstHndshkTmout     |                  |        |               |  |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description                                  |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge             |
| Command                  | SIHstHndshkTmout | String | 16            | checked if xon xoff is active on serial host |

## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN SIHstHndshkTmout[ETX]    |
| Read Variable Response:                                     | [STX]sRA SIHstHndshkTmout 32[ETX] |
| Write Variable:   | [STX]sWN SIHstHndshkTmout 32[ETX] |
| Write Variable Response:                                    | [STX]sWA SIHstHndshkTmout[ETX]    |





## 2.23.4. Group: Ethernet

### 2.23.4.1. Variable: EthHostCustomProtNb

The following section contains a detailed description of the variable EthHostCustomProtNb.

#### Variable Overview

| Variable Name       | Description                             |
|---------------------|---|
| EthHostCustomProtNb | Protocol number for the custom protocol |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstCstProtNb  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 891   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |         |
|----------------------|---------|
| Value Range          | 1..9999 |
| Initialisation       | 1       |
| Physical Unit        |         |
| Physical Unit Factor | 0.0     |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |   |
|--------------------|----------------|--------|---------------|---|
| sRN EIHstCstProtNb |                |        |               |   |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name             |
| Command            | EIHstCstProtNb | String | 14            | Protocol number for the custom protocol |

| Read Variable Response:   |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sRA EIHstCstProtNb <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                   | EIHstCstProtNb | String | 14            | Protocol number for the custom protocol |
| Variable Data             | data           | UInt   | 2             |   |

| Write Variable:           |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sWN EIHstCstProtNb <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name            |
| Command                   | EIHstCstProtNb | String | 14            | Protocol number for the custom protocol |
| Variable Data             | data           | UInt   | 2             |   |



| Write Variable Response: |                |        |               |   |
|--------------------------|----------------|--------|---------------|---|
| sWA EIHstCstProtNb       |                |        |               |   |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                             |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | EIHstCstProtNb | String | 14            | Protocol number for the custom protocol |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN EIHstCstProtNb[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIHstCstProtNb 1[ETX] |
| Write Variable:   | [STX]sWN EIHstCstProtNb 1[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstCstProtNb[ETX]   |

### 2.23.4.2. Variable: EthHostHandshakeMode

The following section contains a detailed description of the variable EthHostHandshakeMode.

#### Variable Overview

| Variable Name        | Description                 |
|----------------------|-----------------------------|
| EthHostHandshakeMode | Handshake Mode like Ack/Nak |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstHndshkMd   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 892   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                 |             |
|---------------|-------|-----------------|-------------|
| Default Value |       | 0               |             |
|               | Value | Name            | Description |
|               | 0     | TX_NO_HANDSHAKE |             |
|               | 1     | TX_NAK          |             |
|               | 2     | TX_ACKNAK       |             |



## Variable Telegram Syntax

| Read Variable:    |               |        |               |                             |
|-------------------|---------------|--------|---------------|-----------------------------|
| sRN EIHstHndshkMd |               |        |               |                             |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                 |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name |
| Command           | EIHstHndshkMd | String | 13            | Handshake Mode like Ack/Nak |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA EIHstHndshkMd <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | EIHstHndshkMd | String | 13            | Handshake Mode like Ack/Nak     |
| Variable Data            | data          | Enum8  | 1             |                                 |

| Write Variable:          |               |        |               |                              |
|--------------------------|---------------|--------|---------------|------------------------------|
| sWN EIHstHndshkMd <data> |               |        |               |                              |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                  |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name |
| Command                  | EIHstHndshkMd | String | 13            | Handshake Mode like Ack/Nak  |
| Variable Data            | data          | Enum8  | 1             |                              |

| Write Variable Response: |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sWA EIHstHndshkMd        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EIHstHndshkMd | String | 13            | Handshake Mode like Ack/Nak      |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN EIHstHndshkMd[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIHstHndshkMd 0[ETX] |
| Write Variable:   | [STX]sWN EIHstHndshkMd 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstHndshkMd[ETX]   |

### 2.23.4.3. Variable: EthHostHandshakeTimeout

The following section contains a detailed description of the variable EthHostHandshakeTimeout.

#### Variable Overview

| Variable Name           | Description                                  |
|-------------------------|--|
| EthHostHandshakeTimeout | checked if xon xoff is active on serial host |

|                       |   |
|-----------------------|---|
| Communication Name    | EIHstHndshkTmout  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 893   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 50       |
| Physical Unit        | ms       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable:       |                  |        |               |  |
|----------------------|------------------|--------|---------------|--|
| sRN EIHstHndshkTmout |                  |        |               |  |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description                                  |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name                  |
| Command              | EIHstHndshkTmout | String | 16            | checked if xon xoff is active on serial host |

| Read Variable Response:     |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sRA EIHstHndshkTmout <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                                  |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge              |
| Command                     | EIHstHndshkTmout | String | 16            | checked if xon xoff is active on serial host |
| Variable Data               | data             | UInt   | 2             |  |

| Write Variable:             |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sWN EIHstHndshkTmout <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                                  |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name                 |
| Command                     | EIHstHndshkTmout | String | 16            | checked if xon xoff is active on serial host |
| Variable Data               | data             | UInt   | 2             |  |

| Write Variable Response: |                  |        |               |  |
|--------------------------|------------------|--------|---------------|--|
| sWA EIHstHndshkTmout     |                  |        |               |  |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description                                  |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge             |
| Command                  | EIHstHndshkTmout | String | 16            | checked if xon xoff is active on serial host |



## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN EIHstHndshkTmout[ETX]    |
| Read Variable Response:                                     | [STX]sRA EIHstHndshkTmout 32[ETX] |
| Write Variable:   | [STX]sWN EIHstHndshkTmout 32[ETX] |
| Write Variable Response:                                    | [STX]sWA EIHstHndshkTmout[ETX]    |

## 2.23.5. Group: FTP

### 2.23.5.1. Variable: FTPClientActive

The following section contains a detailed description of the variable FTPClientActive.

#### Variable Overview

| Variable Name   | Description        |
|-----------------|--------------------|
| FTPClientActive | Enables FTP Client |

|                       |   |
|-----------------------|---|
| Communication Name    | FTCIntAct   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 894   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN FTCIntAct  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | FTCIntAct | String | 9             | Enables FTP Client          |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA FTCIntAct <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | FTCIntAct | String | 9             | Enables FTP Client              |
| Variable Data           | data      | Bool   | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN FTCIntAct <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | FTCIntAct | String | 9             | Enables FTP Client           |
| Variable Data        | data      | Bool   | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA FTCIntAct            |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |           |        |               |                    |
|--------------------------|-----------|--------|---------------|--------------------|
| sWA FTCIntAct            |           |        |               |                    |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description        |
| Command                  | FTCIntAct | String | 9             | Enables FTP Client |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN FTCIntAct[ETX]   |
| Read Variable Response:                                     | [STX]sRA FTCIntAct 0[ETX] |
| Write Variable:   | [STX]sWN FTCIntAct 0[ETX] |
| Write Variable Response:                                    | [STX]sWA FTCIntAct[ETX]   |

### 2.23.5.2. Variable: FTPServerIPAddress

The following section contains a detailed description of the variable FTPServerIPAddress.

#### Variable Overview

| Variable Name      | Description                 |
|--------------------|-----------------------------|
| FTPServerIPAddress | IP-Adress of Server for FTP |

|                       |   |
|-----------------------|---|
| Communication Name    | FTSvrAdr  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 895   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array         |                      |                |
|---------------|----------------------|----------------|
| Length        |                      | 4              |
| Default Value |                      | {192,168,0,11} |
|               | USInt                |                |
|               | Value Range          | 0..255         |
|               | Initialisation       |                |
|               | Physical Unit        |                |
|               | Physical Unit Factor | 0.0            |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN FTSvrAdr   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | FTSvrAdr | String | 8             | IP-Adress of Server for FTP |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA FTSvrAdr <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | FTSvrAdr | String | 8             | IP-Adress of Server for FTP     |
| Variable Data           | data     | Array  | 4             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN FTSvrAdr <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | FTSvrAdr | String | 8             | IP-Adress of Server for FTP  |
| Variable Data       | data     | Array  | 4             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA FTSvrAdr             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | FTSvrAdr | String | 8             | IP-Adress of Server for FTP      |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN FTSvrAdr[ETX]           |
| Read Variable Response:                                     | [STX]sRA FTSvrAdr C0 A8 0 B[ETX] |
| Write Variable:   | [STX]sWN FTSvrAdr C0 A8 0 B[ETX] |
| Write Variable Response:                                    | [STX]sWA FTSvrAdr[ETX]           |



### 2.23.5.3. Variable: FTPServerIPPort

The following section contains a detailed description of the variable FTPServerIPPort.

#### Variable Overview

| Variable Name   | Description               |
|-----------------|---------------------------|
| FTPServerIPPort | IP-Port of Server for FTP |

|                       |   |
|-----------------------|---|
| Communication Name    | FTSvrPrt  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 896   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 21       |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN FTSvrPrt   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | FTSvrPrt | String | 8             | IP-Port of Server for FTP   |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA FTSvrPrt <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | FTSvrPrt | String | 8             | IP-Port of Server for FTP       |
| Variable Data           | data     | UInt   | 2             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN FTSvrPrt <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | FTSvrPrt | String | 8             | IP-Port of Server for FTP    |
| Variable Data       | data     | UInt   | 2             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA FTSvrPrt             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | FTSvrPrt | String | 8             | IP-Port of Server for FTP        |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN FTSvrPrt[ETX]    |
| Read Variable Response:                                     | [STX]sRA FTSvrPrt 15[ETX] |
| Write Variable:   | [STX]sWN FTSvrPrt 15[ETX] |
| Write Variable Response:                                    | [STX]sWA FTSvrPrt[ETX]    |

### 2.23.5.4. Variable: FTPHostname

The following section contains a detailed description of the variable FTPHostname.

#### Variable Overview

| Variable Name | Description             |
|---------------|-------------------------|
| FTPHostname   | Hostname for FTP client |

|                       |   |
|-----------------------|---|
| Communication Name    | FTHstNm   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 897   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |       |
|----------------|-------|
| Length         | 0..20 |
| Initialisation |       |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN FTHstNm    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | FTHstNm  | String | 7             | Hostname for FTP client     |

| Read Variable Response: |          |            |               |                                 |
|-------------------------|----------|------------|---------------|---------------------------------|
| sRA FTHstNm <data>      |          |            |               |                                 |
| Telegram Part           | Telegram | Type       | Length [Byte] | Description                     |
| Command Type            | sRA      | String     | 3             | SOPAS Variable Read Acknowledge |
| Command                 | FTHstNm  | String     | 7             | Hostname for FTP client         |
| Variable Data           | data     | FlexString | 20            |                                 |



| Write Variable:    |          |            |               |                              |
|--------------------|----------|------------|---------------|------------------------------|
| sWN FTHstNm <data> |          |            |               |                              |
| Telegram Part      | Telegram | Type       | Length [Byte] | Description                  |
| Command Type       | sWN      | String     | 3             | Write SOPAS Variable by Name |
| Command            | FTHstNm  | String     | 7             | Hostname for FTP client      |
| Variable Data      | data     | FlexString | 20            |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA FTHstNm              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | FTHstNm  | String | 7             | Hostname for FTP client          |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN FTHstNm[ETX]     |
| Read Variable Response:                                     | [STX]sRA FTHstNm 1 [ETX]  |
| Write Variable:   | [STX]sWN FTHstNm +1 [ETX] |
| Write Variable Response:                                    | [STX]sWA FTHstNm[ETX]     |

### 2.23.5.5. Variable: FTPUsername

The following section contains a detailed description of the variable FTPUsername.

#### Variable Overview

| Variable Name | Description            |
|---------------|------------------------|
| FTPUUsername  | Username of FTP client |

|                       |   |
|-----------------------|---|
| Communication Name    | FTCIntUsrNm   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 898   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |           |
|----------------|-----------|
| Length         | 0..20     |
| Initialisation | anonymous |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN FTCIntUsrNm |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | FTCIntUsrNm | String | 11            | Username of FTP client      |

| Read Variable Response: |             |            |               |                                 |
|-------------------------|-------------|------------|---------------|---------------------------------|
| sRA FTCIntUsrNm <data>  |             |            |               |                                 |
| Telegram Part           | Telegram    | Type       | Length [Byte] | Description                     |
| Command Type            | sRA         | String     | 3             | SOPAS Variable Read Acknowledge |
| Command                 | FTCIntUsrNm | String     | 11            | Username of FTP client          |
| Variable Data           | data        | FlexString | 20            |                                 |

| Write Variable:        |             |            |               |                              |
|------------------------|-------------|------------|---------------|------------------------------|
| sWN FTCIntUsrNm <data> |             |            |               |                              |
| Telegram Part          | Telegram    | Type       | Length [Byte] | Description                  |
| Command Type           | sWN         | String     | 3             | Write SOPAS Variable by Name |
| Command                | FTCIntUsrNm | String     | 11            | Username of FTP client       |
| Variable Data          | data        | FlexString | 20            |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA FTCIntUsrNm          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | FTCIntUsrNm | String | 11            | Username of FTP client           |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN FTCIntUsrNm[ETX]              |
| Read Variable Response:                                     | [STX]sRA FTCIntUsrNm 9 anonymous[ETX]  |
| Write Variable:   | [STX]sWN FTCIntUsrNm +9 anonymous[ETX] |
| Write Variable Response:                                    | [STX]sWA FTCIntUsrNm[ETX]              |



## 2.23.5.6. Variable: FTPPassword

The following section contains a detailed description of the variable FTPPassword.

### Variable Overview

| Variable Name | Description            |
|---------------|------------------------|
| FTPPassword   | Password of FTP client |

|                       |   |
|-----------------------|---|
| Communication Name    | FTCIntPasWd   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 899   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |           |
|----------------|-----------|
| Length         | 0..20     |
| Initialisation | anonymous |

### Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN FTCIntPasWd |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | FTCIntPasWd | String | 11            | Password of FTP client      |

| Read Variable Response: |             |            |               |                                 |
|-------------------------|-------------|------------|---------------|---------------------------------|
| sRA FTCIntPasWd <data>  |             |            |               |                                 |
| Telegram Part           | Telegram    | Type       | Length [Byte] | Description                     |
| Command Type            | sRA         | String     | 3             | SOPAS Variable Read Acknowledge |
| Command                 | FTCIntPasWd | String     | 11            | Password of FTP client          |
| Variable Data           | data        | FlexString | 20            |                                 |

| Write Variable:        |             |            |               |                              |
|------------------------|-------------|------------|---------------|------------------------------|
| sWN FTCIntPasWd <data> |             |            |               |                              |
| Telegram Part          | Telegram    | Type       | Length [Byte] | Description                  |
| Command Type           | sWN         | String     | 3             | Write SOPAS Variable by Name |
| Command                | FTCIntPasWd | String     | 11            | Password of FTP client       |
| Variable Data          | data        | FlexString | 20            |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA FTCIntPasWd          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | FTCIntPasWd | String | 11            | Password of FTP client           |



## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| <b>Read Variable:</b>                                       | [STX]sRN FTCIntPasWd[ETX]              |
| <b>Read Variable Response:</b>                              | [STX]sRA FTCIntPasWd 9 anonymous[ETX]  |
| <b>Write Variable:</b>                                      | [STX]sWN FTCIntPasWd +9 anonymous[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA FTCIntPasWd[ETX]              |

### 2.23.5.7. Variable: FTPUploadPath

The following section contains a detailed description of the variable FTPUploadPath.

#### Variable Overview

| Variable Name | Description               |
|---------------|---------------------------|
| FTPUploadPath | Upload Path of FTP client |

|                       |   |
|-----------------------|---|
| Communication Name    | FTCIntUpPath  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 900   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |       |
|----------------|-------|
| Length         | 0..20 |
| Initialisation |       |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |                             |
|------------------|--------------|--------|---------------|-----------------------------|
| sRN FTCIntUpPath |              |        |               |                             |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                 |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name |
| Command          | FTCIntUpPath | String | 12            | Upload Path of FTP client   |

| Read Variable Response: |              |            |               |                                 |
|-------------------------|--------------|------------|---------------|---------------------------------|
| sRA FTCIntUpPath <data> |              |            |               |                                 |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                     |
| Command Type            | sRA          | String     | 3             | SOPAS Variable Read Acknowledge |
| Command                 | FTCIntUpPath | String     | 12            | Upload Path of FTP client       |
| Variable Data           | data         | FlexString | 20            |                                 |



| Write Variable:         |              |            |               |                              |
|-------------------------|--------------|------------|---------------|------------------------------|
| sWN FTCIntUpPath <data> |              |            |               |                              |
| Telegram Part           | Telegram     | Type       | Length [Byte] | Description                  |
| Command Type            | sWN          | String     | 3             | Write SOPAS Variable by Name |
| Command                 | FTCIntUpPath | String     | 12            | Upload Path of FTP client    |
| Variable Data           | data         | FlexString | 20            |                              |

| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA FTCIntUpPath         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | FTCIntUpPath | String | 12            | Upload Path of FTP client        |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN FTCIntUpPath[ETX]     |
| Read Variable Response:                                     | [STX]sRA FTCIntUpPath 1 [ETX]  |
| Write Variable:   | [STX]sWN FTCIntUpPath +1 [ETX] |
| Write Variable Response:                                    | [STX]sWA FTCIntUpPath[ETX]     |

## 2.23.5.8. Variable: FTPDevUpload

The following section contains a detailed description of the variable FTPDevUpload.

### Variable Overview

| Variable Name | Description                               |
|---------------|---|
| FTPDevUpload  | Device specific Upload Path of FTP client |

|                       |   |
|-----------------------|---|
| Communication Name    | FTCIntDevUpPath   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 901   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                  |             |
|---------------|-------|------------------|-------------|
| Default Value |       | 0                |             |
|               | Value | Name             | Description |
|               | 0     | TX_SERIAL_NUMBER |             |
|               | 1     | TX_HOST_NAME     |             |



## Variable Telegram Syntax

| Read Variable:      |                 |        |               |   |
|---------------------|-----------------|--------|---------------|---|
| sRN FTCIntDevUpPath |                 |        |               |   |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                               |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name               |
| Command             | FTCIntDevUpPath | String | 15            | Device specific Upload Path of FTP client |

| Read Variable Response:    |                 |        |               |   |
|----------------------------|-----------------|--------|---------------|---|
| sRA FTCIntDevUpPath <data> |                 |        |               |   |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                               |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                    | FTCIntDevUpPath | String | 15            | Device specific Upload Path of FTP client |
| Variable Data              | data            | Enum8  | 1             |   |

| Write Variable:            |                 |        |               |   |
|----------------------------|-----------------|--------|---------------|---|
| sWN FTCIntDevUpPath <data> |                 |        |               |   |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                               |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name              |
| Command                    | FTCIntDevUpPath | String | 15            | Device specific Upload Path of FTP client |
| Variable Data              | data            | Enum8  | 1             |   |

| Write Variable Response: |                 |        |               |   |
|--------------------------|-----------------|--------|---------------|---|
| sWA FTCIntDevUpPath      |                 |        |               |   |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                               |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge          |
| Command                  | FTCIntDevUpPath | String | 15            | Device specific Upload Path of FTP client |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN FTCIntDevUpPath[ETX]   |
| Read Variable Response:                                     | [STX]sRA FTCIntDevUpPath 0[ETX] |
| Write Variable:   | [STX]sWN FTCIntDevUpPath 0[ETX] |
| Write Variable Response:                                    | [STX]sWA FTCIntDevUpPath[ETX]   |





## 2.23.6. Group: HTTP

### 2.23.6.1. Variable: HTWebserverEnabled

The following section contains a detailed description of the variable HTWebserverEnabled.

#### Variable Overview

| Variable Name      | Description            |
|--------------------|------------------------|
| HTWebserverEnabled | Enables HTTP Webserver |

|                       |   |
|-----------------------|---|
| Communication Name    | HTWSAct   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 902   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN HTWSAct    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | HTWSAct  | String | 7             | Enables HTTP Webserver      |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA HTWSAct <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | HTWSAct  | String | 7             | Enables HTTP Webserver          |
| Variable Data           | data     | Bool   | 1             |                                 |

| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN HTWSAct <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | HTWSAct  | String | 7             | Enables HTTP Webserver       |
| Variable Data      | data     | Bool   | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA HTWSAct              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |          |        |               |                        |
|--------------------------|----------|--------|---------------|------------------------|
| sWA HTWSAct              |          |        |               |                        |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description            |
| Command                  | HTWSAct  | String | 7             | Enables HTTP Webserver |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN HTWSAct[ETX]   |
| Read Variable Response:                                     | [STX]sRA HTWSAct 0[ETX] |
| Write Variable:   | [STX]sWN HTWSAct 0[ETX] |
| Write Variable Response:                                    | [STX]sWA HTWSAct[ETX]   |



## 2.23.7. Group: Beeper

### 2.23.7.1. Variable: BeeperLoudness

The following section contains a detailed description of the variable BeeperLoudness.

#### Variable Overview

| Variable Name  | Description                        |
|----------------|------------------------------------|
| BeeperLoudness | Defines the loudness of the beeper |

|                       |   |
|-----------------------|---|
| Communication Name    | BPLoudness  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 903   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |         |             |
|---------------|-------|---------|-------------|
| Default Value |       | 1       |             |
|               | Value | Name    | Description |
|               | 0     | TX_OFF  |             |
|               | 1     | TX_SOFT |             |
|               | 2     | TX_LOUD |             |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                                    |
|----------------|------------|--------|---------------|------------------------------------|
| sRN BPLoudness |            |        |               |                                    |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                        |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name        |
| Command        | BPLoudness | String | 10            | Defines the loudness of the beeper |

| Read Variable Response: |            |        |               |                                    |
|-------------------------|------------|--------|---------------|------------------------------------|
| sRA BPLoudness <data>   |            |        |               |                                    |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                        |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                 | BPLoudness | String | 10            | Defines the loudness of the beeper |
| Variable Data           | data       | Enum8  | 1             |                                    |

| Write Variable:       |            |        |               |                                    |
|-----------------------|------------|--------|---------------|------------------------------------|
| sWN BPLoudness <data> |            |        |               |                                    |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                        |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name       |
| Command               | BPLoudness | String | 10            | Defines the loudness of the beeper |
| Variable Data         | data       | Enum8  | 1             |                                    |



| Write Variable Response: |            |        |               |                                    |
|--------------------------|------------|--------|---------------|------------------------------------|
| sWA BPLoudness           |            |        |               |                                    |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                        |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | BPLoudness | String | 10            | Defines the loudness of the beeper |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN BPLoudness[ETX]   |
| Read Variable Response:                                     | [STX]sRA BPLoudness 1[ETX] |
| Write Variable:   | [STX]sWN BPLoudness 1[ETX] |
| Write Variable Response:                                    | [STX]sWA BPLoudness[ETX]   |

### 2.23.7.2. Variable: BeeperFunc

The following section contains a detailed description of the variable BeeperFunc.

#### Variable Overview

| Variable Name | Description        |
|---------------|--------------------|
| BeeperFunc    | Function of Beeper |

|                       |   |
|-----------------------|---|
| Communication Name    | BPFunc  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 904   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                   |             |
|---------------|-------|-------------------|-------------|
| Default Value |       | 0                 |             |
|               | Value | Name              | Description |
|               | 0     | TX_GOOD_READ      |             |
|               | 1     | TX_NO_READ        |             |
|               | 2     | TX_TEACH1_SUCCESS |             |
|               | 3     | TX_TEACH1_FAIL    |             |
|               | 4     | TX_TEACH2_SUCCESS |             |
|               | 5     | TX_TEACH2_FAIL    |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN BPFunc     |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | BPFunc   | String | 6             | Function of Beeper          |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA BPFunc <data>       |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | BPFunc   | String | 6             | Function of Beeper              |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:   |          |        |               |                              |
|-------------------|----------|--------|---------------|------------------------------|
| sWN BPFunc <data> |          |        |               |                              |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description                  |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command           | BPFunc   | String | 6             | Function of Beeper           |
| Variable Data     | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA BPFunc               |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | BPFunc   | String | 6             | Function of Beeper               |

## Variable Telegram Examples

| Example: Default Values                                     |                        |
|---|------------------------|
| Variable telegram examples with data set to default values. |                        |
| Read Variable:  | [STX]sRN BPFunc[ETX]   |
| Read Variable Response:                                     | [STX]sRA BPFunc 0[ETX] |
| Write Variable:   | [STX]sWN BPFunc 0[ETX] |
| Write Variable Response:                                    | [STX]sWA BPFunc[ETX]   |



### 2.23.7.3. Variable: BeeperFuncExt

The following section contains a detailed description of the variable BeeperFuncExt.

#### Variable Overview

| Variable Name | Description                           |
|---------------|---------------------------------------|
| BeeperFuncExt | Extension of beeper func for evalcond |

|                       |   |
|-----------------------|---|
| Communication Name    | BPFuncExt   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 905   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..18       |
| Initialisation |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                                       |
|----------------|-----------|--------|---------------|---------------------------------------|
| sRN BPFuncExt  |           |        |               |                                       |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                           |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name           |
| Command        | BPFuncExt | String | 9             | Extension of beeper func for evalcond |

| Read Variable Response:                    |               |            |               |                                       |
|--|---------------|------------|---------------|---------------------------------------|
| sRA BPFuncExt <UseExtraValue> <ExtraValue> |               |            |               |                                       |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description                           |
| Command Type                               | sRA           | String     | 3             | SOPAS Variable Read Acknowledge       |
| Command                                    | BPFuncExt     | String     | 9             | Extension of beeper func for evalcond |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |                                       |
| Variable Data 2                            | ExtraValue    | FlexString | 18            |                                       |

| Write Variable:                            |               |            |               |                                       |
|--|---------------|------------|---------------|---------------------------------------|
| sWN BPFuncExt <UseExtraValue> <ExtraValue> |               |            |               |                                       |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description                           |
| Command Type                               | sWN           | String     | 3             | Write SOPAS Variable by Name          |
| Command                                    | BPFuncExt     | String     | 9             | Extension of beeper func for evalcond |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |                                       |
| Variable Data 2                            | ExtraValue    | FlexString | 18            |                                       |



| Write Variable Response: |           |        |               |                                       |
|--------------------------|-----------|--------|---------------|---------------------------------------|
| sWA BPFuncExt            |           |        |               |                                       |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                           |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | BPFuncExt | String | 9             | Extension of beeper func for evalcond |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN BPFuncExt[ETX]        |
| Read Variable Response:                                     | [STX]sRA BPFuncExt 0 0[ETX]    |
| Write Variable:   | [STX]sWN BPFuncExt 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA BPFuncExt[ETX]        |



## 2.23.8. Group: Gateway

### 2.23.8.1. Variable: GatewaySerAux

The following section contains a detailed description of the variable GatewaySerAux.

#### Variable Overview

| Variable Name | Description   |
|---------------|---|
| GatewaySerAux | Defines wether there is a gateway on the serial aux interface |

|                       |   |
|-----------------------|---|
| Communication Name    | GWSerAuxMd  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 908   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_NONE        |             |
|               | 1     | TX_PROFIBUS_DP |             |
|               | 2     | TX_DEVICE_NET  |             |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN GWSerAuxMd |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description   |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                                   |
| Command        | GWSerAuxMd | String | 10            | Defines wether there is a gateway on the serial aux interface |

| Read Variable Response: |            |        |               |   |
|-------------------------|------------|--------|---------------|---|
| sRA GWSerAuxMd <data>   |            |        |               |   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description   |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                               |
| Command                 | GWSerAuxMd | String | 10            | Defines wether there is a gateway on the serial aux interface |
| Variable Data           | data       | Enum8  | 1             |   |

| Write Variable:       |            |        |               |   |
|-----------------------|------------|--------|---------------|---|
| sWN GWSerAuxMd <data> |            |        |               |   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description   |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                                  |
| Command               | GWSerAuxMd | String | 10            | Defines wether there is a gateway on the serial aux interface |
| Variable Data         | data       | Enum8  | 1             |   |





| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA GWSerAuxMd           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description   |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                              |
| Command                  | GWSerAuxMd | String | 10            | Defines wether there is a gateway on the serial aux interface |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN GWSerAuxMd[ETX]   |
| Read Variable Response:                                     | [STX]sRA GWSerAuxMd 0[ETX] |
| Write Variable:   | [STX]sWN GWSerAuxMd 0[ETX] |
| Write Variable Response:                                    | [STX]sWA GWSerAuxMd[ETX]   |

### 2.23.8.2. Variable: GatewaySerHost

The following section contains a detailed description of the variable GatewaySerHost.

#### Variable Overview

| Variable Name  | Description  |
|----------------|--|
| GatewaySerHost | Defines wether there is a gateway on the serial host interface |

|                       |   |
|-----------------------|---|
| Communication Name    | GWSerHstMd  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 909   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_NONE        |             |
|               | 1     | TX_PROFIBUS_DP |             |
|               | 2     | TX_DEVICE_NET  |             |
|               | 3     | TX_PROFINET    |             |



## Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN GWSerHstMd |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description  |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                                    |
| Command        | GWSerHstMd | String | 10            | Defines wether there is a gateway on the serial host interface |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA GWSerHstMd <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description  |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                                |
| Command                 | GWSerHstMd | String | 10            | Defines wether there is a gateway on the serial host interface |
| Variable Data           | data       | Enum8  | 1             |  |

| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN GWSerHstMd <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                                   |
| Command               | GWSerHstMd | String | 10            | Defines wether there is a gateway on the serial host interface |
| Variable Data         | data       | Enum8  | 1             |  |

| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA GWSerHstMd           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description  |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                               |
| Command                  | GWSerHstMd | String | 10            | Defines wether there is a gateway on the serial host interface |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN GWSerHstMd[ETX]   |
| Read Variable Response:                                     | [STX]sRA GWSerHstMd 0[ETX] |
| Write Variable:   | [STX]sWN GWSerHstMd 0[ETX] |
| Write Variable Response:                                    | [STX]sWA GWSerHstMd[ETX]   |



### 2.23.8.3. Variable: GatewayPBDevIDIsPBAAddress

The following section contains a detailed description of the variable GatewayPBDevIDIsPBAAddress.

#### Variable Overview

| Variable Name              | Description  |
|----------------------------|--|
| GatewayPBDevIDIsPBAAddress | If true, so the device ID is us used as Profibus address |

|                       |   |
|-----------------------|---|
| Communication Name    | GWPBdevIDPBAAdr   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 910   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |

#### Variable Telegram Syntax

| Read Variable:      |                 |        |               |  |
|---------------------|-----------------|--------|---------------|--|
| sRN GWPBdevIDPBAAdr |                 |        |               |  |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description  |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name                              |
| Command             | GWPBdevIDPBAAdr | String | 14            | If true, so the device ID is us used as Profibus address |

| Read Variable Response:    |                 |        |               |  |
|----------------------------|-----------------|--------|---------------|--|
| sRA GWPBdevIDPBAAdr <data> |                 |        |               |  |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description  |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge                          |
| Command                    | GWPBdevIDPBAAdr | String | 14            | If true, so the device ID is us used as Profibus address |
| Variable Data              | data            | Bool   | 1             |  |

| Write Variable:            |                 |        |               |  |
|----------------------------|-----------------|--------|---------------|--|
| sWN GWPBdevIDPBAAdr <data> |                 |        |               |  |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description  |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name                             |
| Command                    | GWPBdevIDPBAAdr | String | 14            | If true, so the device ID is us used as Profibus address |
| Variable Data              | data            | Bool   | 1             |  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA GWPBdevIDPBAAdr      |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |                 |        |               |  |
|--------------------------|-----------------|--------|---------------|--|
| sWA GWPBdevIDPBAAdr      |                 |        |               |  |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description  |
| Command                  | GWPBdevIDPBAAdr | String | 14            | If true, so the device ID is us used as Profibus address |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN GWPBdevIDPBAAdr[ETX]   |
| Read Variable Response:                                     | [STX]sRA GWPBdevIDPBAAdr 1[ETX] |
| Write Variable:   | [STX]sWN GWPBdevIDPBAAdr 1[ETX] |
| Write Variable Response:                                    | [STX]sWA GWPBdevIDPBAAdr[ETX]   |

### 2.23.8.4. Variable: GatewayPBAAddress

The following section contains a detailed description of the variable GatewayPBAAddress.

#### Variable Overview

| Variable Name     | Description                                       |
|-------------------|---|
| GatewayPBAAddress | Address of Profibus if device address is not used |

|                       |   |
|-----------------------|---|
| Communication Name    | GWPBAddr  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 911   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..125 |
| Initialisation       | 1      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN GWPBAddr   |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                                       |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                       |
| Command        | GWPBAddr | String | 8             | Address of Profibus if device address is not used |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA GWPBAddr <data>     |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                                       |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                   |
| Command                 | GWPBAddr | String | 8             | Address of Profibus if device address is not used |
| Variable Data           | data     | UInt   | 2             |   |

| Write Variable:     |          |        |               |   |
|---------------------|----------|--------|---------------|---|
| sWN GWPBAddr <data> |          |        |               |   |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                                       |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                      |
| Command             | GWPBAddr | String | 8             | Address of Profibus if device address is not used |
| Variable Data       | data     | UInt   | 2             |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA GWPBAddr             |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                                       |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                  |
| Command                  | GWPBAddr | String | 8             | Address of Profibus if device address is not used |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN GWPBAddr[ETX]   |
| Read Variable Response:                                     | [STX]sRA GWPBAddr 1[ETX] |
| Write Variable:   | [STX]sWN GWPBAddr 1[ETX] |
| Write Variable Response:                                    | [STX]sWA GWPBAddr[ETX]   |



### 2.23.8.5. Variable: GatewayPBOpMode

The following section contains a detailed description of the variable GatewayPBOpMode.

#### Variable Overview

| Variable Name   | Description                        |
|-----------------|------------------------------------|
| GatewayPBOpMode | Operating mode of ProfiBUS gateway |

|                       |   |
|-----------------------|---|
| Communication Name    | GWPBOpMd  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 912   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                                     |             |
|---------------|-------|-------------------------------------|-------------|
| Default Value |       | 0                                   |             |
|               | Value | Name                                | Description |
|               | 0     | TX_CMF_STD_FORMAT_BYTE_HANDSHAKE    |             |
|               | 1     | TX_CMF_STD_FORMAT_NO_BYTE_HANDSHAKE |             |
|               | 2     | TX_BMV_COMPATIBLE                   |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                                    |
|----------------|----------|--------|---------------|------------------------------------|
| sRN GWPBOpMd   |          |        |               |                                    |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                        |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name        |
| Command        | GWPBOpMd | String | 8             | Operating mode of ProfiBUS gateway |

| Read Variable Response: |          |        |               |                                    |
|-------------------------|----------|--------|---------------|------------------------------------|
| sRA GWPBOpMd <data>     |          |        |               |                                    |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                        |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                 | GWPBOpMd | String | 8             | Operating mode of ProfiBUS gateway |
| Variable Data           | data     | Enum8  | 1             |                                    |

| Write Variable:     |          |        |               |                                    |
|---------------------|----------|--------|---------------|------------------------------------|
| sWN GWPBOpMd <data> |          |        |               |                                    |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                        |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name       |
| Command             | GWPBOpMd | String | 8             | Operating mode of ProfiBUS gateway |
| Variable Data       | data     | Enum8  | 1             |                                    |



| Write Variable Response: |          |        |               |                                    |
|--------------------------|----------|--------|---------------|------------------------------------|
| sWA GWPBOPMd             |          |        |               |                                    |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                        |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | GWPBOPMd | String | 8             | Operating mode of ProfiBUS gateway |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN GWPBOPMd[ETX]   |
| Read Variable Response:                                     | [STX]sRA GWPBOPMd 0[ETX] |
| Write Variable:   | [STX]sWN GWPBOPMd 0[ETX] |
| Write Variable Response:                                    | [STX]sWA GWPBOPMd[ETX]   |

### 2.23.8.6. Variable: GatewayDNAddress

The following section contains a detailed description of the variable GatewayDNAddress.

#### Variable Overview

| Variable Name    | Description  |
|------------------|--|
| GatewayDNAddress | Address of DeviceNet if device address is not used |

|                       |   |
|-----------------------|---|
| Communication Name    | GWDNAddr  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 913   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..125 |
| Initialisation       | 1      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN GWDNAddr   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                        |
| Command        | GWDNAddr | String | 8             | Address of DeviceNet if device address is not used |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA GWDNAddr <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description  |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                    |
| Command                 | GWDNAddr | String | 8             | Address of DeviceNet if device address is not used |
| Variable Data           | data     | UInt   | 2             |  |

| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN GWDNAddr <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name                       |
| Command             | GWDNAddr | String | 8             | Address of DeviceNet if device address is not used |
| Variable Data       | data     | UInt   | 2             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA GWDNAddr             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                   |
| Command                  | GWDNAddr | String | 8             | Address of DeviceNet if device address is not used |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN GWDNAddr[ETX]   |
| Read Variable Response:                                     | [STX]sRA GWDNAddr 1[ETX] |
| Write Variable:   | [STX]sWN GWDNAddr 1[ETX] |
| Write Variable Response:                                    | [STX]sWA GWDNAddr[ETX]   |





### 2.23.8.7. Variable: GatewayDNDevIDIsDNAdress

The following section contains a detailed description of the variable GatewayDNDevIDIsDNAdress.

#### Variable Overview

| Variable Name            | Description   |
|--------------------------|---|
| GatewayDNDevIDIsDNAdress | If true, so the device ID is us used as DeviceNet address |

|                       |   |
|-----------------------|---|
| Communication Name    | GWDNdevIDDNAdr  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 914   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |   |
|--------------------|----------------|--------|---------------|---|
| sRN GWDNdevIDDNAdr |                |        |               |   |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description   |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name                               |
| Command            | GWDNdevIDDNAdr | String | 14            | If true, so the device ID is us used as DeviceNet address |

| Read Variable Response:   |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sRA GWDNdevIDDNAdr <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description   |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge                           |
| Command                   | GWDNdevIDDNAdr | String | 14            | If true, so the device ID is us used as DeviceNet address |
| Variable Data             | data           | Bool   | 1             |   |

| Write Variable:           |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sWN GWDNdevIDDNAdr <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description   |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name                              |
| Command                   | GWDNdevIDDNAdr | String | 14            | If true, so the device ID is us used as DeviceNet address |
| Variable Data             | data           | Bool   | 1             |   |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA GWDNdevIDDNAdr       |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |

| Write Variable Response: |                |        |               |   |
|--------------------------|----------------|--------|---------------|---|
| sWA GWDNdevIDDNAdr       |                |        |               |   |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description   |
| Command                  | GWDNdevIDDNAdr | String | 14            | If true, so the device ID is us used as DeviceNet address |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| <b>Read Variable:</b>                                       | [STX]sRN GWDNdevIDDNAdr[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA GWDNdevIDDNAdr 1[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN GWDNdevIDDNAdr 1[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA GWDNdevIDDNAdr[ETX]   |

### 2.23.8.8. Variable: GatewayDNOpMode

The following section contains a detailed description of the variable GatewayDNOpMode.

#### Variable Overview

| Variable Name   | Description                         |
|-----------------|-------------------------------------|
| GatewayDNOpMode | Operating mode of DeviceNet gateway |

|                       |   |
|-----------------------|---|
| Communication Name    | GWDNOpMd  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 915   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                                     |             |
|---------------|-------|-------------------------------------|-------------|
| Default Value |       | 0                                   |             |
|               | Value | Name                                | Description |
|               | 0     | TX_CMF_STD_FORMAT_BYTE_HANDSHAKE    |             |
|               | 1     | TX_CMF_STD_FORMAT_NO_BYTE_HANDSHAKE |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                                     |
|----------------|----------|--------|---------------|-------------------------------------|
| sRN GWDNOpMd   |          |        |               |                                     |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                         |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name         |
| Command        | GWDNOpMd | String | 8             | Operating mode of DeviceNet gateway |

| Read Variable Response: |          |        |               |                                     |
|-------------------------|----------|--------|---------------|-------------------------------------|
| sRA GWDNOpMd <data>     |          |        |               |                                     |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                         |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | GWDNOpMd | String | 8             | Operating mode of DeviceNet gateway |
| Variable Data           | data     | Enum8  | 1             |                                     |

| Write Variable:     |          |        |               |                                     |
|---------------------|----------|--------|---------------|-------------------------------------|
| sWN GWDNOpMd <data> |          |        |               |                                     |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                         |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name        |
| Command             | GWDNOpMd | String | 8             | Operating mode of DeviceNet gateway |
| Variable Data       | data     | Enum8  | 1             |                                     |

| Write Variable Response: |          |        |               |                                     |
|--------------------------|----------|--------|---------------|-------------------------------------|
| sWA GWDNOpMd             |          |        |               |                                     |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                         |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | GWDNOpMd | String | 8             | Operating mode of DeviceNet gateway |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN GWDNOpMd[ETX]   |
| Read Variable Response:                                     | [STX]sRA GWDNOpMd 0[ETX] |
| Write Variable:   | [STX]sWN GWDNOpMd 0[ETX] |
| Write Variable Response:                                    | [STX]sWA GWDNOpMd[ETX]   |



### 2.23.8.9. Variable: GatewayDNBaudrate

The following section contains a detailed description of the variable GatewayDNBaudrate.

#### Variable Overview

| Variable Name     | Description                |
|-------------------|----------------------------|
| GatewayDNBaudrate | Baudrate DeviceNet gateway |

|                       |   |
|-----------------------|---|
| Communication Name    | GWDNBdRt  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 916   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |              |             |
|---------------|-------|--------------|-------------|
| Default Value |       | 0            |             |
|               | Value | Name         | Description |
|               | 0     | TX_125_KBAUD |             |
|               | 1     | TX_250_KBAUD |             |
|               | 2     | TX_500_KBAUD |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN GWDNBdRt   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | GWDNBdRt | String | 8             | Baudrate DeviceNet gateway  |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA GWDNBdRt <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | GWDNBdRt | String | 8             | Baudrate DeviceNet gateway      |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN GWDNBdRt <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | GWDNBdRt | String | 8             | Baudrate DeviceNet gateway   |
| Variable Data       | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA GWDNBdRt             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |          |        |               |                            |
|--------------------------|----------|--------|---------------|----------------------------|
| sWA GWDNBdRt             |          |        |               |                            |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                |
| Command                  | GWDNBdRt | String | 8             | Baudrate DeviceNet gateway |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN GWDNBdRt[ETX]   |
| Read Variable Response:                                     | [STX]sRA GWDNBdRt 0[ETX] |
| Write Variable:   | [STX]sWN GWDNBdRt 0[ETX] |
| Write Variable Response:                                    | [STX]sWA GWDNBdRt[ETX]   |

### 2.23.8.10. Variable: GatewayDNInputDataLength

The following section contains a detailed description of the variable GatewayDNInputDataLength.

#### Variable Overview

| Variable Name            | Description                            |
|--------------------------|--|
| GatewayDNInputDataLength | Input Data length of DeviceNet gateway |

|                       |   |
|-----------------------|---|
| Communication Name    | GWDNInDtL   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 917   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |        |
|----------------------|--------|
| Value Range          | 8..240 |
| Initialisation       | 32     |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN GWDNInDtL  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                            |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name            |
| Command        | GWDNInDtL | String | 9             | Input Data length of DeviceNet gateway |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA GWDNInDtL <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                            |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge        |
| Command                 | GWDNInDtL | String | 9             | Input Data length of DeviceNet gateway |
| Variable Data           | data      | USInt  | 1             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN GWDNInDtL <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                            |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name           |
| Command              | GWDNInDtL | String | 9             | Input Data length of DeviceNet gateway |
| Variable Data        | data      | USInt  | 1             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA GWDNInDtL            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                            |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge       |
| Command                  | GWDNInDtL | String | 9             | Input Data length of DeviceNet gateway |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN GWDNInDtL[ETX]    |
| Read Variable Response:                                     | [STX]sRA GWDNInDtL 20[ETX] |
| Write Variable:   | [STX]sWN GWDNInDtL 20[ETX] |
| Write Variable Response:                                    | [STX]sWA GWDNInDtL[ETX]    |



### 2.23.8.11. Variable: GatewayDNOutputDataLength

The following section contains a detailed description of the variable GatewayDNOutputDataLength.

#### Variable Overview

| Variable Name             | Description                             |
|---------------------------|---|
| GatewayDNOutputDataLength | Output Data length of DeviceNet gateway |

|                       |   |
|-----------------------|---|
| Communication Name    | GWDNOutDtL  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 918   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |        |
|----------------------|--------|
| Value Range          | 8..240 |
| Initialisation       | 32     |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN GWDNOutDtL |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name             |
| Command        | GWDNOutDtL | String | 10            | Output Data length of DeviceNet gateway |

| Read Variable Response: |            |        |               |   |
|-------------------------|------------|--------|---------------|---|
| sRA GWDNOutDtL <data>   |            |        |               |   |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | GWDNOutDtL | String | 10            | Output Data length of DeviceNet gateway |
| Variable Data           | data       | USInt  | 1             |   |

| Write Variable:       |            |        |               |   |
|-----------------------|------------|--------|---------------|---|
| sWN GWDNOutDtL <data> |            |        |               |   |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name            |
| Command               | GWDNOutDtL | String | 10            | Output Data length of DeviceNet gateway |
| Variable Data         | data       | USInt  | 1             |   |

| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA GWDNOutDtL           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | GWDNOutDtL | String | 10            | Output Data length of DeviceNet gateway |



## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN GWDNOutDtL[ETX]    |
| Read Variable Response:                                     | [STX]sRA GWDNOutDtL 20[ETX] |
| Write Variable:   | [STX]sWN GWDNOutDtL 20[ETX] |
| Write Variable Response:                                    | [STX]sWA GWDNOutDtL[ETX]    |

### 2.23.8.12. Variable: GatewayPNCmtrlIPAddress

The following section contains a detailed description of the variable GatewayPNCmtrlIPAddress.

#### Variable Overview

| Variable Name           | Description                        |
|-------------------------|------------------------------------|
| GatewayPNCmtrlIPAddress | IP-Address of the ProfiNet Gateway |

|                       |   |
|-----------------------|---|
| Communication Name    | PNIpAddr  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 919   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array         |                      |               |
|---------------|----------------------|---------------|
| Length        |                      | 4             |
| Default Value |                      | {192,168,0,2} |
|               | USInt                |               |
|               | Value Range          | 0..255        |
|               | Initialisation       |               |
|               | Physical Unit        |               |
|               | Physical Unit Factor | 0.0           |





## Variable Telegram Syntax

| Read Variable: |          |        |               |                                    |
|----------------|----------|--------|---------------|------------------------------------|
| sRN PNIpAddr   |          |        |               |                                    |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                        |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name        |
| Command        | PNIpAddr | String | 8             | IP-Address of the ProfiNet Gateway |

| Read Variable Response: |          |        |               |                                    |
|-------------------------|----------|--------|---------------|------------------------------------|
| sRA PNIpAddr <data>     |          |        |               |                                    |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                        |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                 | PNIpAddr | String | 8             | IP-Address of the ProfiNet Gateway |
| Variable Data           | data     | Array  | 4             |                                    |

| Write Variable:     |          |        |               |                                    |
|---------------------|----------|--------|---------------|------------------------------------|
| sWN PNIpAddr <data> |          |        |               |                                    |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                        |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name       |
| Command             | PNIpAddr | String | 8             | IP-Address of the ProfiNet Gateway |
| Variable Data       | data     | Array  | 4             |                                    |

| Write Variable Response: |          |        |               |                                    |
|--------------------------|----------|--------|---------------|------------------------------------|
| sWA PNIpAddr             |          |        |               |                                    |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                        |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | PNIpAddr | String | 8             | IP-Address of the ProfiNet Gateway |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN PNIpAddr[ETX]           |
| Read Variable Response:                                     | [STX]sRA PNIpAddr C0 A8 0 2[ETX] |
| Write Variable:   | [STX]sWN PNIpAddr C0 A8 0 2[ETX] |
| Write Variable Response:                                    | [STX]sWA PNIpAddr[ETX]           |



### 2.23.8.13. Variable: GatewayPNCmtrlIGateAddress

The following section contains a detailed description of the variable GatewayPNCmtrlIGateAddress.

#### Variable Overview

| Variable Name              | Description                          |
|----------------------------|--------------------------------------|
| GatewayPNCmtrlIGateAddress | Gate Address of the ProfiNet Gateway |

|                       |   |
|-----------------------|---|
| Communication Name    | PNgate  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 920   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array         |                      |
|---------------|----------------------|
| Length        | 4                    |
| Default Value | {0,0,0,0}            |
|               | <b>USInt</b>         |
|               | Value Range          |
|               | Initialisation       |
|               | Physical Unit        |
|               | Physical Unit Factor |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                                      |
|----------------|----------|--------|---------------|--------------------------------------|
| sRN PNgate     |          |        |               |                                      |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                          |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name          |
| Command        | PNgate   | String | 6             | Gate Address of the ProfiNet Gateway |

| Read Variable Response: |          |        |               |                                      |
|-------------------------|----------|--------|---------------|--------------------------------------|
| sRA PNgate <data>       |          |        |               |                                      |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                          |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge      |
| Command                 | PNgate   | String | 6             | Gate Address of the ProfiNet Gateway |
| Variable Data           | data     | Array  | 4             |                                      |

| Write Variable:   |          |        |               |                                      |
|-------------------|----------|--------|---------------|--------------------------------------|
| sWN PNgate <data> |          |        |               |                                      |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description                          |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name         |
| Command           | PNgate   | String | 6             | Gate Address of the ProfiNet Gateway |
| Variable Data     | data     | Array  | 4             |                                      |



| Write Variable Response: |          |        |               |                                      |
|--------------------------|----------|--------|---------------|--------------------------------------|
| sWA PNGate               |          |        |               |                                      |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                          |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge     |
| Command                  | PNGate   | String | 6             | Gate Address of the ProfiNet Gateway |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN PNGate[ETX]         |
| Read Variable Response:                                     | [STX]sRA PNGate 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN PNGate 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA PNGate[ETX]         |

### 2.23.8.14. Variable: GatewayPNCmtrlIIPMask

The following section contains a detailed description of the variable GatewayPNCmtrlIIPMask.

#### Variable Overview

| Variable Name         | Description                     |
|-----------------------|---------------------------------|
| GatewayPNCmtrlIIPMask | Netmask of the ProfiNet Gateway |

|                       |   |
|-----------------------|---|
| Communication Name    | PNMask  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 921   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array         |                      |                 |
|---------------|----------------------|-----------------|
| Length        |                      | 4               |
| Default Value |                      | {255,255,255,0} |
|               | USInt                |                 |
|               | Value Range          | 0..255          |
|               | Initialisation       |                 |
|               | Physical Unit        |                 |
|               | Physical Unit Factor | 0.0             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                                 |
|----------------|----------|--------|---------------|---------------------------------|
| sRN PNMMask    |          |        |               |                                 |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                     |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name     |
| Command        | PNMask   | String | 6             | Netmask of the ProfiNet Gateway |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA PNMMask <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | PNMask   | String | 6             | Netmask of the ProfiNet Gateway |
| Variable Data           | data     | Array  | 4             |                                 |

| Write Variable:    |          |        |               |                                 |
|--------------------|----------|--------|---------------|---------------------------------|
| sWN PNMMask <data> |          |        |               |                                 |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                     |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name    |
| Command            | PNMask   | String | 6             | Netmask of the ProfiNet Gateway |
| Variable Data      | data     | Array  | 4             |                                 |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA PNMMask              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | PNMask   | String | 6             | Netmask of the ProfiNet Gateway  |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN PNMMask[ETX]            |
| Read Variable Response:                                     | [STX]sRA PNMMask FF FF FF 0[ETX] |
| Write Variable:   | [STX]sWN PNMMask FF FF FF 0[ETX] |
| Write Variable Response:                                    | [STX]sWA PNMMask[ETX]            |

### 2.23.8.15. Variable: GatewayPNCmtrlUseDHCP

The following section contains a detailed description of the variable GatewayPNCmtrlUseDHCP.

#### Variable Overview

| Variable Name         | Description   |
|-----------------------|---|
| GatewayPNCmtrlUseDHCP | If true the gateway will use DHCP to get IP adress, mask and GW |

|                       |   |
|-----------------------|---|
| Communication Name    | PNDHCP  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 922   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN PNDHCP     |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                                     |
| Command        | PNDHCP   | String | 6             | If true the gateway will use DHCP to get IP adress, mask and GW |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA PNDHCP <data>       |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description   |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                                 |
| Command                 | PNDHCP   | String | 6             | If true the gateway will use DHCP to get IP adress, mask and GW |
| Variable Data           | data     | Bool   | 1             |   |

| Write Variable:   |          |        |               |   |
|-------------------|----------|--------|---------------|---|
| sWN PNDHCP <data> |          |        |               |   |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description   |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name                                    |
| Command           | PNDHCP   | String | 6             | If true the gateway will use DHCP to get IP adress, mask and GW |
| Variable Data     | data     | Bool   | 1             |   |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA PNDHCP               |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA PNDHCP               |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description   |
| Command                  | PNDHCP   | String | 6             | If true the gateway will use DHCP to get IP adress, mask and GW |

## Variable Telegram Examples

| Example: Default Values                                     |                        |
|---|------------------------|
| Variable telegram examples with data set to default values. |                        |
| Read Variable:  | [STX]sRN PNDHCP[ETX]   |
| Read Variable Response:                                     | [STX]sRA PNDHCP 0[ETX] |
| Write Variable:   | [STX]sWN PNDHCP 0[ETX] |
| Write Variable Response:                                    | [STX]sWA PNDHCP[ETX]   |

### 2.23.8.16. Variable: GatewayPNCmtrlStationName

The following section contains a detailed description of the variable GatewayPNCmtrlStationName.

#### Variable Overview

| Variable Name             | Description                          |
|---------------------------|--------------------------------------|
| GatewayPNCmtrlStationName | Station Name of the ProfiNet Gateway |

|                       |   |
|-----------------------|---|
| Communication Name    | PNStalD   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 923   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |        |
|----------------|--------|
| Length         | 0..240 |
| Initialisation | CDM425 |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                                      |
|----------------|----------|--------|---------------|--------------------------------------|
| sRN PNStalD    |          |        |               |                                      |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                          |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name          |
| Command        | PNStalD  | String | 7             | Station Name of the ProfiNet Gateway |

| Read Variable Response: |          |            |               |                                      |
|-------------------------|----------|------------|---------------|--------------------------------------|
| sRA PNStalD <data>      |          |            |               |                                      |
| Telegram Part           | Telegram | Type       | Length [Byte] | Description                          |
| Command Type            | sRA      | String     | 3             | SOPAS Variable Read Acknowledge      |
| Command                 | PNStalD  | String     | 7             | Station Name of the ProfiNet Gateway |
| Variable Data           | data     | FlexString | 240           |                                      |

| Write Variable:    |          |            |               |                                      |
|--------------------|----------|------------|---------------|--------------------------------------|
| sWN PNStalD <data> |          |            |               |                                      |
| Telegram Part      | Telegram | Type       | Length [Byte] | Description                          |
| Command Type       | sWN      | String     | 3             | Write SOPAS Variable by Name         |
| Command            | PNStalD  | String     | 7             | Station Name of the ProfiNet Gateway |
| Variable Data      | data     | FlexString | 240           |                                      |

| Write Variable Response: |          |        |               |                                      |
|--------------------------|----------|--------|---------------|--------------------------------------|
| sWA PNStalD              |          |        |               |                                      |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                          |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge     |
| Command                  | PNStalD  | String | 7             | Station Name of the ProfiNet Gateway |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN PNStalD[ETX]           |
| Read Variable Response:                                     | [STX]sRA PNStalD 6 CDM425[ETX]  |
| Write Variable:   | [STX]sWN PNStalD +6 CDM425[ETX] |
| Write Variable Response:                                    | [STX]sWA PNStalD[ETX]           |



## 2.23.9. Group: Profibus

### 2.23.9.1. Variable: CdfProfiCmMode

The following section contains a detailed description of the variable CdfProfiCmMode.

#### Variable Overview

| Variable Name  | Description              |
|----------------|--------------------------|
| CdfProfiCmMode | Profibus mode (Mode 1-4) |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 924   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                             |             |
|---------------|-------|-----------------------------|-------------|
| Default Value |       | TX_MODE_CDF600_HANDSHAKE    |             |
|               | Value | Name                        | Description |
|               | 0     | TX_MODE_BMV                 |             |
|               | 1     | TX_MODE_CDF400_NO_HANDSHAKE |             |
|               | 2     | TX_MODE_CDF400_HANDSHAKE    |             |
|               | 3     | TX_MODE_CDF600_HANDSHAKE    |             |
|               | 4     | TX_MODE_CDF600_NO_HANDSHAKE |             |

#### Variable Telegram Syntax

| Read Variable:     |                |        |               |                             |
|--------------------|----------------|--------|---------------|-----------------------------|
| sRN CdfProfiCmMode |                |        |               |                             |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                 |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name |
| Command            | CdfProfiCmMode | String | 14            | Profibus mode (Mode 1-4)    |

| Read Variable Response:   |                |        |               |                                 |
|---------------------------|----------------|--------|---------------|---------------------------------|
| sRA CdfProfiCmMode <data> |                |        |               |                                 |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                     |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge |
| Command                   | CdfProfiCmMode | String | 14            | Profibus mode (Mode 1-4)        |
| Variable Data             | data           | Enum8  | 1             |                                 |

| Write Variable:           |                |        |               |                              |
|---------------------------|----------------|--------|---------------|------------------------------|
| sWN CdfProfiCmMode <data> |                |        |               |                              |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                  |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name |
| Command                   | CdfProfiCmMode | String | 14            | Profibus mode (Mode 1-4)     |
| Variable Data             | data           | Enum8  | 1             |                              |





| Write Variable Response: |                |        |               |                                  |
|--------------------------|----------------|--------|---------------|----------------------------------|
| sWA CdfProfiCmMode       |                |        |               |                                  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                      |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | CdfProfiCmMode | String | 14            | Profibus mode (Mode 1-4)         |

### Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN CdfProfiCmMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA CdfProfiCmMode 3[ETX] |
| Write Variable:   | [STX]sWN CdfProfiCmMode 3[ETX] |
| Write Variable Response:                                    | [STX]sWA CdfProfiCmMode[ETX]   |

### 2.23.9.2. Variable: CdfSelectDataFormat

The following section contains a detailed description of the variable CdfSelectDataFormat.

#### Variable Overview

| Variable Name       | Description                 |
|---------------------|-----------------------------|
| CdfSelectDataFormat | Format string for user data |

|                       |   |
|-----------------------|---|
| Communication Name    | CdfSelDataFrmt  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 925   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | 1                      |             |
|               | Value | Name                   | Description |
|               | 0     | TX_NO_OUTPUT           |             |
|               | 1     | TX_OUTPUT_FORMAT_DEF_1 |             |
|               | 2     | TX_OUTPUT_FORMAT_DEF_2 |             |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |                             |
|--------------------|----------------|--------|---------------|-----------------------------|
| sRN CdfSelDataFrmt |                |        |               |                             |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                 |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name |
| Command            | CdfSelDataFrmt | String | 14            | Format string for user data |

| Read Variable Response:   |                |        |               |                                 |
|---------------------------|----------------|--------|---------------|---------------------------------|
| sRA CdfSelDataFrmt <data> |                |        |               |                                 |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                     |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge |
| Command                   | CdfSelDataFrmt | String | 14            | Format string for user data     |
| Variable Data             | data           | Enum8  | 1             |                                 |

| Write Variable:           |                |        |               |                              |
|---------------------------|----------------|--------|---------------|------------------------------|
| sWN CdfSelDataFrmt <data> |                |        |               |                              |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                  |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name |
| Command                   | CdfSelDataFrmt | String | 14            | Format string for user data  |
| Variable Data             | data           | Enum8  | 1             |                              |

| Write Variable Response: |                |        |               |                                  |
|--------------------------|----------------|--------|---------------|----------------------------------|
| sWA CdfSelDataFrmt       |                |        |               |                                  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                      |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | CdfSelDataFrmt | String | 14            | Format string for user data      |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN CdfSelDataFrmt[ETX]   |
| Read Variable Response:                                     | [STX]sRA CdfSelDataFrmt 1[ETX] |
| Write Variable:   | [STX]sWN CdfSelDataFrmt 1[ETX] |
| Write Variable Response:                                    | [STX]sWA CdfSelDataFrmt[ETX]   |



### 2.23.9.3. Variable: CdfCanMultiplexSend

The following section contains a detailed description of the variable CdfCanMultiplexSend.

#### Variable Overview

| Variable Name       | Description                                  |
|---------------------|--|
| CdfCanMultiplexSend | Enables if CDF sends Multiplexer output data |

|                       |   |
|-----------------------|---|
| Communication Name    | CdfCanMpxOutEnable                                      |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 926   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:         |                    |        |               |  |
|------------------------|--------------------|--------|---------------|--|
| sRN CdfCanMpxOutEnable |                    |        |               |  |
| Telegram Part          | Telegram           | Type   | Length [Byte] | Description                                  |
| Command Type           | sRN                | String | 3             | Read SOPAS Variable by Name                  |
| Command                | CdfCanMpxOutEnable | String | 18            | Enables if CDF sends Multiplexer output data |

| Read Variable Response:       |                    |        |               |  |
|-------------------------------|--------------------|--------|---------------|--|
| sRA CdfCanMpxOutEnable <data> |                    |        |               |  |
| Telegram Part                 | Telegram           | Type   | Length [Byte] | Description                                  |
| Command Type                  | sRA                | String | 3             | SOPAS Variable Read Acknowledge              |
| Command                       | CdfCanMpxOutEnable | String | 18            | Enables if CDF sends Multiplexer output data |
| Variable Data                 | data               | Bool   | 1             |  |

| Write Variable:               |                    |        |               |  |
|-------------------------------|--------------------|--------|---------------|--|
| sWN CdfCanMpxOutEnable <data> |                    |        |               |  |
| Telegram Part                 | Telegram           | Type   | Length [Byte] | Description                                  |
| Command Type                  | sWN                | String | 3             | Write SOPAS Variable by Name                 |
| Command                       | CdfCanMpxOutEnable | String | 18            | Enables if CDF sends Multiplexer output data |
| Variable Data                 | data               | Bool   | 1             |  |

| Write Variable Response: |                    |        |               |  |
|--------------------------|--------------------|--------|---------------|--|
| sWA CdfCanMpxOutEnable   |                    |        |               |  |
| Telegram Part            | Telegram           | Type   | Length [Byte] | Description                                  |
| Command Type             | sWA                | String | 3             | SOPAS Variable Write Acknowledge             |
| Command                  | CdfCanMpxOutEnable | String | 18            | Enables if CDF sends Multiplexer output data |



## Variable Telegram Examples

| Example: Default Values                                     |                                    |
|---|------------------------------------|
| Variable telegram examples with data set to default values. |                                    |
| Read Variable:  | [STX]sRN CdfCanMpxOutEnable[ETX]   |
| Read Variable Response:                                     | [STX]sRA CdfCanMpxOutEnable 0[ETX] |
| Write Variable:   | [STX]sWN CdfCanMpxOutEnable 0[ETX] |
| Write Variable Response:                                    | [STX]sWA CdfCanMpxOutEnable[ETX]   |

### 2.23.9.4. Variable: Usage\_CdfProfibusFhOut1

The following section contains a detailed description of the variable Usage\_CdfProfibusFhOut1.

#### Variable Overview

| Variable Name           | Description   |
|-------------------------|---|
| Usage_CdfProfibusFhOut1 | Function for input bit 1 which comes from PLC in the framing header if CDF600 is running in CDF400 mode |

|                       |   |
|-----------------------|---|
| Communication Name    | PBUsage_CdfFhOut1                                       |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 927   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                     |             |
|---------------|-------|---------------------|-------------|
| Default Value |       | TX_NO_FUNCTION      |             |
|               | Value | Name                | Description |
|               | 0     | TX_NO_FUNCTION      |             |
|               | 1     | TX_RD_TRIGGER       |             |
|               | 2     | TX_SET_EXTOUT1      |             |
|               | 6     | TX_DISTANCE_CONFIG0 |             |

## Variable Telegram Syntax

| Read Variable:         |                    |        |               |   |
|------------------------|--------------------|--------|---------------|---|
| sRN PBUUsage_CdfFhOut1 |                    |        |               |   |
| Telegram Part          | Telegram           | Type   | Length [Byte] | Description   |
| Command Type           | sRN                | String | 3             | Read SOPAS Variable by Name   |
| Command                | PBUUsage_CdfFhOut1 | String | 17            | Function for input bit 1 which comes from PLC in the framing header if CDF600 is running in CDF400 mode |

| Read Variable Response:       |                    |        |               |   |
|-------------------------------|--------------------|--------|---------------|---|
| sRA PBUUsage_CdfFhOut1 <data> |                    |        |               |   |
| Telegram Part                 | Telegram           | Type   | Length [Byte] | Description   |
| Command Type                  | sRA                | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                       | PBUUsage_CdfFhOut1 | String | 17            | Function for input bit 1 which comes from PLC in the framing header if CDF600 is running in CDF400 mode |
| Variable Data                 | data               | Enum8  | 1             |   |

| Write Variable:               |                    |        |               |   |
|-------------------------------|--------------------|--------|---------------|---|
| sWN PBUUsage_CdfFhOut1 <data> |                    |        |               |   |
| Telegram Part                 | Telegram           | Type   | Length [Byte] | Description   |
| Command Type                  | sWN                | String | 3             | Write SOPAS Variable by Name  |
| Command                       | PBUUsage_CdfFhOut1 | String | 17            | Function for input bit 1 which comes from PLC in the framing header if CDF600 is running in CDF400 mode |
| Variable Data                 | data               | Enum8  | 1             |   |

| Write Variable Response: |                    |        |               |   |
|--------------------------|--------------------|--------|---------------|---|
| sWA PBUUsage_CdfFhOut1   |                    |        |               |   |
| Telegram Part            | Telegram           | Type   | Length [Byte] | Description   |
| Command Type             | sWA                | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | PBUUsage_CdfFhOut1 | String | 17            | Function for input bit 1 which comes from PLC in the framing header if CDF600 is running in CDF400 mode |

## Variable Telegram Examples

| Example: Default Values                                     |                                    |
|---|------------------------------------|
| Variable telegram examples with data set to default values. |                                    |
| <b>Read Variable:</b>                                       | [STX]sRN PBUUsage_CdfFhOut1[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA PBUUsage_CdfFhOut1 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN PBUUsage_CdfFhOut1 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA PBUUsage_CdfFhOut1[ETX]   |

### 2.23.9.5. Variable: Usage\_CdfProfibusFhOut2

The following section contains a detailed description of the variable Usage\_CdfProfibusFhOut2.

#### Variable Overview

| Variable Name           | Description   |
|-------------------------|---|
| Usage_CdfProfibusFhOut2 | Function for bit 2 which comes from PLC in the framing header if CDF600 is running in CDF400 mode |

|                       |   |
|-----------------------|---|
| Communication Name    | PBUsage_CdfFhOut2                                       |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 928   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                     |             |
|---------------|-------|---------------------|-------------|
| Default Value |       | TX_NO_FUNCTION      |             |
|               | Value | Name                | Description |
|               | 0     | TX_NO_FUNCTION      |             |
|               | 1     | TX_RD_TRIGGER       |             |
|               | 2     | TX_SET_EXTOUT2      |             |
|               | 6     | TX_DISTANCE_CONFIG1 |             |

#### Variable Telegram Syntax

| Read Variable:        |                   |        |               |   |  |
|-----------------------|-------------------|--------|---------------|---|--|
| sRN PBUsage_CdfFhOut2 |                   |        |               |   |  |
| Telegram Part         | Telegram          | Type   | Length [Byte] | Description   |  |
| Command Type          | sRN               | String | 3             | Read SOPAS Variable by Name   |  |
| Command               | PBUsage_CdfFhOut2 | String | 17            | Function for bit 2 which comes from PLC in the framing header if CDF600 is running in CDF400 mode |  |

| Read Variable Response:      |                   |        |               |   |  |
|------------------------------|-------------------|--------|---------------|---|--|
| sRA PBUsage_CdfFhOut2 <data> |                   |        |               |   |  |
| Telegram Part                | Telegram          | Type   | Length [Byte] | Description   |  |
| Command Type                 | sRA               | String | 3             | SOPAS Variable Read Acknowledge   |  |
| Command                      | PBUsage_CdfFhOut2 | String | 17            | Function for bit 2 which comes from PLC in the framing header if CDF600 is running in CDF400 mode |  |
| Variable Data                | data              | Enum8  | 1             |   |  |

| Write Variable:              |                   |        |               |   |  |
|------------------------------|-------------------|--------|---------------|---|--|
| sWN PBUsage_CdfFhOut2 <data> |                   |        |               |   |  |
| Telegram Part                | Telegram          | Type   | Length [Byte] | Description   |  |
| Command Type                 | sWN               | String | 3             | Write SOPAS Variable by Name  |  |
| Command                      | PBUsage_CdfFhOut2 | String | 17            | Function for bit 2 which comes from PLC in the framing header if CDF600 is running in CDF400 mode |  |
| Variable Data                | data              | Enum8  | 1             |   |  |



| Write Variable Response: |                   |        |               |   |
|--------------------------|-------------------|--------|---------------|---|
| sWA PBUsage_CdfFhOut2    |                   |        |               |   |
| Telegram Part            | Telegram          | Type   | Length [Byte] | Description   |
| Command Type             | sWA               | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | PBUsage_CdfFhOut2 | String | 17            | Function for bit 2 which comes from PLC in the framing header if CDF600 is running in CDF400 mode |

## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN PBUsage_CdfFhOut2[ETX]   |
| Read Variable Response:                                     | [STX]sRA PBUsage_CdfFhOut2 0[ETX] |
| Write Variable:   | [STX]sWN PBUsage_CdfFhOut2 0[ETX] |
| Write Variable Response:                                    | [STX]sWA PBUsage_CdfFhOut2[ETX]   |

### 2.23.9.6. Variable: Usage\_CdfProfibusFhIn1

The following section contains a detailed description of the variable Usage\_CdfProfibusFhIn1.

#### Variable Overview

| Variable Name          | Description  |
|------------------------|--|
| Usage_CdfProfibusFhIn1 | Function for CLV output bit 1 which is sent to PLC in the framing header if CDF600 is running in CDF400 mode |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 929   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                   |             |
|---------------|-------|-------------------|-------------|
| Default Value |       | TX_NO_FUNCTION    |             |
|               | Value | Name              | Description |
|               | 0     | TX_NO_FUNCTION    |             |
|               | 1     | TX_DEV_READY      |             |
|               | 3     | TX_GOOD_READ      |             |
|               | 4     | TX_NO_READ        |             |
|               | 5     | TX_IN1_STATUS     |             |
|               | 6     | TX_IN2_STATUS     |             |
|               | 7     | TX_EXTIN1_STATUS  |             |
|               | 8     | TX_EXTIN2_STATUS  |             |
|               | 9     | TX_OUT1_STATUS    |             |
|               | 10    | TX_OUT2_STATUS    |             |
|               | 11    | TX_EXTOUT1_STATUS |             |
|               | 12    | TX_EXTOUT2_STATUS |             |



## Variable Telegram Syntax

| Read Variable:             |                        |        |               |  |
|----------------------------|------------------------|--------|---------------|--|
| sRN Usage_CdfProfibusFhIn1 |                        |        |               |  |
| Telegram Part              | Telegram               | Type   | Length [Byte] | Description  |
| Command Type               | sRN                    | String | 3             | Read SOPAS Variable by Name  |
| Command                    | Usage_CdfProfibusFhIn1 | String | 22            | Function for CLV output bit 1 which is sent to PLC in the framing header if CDF600 is running in CDF400 mode |

| Read Variable Response:           |                        |        |               |  |
|-----------------------------------|------------------------|--------|---------------|--|
| sRA Usage_CdfProfibusFhIn1 <data> |                        |        |               |  |
| Telegram Part                     | Telegram               | Type   | Length [Byte] | Description  |
| Command Type                      | sRA                    | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                           | Usage_CdfProfibusFhIn1 | String | 22            | Function for CLV output bit 1 which is sent to PLC in the framing header if CDF600 is running in CDF400 mode |
| Variable Data                     | data                   | Enum8  | 1             |  |

| Write Variable:                   |                        |        |               |  |
|-----------------------------------|------------------------|--------|---------------|--|
| sWN Usage_CdfProfibusFhIn1 <data> |                        |        |               |  |
| Telegram Part                     | Telegram               | Type   | Length [Byte] | Description  |
| Command Type                      | sWN                    | String | 3             | Write SOPAS Variable by Name   |
| Command                           | Usage_CdfProfibusFhIn1 | String | 22            | Function for CLV output bit 1 which is sent to PLC in the framing header if CDF600 is running in CDF400 mode |
| Variable Data                     | data                   | Enum8  | 1             |  |

| Write Variable Response:   |                        |        |               |  |
|----------------------------|------------------------|--------|---------------|--|
| sWA Usage_CdfProfibusFhIn1 |                        |        |               |  |
| Telegram Part              | Telegram               | Type   | Length [Byte] | Description  |
| Command Type               | sWA                    | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                    | Usage_CdfProfibusFhIn1 | String | 22            | Function for CLV output bit 1 which is sent to PLC in the framing header if CDF600 is running in CDF400 mode |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN Usage_CdfProfibusFhIn1[ETX]   |
| Read Variable Response:                                     | [STX]sRA Usage_CdfProfibusFhIn1 0[ETX] |
| Write Variable:   | [STX]sWN Usage_CdfProfibusFhIn1 0[ETX] |
| Write Variable Response:                                    | [STX]sWA Usage_CdfProfibusFhIn1[ETX]   |



### 2.23.9.7. Variable: Usage\_CdfProfibusFhIn2

The following section contains a detailed description of the variable Usage\_CdfProfibusFhIn2.

#### Variable Overview

| Variable Name          | Description  |
|------------------------|--|
| Usage_CdfProfibusFhIn2 | Function for CLV output bit 2 which is sent to PLC in the framing header if CDF600 is running in CDF400 mode |

|                       |   |
|-----------------------|---|
| Communication Name    | PBUsage_CdfFhIn2  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 930   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                   |             |
|---------------|-------|-------------------|-------------|
| Default Value |       | TX_NO_FUNCTION    |             |
|               | Value | Name              | Description |
|               | 0     | TX_NO_FUNCTION    |             |
|               | 1     | TX_DEV_READY      |             |
|               | 3     | TX_GOOD_READ      |             |
|               | 4     | TX_NO_READ        |             |
|               | 5     | TX_IN1_STATUS     |             |
|               | 6     | TX_IN2_STATUS     |             |
|               | 7     | TX_EXTIN1_STATUS  |             |
|               | 8     | TX_EXTIN2_STATUS  |             |
|               | 9     | TX_OUT1_STATUS    |             |
|               | 10    | TX_OUT2_STATUS    |             |
|               | 11    | TX_EXTOUT1_STATUS |             |
|               | 12    | TX_EXTOUT2_STATUS |             |

#### Variable Telegram Syntax

| Read Variable:       |                  |        |               |  |
|----------------------|------------------|--------|---------------|--|
| sRN PBUsage_CdfFhIn2 |                  |        |               |  |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description  |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name  |
| Command              | PBUsage_CdfFhIn2 | String | 16            | Function for CLV output bit 2 which is sent to PLC in the framing header if CDF600 is running in CDF400 mode |

| Read Variable Response:     |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sRA PBUsage_CdfFhIn2 <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description  |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                     | PBUsage_CdfFhIn2 | String | 16            | Function for CLV output bit 2 which is sent to PLC in the framing header if CDF600 is running in CDF400 mode |
| Variable Data               | data             | Enum8  | 1             |  |



| Write Variable:             |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sWN PBUsage_CdfFhIn2 <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description  |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name   |
| Command                     | PBUsage_CdfFhIn2 | String | 16            | Function for CLV output bit 2 which is sent to PLC in the framing header if CDF600 is running in CDF400 mode |
| Variable Data               | data             | Enum8  | 1             |  |

| Write Variable Response: |                  |        |               |  |
|--------------------------|------------------|--------|---------------|--|
| sWA PBUsage_CdfFhIn2     |                  |        |               |  |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description  |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | PBUsage_CdfFhIn2 | String | 16            | Function for CLV output bit 2 which is sent to PLC in the framing header if CDF600 is running in CDF400 mode |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN PBUsage_CdfFhIn2[ETX]   |
| Read Variable Response:                                     | [STX]sRA PBUsage_CdfFhIn2 0[ETX] |
| Write Variable:   | [STX]sWN PBUsage_CdfFhIn2 0[ETX] |
| Write Variable Response:                                    | [STX]sWA PBUsage_CdfFhIn2[ETX]   |

## 2.23.10. Group: Ethercat

### 2.23.10.1. Variable: CdfEcatCmMode

The following section contains a detailed description of the variable CdfEcatCmMode.

#### Variable Overview

| Variable Name | Description   |
|---------------|---|
| CdfEcatCmMode | Ethercat mode (only 2 CDF600 modes) --> other parameters like Profibus (no entry here -> see VID) |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 931   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                             |             |
|---------------|-------|-----------------------------|-------------|
| Default Value |       | TX_MODE_CDF600_HANDSHAKE    |             |
|               | Value | Name                        | Description |
|               | 3     | TX_MODE_CDF600_HANDSHAKE    |             |
|               | 4     | TX_MODE_CDF600_NO_HANDSHAKE |             |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |   |
|-------------------|---------------|--------|---------------|---|
| sRN CdfEcatCmMode |               |        |               |   |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description   |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name   |
| Command           | CdfEcatCmMode | String | 13            | Ethercat mode (only 2 CDF600 modes) --> other parameters like Profibus (no entry here -> see VID) |

| Read Variable Response:  |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sRA CdfEcatCmMode <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description   |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                  | CdfEcatCmMode | String | 13            | Ethercat mode (only 2 CDF600 modes) --> other parameters like Profibus (no entry here -> see VID) |
| Variable Data            | data          | Enum8  | 1             |   |

| Write Variable:          |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWN CdfEcatCmMode <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description   |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name  |
| Command                  | CdfEcatCmMode | String | 13            | Ethercat mode (only 2 CDF600 modes) --> other parameters like Profibus (no entry here -> see VID) |
| Variable Data            | data          | Enum8  | 1             |   |



| Write Variable Response: |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWA CdfEcatCmMode        |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description   |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | CdfEcatCmMode | String | 13            | Ethercat mode (only 2 CDF600 modes) --> other parameters like Profibus (no entry here -> see VID) |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN CdfEcatCmMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA CdfEcatCmMode 3[ETX] |
| Write Variable:   | [STX]sWN CdfEcatCmMode 3[ETX] |
| Write Variable Response:                                    | [STX]sWA CdfEcatCmMode[ETX]   |

## 2.23.11. Group: Script

### 2.23.11.1. Variable: EnableActiveScript

The following section contains a detailed description of the variable EnableActiveScript.

#### Variable Overview

| Variable Name      |  |
|--------------------|--|
| EnableActiveScript |  |

|                       |   |
|-----------------------|---|
| Communication Name    | AScriptEna  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 932   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                             |
|----------------|------------|--------|---------------|-----------------------------|
| sRN AScriptEna |            |        |               |                             |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                 |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name |
| Command        | AScriptEna | String | 10            |                             |

| Read Variable Response: |            |        |               |                                 |
|-------------------------|------------|--------|---------------|---------------------------------|
| sRA AScriptEna <data>   |            |        |               |                                 |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | AScriptEna | String | 10            |                                 |
| Variable Data           | data       | Bool   | 1             |                                 |

| Write Variable:       |            |        |               |                              |
|-----------------------|------------|--------|---------------|------------------------------|
| sWN AScriptEna <data> |            |        |               |                              |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name |
| Command               | AScriptEna | String | 10            |                              |
| Variable Data         | data       | Bool   | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA AScriptEna           |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |            |        |               |             |
|--------------------------|------------|--------|---------------|-------------|
| sWA AScriptEna           |            |        |               |             |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description |
| Command                  | AScriptEna | String | 10            |             |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN AScriptEna[ETX]   |
| Read Variable Response:                                     | [STX]sRA AScriptEna 0[ETX] |
| Write Variable:   | [STX]sWN AScriptEna 0[ETX] |
| Write Variable Response:                                    | [STX]sWA AScriptEna[ETX]   |

## 2.23.11.2. Method: ScriptListCommand

The following section contains a detailed description of the method ScriptListCommand.

### Method Overview

| Method Name       | Description               |
|-------------------|---------------------------|
| ScriptListCommand | Runs a Scriptlist command |

|                    |        |
|--------------------|--------|
| Communication Name | mSLCmd |
| Sopas Index        | 130    |
| Invocation Access  | Always |

| Parameters |                   |
|------------|-------------------|
| SLCmd      |                   |
|            | <b>FlexString</b> |
|            | Length 0..200     |
|            | Initialisation    |

| Return Values |                         |
|---------------|-------------------------|
| Success       |                         |
|               | <b>Bool</b>             |
|               | Value Range False, True |
|               | Initialisation False    |



## Method Telegram Syntax

| Method Invocation: |          |            |               |                                |
|--------------------|----------|------------|---------------|--------------------------------|
| sMN mSLCmd <SLCmd> |          |            |               |                                |
| Telegram Part      | Telegram | Type       | Length [Byte] | Description                    |
| Command Type       | sMN      | String     | 3             | Request (SOPAS Method by Name) |
| Command            | mSLCmd   | String     | 6             | Runs a Scriptlist command      |
| Parameter 1        | SLCmd    | FlexString | 200           |                                |

| Method Return Value: |          |        |               |                              |
|----------------------|----------|--------|---------------|------------------------------|
| sAN mSLCmd <Success> |          |        |               |                              |
| Telegram Part        | Telegram | Type   | Length [Byte] | Description                  |
| Command Type         | sAN      | String | 3             | Result (SOPAS Method Result) |
| Command              | mSLCmd   | String | 6             | Runs a Scriptlist command    |
| Return Value 1       | Success  | Bool   | 1             |                              |

## Method Telegram Examples

| Example: Default Values   |                           |
|---|---------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                           |
| Method Invocation:  | [STX]sMN mSLCmd +0 0[ETX] |
| Method Return Value:  | [STX]sAN mSLCmd 0[ETX]    |



## 2.23.12. Group: EthernetFieldbusInternal

### 2.23.12.1. Variable: EthFbType

The following section contains a detailed description of the variable EthFbType.

#### Variable Overview

| Variable Name | Description                           |
|---------------|---------------------------------------|
| EthFbType     | Selects internal Ethernet Fieldbustyp |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 935   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_NONE        |             |
|               | 1     | TX_ETHERNET_IP |             |
|               | 2     | TX_PROFINET    |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                                       |
|----------------|-----------|--------|---------------|---------------------------------------|
| sRN EthFbType  |           |        |               |                                       |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                           |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name           |
| Command        | EthFbType | String | 9             | Selects internal Ethernet Fieldbustyp |

| Read Variable Response: |           |        |               |                                       |
|-------------------------|-----------|--------|---------------|---------------------------------------|
| sRA EthFbType <data>    |           |        |               |                                       |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                           |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                 | EthFbType | String | 9             | Selects internal Ethernet Fieldbustyp |
| Variable Data           | data      | Enum8  | 1             |                                       |

| Write Variable:      |           |        |               |                                       |
|----------------------|-----------|--------|---------------|---------------------------------------|
| sWN EthFbType <data> |           |        |               |                                       |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                           |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name          |
| Command              | EthFbType | String | 9             | Selects internal Ethernet Fieldbustyp |
| Variable Data        | data      | Enum8  | 1             |                                       |





| Write Variable Response: |           |        |               |                                       |
|--------------------------|-----------|--------|---------------|---------------------------------------|
| sWA EthFbType            |           |        |               |                                       |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                           |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | EthFbType | String | 9             | Selects internal Ethernet Fieldbustyp |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN EthFbType[ETX]   |
| Read Variable Response:                                     | [STX]sRA EthFbType 0[ETX] |
| Write Variable:   | [STX]sWN EthFbType 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EthFbType[ETX]   |

## 2.23.13. Group: EthernetIP

### 2.23.13.1. Variable: EIPAct

The following section contains a detailed description of the variable EIPAct.

#### Variable Overview

| Variable Name | Description   |
|---------------|---|
| EIPAct        | EthernetIP Activated (here left only for compatibility reasons) |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 936   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN EIPAct     |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                                     |
| Command        | EIPAct   | String | 6             | EthernetIP Activated (here left only for compatibility reasons) |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA EIPAct <data>       |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description   |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                                 |
| Command                 | EIPAct   | String | 6             | EthernetIP Activated (here left only for compatibility reasons) |
| Variable Data           | data     | Bool   | 1             |   |

| Write Variable:   |          |        |               |   |
|-------------------|----------|--------|---------------|---|
| sWN EIPAct <data> |          |        |               |   |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description   |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name                                    |
| Command           | EIPAct   | String | 6             | EthernetIP Activated (here left only for compatibility reasons) |
| Variable Data     | data     | Bool   | 1             |   |



| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA EIPAct               |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description   |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                                |
| Command                  | EIPAct   | String | 6             | EthernetIP Activated (here left only for compatibility reasons) |

## Variable Telegram Examples

| Example: Default Values                                     |                        |
|---|------------------------|
| Variable telegram examples with data set to default values. |                        |
| Read Variable:  | [STX]sRN EIPAct[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIPAct 0[ETX] |
| Write Variable:   | [STX]sWN EIPAct 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIPAct[ETX]   |

## 2.23.13.2. Variable: EIPMode

The following section contains a detailed description of the variable EIPMode.

### Variable Overview

| Variable Name | Description     |
|---------------|-----------------|
| EIPMode       | EthernetIP Mode |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 937   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                     |             |
|---------------|-------|---------------------|-------------|
| Default Value |       | 0                   |             |
|               | Value | Name                | Description |
|               | 0     | TX_EIP_NO_HANDSHAKE |             |
|               | 1     | TX_EIP_HANDSHAKE    |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN EIPMode    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | EIPMode  | String | 7             | EthernetIP Mode             |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA EIPMode <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | EIPMode  | String | 7             | EthernetIP Mode                 |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN EIPMode <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | EIPMode  | String | 7             | EthernetIP Mode              |
| Variable Data      | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EIPMode              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EIPMode  | String | 7             | EthernetIP Mode                  |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN EIPMode[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIPMode 0[ETX] |
| Write Variable:   | [STX]sWN EIPMode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIPMode[ETX]   |



### 2.23.13.3. Variable: EIPMultiplex

The following section contains a detailed description of the variable EIPMultiplex.

#### Variable Overview

| Variable Name | Description                      |
|---------------|----------------------------------|
| EIPMultiplex  | EthernetIP multiplexer activated |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 938   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |                                  |
|------------------|--------------|--------|---------------|----------------------------------|
| sRN EIPMultiplex |              |        |               |                                  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name      |
| Command          | EIPMultiplex | String | 12            | EthernetIP multiplexer activated |

| Read Variable Response: |              |        |               |                                  |
|-------------------------|--------------|--------|---------------|----------------------------------|
| sRA EIPMultiplex <data> |              |        |               |                                  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | EIPMultiplex | String | 12            | EthernetIP multiplexer activated |
| Variable Data           | data         | Bool   | 1             |                                  |

| Write Variable:         |              |        |               |                                  |
|-------------------------|--------------|--------|---------------|----------------------------------|
| sWN EIPMultiplex <data> |              |        |               |                                  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name     |
| Command                 | EIPMultiplex | String | 12            | EthernetIP multiplexer activated |
| Variable Data           | data         | Bool   | 1             |                                  |

| Write Variable Response: |              |        |               |                                  |
|--------------------------|--------------|--------|---------------|----------------------------------|
| sWA EIPMultiplex         |              |        |               |                                  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                      |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EIPMultiplex | String | 12            | EthernetIP multiplexer activated |



## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN EIPMultiplex[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIPMultiplex 0[ETX] |
| Write Variable:   | [STX]sWN EIPMultiplex 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIPMultiplex[ETX]   |

### 2.23.13.4. Variable: EIPDataFormat

The following section contains a detailed description of the variable EIPDataFormat.

#### Variable Overview

| Variable Name | Description     |
|---------------|-----------------|
| EIPDataFormat | EthernetIP Mode |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 939   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                         |             |
|---------------|-------|-------------------------|-------------|
| Default Value |       | 0                       |             |
|               | Value | Name                    | Description |
|               | 0     | TX_EIP_OUTPUT_FORMAT_1  |             |
|               | 1     | TX_EIP_OUTPUT_FORMAT_2  |             |
|               | 2     | TX_EIP_NO_OUTPUT_FORMAT |             |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |                             |
|-------------------|---------------|--------|---------------|-----------------------------|
| sRN EIPDataFormat |               |        |               |                             |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                 |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name |
| Command           | EIPDataFormat | String | 13            | EthernetIP Mode             |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA EIPDataFormat <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | EIPDataFormat | String | 13            | EthernetIP Mode                 |
| Variable Data            | data          | Enum8  | 1             |                                 |



| Write Variable:          |               |        |               |                              |
|--------------------------|---------------|--------|---------------|------------------------------|
| sWN EIPDataFormat <data> |               |        |               |                              |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                  |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name |
| Command                  | EIPDataFormat | String | 13            | EthernetIP Mode              |
| Variable Data            | data          | Enum8  | 1             |                              |

| Write Variable Response: |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sWA EIPDataFormat        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EIPDataFormat | String | 13            | EthernetIP Mode                  |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN EIPDataFormat[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIPDataFormat 0[ETX] |
| Write Variable:   | [STX]sWN EIPDataFormat 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIPDataFormat[ETX]   |

### 2.23.13.5. Variable: EIPControlBitsPlcOutMask

The following section contains a detailed description of the variable EIPControlBitsPlcOutMask.

#### Variable Overview

| Variable Name            | Description  |
|--------------------------|--|
| EIPControlBitsPlcOutMask | Mask for command Word received by sensor from EthernetIP |

|                       |   |
|-----------------------|---|
| Communication Name    | EIPCMCtrlOutMask  |
| Sopas Synchronisation | Variable is not relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 940   |
| Storage               | Variable is stored in ParamEEProm                           |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0xFFFF   |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable:       |                  |        |               |  |
|----------------------|------------------|--------|---------------|--|
| sRN EIPCMCtrlOutMask |                  |        |               |  |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description  |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name                              |
| Command              | EIPCMCtrlOutMask | String | 16            | Mask for command Word received by sensor from EthernetIP |

| Read Variable Response:     |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sRA EIPCMCtrlOutMask <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description  |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge                          |
| Command                     | EIPCMCtrlOutMask | String | 16            | Mask for command Word received by sensor from EthernetIP |
| Variable Data               | data             | UInt   | 2             |  |

| Write Variable:             |                  |        |               |  |
|-----------------------------|------------------|--------|---------------|--|
| sWN EIPCMCtrlOutMask <data> |                  |        |               |  |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description  |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name                             |
| Command                     | EIPCMCtrlOutMask | String | 16            | Mask for command Word received by sensor from EthernetIP |
| Variable Data               | data             | UInt   | 2             |  |

| Write Variable Response: |                  |        |               |  |
|--------------------------|------------------|--------|---------------|--|
| sWA EIPCMCtrlOutMask     |                  |        |               |  |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description  |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge                         |
| Command                  | EIPCMCtrlOutMask | String | 16            | Mask for command Word received by sensor from EthernetIP |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| Read Variable:  | [STX]sRN EIPCMCtrlOutMask[ETX]      |
| Read Variable Response:                                     | [STX]sRA EIPCMCtrlOutMask FFFF[ETX] |
| Write Variable:   | [STX]sWN EIPCMCtrlOutMask FFFF[ETX] |
| Write Variable Response:                                    | [STX]sWA EIPCMCtrlOutMask[ETX]      |





## 2.23.13.6. Variable: EIPHBEna

The following section contains a detailed description of the variable EIPHBEna.

### Variable Overview

| Variable Name |
|---------------|
| EIPHBEna      |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 941   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN EIPHBEna   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | EIPHBEna | String | 8             |                             |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA EIPHBEna <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | EIPHBEna | String | 8             |                                 |
| Variable Data           | data     | Bool   | 1             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN EIPHBEna <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | EIPHBEna | String | 8             |                              |
| Variable Data       | data     | Bool   | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EIPHBEna             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EIPHBEna | String | 8             |                                  |



## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN EIPHBena[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIPHBena 0[ETX] |
| Write Variable:   | [STX]sWN EIPHBena 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIPHBena[ETX]   |

### 2.23.13.7. Variable: EIPHBInterval

The following section contains a detailed description of the variable EIPHBInterval.

#### Variable Overview

| Variable Name |  |
|---------------|--|
| EIPHBInterval |  |

|                       |   |
|-----------------------|---|
| Communication Name    | EIPHBInt  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 942   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..600 |
| Initialisation       | 30     |
| Physical Unit        | s      |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN EIPHBInt   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | EIPHBInt | String | 8             |                             |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA EIPHBInt <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | EIPHBInt | String | 8             |                                 |
| Variable Data           | data     | UInt   | 2             |                                 |



| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN EIPHBInt <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | EIPHBInt | String | 8             |                              |
| Variable Data       | data     | UInt   | 2             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EIPHBInt             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | EIPHBInt | String | 8             |                                  |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN EIPHBInt[ETX]    |
| Read Variable Response:                                     | [STX]sRA EIPHBInt 1E[ETX] |
| Write Variable:   | [STX]sWN EIPHBInt 1E[ETX] |
| Write Variable Response:                                    | [STX]sWA EIPHBInt[ETX]    |

### 2.23.13.8. Variable: EIPRetrHB

The following section contains a detailed description of the variable EIPRetrHB.

#### Variable Overview

| Variable Name | Description                        |
|---------------|------------------------------------|
| EIPRetrHB     | Retrigger heartbeat on Ethernet/IP |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 943   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                                    |
|----------------|-----------|--------|---------------|------------------------------------|
| sRN EIPRetrHB  |           |        |               |                                    |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                        |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name        |
| Command        | EIPRetrHB | String | 9             | Retrigger heartbeat on Ethernet/IP |

| Read Variable Response: |           |        |               |                                    |
|-------------------------|-----------|--------|---------------|------------------------------------|
| sRA EIPRetrHB <data>    |           |        |               |                                    |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                        |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                 | EIPRetrHB | String | 9             | Retrigger heartbeat on Ethernet/IP |
| Variable Data           | data      | Bool   | 1             |                                    |

| Write Variable:      |           |        |               |                                    |
|----------------------|-----------|--------|---------------|------------------------------------|
| sWN EIPRetrHB <data> |           |        |               |                                    |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                        |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name       |
| Command              | EIPRetrHB | String | 9             | Retrigger heartbeat on Ethernet/IP |
| Variable Data        | data      | Bool   | 1             |                                    |

| Write Variable Response: |           |        |               |                                    |
|--------------------------|-----------|--------|---------------|------------------------------------|
| sWA EIPRetrHB            |           |        |               |                                    |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                        |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | EIPRetrHB | String | 9             | Retrigger heartbeat on Ethernet/IP |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN EIPRetrHB[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIPRetrHB 1[ETX] |
| Write Variable:   | [STX]sWN EIPRetrHB 1[ETX] |
| Write Variable Response:                                    | [STX]sWA EIPRetrHB[ETX]   |



## 2.23.14. Group: Profinet

### 2.23.14.1. Variable: PNDataFormat

The following section contains a detailed description of the variable PNDataFormat.

#### Variable Overview

| Variable Name | Description            |
|---------------|------------------------|
| PNDataFormat  | Profinet output format |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 945   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | 0                      |             |
|               | Value | Name                   | Description |
|               | 0     | TX_PN_OUTPUT_FORMAT_1  |             |
|               | 1     | TX_PN_OUTPUT_FORMAT_2  |             |
|               | 2     | TX_PN_NO_OUTPUT_FORMAT |             |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |                             |
|------------------|--------------|--------|---------------|-----------------------------|
| sRN PNDataFormat |              |        |               |                             |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                 |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name |
| Command          | PNDataFormat | String | 12            | Profinet output format      |

| Read Variable Response: |              |        |               |                                 |
|-------------------------|--------------|--------|---------------|---------------------------------|
| sRA PNDataFormat <data> |              |        |               |                                 |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | PNDataFormat | String | 12            | Profinet output format          |
| Variable Data           | data         | Enum8  | 1             |                                 |

| Write Variable:         |              |        |               |                              |
|-------------------------|--------------|--------|---------------|------------------------------|
| sWN PNDataFormat <data> |              |        |               |                              |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                  |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name |
| Command                 | PNDataFormat | String | 12            | Profinet output format       |
| Variable Data           | data         | Enum8  | 1             |                              |



| Write Variable Response: |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sWA PNDDataFormat        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | PNDDataFormat | String | 12            | Profinet output format           |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| <b>Read Variable:</b>                                       | [STX]sRN PNDDataFormat[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA PNDDataFormat 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN PNDDataFormat 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA PNDDataFormat[ETX]   |

## 2.23.14.2. Variable: PNMultiplexSend

The following section contains a detailed description of the variable PNMultiplexSend.

### Variable Overview

| Variable Name   | Description                                  |
|-----------------|--|
| PNMultiplexSend | Enables if CLV sends Multiplexer output data |

|                       |   |
|-----------------------|---|
| Communication Name    | PNMpxOutEnable  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 946   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |  |
|--------------------|----------------|--------|---------------|--|
| sRN PNMpxOutEnable |                |        |               |  |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                                  |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name                  |
| Command            | PNMpxOutEnable | String | 14            | Enables if CLV sends Multiplexer output data |

| Read Variable Response:   |                |        |               |  |
|---------------------------|----------------|--------|---------------|--|
| sRA PNMpxOutEnable <data> |                |        |               |  |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                                  |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge              |
| Command                   | PNMpxOutEnable | String | 14            | Enables if CLV sends Multiplexer output data |
| Variable Data             | data           | Bool   | 1             |  |

| Write Variable:           |                |        |               |  |
|---------------------------|----------------|--------|---------------|--|
| sWN PNMpxOutEnable <data> |                |        |               |  |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                                  |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name                 |
| Command                   | PNMpxOutEnable | String | 14            | Enables if CLV sends Multiplexer output data |
| Variable Data             | data           | Bool   | 1             |  |

| Write Variable Response: |                |        |               |  |
|--------------------------|----------------|--------|---------------|--|
| sWA PNMpxOutEnable       |                |        |               |  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                                  |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge             |
| Command                  | PNMpxOutEnable | String | 14            | Enables if CLV sends Multiplexer output data |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN PNMpxOutEnable[ETX]   |
| Read Variable Response:                                     | [STX]sRA PNMpxOutEnable 0[ETX] |
| Write Variable:   | [STX]sWN PNMpxOutEnable 0[ETX] |
| Write Variable Response:                                    | [STX]sWA PNMpxOutEnable[ETX]   |

### 2.23.14.3. Variable: PNDigInputMask

The following section contains a detailed description of the variable PNDigInputMask.

#### Variable Overview

| Variable Name  | Description                                    |
|----------------|--|
| PNDigInputMask | Mask for receiving digital input bits from PLC |

|                       |   |
|-----------------------|---|
| Communication Name    | PNDiMsk   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 947   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0xFFFF   |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN PNDiMsk    |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                                    |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                    |
| Command        | PNDiMsk  | String | 7             | Mask for receiving digital input bits from PLC |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA PNDiMsk <data>      |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                                    |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                |
| Command                 | PNDiMsk  | String | 7             | Mask for receiving digital input bits from PLC |
| Variable Data           | data     | UInt   | 2             |  |

| Write Variable:    |          |        |               |  |
|--------------------|----------|--------|---------------|--|
| sWN PNDiMsk <data> |          |        |               |  |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                                    |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name                   |
| Command            | PNDiMsk  | String | 7             | Mask for receiving digital input bits from PLC |
| Variable Data      | data     | UInt   | 2             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA PNDiMsk              |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                                    |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge               |
| Command                  | PNDiMsk  | String | 7             | Mask for receiving digital input bits from PLC |





## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN PNDiMsk[ETX]      |
| Read Variable Response:                                     | [STX]sRA PNDiMsk FFFF[ETX] |
| Write Variable:   | [STX]sWN PNDiMsk FFFF[ETX] |
| Write Variable Response:                                    | [STX]sWA PNDiMsk[ETX]      |

### 2.23.14.4. Variable: PNPDEV

The following section contains a detailed description of the variable PNPDEV.

#### Variable Overview

| Variable Name | Description  |
|---------------|--|
| PNPDEV        | Profinet PhysicalDEvice needs unstructured EEPROM area for PDEV records. NOTE: Check mem size! |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 948   |
| Storage               | Variable is stored in ParamEEPromNoCloning              |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |         |
|----------------|---------|
| Length         | 0..4000 |
| Initialisation |         |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN PNPDEV     |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name  |
| Command        | PNPDEV   | String | 6             | Profinet PhysicalDEvice needs unstructured EEPROM area for PDEV records. NOTE: Check mem size! |

| Read Variable Response: |          |            |               |  |
|-------------------------|----------|------------|---------------|--|
| sRA PNPDEV <data>       |          |            |               |  |
| Telegram Part           | Telegram | Type       | Length [Byte] | Description  |
| Command Type            | sRA      | String     | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | PNPDEV   | String     | 6             | Profinet PhysicalDEvice needs unstructured EEPROM area for PDEV records. NOTE: Check mem size! |
| Variable Data           | data     | FlexString | 4000          |  |



| Write Variable:   |          |            |               |  |
|-------------------|----------|------------|---------------|--|
| sWN PNPDEV <data> |          |            |               |  |
| Telegram Part     | Telegram | Type       | Length [Byte] | Description  |
| Command Type      | sWN      | String     | 3             | Write SOPAS Variable by Name   |
| Command           | PNPDEV   | String     | 6             | Profinet PhysicalDEvice needs unstructured EEPROM area for PDEV records. NOTE: Check mem size! |
| Variable Data     | data     | FlexString | 4000          |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA PNPDEV               |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | PNPDEV   | String | 6             | Profinet PhysicalDEvice needs unstructured EEPROM area for PDEV records. NOTE: Check mem size! |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN PNPDEV[ETX]      |
| Read Variable Response:                                     | [STX]sRA PNPDEV 0[ETX]    |
| Write Variable:   | [STX]sWN PNPDEV +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA PNPDEV[ETX]      |

## 2.24. Interface Block: GeneralCfgApp

### 2.24.1. Group: System

#### 2.24.1.1. Variable: SYParaPasswordGuarded

The following section contains a detailed description of the variable SYParaPasswordGuarded.

#### Variable Overview

| Variable Name         | Description  |
|-----------------------|--|
| SYParaPasswordGuarded | If true parametrization if password guarded. (Parameter is only mentioned by SOPAS ET) |

|                       |   |
|-----------------------|---|
| Communication Name    | SYPwGuarded   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 971   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |  |
|-----------------|-------------|--------|---------------|--|
| sRN SYPwGuarded |             |        |               |  |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description  |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name  |
| Command         | SYPwGuarded | String | 11            | If true parametrization if password guarded. (Parameter is only mentioned by SOPAS ET) |

| Read Variable Response: |             |        |               |  |
|-------------------------|-------------|--------|---------------|--|
| sRA SYPwGuarded <data>  |             |        |               |  |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description  |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | SYPwGuarded | String | 11            | If true parametrization if password guarded. (Parameter is only mentioned by SOPAS ET) |
| Variable Data           | data        | Bool   | 1             |  |

| Write Variable:        |             |        |               |  |
|------------------------|-------------|--------|---------------|--|
| sWN SYPwGuarded <data> |             |        |               |  |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name   |
| Command                | SYPwGuarded | String | 11            | If true parametrization if password guarded. (Parameter is only mentioned by SOPAS ET) |
| Variable Data          | data        | Bool   | 1             |  |



| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA SYPwGuarded          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | SYPwGuarded | String | 11            | If true parametrization if password guarded.<br>(Parameter is only mentioned by SOPAS ET) |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN SYPwGuarded[ETX]   |
| Read Variable Response:                                     | [STX]sRA SYPwGuarded 0[ETX] |
| Write Variable:   | [STX]sWN SYPwGuarded 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SYPwGuarded[ETX]   |

### 2.24.1.2. Variable: SYHMIButtonsEnabled

The following section contains a detailed description of the variable SYHMIButtonsEnabled.

#### Variable Overview

| Variable Name       | Description                              |
|---------------------|--|
| SYHMIButtonsEnabled | If true, 63x-65x HMI buttons are enabled |

|                       |   |
|-----------------------|---|
| Communication Name    | SYBtnsEna   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 972   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |



## Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN SYBtnsEna  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name              |
| Command        | SYBtnsEna | String | 9             | If true, 63x-65x HMI buttons are enabled |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA SYBtnsEna <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge          |
| Command                 | SYBtnsEna | String | 9             | If true, 63x-65x HMI buttons are enabled |
| Variable Data           | data      | Bool   | 1             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN SYBtnsEna <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name             |
| Command              | SYBtnsEna | String | 9             | If true, 63x-65x HMI buttons are enabled |
| Variable Data        | data      | Bool   | 1             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA SYBtnsEna            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                              |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | SYBtnsEna | String | 9             | If true, 63x-65x HMI buttons are enabled |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN SYBtnsEna[ETX]   |
| Read Variable Response:                                     | [STX]sRA SYBtnsEna 1[ETX] |
| Write Variable:   | [STX]sWN SYBtnsEna 1[ETX] |
| Write Variable Response:                                    | [STX]sWA SYBtnsEna[ETX]   |

### 2.24.1.3. Variable: SYAutoSuByButtonEnable

The following section contains a detailed description of the variable SYAutoSuByButtonEnable.

#### Variable Overview

| Variable Name          | Description   |
|------------------------|---|
| SYAutoSuByButtonEnable | May be used to avoid accidental change of parameters by pressing button. If true, autosetup can be started by buttons |

|                       |   |
|-----------------------|---|
| Communication Name    | SYBtsAsuEna   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 973   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN SYBtsAsuEna |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name   |
| Command         | SYBtsAsuEna | String | 11            | May be used to avoid accidental change of parameters by pressing button. If true, autosetup can be started by buttons |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA SYBtsAsuEna <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description   |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | SYBtsAsuEna | String | 11            | May be used to avoid accidental change of parameters by pressing button. If true, autosetup can be started by buttons |
| Variable Data           | data        | Bool   | 1             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN SYBtsAsuEna <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name  |
| Command                | SYBtsAsuEna | String | 11            | May be used to avoid accidental change of parameters by pressing button. If true, autosetup can be started by buttons |
| Variable Data          | data        | Bool   | 1             |   |



| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA SYBtsAsuEna          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | SYBtsAsuEna | String | 11            | May be used to avoid accidental change of parameters by pressing button. If true, autosetup can be started by buttons |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN SYBtsAsuEna[ETX]   |
| Read Variable Response:                                     | [STX]sRA SYBtsAsuEna 1[ETX] |
| Write Variable:   | [STX]sWN SYBtsAsuEna 1[ETX] |
| Write Variable Response:                                    | [STX]sWA SYBtsAsuEna[ETX]   |

### 2.24.1.4. Variable: SYNoQuickstart

The following section contains a detailed description of the variable SYNoQuickstart.

#### Variable Overview

| Variable Name  | Description  |
|----------------|--|
| SYNoQuickstart | If true there is no quickstart shown if device is added. (Parameter is only mentioned by SOPAS ET) |

|                       |   |
|-----------------------|---|
| Communication Name    | SYNoQkStrt  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 974   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN SYNoQkStrt |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description  |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name  |
| Command        | SYNoQkStrt | String | 10            | If true there is no quickstart shown if device is added. (Parameter is only mentioned by SOPAS ET) |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA SYNoQkStrt <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description  |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | SYNoQkStrt | String | 10            | If true there is no quickstart shown if device is added. (Parameter is only mentioned by SOPAS ET) |
| Variable Data           | data       | Bool   | 1             |  |

| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN SYNoQkStrt <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name   |
| Command               | SYNoQkStrt | String | 10            | If true there is no quickstart shown if device is added. (Parameter is only mentioned by SOPAS ET) |
| Variable Data         | data       | Bool   | 1             |  |

| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA SYNoQkStrt           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description  |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | SYNoQkStrt | String | 10            | If true there is no quickstart shown if device is added. (Parameter is only mentioned by SOPAS ET) |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN SYNoQkStrt[ETX]   |
| Read Variable Response:                                     | [STX]sRA SYNoQkStrt 0[ETX] |
| Write Variable:   | [STX]sWN SYNoQkStrt 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SYNoQkStrt[ETX]   |



## 2.24.2. Group: Position

### 2.24.2.1. Variable: ScannerPosAlpha

The following section contains a detailed description of the variable ScannerPosAlpha.

#### Variable Overview

| Variable Name   | Description                     |
|-----------------|---------------------------------|
| ScannerPosAlpha | Angle Alpha of scanner position |

|                       |   |
|-----------------------|---|
| Communication Name    | POalpha   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 975   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |        |
|----------------------|--------|
| Value Range          | 0..360 |
| Initialisation       | 90     |
| Physical Unit        | °      |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                                 |
|----------------|----------|--------|---------------|---------------------------------|
| sRN POalpha    |          |        |               |                                 |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                     |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name     |
| Command        | POalpha  | String | 7             | Angle Alpha of scanner position |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA POalpha <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | POalpha  | String | 7             | Angle Alpha of scanner position |
| Variable Data           | data     | DInt   | 4             |                                 |

| Write Variable:    |          |        |               |                                 |
|--------------------|----------|--------|---------------|---------------------------------|
| sWN POalpha <data> |          |        |               |                                 |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                     |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name    |
| Command            | POalpha  | String | 7             | Angle Alpha of scanner position |
| Variable Data      | data     | DInt   | 4             |                                 |



| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA POalpha              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | POalpha  | String | 7             | Angle Alpha of scanner position  |

### Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN POalpha[ETX]     |
| Read Variable Response:                                     | [STX]sRA POalpha 5A[ETX]  |
| Write Variable:   | [STX]sWN POalpha +90[ETX] |
| Write Variable Response:                                    | [STX]sWA POalpha[ETX]     |

### 2.24.2.2. Variable: ScannerPosBeta

The following section contains a detailed description of the variable ScannerPosBeta.

#### Variable Overview

| Variable Name  | Description                    |
|----------------|--------------------------------|
| ScannerPosBeta | Angle Beta of scanner position |

|                       |   |
|-----------------------|---|
| Communication Name    | PObeta  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 976   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |        |
|----------------------|--------|
| Value Range          | 0..360 |
| Initialisation       | 0      |
| Physical Unit        | °      |
| Physical Unit Factor | 0.0    |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                                |
|----------------|----------|--------|---------------|--------------------------------|
| sRN PObeta     |          |        |               |                                |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                    |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name    |
| Command        | PObeta   | String | 6             | Angle Beta of scanner position |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA PObeta <data>       |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | PObeta   | String | 6             | Angle Beta of scanner position  |
| Variable Data           | data     | DInt   | 4             |                                 |

| Write Variable:   |          |        |               |                                |
|-------------------|----------|--------|---------------|--------------------------------|
| sWN PObeta <data> |          |        |               |                                |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description                    |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name   |
| Command           | PObeta   | String | 6             | Angle Beta of scanner position |
| Variable Data     | data     | DInt   | 4             |                                |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA PObeta               |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | PObeta   | String | 6             | Angle Beta of scanner position   |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN PObeta[ETX]    |
| Read Variable Response:                                     | [STX]sRA PObeta 0[ETX]  |
| Write Variable:   | [STX]sWN PObeta +0[ETX] |
| Write Variable Response:                                    | [STX]sWA PObeta[ETX]    |



### 2.24.2.3. Variable: ScannerPosGamma

The following section contains a detailed description of the variable ScannerPosGamma.

#### Variable Overview

| Variable Name   | Description                     |
|-----------------|---------------------------------|
| ScannerPosGamma | Angle Gamma of scanner position |

|                       |   |
|-----------------------|---|
| Communication Name    | POgamma   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 977   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |        |
|----------------------|--------|
| Value Range          | 0..360 |
| Initialisation       | 0      |
| Physical Unit        | °      |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                                 |
|----------------|----------|--------|---------------|---------------------------------|
| sRN POgamma    |          |        |               |                                 |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                     |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name     |
| Command        | POgamma  | String | 7             | Angle Gamma of scanner position |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA POgamma <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | POgamma  | String | 7             | Angle Gamma of scanner position |
| Variable Data           | data     | DInt   | 4             |                                 |

| Write Variable:    |          |        |               |                                 |
|--------------------|----------|--------|---------------|---------------------------------|
| sWN POgamma <data> |          |        |               |                                 |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                     |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name    |
| Command            | POgamma  | String | 7             | Angle Gamma of scanner position |
| Variable Data      | data     | DInt   | 4             |                                 |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA POgamma              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | POgamma  | String | 7             | Angle Gamma of scanner position  |



## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN POgamma[ETX]    |
| Read Variable Response:                                     | [STX]sRA POgamma 0[ETX]  |
| Write Variable:   | [STX]sWN POgamma +0[ETX] |
| Write Variable Response:                                    | [STX]sWA POgamma[ETX]    |

### 2.24.2.4. Variable: ScannerPosXCoord

The following section contains a detailed description of the variable ScannerPosXCoord.

#### Variable Overview

| Variable Name    | Description                      |
|------------------|----------------------------------|
| ScannerPosXCoord | X-coordinate of scanner position |

|                       |   |
|-----------------------|---|
| Communication Name    | POcoordX  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 978   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |               |
|----------------------|---------------|
| Value Range          | -10000..10000 |
| Initialisation       | 0             |
| Physical Unit        | mm            |
| Physical Unit Factor | 0.0           |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                                  |
|----------------|----------|--------|---------------|----------------------------------|
| sRN POcoordX   |          |        |               |                                  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                      |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name      |
| Command        | POcoordX | String | 8             | X-coordinate of scanner position |

| Read Variable Response: |          |        |               |                                  |
|-------------------------|----------|--------|---------------|----------------------------------|
| sRA POcoordX <data>     |          |        |               |                                  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                      |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | POcoordX | String | 8             | X-coordinate of scanner position |
| Variable Data           | data     | DInt   | 4             |                                  |



| Write Variable:     |          |        |               |                                  |
|---------------------|----------|--------|---------------|----------------------------------|
| sWN POcoordX <data> |          |        |               |                                  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                      |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name     |
| Command             | POcoordX | String | 8             | X-coordinate of scanner position |
| Variable Data       | data     | DInt   | 4             |                                  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA POcoordX             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | POcoordX | String | 8             | X-coordinate of scanner position |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN POcoordX[ETX]    |
| Read Variable Response:                                     | [STX]sRA POcoordX 0[ETX]  |
| Write Variable:   | [STX]sWN POcoordX +0[ETX] |
| Write Variable Response:                                    | [STX]sWA POcoordX[ETX]    |

### 2.24.2.5. Variable: ScannerPosYCoord

The following section contains a detailed description of the variable ScannerPosYCoord.

#### Variable Overview

| Variable Name    | Description                      |
|------------------|----------------------------------|
| ScannerPosYCoord | Y-coordinate of scanner position |

|                       |   |
|-----------------------|---|
| Communication Name    | POcoordY  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 979   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |             |
|----------------------|-------------|
| Value Range          | -3000..3000 |
| Initialisation       | 200         |
| Physical Unit        | mm          |
| Physical Unit Factor | 0.0         |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                                  |
|----------------|----------|--------|---------------|----------------------------------|
| sRN POcoordY   |          |        |               |                                  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                      |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name      |
| Command        | POcoordY | String | 8             | Y-coordinate of scanner position |

| Read Variable Response: |          |        |               |                                  |
|-------------------------|----------|--------|---------------|----------------------------------|
| sRA POcoordY <data>     |          |        |               |                                  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                      |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | POcoordY | String | 8             | Y-coordinate of scanner position |
| Variable Data           | data     | DInt   | 4             |                                  |

| Write Variable:     |          |        |               |                                  |
|---------------------|----------|--------|---------------|----------------------------------|
| sWN POcoordY <data> |          |        |               |                                  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                      |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name     |
| Command             | POcoordY | String | 8             | Y-coordinate of scanner position |
| Variable Data       | data     | DInt   | 4             |                                  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA POcoordY             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | POcoordY | String | 8             | Y-coordinate of scanner position |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN POcoordY[ETX]      |
| Read Variable Response:                                     | [STX]sRA POcoordY C8[ETX]   |
| Write Variable:   | [STX]sWN POcoordY +200[ETX] |
| Write Variable Response:                                    | [STX]sWA POcoordY[ETX]      |

## 2.24.2.6. Variable: ScannerPosZCoord

The following section contains a detailed description of the variable ScannerPosZCoord.

### Variable Overview

| Variable Name    | Description                      |
|------------------|----------------------------------|
| ScannerPosZCoord | Z-coordinate of scanner position |

|                       |   |
|-----------------------|---|
| Communication Name    | POcoordZ  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 980   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |             |
|----------------------|-------------|
| Value Range          | -3500..3500 |
| Initialisation       | 300         |
| Physical Unit        | mm          |
| Physical Unit Factor | 0.0         |

### Variable Telegram Syntax

| Read Variable: |          |        |               |                                  |
|----------------|----------|--------|---------------|----------------------------------|
| sRN POcoordZ   |          |        |               |                                  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                      |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name      |
| Command        | POcoordZ | String | 8             | Z-coordinate of scanner position |

| Read Variable Response: |          |        |               |                                  |
|-------------------------|----------|--------|---------------|----------------------------------|
| sRA POcoordZ <data>     |          |        |               |                                  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                      |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | POcoordZ | String | 8             | Z-coordinate of scanner position |
| Variable Data           | data     | DInt   | 4             |                                  |

| Write Variable:     |          |        |               |                                  |
|---------------------|----------|--------|---------------|----------------------------------|
| sWN POcoordZ <data> |          |        |               |                                  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                      |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name     |
| Command             | POcoordZ | String | 8             | Z-coordinate of scanner position |
| Variable Data       | data     | DInt   | 4             |                                  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA POcoordZ             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | POcoordZ | String | 8             | Z-coordinate of scanner position |





## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN POoordZ[ETX]      |
| Read Variable Response:                                     | [STX]sRA POoordZ 12C[ETX]  |
| Write Variable:   | [STX]sWN POoordZ +300[ETX] |
| Write Variable Response:                                    | [STX]sWA POoordZ[ETX]      |

### 2.24.2.7. Variable: PositionXOffset

The following section contains a detailed description of the variable PositionXOffset.

#### Variable Overview

| Variable Name   | Description       |
|-----------------|-------------------|
| PositionXOffset | X-position offset |

|                       |   |
|-----------------------|---|
| Communication Name    | POoffsX   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 981   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |             |
|----------------------|-------------|
| Value Range          | -3000..3000 |
| Initialisation       | 0           |
| Physical Unit        | mm          |
| Physical Unit Factor | 0.0         |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN POoffsX    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | POoffsX  | String | 7             | X-position offset           |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA POoffsX <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | POoffsX  | String | 7             | X-position offset               |
| Variable Data           | data     | DInt   | 4             |                                 |



| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN POoffsX <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | POoffsX  | String | 7             | X-position offset            |
| Variable Data      | data     | DInt   | 4             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA POoffsX              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | POoffsX  | String | 7             | X-position offset                |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| <b>Read Variable:</b>                                       | [STX]sRN POoffsX[ETX]    |
| <b>Read Variable Response:</b>                              | [STX]sRA POoffsX 0[ETX]  |
| <b>Write Variable:</b>                                      | [STX]sWN POoffsX +0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA POoffsX[ETX]    |

### 2.24.2.8. Variable: PositionYOffset

The following section contains a detailed description of the variable PositionYOffset.

#### Variable Overview

| Variable Name   | Description       |
|-----------------|-------------------|
| PositionYOffset | Z-position offset |

|                       |   |
|-----------------------|---|
| Communication Name    | POoffsY   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 982   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |             |
|----------------------|-------------|
| Value Range          | -2000..2000 |
| Initialisation       | 0           |
| Physical Unit        | mm          |
| Physical Unit Factor | 0.0         |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN POoffsY    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | POoffsY  | String | 7             | Z-position offset           |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA POoffsY <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | POoffsY  | String | 7             | Z-position offset               |
| Variable Data           | data     | DInt   | 4             |                                 |

| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN POoffsY <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | POoffsY  | String | 7             | Z-position offset            |
| Variable Data      | data     | DInt   | 4             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA POoffsY              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | POoffsY  | String | 7             | Z-position offset                |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN POoffsY[ETX]    |
| Read Variable Response:                                     | [STX]sRA POoffsY 0[ETX]  |
| Write Variable:   | [STX]sWN POoffsY +0[ETX] |
| Write Variable Response:                                    | [STX]sWA POoffsY[ETX]    |

## 2.24.2.9. Variable: PositionZOffset

The following section contains a detailed description of the variable PositionZOffset.

### Variable Overview

| Variable Name   | Description       |
|-----------------|-------------------|
| PositionZOffset | Z-position offset |

|                       |   |
|-----------------------|---|
| Communication Name    | POoffsZ   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 983   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |             |
|----------------------|-------------|
| Value Range          | -2000..2000 |
| Initialisation       | 0           |
| Physical Unit        | mm          |
| Physical Unit Factor | 0.0         |

### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN POoffsZ    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | POoffsZ  | String | 7             | Z-position offset           |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA POoffsZ <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | POoffsZ  | String | 7             | Z-position offset               |
| Variable Data           | data     | DInt   | 4             |                                 |

| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN POoffsZ <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | POoffsZ  | String | 7             | Z-position offset            |
| Variable Data      | data     | DInt   | 4             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA POoffsZ              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | POoffsZ  | String | 7             | Z-position offset                |



## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN POoffsetsZ[ETX]    |
| Read Variable Response:                                     | [STX]sRA POoffsetsZ 0[ETX]  |
| Write Variable:   | [STX]sWN POoffsetsZ +0[ETX] |
| Write Variable Response:                                    | [STX]sWA POoffsetsZ[ETX]    |

### 2.24.2.10. Variable: DistToRedirectMirror

The following section contains a detailed description of the variable DistToRedirectMirror.

#### Variable Overview

| Variable Name        | Description                    |
|----------------------|--------------------------------|
| DistToRedirectMirror | Distance to redirecting mirror |

|                       |   |
|-----------------------|---|
| Communication Name    | POdstredirmir   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 984   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |         |
|----------------------|---------|
| Value Range          | 0..3500 |
| Initialisation       | 0       |
| Physical Unit        | mm      |
| Physical Unit Factor | 0.0     |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |                                |
|-------------------|---------------|--------|---------------|--------------------------------|
| sRN POdstredirmir |               |        |               |                                |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                    |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name    |
| Command           | POdstredirmir | String | 13            | Distance to redirecting mirror |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA POdstredirmir <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | POdstredirmir | String | 13            | Distance to redirecting mirror  |
| Variable Data            | data          | DInt   | 4             |                                 |



| Write Variable:          |               |        |               |                                |
|--------------------------|---------------|--------|---------------|--------------------------------|
| sWN POdstredirmir <data> |               |        |               |                                |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                    |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name   |
| Command                  | POdstredirmir | String | 13            | Distance to redirecting mirror |
| Variable Data            | data          | DInt   | 4             |                                |

| Write Variable Response: |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sWA POdstredirmir        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | POdstredirmir | String | 13            | Distance to redirecting mirror   |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN POdstredirmir[ETX]    |
| Read Variable Response:                                     | [STX]sRA POdstredirmir 0[ETX]  |
| Write Variable:   | [STX]sWN POdstredirmir +0[ETX] |
| Write Variable Response:                                    | [STX]sWA POdstredirmir[ETX]    |



### 2.24.3. Group: Reading

#### 2.24.3.1. Variable: RCScanFrequency

The following section contains a detailed description of the variable RCScanFrequency.

##### Variable Overview

| Variable Name   | Description            |
|-----------------|------------------------|
| RCScanFrequency | Current scan frequency |

|                       |   |
|-----------------------|---|
| Communication Name    | RCScanFrq   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 985   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |      |             |
|---------------|-------|------|-------------|
| Default Value |       | 4    |             |
|               | Value | Name | Description |
|               | 0     | 400  |             |
|               | 1     | 450  |             |
|               | 2     | 500  |             |
|               | 3     | 550  |             |
|               | 4     | 600  |             |
|               | 5     | 650  |             |
|               | 6     | 700  |             |
|               | 7     | 750  |             |
|               | 8     | 800  |             |
|               | 9     | 850  |             |
|               | 10    | 900  |             |
|               | 11    | 950  |             |
|               | 12    | 1000 |             |
|               | 13    | 1050 |             |
|               | 14    | 1100 |             |
|               | 15    | 1150 |             |
|               | 16    | 1200 |             |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN RCScanFrq  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | RCScanFrq | String | 9             | Current scan frequency      |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA RCScanFrq <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | RCScanFrq | String | 9             | Current scan frequency          |
| Variable Data           | data      | Enum8  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN RCScanFrq <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | RCScanFrq | String | 9             | Current scan frequency       |
| Variable Data        | data      | Enum8  | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA RCScanFrq            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | RCScanFrq | String | 9             | Current scan frequency           |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN RCScanFrq[ETX]   |
| Read Variable Response:                                     | [STX]sRA RCScanFrq 4[ETX] |
| Write Variable:   | [STX]sWN RCScanFrq 4[ETX] |
| Write Variable Response:                                    | [STX]sWA RCScanFrq[ETX]   |



### 2.24.3.2. Variable: RCQuietZoneMode

The following section contains a detailed description of the variable RCQuietZoneMode.

#### Variable Overview

| Variable Name   | Description  |
|-----------------|--|
| RCQuietZoneMode | Quitezone-Mode for segmentation (not already included in PB mapping) |

|                       |   |
|-----------------------|---|
| Communication Name    | RCQuMode  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 986   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | 0           |             |
|               | Value | Name        | Description |
|               | 0     | TX_Relative |             |
|               | 1     | TX_Absolute |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN RCQuMode   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name  |
| Command        | RCQuMode | String | 8             | Quitezone-Mode for segmentation (not already included in PB mapping) |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA RCQuMode <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description  |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                                      |
| Command                 | RCQuMode | String | 8             | Quitezone-Mode for segmentation (not already included in PB mapping) |
| Variable Data           | data     | Enum8  | 1             |  |

| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN RCQuMode <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name   |
| Command             | RCQuMode | String | 8             | Quitezone-Mode for segmentation (not already included in PB mapping) |
| Variable Data       | data     | Enum8  | 1             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA RCQuMode             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                                     |
| Command                  | RCQuMode | String | 8             | Quitezone-Mode for segmentation (not already included in PB mapping) |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| <b>Read Variable:</b>                                       | [STX]sRN RCQuMode[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA RCQuMode 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN RCQuMode 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA RCQuMode[ETX]   |

### 2.24.3.3. Variable: RCQuietZoneRatio

The following section contains a detailed description of the variable RCQuietZoneRatio.

#### Variable Overview

| Variable Name    | Description                      |
|------------------|----------------------------------|
| RCQuietZoneRatio | Quitezone-Ratio for segmentation |

|                       |   |
|-----------------------|---|
| Communication Name    | RCQuRat   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 987   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |         |             |
|---------------|-------|---------|-------------|
| Default Value |       | 0       |             |
|               | Value | Name    | Description |
|               | 0     | TX_AUTO |             |
|               | 1     | 4       |             |
|               | 2     | 5       |             |
|               | 3     | 6       |             |
|               | 4     | 7       |             |
|               | 5     | 8       |             |
|               | 6     | 9       |             |
|               | 7     | 10      |             |
|               | 8     | 11      |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                                  |
|----------------|----------|--------|---------------|----------------------------------|
| sRN RCQuRat    |          |        |               |                                  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                      |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name      |
| Command        | RCQuRat  | String | 7             | Quitezone-Ratio for segmentation |

| Read Variable Response: |          |        |               |                                  |
|-------------------------|----------|--------|---------------|----------------------------------|
| sRA RCQuRat <data>      |          |        |               |                                  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                      |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | RCQuRat  | String | 7             | Quitezone-Ratio for segmentation |
| Variable Data           | data     | Enum8  | 1             |                                  |

| Write Variable:    |          |        |               |                                  |
|--------------------|----------|--------|---------------|----------------------------------|
| sWN RCQuRat <data> |          |        |               |                                  |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                      |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name     |
| Command            | RCQuRat  | String | 7             | Quitezone-Ratio for segmentation |
| Variable Data      | data     | Enum8  | 1             |                                  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA RCQuRat              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | RCQuRat  | String | 7             | Quitezone-Ratio for segmentation |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN RCQuRat[ETX]   |
| Read Variable Response:                                     | [STX]sRA RCQuRat 0[ETX] |
| Write Variable:   | [STX]sWN RCQuRat 0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCQuRat[ETX]   |



#### 2.24.3.4. Variable: RCQuietZoneSize

The following section contains a detailed description of the variable RCQuietZoneSize.

##### Variable Overview

| Variable Name   | Description  |
|-----------------|--|
| RCQuietZoneSize | Quitezone-Size for segmentation (not already included in PB mapping) |

|                       |   |
|-----------------------|---|
| Communication Name    | RCQuSize  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 988   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Real                 |                                       |
|----------------------|---------------------------------------|
| Value Range          | See specification IEEE 754 1.0..200.0 |
| Initialisation       | 5.0                                   |
| Physical Unit        |                                       |
| Physical Unit Factor | 0.0                                   |

##### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN RCQuSize   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name  |
| Command        | RCQuSize | String | 8             | Quitezone-Size for segmentation (not already included in PB mapping) |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA RCQuSize <data>     |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description  |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge                                      |
| Command                 | RCQuSize | String | 8             | Quitezone-Size for segmentation (not already included in PB mapping) |
| Variable Data           | data     | Real   | 4             |  |

| Write Variable:     |          |        |               |  |
|---------------------|----------|--------|---------------|--|
| sWN RCQuSize <data> |          |        |               |  |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name   |
| Command             | RCQuSize | String | 8             | Quitezone-Size for segmentation (not already included in PB mapping) |
| Variable Data       | data     | Real   | 4             |  |



| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA RCQuSize             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                                     |
| Command                  | RCQuSize | String | 8             | Quitezone-Size for segmentation (not already included in PB mapping) |

### Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN RCQuSize[ETX]          |
| Read Variable Response:                                     | [STX]sRA RCQuSize 40A00000[ETX] |
| Write Variable:   | [STX]sWN RCQuSize +5.0[ETX]     |
| Write Variable Response:                                    | [STX]sWA RCQuSize[ETX]          |

### 2.24.3.5. Variable: RCQuietZoneRatioDyn

The following section contains a detailed description of the variable RCQuietZoneRatioDyn.

#### Variable Overview

| Variable Name       | Description  |
|---------------------|--|
| RCQuietZoneRatioDyn | Quitezone-Ratio for segmentation, dynamic reading cfg. |

|                       |   |
|-----------------------|---|
| Communication Name    | RCQuRatDyn  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 989   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |               |         |             |
|--------|---------------|---------|-------------|
| Length |               | 8       |             |
|        | Enum8         |         |             |
|        | Default Value |         | 0           |
|        | Value         | Name    | Description |
|        | 0             | TX_AUTO |             |
|        | 1             | 4       |             |
|        | 2             | 5       |             |
|        | 3             | 6       |             |
|        | 4             | 7       |             |
|        | 5             | 8       |             |
|        | 6             | 9       |             |
|        | 7             | 10      |             |
|        | 8             | 11      |             |



## Variable Telegram Syntax

| Read Variable: |            |        |               |  |
|----------------|------------|--------|---------------|--|
| sRN RCQuRatDyn |            |        |               |  |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description  |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                            |
| Command        | RCQuRatDyn | String | 10            | Quitezone-Ratio for segmentation, dynamic reading cfg. |

| Read Variable Response: |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sRA RCQuRatDyn <data>   |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description  |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge                        |
| Command                 | RCQuRatDyn | String | 10            | Quitezone-Ratio for segmentation, dynamic reading cfg. |
| Variable Data           | data       | Array  | 8             |  |

| Write Variable:       |            |        |               |  |
|-----------------------|------------|--------|---------------|--|
| sWN RCQuRatDyn <data> |            |        |               |  |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name                           |
| Command               | RCQuRatDyn | String | 10            | Quitezone-Ratio for segmentation, dynamic reading cfg. |
| Variable Data         | data       | Array  | 8             |  |

| Write Variable Response: |            |        |               |  |
|--------------------------|------------|--------|---------------|--|
| sWA RCQuRatDyn           |            |        |               |  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description  |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge                       |
| Command                  | RCQuRatDyn | String | 10            | Quitezone-Ratio for segmentation, dynamic reading cfg. |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN RCQuRatDyn[ETX]                 |
| Read Variable Response:                                     | [STX]sRA RCQuRatDyn 0 0 0 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN RCQuRatDyn 0 0 0 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCQuRatDyn[ETX]                 |

### 2.24.3.6. Variable: RCMinimumCP

The following section contains a detailed description of the variable RCMinimumCP.

#### Variable Overview

| Variable Name | Description                       |
|---------------|-----------------------------------|
| RCMinimumCP   | Minimum Code position for reading |

|                       |   |
|-----------------------|---|
| Communication Name    | RCMinCP   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 990   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Real                 |                                       |
|----------------------|---------------------------------------|
| Value Range          | See specification IEEE 754 0.0..100.0 |
| Initialisation       | 0.0                                   |
| Physical Unit        |                                       |
| Physical Unit Factor | 0.0                                   |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                                   |
|----------------|----------|--------|---------------|-----------------------------------|
| sRN RCMInCP    |          |        |               |                                   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                       |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name       |
| Command        | RCMinCP  | String | 7             | Minimum Code position for reading |

| Read Variable Response: |          |        |               |                                   |
|-------------------------|----------|--------|---------------|-----------------------------------|
| sRA RCMInCP <data>      |          |        |               |                                   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                       |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | RCMinCP  | String | 7             | Minimum Code position for reading |
| Variable Data           | data     | Real   | 4             |                                   |

| Write Variable:    |          |        |               |                                   |
|--------------------|----------|--------|---------------|-----------------------------------|
| sWN RCMInCP <data> |          |        |               |                                   |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                       |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name      |
| Command            | RCMinCP  | String | 7             | Minimum Code position for reading |
| Variable Data      | data     | Real   | 4             |                                   |

| Write Variable Response: |          |        |               |                                   |
|--------------------------|----------|--------|---------------|-----------------------------------|
| sWA RCMInCP              |          |        |               |                                   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                       |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | RCMinCP  | String | 7             | Minimum Code position for reading |



## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN RMinCP[ETX]          |
| Read Variable Response:                                     | [STX]sRA RMinCP 00000000[ETX] |
| Write Variable:   | [STX]sWN RMinCP +0.0[ETX]     |
| Write Variable Response:                                    | [STX]sWA RMinCP[ETX]          |

### 2.24.3.7. Variable: RCMinimumCPDyn

The following section contains a detailed description of the variable RCMinimumCPDyn.

#### Variable Overview

| Variable Name  | Description                       |
|----------------|-----------------------------------|
| RCMinimumCPDyn | Minimum Code position for reading |

|                       |   |
|-----------------------|---|
| Communication Name    | RCMinCPDyn  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 991   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                      |                                       |
|--------|----------------------|---------------------------------------|
| Length |                      | 8                                     |
|        | Real                 |                                       |
|        | Value Range          | See specification IEEE 754 0.0..100.0 |
|        | Initialisation       | 0.0                                   |
|        | Physical Unit        |                                       |
|        | Physical Unit Factor | 0.0                                   |





## Variable Telegram Syntax

| Read Variable: |           |        |               |                                   |
|----------------|-----------|--------|---------------|-----------------------------------|
| sRN RMinCPDyn  |           |        |               |                                   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name       |
| Command        | RMinCPDyn | String | 10            | Minimum Code position for reading |

| Read Variable Response: |           |        |               |                                   |
|-------------------------|-----------|--------|---------------|-----------------------------------|
| sRA RMinCPDyn <data>    |           |        |               |                                   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | RMinCPDyn | String | 10            | Minimum Code position for reading |
| Variable Data           | data      | Array  | 32            |                                   |

| Write Variable:      |           |        |               |                                   |
|----------------------|-----------|--------|---------------|-----------------------------------|
| sWN RMinCPDyn <data> |           |        |               |                                   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name      |
| Command              | RMinCPDyn | String | 10            | Minimum Code position for reading |
| Variable Data        | data      | Array  | 32            |                                   |

| Write Variable Response: |           |        |               |                                   |
|--------------------------|-----------|--------|---------------|-----------------------------------|
| sWA RMinCPDyn            |           |        |               |                                   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | RMinCPDyn | String | 10            | Minimum Code position for reading |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN RMinCPDyn[ETX]  |
| Read Variable Response:                                     | [STX]sRA RMinCPDyn 00000000 00000000 00000000 00000000 00000000<br>00000000 00000000 00000000[ETX] |
| Write Variable:   | [STX]sWN RMinCPDyn +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0 +0.0[ETX]                                    |
| Write Variable Response:                                    | [STX]sWA RMinCPDyn[ETX]  |



### 2.24.3.8. Variable: RCMaximumCP

The following section contains a detailed description of the variable RCMaximumCP.

#### Variable Overview

| Variable Name | Description                       |
|---------------|-----------------------------------|
| RCMaximumCP   | Maximum Code position for reading |

|                       |   |
|-----------------------|---|
| Communication Name    | RCMaxCP   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 992   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Real                 |                                       |
|----------------------|---------------------------------------|
| Value Range          | See specification IEEE 754 0.0..100.0 |
| Initialisation       | 100.0                                 |
| Physical Unit        |                                       |
| Physical Unit Factor | 0.0                                   |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                                   |
|----------------|----------|--------|---------------|-----------------------------------|
| sRN RCMaXCP    |          |        |               |                                   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                       |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name       |
| Command        | RCMaXCP  | String | 7             | Maximum Code position for reading |

| Read Variable Response: |          |        |               |                                   |
|-------------------------|----------|--------|---------------|-----------------------------------|
| sRA RCMaXCP <data>      |          |        |               |                                   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                       |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | RCMaXCP  | String | 7             | Maximum Code position for reading |
| Variable Data           | data     | Real   | 4             |                                   |

| Write Variable:    |          |        |               |                                   |
|--------------------|----------|--------|---------------|-----------------------------------|
| sWN RCMaXCP <data> |          |        |               |                                   |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                       |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name      |
| Command            | RCMaXCP  | String | 7             | Maximum Code position for reading |
| Variable Data      | data     | Real   | 4             |                                   |

| Write Variable Response: |          |        |               |                                   |
|--------------------------|----------|--------|---------------|-----------------------------------|
| sWA RCMaXCP              |          |        |               |                                   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                       |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | RCMaXCP  | String | 7             | Maximum Code position for reading |



## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN RMaxCP[ETX]          |
| Read Variable Response:                                     | [STX]sRA RMaxCP 42C80000[ETX] |
| Write Variable:   | [STX]sWN RMaxCP +100.0[ETX]   |
| Write Variable Response:                                    | [STX]sWA RMaxCP[ETX]          |

### 2.24.3.9. Variable: RCMaximumCPDyn

The following section contains a detailed description of the variable RCMaximumCPDyn.

#### Variable Overview

| Variable Name  | Description                       |
|----------------|-----------------------------------|
| RCMaximumCPDyn | Maximum Code position for reading |

|                       |   |
|-----------------------|---|
| Communication Name    | RCMaxCPDyn  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 993   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array                |                                       |
|----------------------|---------------------------------------|
| Length               | 8                                     |
| Real                 | Value Range                           |
|                      | See specification IEEE 754 0.0..100.0 |
|                      | Initialisation                        |
|                      | 100.0                                 |
|                      | Physical Unit                         |
| Physical Unit Factor | 0.0                                   |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                                   |
|----------------|-----------|--------|---------------|-----------------------------------|
| sRN RMaxCPDyn  |           |        |               |                                   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name       |
| Command        | RMaxCPDyn | String | 10            | Maximum Code position for reading |

| Read Variable Response: |           |        |               |                                   |
|-------------------------|-----------|--------|---------------|-----------------------------------|
| sRA RMaxCPDyn <data>    |           |        |               |                                   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | RMaxCPDyn | String | 10            | Maximum Code position for reading |
| Variable Data           | data      | Array  | 32            |                                   |

| Write Variable:      |           |        |               |                                   |
|----------------------|-----------|--------|---------------|-----------------------------------|
| sWN RMaxCPDyn <data> |           |        |               |                                   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name      |
| Command              | RMaxCPDyn | String | 10            | Maximum Code position for reading |
| Variable Data        | data      | Array  | 32            |                                   |

| Write Variable Response: |           |        |               |                                   |
|--------------------------|-----------|--------|---------------|-----------------------------------|
| sWA RMaxCPDyn            |           |        |               |                                   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | RMaxCPDyn | String | 10            | Maximum Code position for reading |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN RMaxCPDyn[ETX]   |
| Read Variable Response:                                     | [STX]sRA RMaxCPDyn 42C80000 42C80000 42C80000 42C80000 42C80000 42C80000 42C80000 42C80000[ETX] |
| Write Variable:   | [STX]sWN RMaxCPDyn +100.0 +100.0 +100.0 +100.0 +100.0 +100.0 +100.0 +100.0 +100.0[ETX]          |
| Write Variable Response:                                    | [STX]sWA RMaxCPDyn[ETX]   |



### 2.24.3.10. Variable: RCCodelabelQuality

The following section contains a detailed description of the variable RCCodelabelQuality.

#### Variable Overview

| Variable Name      | Description                    |
|--------------------|--------------------------------|
| RCCodelabelQuality | Defines the code label quality |

|                       |   |
|-----------------------|---|
| Communication Name    | RCCodeQual  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 994   |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |                        |                      |             |
|--------|------------------------|----------------------|-------------|
| Length | 8                      |                      |             |
|        | Enum8                  |                      |             |
|        | Default Value          | 0                    |             |
|        | Value                  | Name                 | Description |
|        | 2                      | TX_HIGH_SPECKLE      |             |
|        | Error in PreAllocation |                      |             |
|        | 0                      | TX_STANDARD          |             |
|        | Error in PreAllocation |                      |             |
|        | 1                      | TX_LOW_CONTRAST      |             |
|        | Error in PreAllocation |                      |             |
|        | 4                      | TX_VERY_LOW_CONTRAST |             |
|        | Error in PreAllocation |                      |             |
|        | 3                      | TX_MODULATION        |             |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                                |
|----------------|------------|--------|---------------|--------------------------------|
| sRN RCCodeQual |            |        |               |                                |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                    |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name    |
| Command        | RCCodeQual | String | 10            | Defines the code label quality |

| Read Variable Response: |            |        |               |                                 |
|-------------------------|------------|--------|---------------|---------------------------------|
| sRA RCCodeQual <data>   |            |        |               |                                 |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | RCCodeQual | String | 10            | Defines the code label quality  |
| Variable Data           | data       | Array  | 8             |                                 |

| Write Variable:       |          |        |               |                              |
|-----------------------|----------|--------|---------------|------------------------------|
| sWN RCCodeQual <data> |          |        |               |                              |
| Telegram Part         | Telegram | Type   | Length [Byte] | Description                  |
| Command Type          | sWN      | String | 3             | Write SOPAS Variable by Name |



| Write Variable:      |           |        |               |                                |
|----------------------|-----------|--------|---------------|--------------------------------|
| sWN RCodeQual <data> |           |        |               |                                |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                    |
| Command              | RCodeQual | String | 10            | Defines the code label quality |
| Variable Data        | data      | Array  | 8             |                                |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA RCodeQual            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | RCodeQual | String | 10            | Defines the code label quality   |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN RCodeQual[ETX]                 |
| Read Variable Response:                                     | [STX]sRA RCodeQual 0 0 0 0 0 0 0 0[ETX] |
| Write Variable:   | [STX]sWN RCodeQual 0 0 0 0 0 0 0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCodeQual[ETX]                 |

### 2.24.3.11. Variable: RCodeLabelQuality65x

The following section contains a detailed description of the variable RCodeLabelQuality65x.

#### Variable Overview

| Variable Name        | Description                               |
|----------------------|---|
| RCodeLabelQuality65x | Defines the code label quality for CLV65x |

|                       |   |
|-----------------------|---|
| Communication Name    | RCodeQual65x  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 995   |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |



| Array  |                |             |
|--------|----------------|-------------|
| Length |                | 8           |
|        | Struct         |             |
|        | LowContrast    |             |
|        | Bool           |             |
|        | Value Range    | False, True |
|        | Initialisation | False       |
|        | HighSpeckle    |             |
|        | Bool           |             |
|        | Value Range    | False, True |
|        | Initialisation | False       |
|        | LowDensity     |             |
|        | Bool           |             |
|        | Value Range    | False, True |
|        | Initialisation | False       |

## Variable Telegram Syntax

| Read Variable:   |              |        |               |   |
|------------------|--------------|--------|---------------|---|
| sRN RCodeQual65x |              |        |               |   |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                               |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name               |
| Command          | RCodeQual65x | String | 13            | Defines the code label quality for CLV65x |

| Read Variable Response: |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sRA RCodeQual65x <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                               |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                 | RCodeQual65x | String | 13            | Defines the code label quality for CLV65x |
| Variable Data           | data         | Array  | 3             |   |

| Write Variable:         |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sWN RCodeQual65x <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                               |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name              |
| Command                 | RCodeQual65x | String | 13            | Defines the code label quality for CLV65x |
| Variable Data           | data         | Array  | 3             |   |

| Write Variable Response: |              |        |               |   |
|--------------------------|--------------|--------|---------------|---|
| sWA RCodeQual65x         |              |        |               |   |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                               |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge          |
| Command                  | RCodeQual65x | String | 13            | Defines the code label quality for CLV65x |



## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| <b>Read Variable:</b>                                       | [STX]sRN RCodeQual65x[ETX]  |
| <b>Read Variable Response:</b>                              | [STX]sRA RCodeQual65x 0<br>0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN RCodeQual65x 0<br>0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA RCodeQual65x[ETX]  |

#### 2.24.3.12. Variable: RCCodelabelDistance

The following section contains a detailed description of the variable `RCCodeLabelDistance`.

## Variable Overview

| Variable Name       | Description                             |
|---------------------|---|
| RCCodelabelDistance | Distance between scanner and code label |

|                       |   |
|-----------------------|---|
| Communication Name    | RCCodeDistance  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1001  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

|              |                      |         |
|--------------|----------------------|---------|
| <b>Array</b> |                      |         |
| Length       | 8                    |         |
|              | <b>UInt</b>          |         |
|              | Value Range          | 50..500 |
|              | Initialisation       | 175     |
|              | Physical Unit        | mm      |
|              | Physical Unit Factor | 0.0     |





## Variable Telegram Syntax

| Read Variable:    |               |        |               |   |
|-------------------|---------------|--------|---------------|---|
| sRN RCodeDistance |               |        |               |   |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                             |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name             |
| Command           | RCodeDistance | String | 14            | Distance between scanner and code label |

| Read Variable Response:  |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sRA RCodeDistance <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                             |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                  | RCodeDistance | String | 14            | Distance between scanner and code label |
| Variable Data            | data          | Array  | 16            |   |

| Write Variable:          |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWN RCodeDistance <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                             |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name            |
| Command                  | RCodeDistance | String | 14            | Distance between scanner and code label |
| Variable Data            | data          | Array  | 16            |   |

| Write Variable Response: |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWA RCodeDistance        |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                             |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | RCodeDistance | String | 14            | Distance between scanner and code label |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN RCodeDistance[ETX]                            |
| Read Variable Response:                                     | [STX]sRA RCodeDistance AF AF AF AF AF AF AF AF AF[ETX] |
| Write Variable:   | [STX]sWN RCodeDistance AF AF AF AF AF AF AF AF AF[ETX] |
| Write Variable Response:                                    | [STX]sWA RCodeDistance[ETX]                            |

### 2.24.3.13. Variable: RCRReadingAreaLimY1

The following section contains a detailed description of the variable RCRReadingAreaLimY1.

#### Variable Overview

| Variable Name       | Description                             |
|---------------------|---|
| RCRReadingAreaLimY1 | Y1 reading area. Right edge of conveyor |

|                       |   |
|-----------------------|---|
| Communication Name    | RCRdArlimY1   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1003  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |             |
|----------------------|-------------|
| Value Range          | -3000..3000 |
| Initialisation       | 0           |
| Physical Unit        | mm          |
| Physical Unit Factor | 0.0         |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN RCRdArlimY1 |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                             |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name             |
| Command         | RCRdArlimY1 | String | 11            | Y1 reading area. Right edge of conveyor |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA RCRdArlimY1 <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                             |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                 | RCRdArlimY1 | String | 11            | Y1 reading area. Right edge of conveyor |
| Variable Data           | data        | DInt   | 4             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN RCRdArlimY1 <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                             |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name            |
| Command                | RCRdArlimY1 | String | 11            | Y1 reading area. Right edge of conveyor |
| Variable Data          | data        | DInt   | 4             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA RCRdArlimY1          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                             |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | RCRdArlimY1 | String | 11            | Y1 reading area. Right edge of conveyor |



## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN RCRdArlimY1[ETX]    |
| Read Variable Response:                                     | [STX]sRA RCRdArlimY1 0[ETX]  |
| Write Variable:   | [STX]sWN RCRdArlimY1 +0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCRdArlimY1[ETX]    |

### 2.24.3.14. Variable: RCReadingAreaLimY2

The following section contains a detailed description of the variable RCReadingAreaLimY2.

#### Variable Overview

| Variable Name      | Description                            |
|--------------------|--|
| RCReadingAreaLimY2 | Y2 reading area. Left edge of conveyor |

|                       |   |
|-----------------------|---|
| Communication Name    | RCRdArlimY2   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1004  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |             |
|----------------------|-------------|
| Value Range          | -3000..3000 |
| Initialisation       | 1200        |
| Physical Unit        | mm          |
| Physical Unit Factor | 0.0         |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |  |
|-----------------|-------------|--------|---------------|--|
| sRN RCRdArlimY2 |             |        |               |  |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                            |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name            |
| Command         | RCRdArlimY2 | String | 11            | Y2 reading area. Left edge of conveyor |

| Read Variable Response: |             |        |               |  |
|-------------------------|-------------|--------|---------------|--|
| sRA RCRdArlimY2 <data>  |             |        |               |  |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                            |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge        |
| Command                 | RCRdArlimY2 | String | 11            | Y2 reading area. Left edge of conveyor |
| Variable Data           | data        | DInt   | 4             |  |



| Write Variable:        |             |        |               |  |
|------------------------|-------------|--------|---------------|--|
| sWN RCRdArlimY2 <data> |             |        |               |  |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                            |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name           |
| Command                | RCRdArlimY2 | String | 11            | Y2 reading area. Left edge of conveyor |
| Variable Data          | data        | DInt   | 4             |  |

| Write Variable Response: |             |        |               |  |
|--------------------------|-------------|--------|---------------|--|
| sWA RCRdArlimY2          |             |        |               |  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                            |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge       |
| Command                  | RCRdArlimY2 | String | 11            | Y2 reading area. Left edge of conveyor |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN RCRdArlimY2[ETX]       |
| Read Variable Response:                                     | [STX]sRA RCRdArlimY2 4B0[ETX]   |
| Write Variable:   | [STX]sWN RCRdArlimY2 +1200[ETX] |
| Write Variable Response:                                    | [STX]sWA RCRdArlimY2[ETX]       |

### 2.24.3.15. Variable: RCReadingAreaLimZ1

The following section contains a detailed description of the variable RCReadingAreaLimZ1.

#### Variable Overview

| Variable Name      | Description                        |
|--------------------|------------------------------------|
| RCReadingAreaLimZ1 | Z1 reading area. Level of conveyor |

|                       |   |
|-----------------------|---|
| Communication Name    | RCRdArlimZ1   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1005  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |             |
|----------------------|-------------|
| Value Range          | -3000..3000 |
| Initialisation       | 0           |
| Physical Unit        | mm          |
| Physical Unit Factor | 0.0         |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                    |
|-----------------|-------------|--------|---------------|------------------------------------|
| sRN RCRdArlimZ1 |             |        |               |                                    |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name        |
| Command         | RCRdArlimZ1 | String | 11            | Z1 reading area. Level of conveyor |

| Read Variable Response: |             |        |               |                                    |
|-------------------------|-------------|--------|---------------|------------------------------------|
| sRA RCRdArlimZ1 <data>  |             |        |               |                                    |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                 | RCRdArlimZ1 | String | 11            | Z1 reading area. Level of conveyor |
| Variable Data           | data        | DInt   | 4             |                                    |

| Write Variable:        |             |        |               |                                    |
|------------------------|-------------|--------|---------------|------------------------------------|
| sWN RCRdArlimZ1 <data> |             |        |               |                                    |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name       |
| Command                | RCRdArlimZ1 | String | 11            | Z1 reading area. Level of conveyor |
| Variable Data          | data        | DInt   | 4             |                                    |

| Write Variable Response: |             |        |               |                                    |
|--------------------------|-------------|--------|---------------|------------------------------------|
| sWA RCRdArlimZ1          |             |        |               |                                    |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | RCRdArlimZ1 | String | 11            | Z1 reading area. Level of conveyor |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN RCRdArlimZ1[ETX]    |
| Read Variable Response:                                     | [STX]sRA RCRdArlimZ1 0[ETX]  |
| Write Variable:   | [STX]sWN RCRdArlimZ1 +0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCRdArlimZ1[ETX]    |



### 2.24.3.16. Variable: RCReadingAreaLimZ2

The following section contains a detailed description of the variable RCReadingAreaLimZ2.

#### Variable Overview

| Variable Name      | Description                              |
|--------------------|--|
| RCReadingAreaLimZ2 | Z2 reading area. Maximum scanning height |

|                       |   |
|-----------------------|---|
| Communication Name    | RCRdArlimZ2   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1006  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |             |
|----------------------|-------------|
| Value Range          | -3000..3000 |
| Initialisation       | 1600        |
| Physical Unit        | mm          |
| Physical Unit Factor | 0.0         |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |  |
|-----------------|-------------|--------|---------------|--|
| sRN RCRdArlimZ2 |             |        |               |  |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name              |
| Command         | RCRdArlimZ2 | String | 11            | Z2 reading area. Maximum scanning height |

| Read Variable Response: |             |        |               |  |
|-------------------------|-------------|--------|---------------|--|
| sRA RCRdArlimZ2 <data>  |             |        |               |  |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge          |
| Command                 | RCRdArlimZ2 | String | 11            | Z2 reading area. Maximum scanning height |
| Variable Data           | data        | DInt   | 4             |  |

| Write Variable:        |             |        |               |  |
|------------------------|-------------|--------|---------------|--|
| sWN RCRdArlimZ2 <data> |             |        |               |  |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name             |
| Command                | RCRdArlimZ2 | String | 11            | Z2 reading area. Maximum scanning height |
| Variable Data          | data        | DInt   | 4             |  |

| Write Variable Response: |             |        |               |  |
|--------------------------|-------------|--------|---------------|--|
| sWA RCRdArlimZ2          |             |        |               |  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                              |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | RCRdArlimZ2 | String | 11            | Z2 reading area. Maximum scanning height |



## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN RCRdArlimZ2[ETX]       |
| Read Variable Response:                                     | [STX]sRA RCRdArlimZ2 640[ETX]   |
| Write Variable:   | [STX]sWN RCRdArlimZ2 +1600[ETX] |
| Write Variable Response:                                    | [STX]sWA RCRdArlimZ2[ETX]       |

### 2.24.3.17. Variable: RCScannerReadingAreaLimY1

The following section contains a detailed description of the variable RCScannerReadingAreaLimY1.

#### Variable Overview

| Variable Name             | Description  |
|---------------------------|--------------|
| RCScannerReadingAreaLimY1 | right border |

|                       |   |
|-----------------------|---|
| Communication Name    | RCScRdArlimY1   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1007  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |             |
|----------------------|-------------|
| Value Range          | -3000..3000 |
| Initialisation       | 500         |
| Physical Unit        | mm          |
| Physical Unit Factor | 0.0         |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |                             |
|-------------------|---------------|--------|---------------|-----------------------------|
| sRN RCScRdArlimY1 |               |        |               |                             |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                 |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name |
| Command           | RCScRdArlimY1 | String | 13            | right border                |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA RCScRdArlimY1 <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | RCScRdArlimY1 | String | 13            | right border                    |
| Variable Data            | data          | DInt   | 4             |                                 |



| Write Variable:          |               |        |               |                              |
|--------------------------|---------------|--------|---------------|------------------------------|
| sWN RCScRdArlimYl <data> |               |        |               |                              |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                  |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name |
| Command                  | RCScRdArlimY1 | String | 13            | right border                 |
| Variable Data            | data          | DInt   | 4             |                              |

| Write Variable Response: |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sWA RCScRdArlimYl        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | RCScRdArlimY1 | String | 13            | right border                     |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN RCScRdArlimYl[ETX]      |
| Read Variable Response:                                     | [STX]sRA RCScRdArlimYl 1F4[ETX]  |
| Write Variable:   | [STX]sWN RCScRdArlimYl +500[ETX] |
| Write Variable Response:                                    | [STX]sWA RCScRdArlimYl[ETX]      |

### 2.24.3.18. Variable: RCScannerReadingAreaLimY2

The following section contains a detailed description of the variable RCScannerReadingAreaLimY2.

#### Variable Overview

| Variable Name             | Description |
|---------------------------|-------------|
| RCScannerReadingAreaLimY2 | left border |

|                       |   |
|-----------------------|---|
| Communication Name    | RCScRdArlimY2   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1008  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |             |
|----------------------|-------------|
| Value Range          | -3000..3000 |
| Initialisation       | -500        |
| Physical Unit        | mm          |
| Physical Unit Factor | 0.0         |





## Variable Telegram Syntax

| Read Variable:    |               |        |               |                             |
|-------------------|---------------|--------|---------------|-----------------------------|
| sRN RCScRdArlimY2 |               |        |               |                             |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                 |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name |
| Command           | RCScRdArlimY2 | String | 13            | left border                 |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA RCScRdArlimY2 <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | RCScRdArlimY2 | String | 13            | left border                     |
| Variable Data            | data          | DInt   | 4             |                                 |

| Write Variable:          |               |        |               |                              |
|--------------------------|---------------|--------|---------------|------------------------------|
| sWN RCScRdArlimY2 <data> |               |        |               |                              |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                  |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name |
| Command                  | RCScRdArlimY2 | String | 13            | left border                  |
| Variable Data            | data          | DInt   | 4             |                              |

| Write Variable Response: |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sWA RCScRdArlimY2        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | RCScRdArlimY2 | String | 13            | left border                      |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN RCScRdArlimY2[ETX]            |
| Read Variable Response:                                     | [STX]sRA RCScRdArlimY2 FFFFFFFE0C[ETX] |
| Write Variable:   | [STX]sWN RCScRdArlimY2 -500[ETX]       |
| Write Variable Response:                                    | [STX]sWA RCScRdArlimY2[ETX]            |



### 2.24.3.19. Variable: RCScannerReadingAreaLimZ1

The following section contains a detailed description of the variable RCScannerReadingAreaLimZ1.

#### Variable Overview

| Variable Name             | Description                      |
|---------------------------|----------------------------------|
| RCScannerReadingAreaLimZ1 | nearest border to scanner device |

|                       |   |
|-----------------------|---|
| Communication Name    | RCSrRdArlimZ1   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1009  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |           |
|----------------------|-----------|
| Value Range          | 100..2000 |
| Initialisation       | 100       |
| Physical Unit        | mm        |
| Physical Unit Factor | 0.0       |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |                                  |
|-------------------|---------------|--------|---------------|----------------------------------|
| sRN RCSrRdArlimZ1 |               |        |               |                                  |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name      |
| Command           | RCSrRdArlimZ1 | String | 13            | nearest border to scanner device |

| Read Variable Response:  |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sRA RCSrRdArlimZ1 <data> |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                  | RCSrRdArlimZ1 | String | 13            | nearest border to scanner device |
| Variable Data            | data          | DInt   | 4             |                                  |

| Write Variable:          |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sWN RCSrRdArlimZ1 <data> |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name     |
| Command                  | RCSrRdArlimZ1 | String | 13            | nearest border to scanner device |
| Variable Data            | data          | DInt   | 4             |                                  |

| Write Variable Response: |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sWA RCSrRdArlimZ1        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | RCSrRdArlimZ1 | String | 13            | nearest border to scanner device |



## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN RCScRdArlimZ1[ETX]      |
| Read Variable Response:                                     | [STX]sRA RCScRdArlimZ1 64[ETX]   |
| Write Variable:   | [STX]sWN RCScRdArlimZ1 +100[ETX] |
| Write Variable Response:                                    | [STX]sWA RCScRdArlimZ1[ETX]      |

### 2.24.3.20. Variable: RCScannerReadingAreaLimZ2

The following section contains a detailed description of the variable RCScannerReadingAreaLimZ2.

#### Variable Overview

| Variable Name             | Description                    |
|---------------------------|--------------------------------|
| RCScannerReadingAreaLimZ2 | fares border to scanner device |

|                       |   |
|-----------------------|---|
| Communication Name    | RCScRdArlimZ2   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1010  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |           |
|----------------------|-----------|
| Value Range          | 200..2000 |
| Initialisation       | 1400      |
| Physical Unit        | mm        |
| Physical Unit Factor | 0.0       |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |                                |
|-------------------|---------------|--------|---------------|--------------------------------|
| sRN RCScRdArlimZ2 |               |        |               |                                |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                    |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name    |
| Command           | RCScRdArlimZ2 | String | 13            | fares border to scanner device |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA RCScRdArlimZ2 <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | RCScRdArlimZ2 | String | 13            | fares border to scanner device  |
| Variable Data            | data          | DInt   | 4             |                                 |



| Write Variable:          |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sWN RCScRdArlimZ2 <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name    |
| Command                  | RCScRdArlimZ2 | String | 13            | farest border to scanner device |
| Variable Data            | data          | DInt   | 4             |                                 |

| Write Variable Response: |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sWA RCScRdArlimZ2        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | RCScRdArlimZ2 | String | 13            | farest border to scanner device  |

## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN RCScRdArlimZ2[ETX]       |
| Read Variable Response:                                     | [STX]sRA RCScRdArlimZ2 578[ETX]   |
| Write Variable:   | [STX]sWN RCScRdArlimZ2 +1400[ETX] |
| Write Variable Response:                                    | [STX]sWA RCScRdArlimZ2[ETX]       |

### 2.24.3.21. Variable: RCPREFERREDFOCUS

The following section contains a detailed description of the variable RCPREFERREDFOCUS.

#### Variable Overview

| Variable Name    |
|------------------|
| RCPREFERREDFOCUS |

|                       |   |
|-----------------------|---|
| Communication Name    | RCPrefFcs   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1011  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                              |             |
|---------------|-------|------------------------------|-------------|
| Default Value |       | TX_DEFAULT_FOCUS             |             |
|               | Value | Name                         | Description |
|               | 0     | TX_DEFAULT_FOCUS             |             |
|               | 1     | TX_FOCUS_OF_LAST_OBJ         |             |
|               | 2     | TX_DEFAULT_FOCUS_AT_GATE_OFF |             |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN RCPrefFcs  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | RCPrefFcs | String | 9             |                             |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA RCPrefFcs <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | RCPrefFcs | String | 9             |                                 |
| Variable Data           | data      | Enum8  | 1             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN RCPrefFcs <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | RCPrefFcs | String | 9             |                              |
| Variable Data        | data      | Enum8  | 1             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA RCPrefFcs            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | RCPrefFcs | String | 9             |                                  |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN RCPrefFcs[ETX]   |
| Read Variable Response:                                     | [STX]sRA RCPrefFcs 0[ETX] |
| Write Variable:   | [STX]sWN RCPrefFcs 0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCPrefFcs[ETX]   |



### 2.24.3.22. Variable: RCFieldMinAngle

The following section contains a detailed description of the variable RCFieldMinAngle.

#### Variable Overview

| Variable Name   |
|-----------------|
| RCFieldMinAngle |

|                       |   |
|-----------------------|---|
| Communication Name    | RCFIdMinAng   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1012  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Int                  |         |
|----------------------|---------|
| Value Range          | -25..25 |
| Initialisation       | -23     |
| Physical Unit        | °       |
| Physical Unit Factor | 0.0     |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN RCfIdMinAng |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | RCFIdMinAng | String | 11            |                             |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA RCfIdMinAng <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | RCFIdMinAng | String | 11            |                                 |
| Variable Data           | data        | Int    | 2             |                                 |

| Write Variable:        |             |        |               |                              |
|------------------------|-------------|--------|---------------|------------------------------|
| sWN RCfIdMinAng <data> |             |        |               |                              |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name |
| Command                | RCFIdMinAng | String | 11            |                              |
| Variable Data          | data        | Int    | 2             |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA RCfIdMinAng          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | RCFIdMinAng | String | 11            |                                  |



## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN RCFldMinAng[ETX]      |
| Read Variable Response:                                     | [STX]sRA RCFldMinAng FFE9[ETX] |
| Write Variable:   | [STX]sWN RCFldMinAng -23[ETX]  |
| Write Variable Response:                                    | [STX]sWA RCFldMinAng[ETX]      |

### 2.24.3.23. Variable: RCFieldMaxAngle

The following section contains a detailed description of the variable RCFieldMaxAngle.

#### Variable Overview

| Variable Name   |
|-----------------|
| RCFieldMaxAngle |

|                       |   |
|-----------------------|---|
| Communication Name    | RCFIdMaxAng   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1013  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Int                  |         |
|----------------------|---------|
| Value Range          | -25..25 |
| Initialisation       | 23      |
| Physical Unit        | °       |
| Physical Unit Factor | 0.0     |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN RCFldMaxAng |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | RCFIdMaxAng | String | 11            |                             |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA RCFldMaxAng <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | RCFIdMaxAng | String | 11            |                                 |
| Variable Data           | data        | Int    | 2             |                                 |



| Write Variable:        |             |        |               |                              |
|------------------------|-------------|--------|---------------|------------------------------|
| sWN RCFldMaxAng <data> |             |        |               |                              |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name |
| Command                | RCFldMaxAng | String | 11            |                              |
| Variable Data          | data        | Int    | 2             |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA RCFldMaxAng          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | RCFldMaxAng | String | 11            |                                  |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN RCFldMaxAng[ETX]     |
| Read Variable Response:                                     | [STX]sRA RCFldMaxAng 17[ETX]  |
| Write Variable:   | [STX]sWN RCFldMaxAng +23[ETX] |
| Write Variable Response:                                    | [STX]sWA RCFldMaxAng[ETX]     |

### 2.24.3.24. Variable: RCFieldOffset

The following section contains a detailed description of the variable RCFieldOffset.

#### Variable Overview

| Variable Name |
|---------------|
| RCFieldOffset |

|                       |   |
|-----------------------|---|
| Communication Name    | RCFldOffs   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1014  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Int                  |               |
|----------------------|---------------|
| Value Range          | -32768..32767 |
| Initialisation       | 0             |
| Physical Unit        | mm            |
| Physical Unit Factor | 0.0           |





## Variable Telegram Syntax

| Read Variable: |           |        |               |                             |
|----------------|-----------|--------|---------------|-----------------------------|
| sRN RCFldOffs  |           |        |               |                             |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name |
| Command        | RCFldOffs | String | 9             |                             |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA RCFldOffs <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | RCFldOffs | String | 9             |                                 |
| Variable Data           | data      | Int    | 2             |                                 |

| Write Variable:      |           |        |               |                              |
|----------------------|-----------|--------|---------------|------------------------------|
| sWN RCFldOffs <data> |           |        |               |                              |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name |
| Command              | RCFldOffs | String | 9             |                              |
| Variable Data        | data      | Int    | 2             |                              |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA RCFldOffs            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | RCFldOffs | String | 9             |                                  |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN RCFldOffs[ETX]    |
| Read Variable Response:                                     | [STX]sRA RCFldOffs 0[ETX]  |
| Write Variable:   | [STX]sWN RCFldOffs +0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCFldOffs[ETX]    |

### 2.24.3.25. Variable: RCFocusStrategy

The following section contains a detailed description of the variable RCFocusStrategy.

#### Variable Overview

| Variable Name   |
|-----------------|
| RCFocusStrategy |

|                       |   |
|-----------------------|---|
| Communication Name    | RCFcsStrtg  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1015  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                       |             |
|---------------|-------|-----------------------|-------------|
| Default Value |       | TX_HIGHEST            |             |
|               | Value | Name                  | Description |
|               | 0     | TX_HIGHEST            |             |
|               | 1     | TX_LOWEST             |             |
|               | 2     | TX_NEAREST            |             |
|               | 3     | TX_FAREST             |             |
|               | 4     | TX_FAREST_TO_DEFAULT  |             |
|               | 5     | TX_MOST_IN_THE_MIDDLE |             |
|               | 6     | TX_MOST_LEFT          |             |
|               | 7     | TX_MOST_RIGHT         |             |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                             |
|----------------|------------|--------|---------------|-----------------------------|
| sRN RCFcsStrtg |            |        |               |                             |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                 |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name |
| Command        | RCFcsStrtg | String | 10            |                             |

| Read Variable Response: |            |        |               |                                 |
|-------------------------|------------|--------|---------------|---------------------------------|
| sRA RCFcsStrtg <data>   |            |        |               |                                 |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | RCFcsStrtg | String | 10            |                                 |
| Variable Data           | data       | Enum8  | 1             |                                 |

| Write Variable:       |            |        |               |                              |
|-----------------------|------------|--------|---------------|------------------------------|
| sWN RCFcsStrtg <data> |            |        |               |                              |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                  |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name |
| Command               | RCFcsStrtg | String | 10            |                              |
| Variable Data         | data       | Enum8  | 1             |                              |



| Write Variable Response: |            |        |               |                                  |
|--------------------------|------------|--------|---------------|----------------------------------|
| sWA RCFcsStrtg           |            |        |               |                                  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | RCFcsStrtg | String | 10            |                                  |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN RCFcsStrtg[ETX]   |
| Read Variable Response:                                     | [STX]sRA RCFcsStrtg 0[ETX] |
| Write Variable:   | [STX]sWN RCFcsStrtg 0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCFcsStrtg[ETX]   |

### 2.24.3.26. Variable: RCReadingAreaComposition

The following section contains a detailed description of the variable RCReadingAreaComposition.

#### Variable Overview

| Variable Name            | Description                                 |
|--------------------------|---|
| RCReadingAreaComposition | Composition type and reading area selection |

|                       |   |
|-----------------------|---|
| Communication Name    | RCRdCom   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1016  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct       |                |               |             |
|--------------|----------------|---------------|-------------|
| Type         | <b>Enum8</b>   |               |             |
|              | Default Value  |               |             |
|              | Value          | COMPOSITE_AND |             |
|              |                | Name          | Description |
|              |                | COMPOSITE_OR  |             |
|              |                | COMPOSITE_AND |             |
|              |                | COMPOSITE_MIN |             |
|              | 3              | COMPOSITE_MAX |             |
| ConveyorArea |                |               |             |
|              | <b>Bool</b>    |               |             |
|              | Value Range    |               |             |
|              | Initialisation |               |             |



| Struct         |             |
|----------------|-------------|
| ScannerArea    |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | True        |
| TeachInArea    |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |

## Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN RCRdCom    |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                 |
| Command        | RCRdCom  | String | 7             | Composition type and reading area selection |

| Read Variable Response:                                       |              |        |               |   |
|---|--------------|--------|---------------|---|
| sRA RCRdCom <Type> <ConveyorArea> <ScannerArea> <TeachInArea> |              |        |               |   |
| Telegram Part   | Telegram     | Type   | Length [Byte] | Description                                 |
| Command Type  | sRA          | String | 3             | SOPAS Variable Read Acknowledge             |
| Command   | RCRdCom      | String | 7             | Composition type and reading area selection |
| Variable Data 1   | Type         | Enum8  | 1             |   |
| Variable Data 2   | ConveyorArea | Bool   | 1             |   |
| Variable Data 3   | ScannerArea  | Bool   | 1             |   |
| Variable Data 4   | TeachInArea  | Bool   | 1             |   |

| Write Variable:   |              |        |               |   |
|---|--------------|--------|---------------|---|
| sWN RCRdCom <Type> <ConveyorArea> <ScannerArea> <TeachInArea> |              |        |               |   |
| Telegram Part   | Telegram     | Type   | Length [Byte] | Description                                 |
| Command Type  | sWN          | String | 3             | Write SOPAS Variable by Name                |
| Command   | RCRdCom      | String | 7             | Composition type and reading area selection |
| Variable Data 1   | Type         | Enum8  | 1             |   |
| Variable Data 2   | ConveyorArea | Bool   | 1             |   |
| Variable Data 3   | ScannerArea  | Bool   | 1             |   |
| Variable Data 4   | TeachInArea  | Bool   | 1             |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA RCRdCom              |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                                 |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge            |
| Command                  | RCRdCom  | String | 7             | Composition type and reading area selection |



## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN RCRdCom[ETX]         |
| Read Variable Response:                                     | [STX]sRA RCRdCom 1 0 1 0[ETX] |
| Write Variable:   | [STX]sWN RCRdCom 1 0 1 0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCRdCom[ETX]         |

### 2.24.3.27. Variable: RCTeachField

The following section contains a detailed description of the variable RCTeachField.

#### Variable Overview

| Variable Name | Description                             |
|---------------|---|
| RCTeachField  | Teached field (By 'teach field' button) |

|                       |   |
|-----------------------|---|
| Communication Name    | RCTchdFld   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1017  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct     |                      |
|------------|----------------------|
| Valid      |                      |
|            | <b>Bool</b>          |
|            | Value Range          |
|            | Initialisation       |
| DistValues |                      |
|            | <b>Array</b>         |
|            | Length               |
|            |                      |
|            | <b>Real</b>          |
|            | Value Range          |
|            | Initialisation       |
|            | Physical Unit        |
|            | Physical Unit Factor |



## Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN RCTchdFld  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                             |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name             |
| Command        | RCTchdFld | String | 9             | Teached field (By 'teach field' button) |

| Read Variable Response:            |            |        |               |   |
|------------------------------------|------------|--------|---------------|---|
| sRA RCTchdFld <Valid> <DistValues> |            |        |               |   |
| Telegram Part                      | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type                       | sRA        | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                            | RCTchdFld  | String | 9             | Teached field (By 'teach field' button) |
| Variable Data 1                    | Valid      | Bool   | 1             |   |
| Variable Data 2                    | DistValues | Array  | 240           |   |

| Write Variable:                    |            |        |               |   |
|------------------------------------|------------|--------|---------------|---|
| sWN RCTchdFld <Valid> <DistValues> |            |        |               |   |
| Telegram Part                      | Telegram   | Type   | Length [Byte] | Description                             |
| Command Type                       | sWN        | String | 3             | Write SOPAS Variable by Name            |
| Command                            | RCTchdFld  | String | 9             | Teached field (By 'teach field' button) |
| Variable Data 1                    | Valid      | Bool   | 1             |   |
| Variable Data 2                    | DistValues | Array  | 240           |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA RCTchdFld            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                             |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | RCTchdFld | String | 9             | Teached field (By 'teach field' button) |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN RCTchdFld[ETX]      |
| Read Variable Response:                                     | [STX]sRA RCTchdFld 0 0[ETX]  |
| Write Variable:   | [STX]sWN RCTchdFld 0 +0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCTchdFld[ETX]      |



### 2.24.3.28. Variable: RCBlankingWidth

The following section contains a detailed description of the variable RCBlankingWidth.

#### Variable Overview

| Variable Name   | Description             |
|-----------------|-------------------------|
| RCBlankingWidth | Focusing blanking width |

|                       |   |
|-----------------------|---|
| Communication Name    | RCBIWdth  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1018  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |        |
|----------------------|--------|
| Value Range          | 1..100 |
| Initialisation       | 50     |
| Physical Unit        | mm     |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN RCBIWdth   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | RCBIWdth | String | 8             | Focusing blanking width     |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA RCBIWdth <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | RCBIWdth | String | 8             | Focusing blanking width         |
| Variable Data           | data     | UInt   | 2             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN RCBIWdth <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | RCBIWdth | String | 8             | Focusing blanking width      |
| Variable Data       | data     | UInt   | 2             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA RCBIWdth             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | RCBIWdth | String | 8             | Focusing blanking width          |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN RCB1Wdth[ETX]    |
| Read Variable Response:                                     | [STX]sRA RCB1Wdth 32[ETX] |
| Write Variable:   | [STX]sWN RCB1Wdth 32[ETX] |
| Write Variable Response:                                    | [STX]sWA RCB1Wdth[ETX]    |

### 2.24.3.29. Variable: RCFocusResponseTime

The following section contains a detailed description of the variable RCFocusResponseTime.

#### Variable Overview

| Variable Name       | Description                                 |
|---------------------|---|
| RCFocusResponseTime | Time for field infringement to be signalled |

|                       |   |
|-----------------------|---|
| Communication Name    | RCTmRspns   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1021  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |         |
|----------------------|---------|
| Value Range          | 0..1000 |
| Initialisation       | 0       |
| Physical Unit        | ms      |
| Physical Unit Factor | 0.0     |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN RCTmRspns  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                                 |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                 |
| Command        | RCTmRspns | String | 9             | Time for field infringement to be signalled |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA RCTmRspns <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                                 |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge             |
| Command                 | RCTmRspns | String | 9             | Time for field infringement to be signalled |
| Variable Data           | data      | UInt   | 2             |   |





| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN RCTmRspns <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                                 |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                |
| Command              | RCTmRspns | String | 9             | Time for field infringement to be signalled |
| Variable Data        | data      | UInt   | 2             |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA RCTmRspns            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                                 |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge            |
| Command                  | RCTmRspns | String | 9             | Time for field infringement to be signalled |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN RCTmRspns[ETX]   |
| Read Variable Response:                                     | [STX]sRA RCTmRspns 0[ETX] |
| Write Variable:   | [STX]sWN RCTmRspns 0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCTmRspns[ETX]   |

### 2.24.3.30. Variable: RCFocusTimeDebouncingValue

The following section contains a detailed description of the variable RCFocusTimeDebouncingValue.

#### Variable Overview

| Variable Name              | Description                         |
|----------------------------|-------------------------------------|
| RCFocusTimeDebouncingValue | Debouncing of focus value over time |

|                       |   |
|-----------------------|---|
| Communication Name    | RCTmDbnc  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1022  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 50..1000 |
| Initialisation       | 50       |
| Physical Unit        | ms       |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                                     |
|----------------|----------|--------|---------------|-------------------------------------|
| sRN RCTmDbnc   |          |        |               |                                     |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                         |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name         |
| Command        | RCTmDbnc | String | 8             | Debouncing of focus value over time |

| Read Variable Response: |          |        |               |                                     |
|-------------------------|----------|--------|---------------|-------------------------------------|
| sRA RCTmDbnc <data>     |          |        |               |                                     |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                         |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | RCTmDbnc | String | 8             | Debouncing of focus value over time |
| Variable Data           | data     | UInt   | 2             |                                     |

| Write Variable:     |          |        |               |                                     |
|---------------------|----------|--------|---------------|-------------------------------------|
| sWN RCTmDbnc <data> |          |        |               |                                     |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                         |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name        |
| Command             | RCTmDbnc | String | 8             | Debouncing of focus value over time |
| Variable Data       | data     | UInt   | 2             |                                     |

| Write Variable Response: |          |        |               |                                     |
|--------------------------|----------|--------|---------------|-------------------------------------|
| sWA RCTmDbnc             |          |        |               |                                     |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                         |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | RCTmDbnc | String | 8             | Debouncing of focus value over time |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN RCTmDbnc[ETX]    |
| Read Variable Response:                                     | [STX]sRA RCTmDbnc 32[ETX] |
| Write Variable:   | [STX]sWN RCTmDbnc 32[ETX] |
| Write Variable Response:                                    | [STX]sWA RCTmDbnc[ETX]    |



### 2.24.3.31. Variable: RCFocusDistanceDebouncingValue

The following section contains a detailed description of the variable RCFocusDistanceDebouncingValue.

#### Variable Overview

| Variable Name                  | Description  |
|--------------------------------|--|
| RCFocusDistanceDebouncingValue | When focus changed by that value (or more), focus may be changed |

|                       |   |
|-----------------------|---|
| Communication Name    | RCDstDbnc   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1023  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |         |
|----------------------|---------|
| Value Range          | 10..100 |
| Initialisation       | 50      |
| Physical Unit        | mm      |
| Physical Unit Factor | 0.0     |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN RCDstDbnc  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                                      |
| Command        | RCDstDbnc | String | 9             | When focus changed by that value (or more), focus may be changed |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA RCDstDbnc <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description  |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                                  |
| Command                 | RCDstDbnc | String | 9             | When focus changed by that value (or more), focus may be changed |
| Variable Data           | data      | USInt  | 1             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN RCDstDbnc <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                                     |
| Command              | RCDstDbnc | String | 9             | When focus changed by that value (or more), focus may be changed |
| Variable Data        | data      | USInt  | 1             |  |



| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA RCDstDbnc            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description  |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                                 |
| Command                  | RCDstDbnc | String | 9             | When focus changed by that value (or more), focus may be changed |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN RCDstDbnc[ETX]    |
| Read Variable Response:                                     | [STX]sRA RCDstDbnc 32[ETX] |
| Write Variable:   | [STX]sWN RCDstDbnc 32[ETX] |
| Write Variable Response:                                    | [STX]sWA RCDstDbnc[ETX]    |

### 2.24.3.32. Variable: RCMInOscMirrFocusAngle

The following section contains a detailed description of the variable RCMInOscMirrFocusAngle.

#### Variable Overview

| Variable Name          | Description  |
|------------------------|--|
| RCMinOscMirrFocusAngle | Minimum OM Angle for dist. profiles to be used for autofocus |

|                       |   |
|-----------------------|---|
| Communication Name    | RCMinOMAF   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1024  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Int                  |         |
|----------------------|---------|
| Value Range          | -200..0 |
| Initialisation       | -200    |
| Physical Unit        | 1/10 °  |
| Physical Unit Factor | 0.0     |



## Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN RCMInOMAF  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                                  |
| Command        | RCMinOMAF | String | 9             | Minimum OM Angle for dist. profiles to be used for autofocus |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA RCMInOMAF <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description  |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                              |
| Command                 | RCMinOMAF | String | 9             | Minimum OM Angle for dist. profiles to be used for autofocus |
| Variable Data           | data      | Int    | 2             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN RCMInOMAF <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                                 |
| Command              | RCMinOMAF | String | 9             | Minimum OM Angle for dist. profiles to be used for autofocus |
| Variable Data        | data      | Int    | 2             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA RCMInOMAF            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description  |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                             |
| Command                  | RCMinOMAF | String | 9             | Minimum OM Angle for dist. profiles to be used for autofocus |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN RCMInOMAF[ETX]      |
| Read Variable Response:                                     | [STX]sRA RCMInOMAF FF38[ETX] |
| Write Variable:   | [STX]sWN RCMInOMAF -200[ETX] |
| Write Variable Response:                                    | [STX]sWA RCMInOMAF[ETX]      |



### 2.24.3.33. Variable: RCMaXOscMirrFocusAngle

The following section contains a detailed description of the variable RCMaXOscMirrFocusAngle.

#### Variable Overview

| Variable Name          | Description  |
|------------------------|--|
| RCMaXOscMirrFocusAngle | Maximum OM Angle for dist. profiles to be used for autofocus |

|                       |   |
|-----------------------|---|
| Communication Name    | RCMaXOMAF   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1025  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Int                  |        |
|----------------------|--------|
| Value Range          | 0..200 |
| Initialisation       | 200    |
| Physical Unit        | 1/10 ° |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN RCMaXOMAF  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description  |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                                  |
| Command        | RCMaXOMAF | String | 9             | Maximum OM Angle for dist. profiles to be used for autofocus |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA RCMaXOMAF <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description  |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                              |
| Command                 | RCMaXOMAF | String | 9             | Maximum OM Angle for dist. profiles to be used for autofocus |
| Variable Data           | data      | Int    | 2             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN RCMaXOMAF <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description  |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                                 |
| Command              | RCMaXOMAF | String | 9             | Maximum OM Angle for dist. profiles to be used for autofocus |
| Variable Data        | data      | Int    | 2             |  |



| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA RCMaXOMAF            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description  |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                             |
| Command                  | RCMaXOMAF | String | 9             | Maximum OM Angle for dist. profiles to be used for autofocus |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN RCMaXOMAF[ETX]      |
| Read Variable Response:                                     | [STX]sRA RCMaXOMAF C8[ETX]   |
| Write Variable:   | [STX]sWN RCMaXOMAF +200[ETX] |
| Write Variable Response:                                    | [STX]sWA RCMaXOMAF[ETX]      |

### 2.24.3.34. Variable: RCInverseCode

The following section contains a detailed description of the variable RCInverseCode.

#### Variable Overview

| Variable Name | Description                    |
|---------------|--------------------------------|
| RCInverseCode | Activates inverse code reading |

|                       |   |
|-----------------------|---|
| Communication Name    | RCInvCode   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1027  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                                |
|----------------|-----------|--------|---------------|--------------------------------|
| sRN RCInvCode  |           |        |               |                                |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                    |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name    |
| Command        | RCInvCode | String | 9             | Activates inverse code reading |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA RCInvCode <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | RCInvCode | String | 9             | Activates inverse code reading  |
| Variable Data           | data      | Bool   | 1             |                                 |

| Write Variable:      |           |        |               |                                |
|----------------------|-----------|--------|---------------|--------------------------------|
| sWN RCInvCode <data> |           |        |               |                                |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                    |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name   |
| Command              | RCInvCode | String | 9             | Activates inverse code reading |
| Variable Data        | data      | Bool   | 1             |                                |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA RCInvCode            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | RCInvCode | String | 9             | Activates inverse code reading   |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN RCInvCode[ETX]   |
| Read Variable Response:                                     | [STX]sRA RCInvCode 0[ETX] |
| Write Variable:   | [STX]sWN RCInvCode 0[ETX] |
| Write Variable Response:                                    | [STX]sWA RCInvCode[ETX]   |





### 2.24.3.35. Variable: LampTimeoutActive

The following section contains a detailed description of the variable LampTimeoutActive.

#### Variable Overview

| Variable Name     | Description                    |
|-------------------|--------------------------------|
| LampTimeoutActive | True if lamp timeout is active |

|                       |   |
|-----------------------|---|
| Communication Name    | LCTmoutact  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1029  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                                |
|----------------|------------|--------|---------------|--------------------------------|
| sRN LCTmoutact |            |        |               |                                |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                    |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name    |
| Command        | LCTmoutact | String | 10            | True if lamp timeout is active |

| Read Variable Response: |            |        |               |                                 |
|-------------------------|------------|--------|---------------|---------------------------------|
| sRA LCTmoutact <data>   |            |        |               |                                 |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | LCTmoutact | String | 10            | True if lamp timeout is active  |
| Variable Data           | data       | Bool   | 1             |                                 |

| Write Variable:       |            |        |               |                                |
|-----------------------|------------|--------|---------------|--------------------------------|
| sWN LCTmoutact <data> |            |        |               |                                |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                    |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name   |
| Command               | LCTmoutact | String | 10            | True if lamp timeout is active |
| Variable Data         | data       | Bool   | 1             |                                |

| Write Variable Response: |            |        |               |                                  |
|--------------------------|------------|--------|---------------|----------------------------------|
| sWA LCTmoutact           |            |        |               |                                  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | LCTmoutact | String | 10            | True if lamp timeout is active   |



## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| Read Variable:  | [STX]sRN LCTmoutact[ETX]   |
| Read Variable Response:                                     | [STX]sRA LCTmoutact 0[ETX] |
| Write Variable:   | [STX]sWN LCTmoutact 0[ETX] |
| Write Variable Response:                                    | [STX]sWA LCTmoutact[ETX]   |

### 2.24.3.36. Variable: LampTimeoutTime

The following section contains a detailed description of the variable LampTimeoutTime.

#### Variable Overview

| Variable Name   | Description                                      |
|-----------------|--|
| LampTimeoutTime | Defines the time for the lamp timeout in minutes |

|                       |   |
|-----------------------|---|
| Communication Name    | LCTmouttm   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1030  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UDInt                |         |
|----------------------|---------|
| Value Range          | 1..1500 |
| Initialisation       | 10      |
| Physical Unit        | min     |
| Physical Unit Factor | 0.0     |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN LCTmouttm  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                                      |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                      |
| Command        | LCTmouttm | String | 9             | Defines the time for the lamp timeout in minutes |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA LCTmouttm <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                                      |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                  |
| Command                 | LCTmouttm | String | 9             | Defines the time for the lamp timeout in minutes |
| Variable Data           | data      | UDInt  | 4             |  |



| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN LCTmouttm <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                                      |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                     |
| Command              | LCTmouttm | String | 9             | Defines the time for the lamp timeout in minutes |
| Variable Data        | data      | UDInt  | 4             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA LCTmouttm            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                 |
| Command                  | LCTmouttm | String | 9             | Defines the time for the lamp timeout in minutes |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN LCTmouttm[ETX]   |
| Read Variable Response:                                     | [STX]sRA LCTmouttm A[ETX] |
| Write Variable:   | [STX]sWN LCTmouttm A[ETX] |
| Write Variable Response:                                    | [STX]sWA LCTmouttm[ETX]   |

### 2.24.3.37. Variable: DynamicReadingSource

The following section contains a detailed description of the variable DynamicReadingSource.

#### Variable Overview

| Variable Name        | Description                |
|----------------------|----------------------------|
| DynamicReadingSource | Source for table switching |

|                       |   |
|-----------------------|---|
| Communication Name    | DynRdSrc  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1031  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8 |       |                       |             |
|-------|-------|-----------------------|-------------|
|       | Value | Name                  | Description |
|       | 0     | TX_SW_COMMAND         |             |
|       | 1     | TX_TIMER              |             |
|       | 2     | TX_OSC_MIRROR_EXTREMA |             |
|       | 3     | TX_SENSOR_INPUTS      |             |
|       | 4     | TX_FIELDBUS           |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN DynRdSrc   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | DynRdSrc | String | 8             | Source for table switching  |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DynRdSrc <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DynRdSrc | String | 8             | Source for table switching      |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN DynRdSrc <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | DynRdSrc | String | 8             | Source for table switching   |
| Variable Data       | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DynRdSrc             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DynRdSrc | String | 8             | Source for table switching       |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN DynRdSrc[ETX]   |
| Read Variable Response:                                     | [STX]sRA DynRdSrc 0[ETX] |
| Write Variable:   | [STX]sWN DynRdSrc 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DynRdSrc[ETX]   |



### 2.24.3.38. Variable: DynamicReadingMode

The following section contains a detailed description of the variable DynamicReadingMode.

#### Variable Overview

| Variable Name      | Description                                    |
|--------------------|--|
| DynamicReadingMode | Immediate/Latched mode switch for dyn. rd. cfg |

|                       |   |
|-----------------------|---|
| Communication Name    | DynRdMode   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1032  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8 |       |              |             |
|-------|-------|--------------|-------------|
|       | Value | Name         | Description |
|       | 0     | TX_IMMEDIATE |             |
|       | 1     | TX_LATCHED   |             |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |  |
|----------------|-----------|--------|---------------|--|
| sRN DynRdMode  |           |        |               |  |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                                    |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                    |
| Command        | DynRdMode | String | 9             | Immediate/Latched mode switch for dyn. rd. cfg |

| Read Variable Response: |           |        |               |  |
|-------------------------|-----------|--------|---------------|--|
| sRA DynRdMode <data>    |           |        |               |  |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                                    |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                |
| Command                 | DynRdMode | String | 9             | Immediate/Latched mode switch for dyn. rd. cfg |
| Variable Data           | data      | Enum8  | 1             |  |

| Write Variable:      |           |        |               |  |
|----------------------|-----------|--------|---------------|--|
| sWN DynRdMode <data> |           |        |               |  |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                                    |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                   |
| Command              | DynRdMode | String | 9             | Immediate/Latched mode switch for dyn. rd. cfg |
| Variable Data        | data      | Enum8  | 1             |  |

| Write Variable Response: |           |        |               |  |
|--------------------------|-----------|--------|---------------|--|
| sWA DynRdMode            |           |        |               |  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                                    |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge               |
| Command                  | DynRdMode | String | 9             | Immediate/Latched mode switch for dyn. rd. cfg |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| <b>Read Variable:</b>                                       | [STX]sRN DynRdMode[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA DynRdMode 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DynRdMode 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DynRdMode[ETX]   |

### 2.24.3.39. Variable: DynamicReadingConfigEnabled

The following section contains a detailed description of the variable DynamicReadingConfigEnabled.

#### Variable Overview

| Variable Name               | Description                   |
|-----------------------------|-------------------------------|
| DynamicReadingConfigEnabled | Flag to enable reading config |

|                       |   |
|-----------------------|---|
| Communication Name    | DynRdCfgEn  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1033  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable: |            |        |               |                               |
|----------------|------------|--------|---------------|-------------------------------|
| sRN DynRdCfgEn |            |        |               |                               |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                   |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name   |
| Command        | DynRdCfgEn | String | 10            | Flag to enable reading config |

| Read Variable Response: |            |        |               |                                 |
|-------------------------|------------|--------|---------------|---------------------------------|
| sRA DynRdCfgEn <data>   |            |        |               |                                 |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type            | sRA        | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DynRdCfgEn | String | 10            | Flag to enable reading config   |
| Variable Data           | data       | Bool   | 1             |                                 |



| Write Variable:       |            |        |               |                               |
|-----------------------|------------|--------|---------------|-------------------------------|
| sWN DynRdCfgEn <data> |            |        |               |                               |
| Telegram Part         | Telegram   | Type   | Length [Byte] | Description                   |
| Command Type          | sWN        | String | 3             | Write SOPAS Variable by Name  |
| Command               | DynRdCfgEn | String | 10            | Flag to enable reading config |
| Variable Data         | data       | Bool   | 1             |                               |

| Write Variable Response: |            |        |               |                                  |
|--------------------------|------------|--------|---------------|----------------------------------|
| sWA DynRdCfgEn           |            |        |               |                                  |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                      |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DynRdCfgEn | String | 10            | Flag to enable reading config    |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| <b>Read Variable:</b>                                       | [STX]sRN DynRdCfgEn[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA DynRdCfgEn 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DynRdCfgEn 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DynRdCfgEn[ETX]   |

### 2.24.3.40. Variable: DynamicReadingConfigTimerValue

The following section contains a detailed description of the variable DynamicReadingConfigTimerValue.

#### Variable Overview

| Variable Name                  | Description                    |
|--------------------------------|--------------------------------|
| DynamicReadingConfigTimerValue | Timer value if source is timer |

|                       |   |
|-----------------------|---|
| Communication Name    | DynRdTmr  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1034  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |           |
|----------------------|-----------|
| Value Range          | 50..65535 |
| Initialisation       | 500       |
| Physical Unit        | ms        |
| Physical Unit Factor | 0.0       |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                                |
|----------------|----------|--------|---------------|--------------------------------|
| sRN DynRdTmr   |          |        |               |                                |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                    |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name    |
| Command        | DynRdTmr | String | 8             | Timer value if source is timer |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA DynRdTmr <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | DynRdTmr | String | 8             | Timer value if source is timer  |
| Variable Data           | data     | UInt   | 2             |                                 |

| Write Variable:     |          |        |               |                                |
|---------------------|----------|--------|---------------|--------------------------------|
| sWN DynRdTmr <data> |          |        |               |                                |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                    |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name   |
| Command             | DynRdTmr | String | 8             | Timer value if source is timer |
| Variable Data       | data     | UInt   | 2             |                                |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA DynRdTmr             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | DynRdTmr | String | 8             | Timer value if source is timer   |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN DynRdTmr [ETX]     |
| Read Variable Response:                                     | [STX]sRA DynRdTmr 1F4 [ETX] |
| Write Variable:   | [STX]sWN DynRdTmr 1F4 [ETX] |
| Write Variable Response:                                    | [STX]sWA DynRdTmr [ETX]     |



### 2.24.3.41. Variable: DynamicReadingAssignmentTable

The following section contains a detailed description of the variable DynamicReadingAssignmentTable.

#### Variable Overview

| Variable Name                 | Description   |
|-------------------------------|---|
| DynamicReadingAssignmentTable | Assignment table for up to eight reading configurations |

|                       |   |
|-----------------------|---|
| Communication Name    | DynRdAssgnTbl   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1035  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array         |  |      |             |
|---------------|--|------|-------------|
| Length        | 32   |      |             |
| Default Value | {0, 1, 2, 3, 4, 5, 6, 7, 0, 1, 2, 3, 4, 5, 6, 7, 0, 1, 2, 3, 4, 5, 6, 7, 0, 1, 2, 3, 4, 5, 6, 7} |      |             |
|               | Enum8  |      |             |
|               | Value  | Name | Description |
|               | 0  | C1   |             |
|               | 1  | C2   |             |
|               | 2  | C3   |             |
|               | 3  | C4   |             |
|               | 4  | C5   |             |
|               | 5  | C6   |             |
|               | 6  | C7   |             |
|               | 7  | C8   |             |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |   |
|-------------------|---------------|--------|---------------|---|
| sRN DynRdAssgnTbl |               |        |               |   |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description   |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name                             |
| Command           | DynRdAssgnTbl | String | 13            | Assignment table for up to eight reading configurations |

| Read Variable Response:  |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sRA DynRdAssgnTbl <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description   |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge                         |
| Command                  | DynRdAssgnTbl | String | 13            | Assignment table for up to eight reading configurations |
| Variable Data            | data          | Array  | 32            |   |

| Write Variable:          |          |        |               |                              |
|--------------------------|----------|--------|---------------|------------------------------|
| sWN DynRdAssgnTbl <data> |          |        |               |                              |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                  |
| Command Type             | sWN      | String | 3             | Write SOPAS Variable by Name |



| Write Variable:          |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWN DynRdAssgnTbl <data> |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description   |
| Command                  | DynRdAssgnTbl | String | 13            | Assignment table for up to eight reading configurations |
| Variable Data            | data          | Array  | 32            |   |

| Write Variable Response: |               |        |               |   |
|--------------------------|---------------|--------|---------------|---|
| sWA DynRdAssgnTbl        |               |        |               |   |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description   |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge                        |
| Command                  | DynRdAssgnTbl | String | 13            | Assignment table for up to eight reading configurations |

## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| Read Variable:  | [STX]sRN DynRdAssgnTbl[ETX]   |
| Read Variable Response:                                     | [STX]sRA DynRdAssgnTbl 0 1 2 3 4 5 6 7 0 1 2 3 4 5 6 7 0 1 2 3 4 5 6 7 0 1 2 3 4 5 6 7[ETX] |
| Write Variable:   | [STX]sWN DynRdAssgnTbl 0 1 2 3 4 5 6 7 0 1 2 3 4 5 6 7 0 1 2 3 4 5 6 7 0 1 2 3 4 5 6 7[ETX] |
| Write Variable Response:                                    | [STX]sWA DynRdAssgnTbl[ETX]   |

### 2.24.3.42. Variable: DynamicReadingAssignmentTableLength

The following section contains a detailed description of the variable DynamicReadingAssignmentTableLength.

#### Variable Overview

| Variable Name                       | Description                        |
|-------------------------------------|------------------------------------|
| DynamicReadingAssignmentTableLength | Number of items (up to 32) visible |

|                       |   |
|-----------------------|---|
| Communication Name    | DynRdAssgnTblLen  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1036  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| USInt                |      |
|----------------------|------|
| Value Range          | 1..8 |
| Initialisation       | 8    |
| Physical Unit        |      |
| Physical Unit Factor | 0.0  |



## Variable Telegram Syntax

| Read Variable:       |                  |        |               |                                    |
|----------------------|------------------|--------|---------------|------------------------------------|
| sRN DynRdAssgnTblLen |                  |        |               |                                    |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description                        |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name        |
| Command              | DynRdAssgnTblLen | String | 16            | Number of items (up to 32) visible |

| Read Variable Response:     |                  |        |               |                                    |
|-----------------------------|------------------|--------|---------------|------------------------------------|
| sRA DynRdAssgnTblLen <data> |                  |        |               |                                    |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                        |
| Command Type                | sRA              | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                     | DynRdAssgnTblLen | String | 16            | Number of items (up to 32) visible |
| Variable Data               | data             | USInt  | 1             |                                    |

| Write Variable:             |                  |        |               |                                    |
|-----------------------------|------------------|--------|---------------|------------------------------------|
| sWN DynRdAssgnTblLen <data> |                  |        |               |                                    |
| Telegram Part               | Telegram         | Type   | Length [Byte] | Description                        |
| Command Type                | sWN              | String | 3             | Write SOPAS Variable by Name       |
| Command                     | DynRdAssgnTblLen | String | 16            | Number of items (up to 32) visible |
| Variable Data               | data             | USInt  | 1             |                                    |

| Write Variable Response: |                  |        |               |                                    |
|--------------------------|------------------|--------|---------------|------------------------------------|
| sWA DynRdAssgnTblLen     |                  |        |               |                                    |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description                        |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | DynRdAssgnTblLen | String | 16            | Number of items (up to 32) visible |

## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN DynRdAssgnTblLen[ETX]   |
| Read Variable Response:                                     | [STX]sRA DynRdAssgnTblLen 8[ETX] |
| Write Variable:   | [STX]sWN DynRdAssgnTblLen 8[ETX] |
| Write Variable Response:                                    | [STX]sWA DynRdAssgnTblLen[ETX]   |

### 2.24.3.43. Variable: DynamicReadingSensorPriorities

The following section contains a detailed description of the variable DynamicReadingSensorPriorities.

#### Variable Overview

| Variable Name                  | Description                               |
|--------------------------------|---|
| DynamicReadingSensorPriorities | Assignment of priorities to sensor inputs |

|                       |   |
|-----------------------|---|
| Communication Name    | DynRdInpPrio  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1037  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Array  |               |               |             |
|--------|---------------|---------------|-------------|
| Length | 5             |               |             |
|        | Enum8         |               |             |
|        | Default Value | 0             |             |
|        | Value         | Name          | Description |
|        | 0             | TX_NONE       |             |
|        | 1             | TX_SENS_1     |             |
|        | 2             | TX_SENS_2     |             |
|        | 3             | TX_EXT_SENS_1 |             |
|        | 4             | TX_EXT_SENS_2 |             |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |   |
|------------------|--------------|--------|---------------|---|
| sRN DynRdInpPrio |              |        |               |   |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                               |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name               |
| Command          | DynRdInpPrio | String | 12            | Assignment of priorities to sensor inputs |

| Read Variable Response: |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sRA DynRdInpPrio <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                               |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                 | DynRdInpPrio | String | 12            | Assignment of priorities to sensor inputs |
| Variable Data           | data         | Array  | 5             |   |

| Write Variable:         |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sWN DynRdInpPrio <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                               |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name              |
| Command                 | DynRdInpPrio | String | 12            | Assignment of priorities to sensor inputs |
| Variable Data           | data         | Array  | 5             |   |



| Write Variable Response: |              |        |               |   |
|--------------------------|--------------|--------|---------------|---|
| sWA DynRdInpPrio         |              |        |               |   |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                               |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge          |
| Command                  | DynRdInpPrio | String | 12            | Assignment of priorities to sensor inputs |

### Variable Telegram Examples

| Example: Default Values                                     |                                      |
|---|--------------------------------------|
| Variable telegram examples with data set to default values. |                                      |
| <b>Read Variable:</b>                                       | [STX]sRN DynRdInpPrio[ETX]           |
| <b>Read Variable Response:</b>                              | [STX]sRA DynRdInpPrio 0 0 0 0 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN DynRdInpPrio 0 0 0 0 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA DynRdInpPrio[ETX]           |

### 2.24.3.44. Variable: ASSetupCodeConfig

The following section contains a detailed description of the variable ASSetupCodeConfig.

#### Variable Overview

| Variable Name     | Description  |
|-------------------|--|
| ASSetupCodeConfig | If true the code configuration setup during auto setup |

|                       |   |
|-----------------------|---|
| Communication Name    | ASSetupCodeCfg  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1038  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |  |
|--------------------|----------------|--------|---------------|--|
| sRN ASSetupCodeCfg |                |        |               |  |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description  |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name                            |
| Command            | ASSetupCodeCfg | String | 14            | If true the code configuration setup during auto setup |

| Read Variable Response:   |                |        |               |  |
|---------------------------|----------------|--------|---------------|--|
| sRA ASSetupCodeCfg <data> |                |        |               |  |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description  |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge                        |
| Command                   | ASSetupCodeCfg | String | 14            | If true the code configuration setup during auto setup |
| Variable Data             | data           | Bool   | 1             |  |

| Write Variable:           |                |        |               |  |
|---------------------------|----------------|--------|---------------|--|
| sWN ASSetupCodeCfg <data> |                |        |               |  |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description  |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name                           |
| Command                   | ASSetupCodeCfg | String | 14            | If true the code configuration setup during auto setup |
| Variable Data             | data           | Bool   | 1             |  |

| Write Variable Response: |                |        |               |  |
|--------------------------|----------------|--------|---------------|--|
| sWA ASSetupCodeCfg       |                |        |               |  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description  |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge                       |
| Command                  | ASSetupCodeCfg | String | 14            | If true the code configuration setup during auto setup |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN ASSetupCodeCfg[ETX]   |
| Read Variable Response:                                     | [STX]sRA ASSetupCodeCfg 1[ETX] |
| Write Variable:   | [STX]sWN ASSetupCodeCfg 1[ETX] |
| Write Variable Response:                                    | [STX]sWA ASSetupCodeCfg[ETX]   |

### 2.24.3.45. Variable: ASExtendCodeConfig

The following section contains a detailed description of the variable ASExtendCodeConfig.

#### Variable Overview

| Variable Name      | Description  |
|--------------------|--|
| ASExtendCodeConfig | If true the code configuration will be extended when an auto setup is executed |

|                       |   |
|-----------------------|---|
| Communication Name    | ASExtCodeCfg  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1039  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |  |
|------------------|--------------|--------|---------------|--|
| sRN ASExtCodeCfg |              |        |               |  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description  |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name  |
| Command          | ASExtCodeCfg | String | 12            | If true the code configuration will be extended when an auto setup is executed |

| Read Variable Response: |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sRA ASExtCodeCfg <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description  |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | ASExtCodeCfg | String | 12            | If true the code configuration will be extended when an auto setup is executed |
| Variable Data           | data         | Bool   | 1             |  |

| Write Variable:         |              |        |               |  |
|-------------------------|--------------|--------|---------------|--|
| sWN ASExtCodeCfg <data> |              |        |               |  |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description  |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name   |
| Command                 | ASExtCodeCfg | String | 12            | If true the code configuration will be extended when an auto setup is executed |
| Variable Data           | data         | Bool   | 1             |  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA ASExtCodeCfg         |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |              |        |               |  |
|--------------------------|--------------|--------|---------------|--|
| sWA ASExtCodeCfg         |              |        |               |  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description  |
| Command                  | ASExtCodeCfg | String | 12            | If true the code configuration will be extended when an auto setup is executed |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN ASExtCodeCfg[ETX]   |
| Read Variable Response:                                     | [STX]sRA ASExtCodeCfg 1[ETX] |
| Write Variable:   | [STX]sWN ASExtCodeCfg 1[ETX] |
| Write Variable Response:                                    | [STX]sWA ASExtCodeCfg[ETX]   |

### 2.24.3.46. Variable: ASSetupScanfrequency

The following section contains a detailed description of the variable ASSetupScanfrequency.

#### Variable Overview

| Variable Name        | Description   |
|----------------------|---|
| ASSetupScanfrequency | If true the scanfrequency will be setup during auto setup |

|                       |   |
|-----------------------|---|
| Communication Name    | ASSetupScanFrq  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1040  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |





## Variable Telegram Syntax

| Read Variable:     |                |        |               |   |
|--------------------|----------------|--------|---------------|---|
| sRN ASSetupScanFrq |                |        |               |   |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description   |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name                               |
| Command            | ASSetupScanFrq | String | 14            | If true the scanfrequency will be setup during auto setup |

| Read Variable Response:   |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sRA ASSetupScanFrq <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description   |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge                           |
| Command                   | ASSetupScanFrq | String | 14            | If true the scanfrequency will be setup during auto setup |
| Variable Data             | data           | Bool   | 1             |   |

| Write Variable:           |                |        |               |   |
|---------------------------|----------------|--------|---------------|---|
| sWN ASSetupScanFrq <data> |                |        |               |   |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description   |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name                              |
| Command                   | ASSetupScanFrq | String | 14            | If true the scanfrequency will be setup during auto setup |
| Variable Data             | data           | Bool   | 1             |   |

| Write Variable Response: |                |        |               |   |
|--------------------------|----------------|--------|---------------|---|
| sWA ASSetupScanFrq       |                |        |               |   |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description   |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge                          |
| Command                  | ASSetupScanFrq | String | 14            | If true the scanfrequency will be setup during auto setup |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN ASSetupScanFrq[ETX]   |
| Read Variable Response:                                     | [STX]sRA ASSetupScanFrq 1[ETX] |
| Write Variable:   | [STX]sWN ASSetupScanFrq 1[ETX] |
| Write Variable Response:                                    | [STX]sWA ASSetupScanFrq[ETX]   |



### 2.24.3.47. Variable: ASSetupFocusPos

The following section contains a detailed description of the variable ASSetupFocusPos.

#### Variable Overview

| Variable Name   | Description  |
|-----------------|--|
| ASSetupFocusPos | If true the focus position will be setup during auto setup |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1041  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |

#### Variable Telegram Syntax

| Read Variable:      |                 |        |               |  |
|---------------------|-----------------|--------|---------------|--|
| sRN ASSetupFocusPos |                 |        |               |  |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description  |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name                                |
| Command             | ASSetupFocusPos | String | 15            | If true the focus position will be setup during auto setup |

| Read Variable Response:    |                 |        |               |  |
|----------------------------|-----------------|--------|---------------|--|
| sRA ASSetupFocusPos <data> |                 |        |               |  |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description  |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge                            |
| Command                    | ASSetupFocusPos | String | 15            | If true the focus position will be setup during auto setup |
| Variable Data              | data            | Bool   | 1             |  |

| Write Variable:            |                 |        |               |  |
|----------------------------|-----------------|--------|---------------|--|
| sWN ASSetupFocusPos <data> |                 |        |               |  |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description  |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name                               |
| Command                    | ASSetupFocusPos | String | 15            | If true the focus position will be setup during auto setup |
| Variable Data              | data            | Bool   | 1             |  |

| Write Variable Response: |                 |        |               |  |
|--------------------------|-----------------|--------|---------------|--|
| sWA ASSetupFocusPos      |                 |        |               |  |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description  |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge                           |
| Command                  | ASSetupFocusPos | String | 15            | If true the focus position will be setup during auto setup |



## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN ASSetupFocusPos[ETX]   |
| Read Variable Response:                                     | [STX]sRA ASSetupFocusPos 1[ETX] |
| Write Variable:   | [STX]sWN ASSetupFocusPos 1[ETX] |
| Write Variable Response:                                    | [STX]sWA ASSetupFocusPos[ETX]   |

### 2.24.3.48. Variable: ASStorePermanent

The following section contains a detailed description of the variable ASStorePermanent.

#### Variable Overview

| Variable Name    | Description   |
|------------------|---|
| ASStorePermanent | If true the parameters will be stored permanent after a successful auto setup |

|                       |   |
|-----------------------|---|
| Communication Name    | ASStorePerm   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1042  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | True        |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN ASStorePerm |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name   |
| Command         | ASStorePerm | String | 11            | If true the parameters will be stored permanent after a successful auto setup |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA ASStorePerm <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description   |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | ASStorePerm | String | 11            | If true the parameters will be stored permanent after a successful auto setup |
| Variable Data           | data        | Bool   | 1             |   |



| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN ASStorePerm <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name  |
| Command                | ASStorePerm | String | 11            | If true the parameters will be stored permanent after a successful auto setup |
| Variable Data          | data        | Bool   | 1             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA ASStorePerm          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | ASStorePerm | String | 11            | If true the parameters will be stored permanent after a successful auto setup |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN ASStorePerm[ETX]   |
| Read Variable Response:                                     | [STX]sRA ASStorePerm 1[ETX] |
| Write Variable:   | [STX]sWN ASStorePerm 1[ETX] |
| Write Variable Response:                                    | [STX]sWA ASStorePerm[ETX]   |

### 2.24.3.49. Method: SetDeviceIdle

The following section contains a detailed description of the method SetDeviceIdle.

#### Method Overview

| Method Name   | Description  |
|---------------|--|
| SetDeviceIdle | sets the device idle if parameter is TRUE, mirror wheel is stopped, and oscillating mirror will be stopped if existing |

|                    |            |
|--------------------|------------|
| Communication Name | mTCsetidle |
| Sopas Index        | 133        |
| Invocation Access  | Always     |

| Parameters     |             |
|----------------|-------------|
| Goldle         |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |



## Method Telegram Syntax

| Method Invocation:      |            |        |               |  |
|-------------------------|------------|--------|---------------|--|
| sMN mTCsetidle <GoIdle> |            |        |               |  |
| Telegram Part           | Telegram   | Type   | Length [Byte] | Description  |
| Command Type            | sMN        | String | 3             | Request (SOPAS Method by Name)   |
| Command                 | mTCsetidle | String | 10            | sets the device idle if parameter is TRUE, mirror wheel is stopped, and oscillating mirror will be stopped if existing |
| Parameter 1             | GoIdle     | Bool   | 1             |  |

| Method Return Value: |            |        |               |  |
|----------------------|------------|--------|---------------|--|
| sAN mTCsetidle       |            |        |               |  |
| Telegram Part        | Telegram   | Type   | Length [Byte] | Description  |
| Command Type         | sAN        | String | 3             | Result (SOPAS Method Result)   |
| Command              | mTCsetidle | String | 10            | sets the device idle if parameter is TRUE, mirror wheel is stopped, and oscillating mirror will be stopped if existing |

## Method Telegram Examples

| Example: Default Values   |                            |
|---|----------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                            |
| Method Invocation:  | [STX]sMN mTCsetidle 0[ETX] |
| Method Return Value:  | [STX]sAN mTCsetidle[ETX]   |

### 2.24.3.50. Method: ActivateAdjustingMode

The following section contains a detailed description of the method ActivateAdjustingMode.

#### Method Overview

| Method Name           | Description   |
|-----------------------|---|
| ActivateAdjustingMode | Activates the adjusting mode. The adjusting mode switches off the laser beam exactly on position RA=50. |

|                    |           |
|--------------------|-----------|
| Communication Name | mRCadjust |
| Sopas Index        | 134       |
| Invocation Access  | Always    |

| Parameters     |             |
|----------------|-------------|
| ActivateAdjust |             |
| <b>Bool</b>    |             |
| Value Range    | False, True |
| Initialisation | False       |



## Method Telegram Syntax

| Method Invocation:             |                |        |               |   |
|--------------------------------|----------------|--------|---------------|---|
| sMN mRCadjust <ActivateAdjust> |                |        |               |   |
| Telegram Part                  | Telegram       | Type   | Length [Byte] | Description   |
| Command Type                   | sMN            | String | 3             | Request (SOPAS Method by Name)  |
| Command                        | mRCadjust      | String | 9             | Activates the adjusting mode. The adjusting mode switches off the laser beam exactly on position RA=50. |
| Parameter 1                    | ActivateAdjust | Bool   | 1             |   |

| Method Return Value: |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sAN mRCadjust        |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description   |
| Command Type         | sAN       | String | 3             | Result (SOPAS Method Result)  |
| Command              | mRCadjust | String | 9             | Activates the adjusting mode. The adjusting mode switches off the laser beam exactly on position RA=50. |

## Method Telegram Examples

| Example: Default Values   |                           |
|---|---------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                           |
| Method Invocation:  | [STX]sMN mRCadjust 0[ETX] |
| Method Return Value:  | [STX]sAN mRCadjust[ETX]   |

### 2.24.3.51. Method: ActivateAdjustingModeEnhanced

The following section contains a detailed description of the method ActivateAdjustingModeEnhanced.

#### Method Overview

| Method Name                   | Description  |
|-------------------------------|--|
| ActivateAdjustingModeEnhanced | Activates the adjusting mode. The adjusting mode switches off the laser beam at a given RA position. |

|                    |              |
|--------------------|--------------|
| Communication Name | mRCadjustEnh |
| Sopas Index        | 135          |
| Invocation Access  | Always       |

| Parameters |               |        |   |
|------------|---------------|--------|---|
| Mode       | Enum8         |        |   |
|            | Default Value |        |   |
|            | Value         | Name   | Description                               |
|            | 0             | Off    | Deactivate adjusting mode                 |
|            | 1             | OnTime | Activate adjusting mode with TimeLaserOff |
|            | 2             | OnCP   | Activate adjusting mode with CPLaserOn    |



| Parameters           |  |
|----------------------|--|
| CPLaserOff           | CP to switch laser off                       |
| <b>USInt</b>         |  |
| Value Range          | 0..100                                       |
| Initialisation       | 50   |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |
| TimeLaserOff         | time laser is off for Mode == OnTime         |
| <b>UInt</b>          |  |
| Value Range          | 0..5000                                      |
| Initialisation       | 400  |
| Physical Unit        | us   |
| Physical Unit Factor | 0.0  |
| CPLaserOn            | CP to switch laser on again for Mode == OnCP |
| <b>USInt</b>         |  |
| Value Range          | 0..100                                       |
| Initialisation       | 80   |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |

## Method Telegram Syntax

| Method Invocation:  |              |        |               |  |
|---|--------------|--------|---------------|--|
| sMN mRCadjustEnh <Mode> <CPLaserOff> <TimeLaserOff> <CPLaserOn> |              |        |               |  |
| Telegram Part   | Telegram     | Type   | Length [Byte] | Description  |
| Command Type  | sMN          | String | 3             | Request (SOPAS Method by Name)   |
| Command   | mRCadjustEnh | String | 12            | Activates the adjusting mode. The adjusting mode switches off the laser beam at a given RA position. |
| Parameter 1   | Mode         | Enum8  | 1             |  |
| Parameter 2   | CPLaserOff   | USInt  | 1             | CP to switch laser off   |
| Parameter 3   | TimeLaserOff | UInt   | 2             | time laser is off for Mode == OnTime   |
| Parameter 4   | CPLaserOn    | USInt  | 1             | CP to switch laser on again for Mode == OnCP   |

| Method Return Value: |              |        |               |  |
|----------------------|--------------|--------|---------------|--|
| sAN mRCadjustEnh     |              |        |               |  |
| Telegram Part        | Telegram     | Type   | Length [Byte] | Description  |
| Command Type         | sAN          | String | 3             | Result (SOPAS Method Result)   |
| Command              | mRCadjustEnh | String | 12            | Activates the adjusting mode. The adjusting mode switches off the laser beam at a given RA position. |

## Method Telegram Examples

| Example: Default Values   |  |
|---|--|
| Method telegram examples with parameter data and return value data set to default values. |  |
| Method Invocation:  | [STX]sMN mRCadjustEnh 0 32 190 50[ETX] |
| Method Return Value:  | [STX]sAN mRCadjustEnh[ETX]             |



### 2.24.3.52. Method: DoMatchCodeTeachIn

The following section contains a detailed description of the method DoMatchCodeTeachIn.

#### Method Overview

| Method Name        | Description                    |
|--------------------|--------------------------------|
| DoMatchCodeTeachIn | executes a match code teach in |

|                    |              |
|--------------------|--------------|
| Communication Name | mRCMaCdTeach |
| Sopas Index        | 136          |
| Invocation Access  | Always       |

| Parameters |               |            |             |
|------------|---------------|------------|-------------|
| Mode       |               |            |             |
|            | <b>Enum8</b>  |            |             |
|            | Default Value |            | 0           |
|            | Value         | Name       | Description |
|            | 0             | DEFAULT    |             |
|            | 1             | TEACH_IN_1 |             |
|            | 2             | TEACH_IN_2 |             |

| Return Values |                |
|---------------|----------------|
| Success       |                |
|               | <b>Bool</b>    |
|               | Value Range    |
|               | Initialisation |
|               | False, True    |
|               | False          |

#### Method Telegram Syntax

| Method Invocation:      |              |        |               |                                |
|-------------------------|--------------|--------|---------------|--------------------------------|
| sMN mRCMaCdTeach <Mode> |              |        |               |                                |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                    |
| Command Type            | sMN          | String | 3             | Request (SOPAS Method by Name) |
| Command                 | mRCMaCdTeach | String | 12            | executes a match code teach in |
| Parameter 1             | Mode         | Enum8  | 1             |                                |

| Method Response: |              |        |               |                                     |
|------------------|--------------|--------|---------------|-------------------------------------|
| sMA mRCMaCdTeach |              |        |               |                                     |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                         |
| Command Type     | sMA          | String | 3             | Response (SOPAS Method Acknowledge) |
| Command          | mRCMaCdTeach | String | 12            | executes a match code teach in      |

| Method Return Value:       |              |        |               |                                |
|----------------------------|--------------|--------|---------------|--------------------------------|
| sAN mRCMaCdTeach <Success> |              |        |               |                                |
| Telegram Part              | Telegram     | Type   | Length [Byte] | Description                    |
| Command Type               | sAN          | String | 3             | Result (SOPAS Method Result)   |
| Command                    | mRCMaCdTeach | String | 12            | executes a match code teach in |
| Return Value 1             | Success      | Bool   | 1             |                                |





## Method Telegram Examples

| Example: Default Values   |                              |
|---|------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                              |
| Method Invocation:  | [STX]sMN mRCMaCdTeach 0[ETX] |
| Method Response:  | [STX]sMA mRCMaCdTeach[ETX]   |
| Method Return Value:  | [STX]sAN mRCMaCdTeach 0[ETX] |

### 2.24.3.53. Method: StartAutoSetup

The following section contains a detailed description of the method StartAutoSetup.

#### Method Overview

| Method Name    | Description            |
|----------------|------------------------|
| StartAutoSetup | executes an auto setup |

|                    |                   |
|--------------------|-------------------|
| Communication Name | mRCStartAutoSetup |
| Sopas Index        | 137               |
| Invocation Access  | Always            |

| Parameters |   |               |                |
|------------|---|---------------|----------------|
| Mode       |   | Enum8         |                |
|            |   | Default Value |                |
|            |   | 0             |                |
|            |   | Value         | Name           |
|            |   | 0             | SELF_DIRECTED  |
| Step       | 1 | 1             | STEPWISE       |
|            |   | Enum8         |                |
|            |   | Default Value |                |
|            |   | 0             |                |
|            |   | Value         | Name           |
|            |   | 0             | INITIALIZE     |
|            |   | 1             | CODE_CONFIG    |
|            |   | 2             | SCAN_FREQUENCY |
|            |   | 3             | FOCUS_POSITION |
|            |   | 4             | CODE_QUALITY   |
|            |   | 5             | FINISH         |
|            |   | 6             | CANCEL         |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |



## Method Telegram Syntax

| Method Invocation:                  |                   |        |               |                                |
|-------------------------------------|-------------------|--------|---------------|--------------------------------|
| sMN mRCStartAutoSetup <Mode> <Step> |                   |        |               |                                |
| Telegram Part                       | Telegram          | Type   | Length [Byte] | Description                    |
| Command Type                        | sMN               | String | 3             | Request (SOPAS Method by Name) |
| Command                             | mRCStartAutoSetup | String | 17            | executes an auto setup         |
| Parameter 1                         | Mode              | Enum8  | 1             |                                |
| Parameter 2                         | Step              | Enum8  | 1             |                                |

| Method Response:      |                   |        |               |                                     |
|-----------------------|-------------------|--------|---------------|-------------------------------------|
| sMA mRCStartAutoSetup |                   |        |               |                                     |
| Telegram Part         | Telegram          | Type   | Length [Byte] | Description                         |
| Command Type          | sMA               | String | 3             | Response (SOPAS Method Acknowledge) |
| Command               | mRCStartAutoSetup | String | 17            | executes an auto setup              |

| Method Return Value:            |                   |        |               |                              |
|---------------------------------|-------------------|--------|---------------|------------------------------|
| sAN mRCStartAutoSetup <Success> |                   |        |               |                              |
| Telegram Part                   | Telegram          | Type   | Length [Byte] | Description                  |
| Command Type                    | sAN               | String | 3             | Result (SOPAS Method Result) |
| Command                         | mRCStartAutoSetup | String | 17            | executes an auto setup       |
| Return Value 1                  | Success           | Bool   | 1             |                              |

## Method Telegram Examples

| Example: Default Values   |                                     |
|---|-------------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                     |
| Method Invocation:  | [STX]sMN mRCStartAutoSetup 0 0[ETX] |
| Method Response:  | [STX]sMA mRCStartAutoSetup[ETX]     |
| Method Return Value:  | [STX]sAN mRCStartAutoSetup 0[ETX]   |



### 2.24.3.54. Method: StopAutoSetup

The following section contains a detailed description of the method StopAutoSetup.

#### Method Overview

| Method Name   | Description           |
|---------------|-----------------------|
| StopAutoSetup | cancels an auto setup |

|                    |                  |
|--------------------|------------------|
| Communication Name | mRCStopAutoSetup |
| Sopas Index        | 138              |
| Invocation Access  | Always           |

#### Method Telegram Syntax

| Method Invocation:   |                  |        |               |                                |
|----------------------|------------------|--------|---------------|--------------------------------|
| sMN mRCStopAutoSetup |                  |        |               |                                |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description                    |
| Command Type         | sMN              | String | 3             | Request (SOPAS Method by Name) |
| Command              | mRCStopAutoSetup | String | 16            | cancels an auto setup          |

| Method Return Value: |                  |        |               |                              |
|----------------------|------------------|--------|---------------|------------------------------|
| sAN mRCStopAutoSetup |                  |        |               |                              |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description                  |
| Command Type         | sAN              | String | 3             | Result (SOPAS Method Result) |
| Command              | mRCStopAutoSetup | String | 16            | cancels an auto setup        |

#### Method Telegram Examples

| Example: Default Values   |                                |
|---|--------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                |
| Method Invocation:  | [STX]sMN mRCStopAutoSetup[ETX] |
| Method Return Value:  | [STX]sAN mRCStopAutoSetup[ETX] |



### 2.24.3.55. Method: SwitchDynRdCfgTableIndex

The following section contains a detailed description of the method SwitchDynRdCfgTableIndex.

#### Method Overview

| Method Name              | Description                                      |
|--------------------------|--|
| SwitchDynRdCfgTableIndex | Switches the dynamic reading cfg. table (2AA1-8) |

|                    |                |
|--------------------|----------------|
| Communication Name | mRCSwDynTblIdx |
| Sopas Index        | 139            |
| Invocation Access  | Always         |

| Parameters           |        |
|----------------------|--------|
| Index                |        |
| <b>USInt</b>         |        |
| Value Range          | 0..255 |
| Initialisation       | 1      |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
| <b>Bool</b>    |             |
| Value Range    | False, True |
| Initialisation | False       |

#### Method Telegram Syntax

| Method Invocation:         |                |        |               |  |
|----------------------------|----------------|--------|---------------|--|
| sMN mRCSwDynTblIdx <Index> |                |        |               |  |
| Telegram Part              | Telegram       | Type   | Length [Byte] | Description                                      |
| Command Type               | sMN            | String | 3             | Request (SOPAS Method by Name)                   |
| Command                    | mRCSwDynTblIdx | String | 14            | Switches the dynamic reading cfg. table (2AA1-8) |
| Parameter 1                | Index          | USInt  | 1             |  |

| Method Return Value:         |                |        |               |  |
|------------------------------|----------------|--------|---------------|--|
| sAN mRCSwDynTblIdx <Success> |                |        |               |  |
| Telegram Part                | Telegram       | Type   | Length [Byte] | Description                                      |
| Command Type                 | sAN            | String | 3             | Result (SOPAS Method Result)                     |
| Command                      | mRCSwDynTblIdx | String | 14            | Switches the dynamic reading cfg. table (2AA1-8) |
| Return Value 1               | Success        | Bool   | 1             |  |



## Method Telegram Examples

| Example: Default Values   |                                |
|---|--------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                |
| Method Invocation:  | [STX]SMN mRCSwDynTblIdx 1[ETX] |
| Method Return Value:  | [STX]sAN mRCSwDynTblIdx 0[ETX] |



## 2.24.4. Group: Increment

### 2.24.4.1. Variable: IncrSource

The following section contains a detailed description of the variable IncrSource.

#### Variable Overview

| Variable Name | Description                |
|---------------|----------------------------|
| IncrSource    | Source of system increment |

|                       |   |
|-----------------------|---|
| Communication Name    | ICsrc   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1051  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                 |             |
|---------------|-------|-----------------|-------------|
| Default Value |       | 0               |             |
|               | Value | Name            | Description |
|               | 0     | TX_FIX_VELOCITY |             |
|               | 1     | TX_SENSOR1      |             |
|               | 2     | TX_SENSOR2      |             |
|               | 3     | TX_CAN_1        |             |
|               | 4     | TX_SOPAS_CMD    |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN ICsrc      |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | ICsrc    | String | 5             | Source of system increment  |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA ICsrc <data>        |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | ICsrc    | String | 5             | Source of system increment      |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:  |          |        |               |                              |
|------------------|----------|--------|---------------|------------------------------|
| sWN ICsrc <data> |          |        |               |                              |
| Telegram Part    | Telegram | Type   | Length [Byte] | Description                  |
| Command Type     | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command          | ICsrc    | String | 5             | Source of system increment   |
| Variable Data    | data     | Enum8  | 1             |                              |



| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA ICsrc                |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | ICsrc    | String | 5             | Source of system increment       |

## Variable Telegram Examples

| Example: Default Values                                     |                       |
|---|-----------------------|
| Variable telegram examples with data set to default values. |                       |
| Read Variable:  | [STX]sRN ICsrc[ETX]   |
| Read Variable Response:                                     | [STX]sRA ICsrc 0[ETX] |
| Write Variable:   | [STX]sWN ICsrc 0[ETX] |
| Write Variable Response:                                    | [STX]sWA ICsrc[ETX]   |

### 2.24.4.2. Variable: IncrDistance

The following section contains a detailed description of the variable IncrDistance.

#### Variable Overview

| Variable Name | Description                                 |
|---------------|---|
| IncrDistance  | Distance per increment (encoder resolution) |

|                       |   |
|-----------------------|---|
| Communication Name    | ICdist  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1052  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Real                 |                                      |
|----------------------|--------------------------------------|
| Value Range          | See specification IEEE 754 0.01..100 |
| Initialisation       | 10                                   |
| Physical Unit        | mm                                   |
| Physical Unit Factor | 0.0                                  |



## Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN ICdist     |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                 |
| Command        | ICdist   | String | 6             | Distance per increment (encoder resolution) |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA ICdist <data>       |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                                 |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge             |
| Command                 | ICdist   | String | 6             | Distance per increment (encoder resolution) |
| Variable Data           | data     | Real   | 4             |   |

| Write Variable:   |          |        |               |   |
|-------------------|----------|--------|---------------|---|
| sWN ICdist <data> |          |        |               |   |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description                                 |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name                |
| Command           | ICdist   | String | 6             | Distance per increment (encoder resolution) |
| Variable Data     | data     | Real   | 4             |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA ICdist               |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                                 |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge            |
| Command                  | ICdist   | String | 6             | Distance per increment (encoder resolution) |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN ICdist[ETX]          |
| Read Variable Response:                                     | [STX]sRA ICdist 41200000[ETX] |
| Write Variable:   | [STX]sWN ICdist +10.0[ETX]    |
| Write Variable Response:                                    | [STX]sWA ICdist[ETX]          |





### 2.24.4.3. Variable: IncrDistanceSystem

The following section contains a detailed description of the variable IncrDistanceSystem.

#### Variable Overview

| Variable Name      | Description                   |
|--------------------|-------------------------------|
| IncrDistanceSystem | Distance per system increment |

|                       |   |
|-----------------------|---|
| Communication Name    | ICdistsys   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1053  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Real                 |                                      |
|----------------------|--------------------------------------|
| Value Range          | See specification IEEE 754 0.01..100 |
| Initialisation       | 10                                   |
| Physical Unit        | mm                                   |
| Physical Unit Factor | 0.0                                  |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |                               |
|----------------|-----------|--------|---------------|-------------------------------|
| sRN ICdistsys  |           |        |               |                               |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name   |
| Command        | ICdistsys | String | 9             | Distance per system increment |

| Read Variable Response: |           |        |               |                                 |
|-------------------------|-----------|--------|---------------|---------------------------------|
| sRA ICdistsys <data>    |           |        |               |                                 |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | ICdistsys | String | 9             | Distance per system increment   |
| Variable Data           | data      | Real   | 4             |                                 |

| Write Variable:      |           |        |               |                               |
|----------------------|-----------|--------|---------------|-------------------------------|
| sWN ICdistsys <data> |           |        |               |                               |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                   |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name  |
| Command              | ICdistsys | String | 9             | Distance per system increment |
| Variable Data        | data      | Real   | 4             |                               |

| Write Variable Response: |           |        |               |                                  |
|--------------------------|-----------|--------|---------------|----------------------------------|
| sWA ICdistsys            |           |        |               |                                  |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                      |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | ICdistsys | String | 9             | Distance per system increment    |



## Variable Telegram Examples

| Example: Default Values                                     |                                  |
|---|----------------------------------|
| Variable telegram examples with data set to default values. |                                  |
| Read Variable:  | [STX]sRN ICdistsys[ETX]          |
| Read Variable Response:                                     | [STX]sRA ICdistsys 41200000[ETX] |
| Write Variable:   | [STX]sWN ICdistsys +10.0[ETX]    |
| Write Variable Response:                                    | [STX]sWA ICdistsys[ETX]          |

### 2.24.4.4. Variable: IncrFixVelocity

The following section contains a detailed description of the variable IncrFixVelocity.

#### Variable Overview

| Variable Name   | Description                 |
|-----------------|-----------------------------|
| IncrFixVelocity | If fix velocity is selected |

|                       |   |
|-----------------------|---|
| Communication Name    | ICFixVel  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1054  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Real                 |                                      |
|----------------------|--------------------------------------|
| Value Range          | See specification IEEE 754 0.0..10.0 |
| Initialisation       | 0.0                                  |
| Physical Unit        | m/s                                  |
| Physical Unit Factor | 0.0                                  |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN ICFixVel   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | ICFixVel | String | 8             | If fix velocity is selected |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA ICFixVel <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | ICFixVel | String | 8             | If fix velocity is selected     |
| Variable Data           | data     | Real   | 4             |                                 |



| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN ICFixVel <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | ICFixVel | String | 8             | If fix velocity is selected  |
| Variable Data       | data     | Real   | 4             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA ICFixVel             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | ICFixVel | String | 8             | If fix velocity is selected      |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN ICFixVel[ETX]          |
| Read Variable Response:                                     | [STX]sRA ICFixVel 00000000[ETX] |
| Write Variable:   | [STX]sWN ICFixVel +0.0[ETX]     |
| Write Variable Response:                                    | [STX]sWA ICFixVel[ETX]          |

### 2.24.4.5. Variable: IncrPreProcess

The following section contains a detailed description of the variable IncrPreProcess.

#### Variable Overview

| Variable Name  | Description             |
|----------------|-------------------------|
| IncrPreProcess | Increment preprocessing |

|                       |   |
|-----------------------|---|
| Communication Name    | ICprepro  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1055  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |               |             |
|---------------|-------|---------------|-------------|
| Default Value |       | TX_OFF        |             |
|               | Value | Name          | Description |
|               | 0     | TX_OFF        |             |
|               | 1     | TX_DIVIDER    |             |
|               | 2     | TX_MULTIPLIER |             |

## Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN ICprepro   |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | ICprepro | String | 8             | Increment preprocessing     |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA ICprepro <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | ICprepro | String | 8             | Increment preprocessing         |
| Variable Data           | data     | Enum8  | 1             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN ICprepro <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | ICprepro | String | 8             | Increment preprocessing      |
| Variable Data       | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA ICprepro             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | ICprepro | String | 8             | Increment preprocessing          |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN ICprepro[ETX]   |
| Read Variable Response:                                     | [STX]sRA ICprepro 0[ETX] |
| Write Variable:   | [STX]sWN ICprepro 0[ETX] |
| Write Variable Response:                                    | [STX]sWA ICprepro[ETX]   |

## 2.24.4.6. Variable: IncrDivider

The following section contains a detailed description of the variable IncrDivider.

### Variable Overview

| Variable Name | Description                                |
|---------------|--|
| IncrDivider   | Increment divider for the system increment |

|                       |   |
|-----------------------|---|
| Communication Name    | ICdiv   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1056  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |         |
|----------------------|---------|
| Value Range          | 2..1000 |
| Initialisation       | 2       |
| Physical Unit        |         |
| Physical Unit Factor | 0.0     |

### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN ICdiv      |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                                |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                |
| Command        | ICdiv    | String | 5             | Increment divider for the system increment |

| Read Variable Response: |          |        |               |  |
|-------------------------|----------|--------|---------------|--|
| sRA ICdiv <data>        |          |        |               |  |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                                |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge            |
| Command                 | ICdiv    | String | 5             | Increment divider for the system increment |
| Variable Data           | data     | UInt   | 2             |  |

| Write Variable:  |          |        |               |  |
|------------------|----------|--------|---------------|--|
| sWN ICdiv <data> |          |        |               |  |
| Telegram Part    | Telegram | Type   | Length [Byte] | Description                                |
| Command Type     | sWN      | String | 3             | Write SOPAS Variable by Name               |
| Command          | ICdiv    | String | 5             | Increment divider for the system increment |
| Variable Data    | data     | UInt   | 2             |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA ICdiv                |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                                |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge           |
| Command                  | ICdiv    | String | 5             | Increment divider for the system increment |



## Variable Telegram Examples

| Example: Default Values                                     |                       |
|---|-----------------------|
| Variable telegram examples with data set to default values. |                       |
| Read Variable:  | [STX]sRN ICdiv[ETX]   |
| Read Variable Response:                                     | [STX]sRA ICdiv 2[ETX] |
| Write Variable:   | [STX]sWN ICdiv 2[ETX] |
| Write Variable Response:                                    | [STX]sWA ICdiv[ETX]   |

### 2.24.4.7. Variable: IncrMultiplier

The following section contains a detailed description of the variable IncrMultiplier.

#### Variable Overview

| Variable Name  | Description                                   |
|----------------|---|
| IncrMultiplier | Increment multiplier for the system increment |

|                       |   |
|-----------------------|---|
| Communication Name    | ICmul   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1057  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |         |
|----------------------|---------|
| Value Range          | 2..3000 |
| Initialisation       | 2       |
| Physical Unit        |         |
| Physical Unit Factor | 0.0     |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN ICmul      |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                                   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                   |
| Command        | ICmul    | String | 5             | Increment multiplier for the system increment |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA ICmul <data>        |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                                   |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge               |
| Command                 | ICmul    | String | 5             | Increment multiplier for the system increment |
| Variable Data           | data     | UInt   | 2             |   |



| Write Variable:  |          |        |               |   |
|------------------|----------|--------|---------------|---|
| sWN ICmul <data> |          |        |               |   |
| Telegram Part    | Telegram | Type   | Length [Byte] | Description                                   |
| Command Type     | sWN      | String | 3             | Write SOPAS Variable by Name                  |
| Command          | ICmul    | String | 5             | Increment multiplier for the system increment |
| Variable Data    | data     | UInt   | 2             |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA ICmul                |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                                   |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge              |
| Command                  | ICmul    | String | 5             | Increment multiplier for the system increment |

## Variable Telegram Examples

| Example: Default Values                                     |                       |
|---|-----------------------|
| Variable telegram examples with data set to default values. |                       |
| Read Variable:  | [STX]sRN ICmul[ETX]   |
| Read Variable Response:                                     | [STX]sRA ICmul 2[ETX] |
| Write Variable:   | [STX]sWN ICmul 2[ETX] |
| Write Variable Response:                                    | [STX]sWA ICmul[ETX]   |

### 2.24.4.8. Variable: PeriodFilter

The following section contains a detailed description of the variable PeriodFilter.

#### Variable Overview

| Variable Name | Description                  |
|---------------|------------------------------|
| PeriodFilter  | Period filter for multiplier |

|                       |   |
|-----------------------|---|
| Communication Name    | ICperfil  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1058  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |       |
|----------------------|-------|
| Value Range          | 2..10 |
| Initialisation       | 2     |
| Physical Unit        |       |
| Physical Unit Factor | 0.0   |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                              |
|----------------|----------|--------|---------------|------------------------------|
| sRN ICperfil   |          |        |               |                              |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name  |
| Command        | ICperfil | String | 8             | Period filter for multiplier |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA ICperfil <data>     |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | ICperfil | String | 8             | Period filter for multiplier    |
| Variable Data           | data     | UInt   | 2             |                                 |

| Write Variable:     |          |        |               |                              |
|---------------------|----------|--------|---------------|------------------------------|
| sWN ICperfil <data> |          |        |               |                              |
| Telegram Part       | Telegram | Type   | Length [Byte] | Description                  |
| Command Type        | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command             | ICperfil | String | 8             | Period filter for multiplier |
| Variable Data       | data     | UInt   | 2             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA ICperfil             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | ICperfil | String | 8             | Period filter for multiplier     |

## Variable Telegram Examples

| Example: Default Values                                     |                          |
|---|--------------------------|
| Variable telegram examples with data set to default values. |                          |
| Read Variable:  | [STX]sRN ICperfil[ETX]   |
| Read Variable Response:                                     | [STX]sRA ICperfil 2[ETX] |
| Write Variable:   | [STX]sWN ICperfil 2[ETX] |
| Write Variable Response:                                    | [STX]sWA ICperfil[ETX]   |



## 2.24.4.9. Variable: IncrDistribute

The following section contains a detailed description of the variable IncrDistribute.

### Variable Overview

| Variable Name  | Description                       |
|----------------|-----------------------------------|
| IncrDistribute | Increment distribution on CAN-Bus |

|                       |   |
|-----------------------|---|
| Communication Name    | ICincdist   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1059  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |             |             |
|---------------|-------|-------------|-------------|
| Default Value |       | TX_DISABLED |             |
|               | Value | Name        | Description |
|               | 0     | TX_DISABLED |             |
|               | 1     | TX_CAN_1    |             |

### Variable Telegram Syntax

| Read Variable: |           |        |               |                                   |
|----------------|-----------|--------|---------------|-----------------------------------|
| sRN ICincdist  |           |        |               |                                   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name       |
| Command        | ICincdist | String | 9             | Increment distribution on CAN-Bus |

| Read Variable Response: |           |        |               |                                   |
|-------------------------|-----------|--------|---------------|-----------------------------------|
| sRA ICincdist <data>    |           |        |               |                                   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | ICincdist | String | 9             | Increment distribution on CAN-Bus |
| Variable Data           | data      | Enum8  | 1             |                                   |

| Write Variable:      |           |        |               |                                   |
|----------------------|-----------|--------|---------------|-----------------------------------|
| sWN ICincdist <data> |           |        |               |                                   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name      |
| Command              | ICincdist | String | 9             | Increment distribution on CAN-Bus |
| Variable Data        | data      | Enum8  | 1             |                                   |

| Write Variable Response: |           |        |               |                                   |
|--------------------------|-----------|--------|---------------|-----------------------------------|
| sWA ICincdist            |           |        |               |                                   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                       |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | ICincdist | String | 9             | Increment distribution on CAN-Bus |



## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN ICinclist[ETX]   |
| Read Variable Response:                                     | [STX]sRA ICinclist 0[ETX] |
| Write Variable:   | [STX]sWN ICinclist 0[ETX] |
| Write Variable Response:                                    | [STX]sWA ICinclist[ETX]   |

### 2.24.4.10. Method: SetIncrement

The following section contains a detailed description of the method SetIncrement.

#### Method Overview

| Method Name  | Description              |
|--------------|--------------------------|
| SetIncrement | sets the increment value |

|                    |         |
|--------------------|---------|
| Communication Name | mSetInc |
| Sopas Index        | 140     |
| Invocation Access  | Always  |

| Parameters           |               |
|----------------------|---------------|
| IncVal               |               |
| UDInt                |               |
| Value Range          | 0..4294967295 |
| Initialisation       |               |
| Physical Unit        |               |
| Physical Unit Factor | 0.0           |

| Return Values  |             |
|----------------|-------------|
| Success        |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |



## Method Telegram Syntax

| Method Invocation:   |          |        |               |                                |
|----------------------|----------|--------|---------------|--------------------------------|
| sMN mSetInc <IncVal> |          |        |               |                                |
| Telegram Part        | Telegram | Type   | Length [Byte] | Description                    |
| Command Type         | sMN      | String | 3             | Request (SOPAS Method by Name) |
| Command              | mSetInc  | String | 7             | sets the increment value       |
| Parameter 1          | IncVal   | UDInt  | 4             |                                |

| Method Return Value:  |          |        |               |                              |
|-----------------------|----------|--------|---------------|------------------------------|
| sAN mSetInc <Success> |          |        |               |                              |
| Telegram Part         | Telegram | Type   | Length [Byte] | Description                  |
| Command Type          | sAN      | String | 3             | Result (SOPAS Method Result) |
| Command               | mSetInc  | String | 7             | sets the increment value     |
| Return Value 1        | Success  | Bool   | 1             |                              |

## Method Telegram Examples

| Example: Default Values   |                         |
|---|-------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                         |
| Method Invocation:  | [STX]sMN mSetInc 0[ETX] |
| Method Return Value:  | [STX]sAN mSetInc 0[ETX] |



## 2.24.5. Group: TriggerControl

### 2.24.5.1. Variable: TrigStartCondition

The following section contains a detailed description of the variable TrigStartCondition.

#### Variable Overview

| Variable Name      | Description                       |
|--------------------|-----------------------------------|
| TrigStartCondition | Start condition of object trigger |

|                       |   |
|-----------------------|---|
| Communication Name    | TCStartCond   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1060  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                    |             |
|---------------|-------|--------------------|-------------|
| Default Value |       | 0                  |             |
|               | Value | Name               | Description |
|               | 0     | TX_SENSOR1         |             |
|               | 1     | TX_SENSOR2         |             |
|               | 2     | TX_EXT_INPUT1      |             |
|               | 3     | TX_EXT_INPUT2      |             |
|               | 4     | TX_COMMAND         |             |
|               | 5     | TX_AUTOCYCLE       |             |
|               | 6     | TX_CAN_1           |             |
|               | 7     | TX_USERDEF_CMD     |             |
|               | 8     | TX_CDF600_FIELDBUS |             |
|               | 9     | TX_FREE_RUNNING    |             |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                                   |
|-----------------|-------------|--------|---------------|-----------------------------------|
| sRN TCStartCond |             |        |               |                                   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                       |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name       |
| Command         | TCStartCond | String | 11            | Start condition of object trigger |

| Read Variable Response: |             |        |               |                                   |
|-------------------------|-------------|--------|---------------|-----------------------------------|
| sRA TCStartCond <data>  |             |        |               |                                   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                       |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | TCStartCond | String | 11            | Start condition of object trigger |
| Variable Data           | data        | Enum8  | 1             |                                   |



| Write Variable:        |             |        |               |                                   |
|------------------------|-------------|--------|---------------|-----------------------------------|
| sWN TCStartCond <data> |             |        |               |                                   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                       |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name      |
| Command                | TCStartCond | String | 11            | Start condition of object trigger |
| Variable Data          | data        | Enum8  | 1             |                                   |

| Write Variable Response: |             |        |               |                                   |
|--------------------------|-------------|--------|---------------|-----------------------------------|
| sWA TCStartCond          |             |        |               |                                   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                       |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | TCStartCond | String | 11            | Start condition of object trigger |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN TCStartCond[ETX]   |
| Read Variable Response:                                     | [STX]sRA TCStartCond 0[ETX] |
| Write Variable:   | [STX]sWN TCStartCond 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TCStartCond[ETX]   |

### 2.24.5.2. Variable: TrigStopCondition1

The following section contains a detailed description of the variable TrigStopCondition1.

#### Variable Overview

| Variable Name      | Description                        |
|--------------------|------------------------------------|
| TrigStopCondition1 | Stop condition 1 of object trigger |

|                       |   |
|-----------------------|---|
| Communication Name    | TCStopCond1   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1061  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |



| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 1              |             |
|               | Value | Name           | Description |
|               | 0     | TX_NOT_DEFINED |             |
|               | 1     | TX_REL_2_START |             |
|               | 2     | TX_SENSOR1     |             |
|               | 3     | TX_SENSOR2     |             |
|               | 4     | TX_EXT_INPUT1  |             |
|               | 5     | TX_EXT_INPUT2  |             |
|               | 6     | TX_COMMAND     |             |
|               | 7     | TX_TIMER_TRACK |             |
|               | 8     | TX_GOOD_READ   |             |
|               | 9     | TX_USERDEF_CMD |             |

## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                    |
|-----------------|-------------|--------|---------------|------------------------------------|
| sRN TCStopCond1 |             |        |               |                                    |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name        |
| Command         | TCStopCond1 | String | 11            | Stop condition 1 of object trigger |

| Read Variable Response: |             |        |               |                                    |
|-------------------------|-------------|--------|---------------|------------------------------------|
| sRA TCStopCond1 <data>  |             |        |               |                                    |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                 | TCStopCond1 | String | 11            | Stop condition 1 of object trigger |
| Variable Data           | data        | Enum8  | 1             |                                    |

| Write Variable:        |             |        |               |                                    |
|------------------------|-------------|--------|---------------|------------------------------------|
| sWN TCStopCond1 <data> |             |        |               |                                    |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name       |
| Command                | TCStopCond1 | String | 11            | Stop condition 1 of object trigger |
| Variable Data          | data        | Enum8  | 1             |                                    |

| Write Variable Response: |             |        |               |                                    |
|--------------------------|-------------|--------|---------------|------------------------------------|
| sWA TCStopCond1          |             |        |               |                                    |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | TCStopCond1 | String | 11            | Stop condition 1 of object trigger |



## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN TCStopCond1[ETX]   |
| Read Variable Response:                                     | [STX]sRA TCStopCond1 1[ETX] |
| Write Variable:   | [STX]sWN TCStopCond1 1[ETX] |
| Write Variable Response:                                    | [STX]sWA TCStopCond1[ETX]   |

### 2.24.5.3. Variable: TrigStopCondition2

The following section contains a detailed description of the variable TrigStopCondition2.

#### Variable Overview

| Variable Name      | Description                        |
|--------------------|------------------------------------|
| TrigStopCondition2 | Stop condition 1 of object trigger |

|                       |   |
|-----------------------|---|
| Communication Name    | TCStopCond2   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1062  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_NOT_DEFINED |             |
|               | 1     | TX_REL_2_START |             |
|               | 2     | TX_SENSOR1     |             |
|               | 3     | TX_SENSOR2     |             |
|               | 4     | TX_EXT_INPUT1  |             |
|               | 5     | TX_EXT_INPUT2  |             |
|               | 6     | TX_COMMAND     |             |
|               | 7     | TX_TIMER_TRACK |             |
|               | 8     | TX_GOOD_READ   |             |
|               | 9     | TX_USERDEF_CMD |             |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                    |
|-----------------|-------------|--------|---------------|------------------------------------|
| sRN TCStopCond2 |             |        |               |                                    |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name        |
| Command         | TCStopCond2 | String | 11            | Stop condition 1 of object trigger |

| Read Variable Response: |             |        |               |                                    |
|-------------------------|-------------|--------|---------------|------------------------------------|
| sRA TCStopCond2 <data>  |             |        |               |                                    |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                 | TCStopCond2 | String | 11            | Stop condition 1 of object trigger |
| Variable Data           | data        | Enum8  | 1             |                                    |

| Write Variable:        |             |        |               |                                    |
|------------------------|-------------|--------|---------------|------------------------------------|
| sWN TCStopCond2 <data> |             |        |               |                                    |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name       |
| Command                | TCStopCond2 | String | 11            | Stop condition 1 of object trigger |
| Variable Data          | data        | Enum8  | 1             |                                    |

| Write Variable Response: |             |        |               |                                    |
|--------------------------|-------------|--------|---------------|------------------------------------|
| sWA TCStopCond2          |             |        |               |                                    |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | TCStopCond2 | String | 11            | Stop condition 1 of object trigger |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN TCStopCond2[ETX]   |
| Read Variable Response:                                     | [STX]sRA TCStopCond2 0[ETX] |
| Write Variable:   | [STX]sWN TCStopCond2 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TCStopCond2[ETX]   |





#### 2.24.5.4. Variable: TrigStopCondition3

The following section contains a detailed description of the variable TrigStopCondition3.

##### Variable Overview

| Variable Name      | Description                        |
|--------------------|------------------------------------|
| TrigStopCondition3 | Stop condition 1 of object trigger |

|                       |   |
|-----------------------|---|
| Communication Name    | TCStopCond3   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1063  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 0              |             |
|               | Value | Name           | Description |
|               | 0     | TX_NOT_DEFINED |             |
|               | 1     | TX_REL_2_START |             |
|               | 2     | TX_SENSOR1     |             |
|               | 3     | TX_SENSOR2     |             |
|               | 4     | TX_EXT_INPUT1  |             |
|               | 5     | TX_EXT_INPUT2  |             |
|               | 6     | TX_COMMAND     |             |
|               | 7     | TX_TIMER_TRACK |             |
|               | 8     | TX_GOOD_READ   |             |
|               | 9     | TX_USERDEF_CMD |             |

##### Variable Telegram Syntax

| Read Variable:  |             |        |               |                                    |
|-----------------|-------------|--------|---------------|------------------------------------|
| sRN TCStopCond3 |             |        |               |                                    |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name        |
| Command         | TCStopCond3 | String | 11            | Stop condition 1 of object trigger |

| Read Variable Response: |             |        |               |                                    |
|-------------------------|-------------|--------|---------------|------------------------------------|
| sRA TCStopCond3 <data>  |             |        |               |                                    |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                 | TCStopCond3 | String | 11            | Stop condition 1 of object trigger |
| Variable Data           | data        | Enum8  | 1             |                                    |

| Write Variable:        |             |        |               |                                    |
|------------------------|-------------|--------|---------------|------------------------------------|
| sWN TCStopCond3 <data> |             |        |               |                                    |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name       |
| Command                | TCStopCond3 | String | 11            | Stop condition 1 of object trigger |



| Write Variable:        |          |       |               |             |
|------------------------|----------|-------|---------------|-------------|
| sWN TCStopCond3 <data> |          |       |               |             |
| Telegram Part          | Telegram | Type  | Length [Byte] | Description |
| Variable Data          | data     | Enum8 | 1             |             |

| Write Variable Response: |             |        |               |                                    |
|--------------------------|-------------|--------|---------------|------------------------------------|
| sWA TCStopCond3          |             |        |               |                                    |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                        |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | TCStopCond3 | String | 11            | Stop condition 1 of object trigger |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN TCStopCond3[ETX]   |
| Read Variable Response:                                     | [STX]sRA TCStopCond3 0[ETX] |
| Write Variable:   | [STX]sWN TCStopCond3 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TCStopCond3[ETX]   |

### 2.24.5.5. Variable: TrigStopCondition1Ext

The following section contains a detailed description of the variable TrigStopCondition1Ext.

#### Variable Overview

| Variable Name         | Description                                 |
|-----------------------|---|
| TrigStopCondition1Ext | Stop condition 1 of trigger Evcnd extension |

|                       |   |
|-----------------------|---|
| Communication Name    | TCStopCond1Ext  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1064  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..18       |
| Initialisation |             |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |   |
|--------------------|----------------|--------|---------------|---|
| sRN TCStopCond1Ext |                |        |               |   |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                                 |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name                 |
| Command            | TCStopCond1Ext | String | 14            | Stop condition 1 of trigger Evcnd extension |

| Read Variable Response:                         |                |            |               |   |
|---|----------------|------------|---------------|---|
| sRA TCStopCond1Ext <UseExtraValue> <ExtraValue> |                |            |               |   |
| Telegram Part                                   | Telegram       | Type       | Length [Byte] | Description                                 |
| Command Type                                    | sRA            | String     | 3             | SOPAS Variable Read Acknowledge             |
| Command   | TCStopCond1Ext | String     | 14            | Stop condition 1 of trigger Evcnd extension |
| Variable Data 1                                 | UseExtraValue  | Bool       | 1             |   |
| Variable Data 2                                 | ExtraValue     | FlexString | 18            |   |

| Write Variable:                                 |                |            |               |   |
|---|----------------|------------|---------------|---|
| sWN TCStopCond1Ext <UseExtraValue> <ExtraValue> |                |            |               |   |
| Telegram Part                                   | Telegram       | Type       | Length [Byte] | Description                                 |
| Command Type                                    | sWN            | String     | 3             | Write SOPAS Variable by Name                |
| Command   | TCStopCond1Ext | String     | 14            | Stop condition 1 of trigger Evcnd extension |
| Variable Data 1                                 | UseExtraValue  | Bool       | 1             |   |
| Variable Data 2                                 | ExtraValue     | FlexString | 18            |   |

| Write Variable Response: |                |        |               |   |
|--------------------------|----------------|--------|---------------|---|
| sWA TCStopCond1Ext       |                |        |               |   |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                                 |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge            |
| Command                  | TCStopCond1Ext | String | 14            | Stop condition 1 of trigger Evcnd extension |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| Read Variable:  | [STX]sRN TCStopCond1Ext[ETX]        |
| Read Variable Response:                                     | [STX]sRA TCStopCond1Ext 0 0[ETX]    |
| Write Variable:   | [STX]sWN TCStopCond1Ext 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TCStopCond1Ext[ETX]        |



## 2.24.5.6. Variable: TrigStopCondition2Ext

The following section contains a detailed description of the variable TrigStopCondition2Ext.

### Variable Overview

| Variable Name         | Description                                 |
|-----------------------|---|
| TrigStopCondition2Ext | Stop condition 2 of trigger Evcnd extension |

|                       |   |
|-----------------------|---|
| Communication Name    | TCStopCond2Ext  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1065  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..18       |
| Initialisation |             |

### Variable Telegram Syntax

| Read Variable:     |                |        |               |   |
|--------------------|----------------|--------|---------------|---|
| sRN TCStopCond2Ext |                |        |               |   |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                                 |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name                 |
| Command            | TCStopCond2Ext | String | 14            | Stop condition 2 of trigger Evcnd extension |

| Read Variable Response:                         |                |            |               |   |
|---|----------------|------------|---------------|---|
| sRA TCStopCond2Ext <UseExtraValue> <ExtraValue> |                |            |               |   |
| Telegram Part                                   | Telegram       | Type       | Length [Byte] | Description                                 |
| Command Type                                    | sRA            | String     | 3             | SOPAS Variable Read Acknowledge             |
| Command   | TCStopCond2Ext | String     | 14            | Stop condition 2 of trigger Evcnd extension |
| Variable Data 1                                 | UseExtraValue  | Bool       | 1             |   |
| Variable Data 2                                 | ExtraValue     | FlexString | 18            |   |

| Write Variable:                                 |                |            |               |   |
|---|----------------|------------|---------------|---|
| sWN TCStopCond2Ext <UseExtraValue> <ExtraValue> |                |            |               |   |
| Telegram Part                                   | Telegram       | Type       | Length [Byte] | Description                                 |
| Command Type                                    | sWN            | String     | 3             | Write SOPAS Variable by Name                |
| Command   | TCStopCond2Ext | String     | 14            | Stop condition 2 of trigger Evcnd extension |
| Variable Data 1                                 | UseExtraValue  | Bool       | 1             |   |
| Variable Data 2                                 | ExtraValue     | FlexString | 18            |   |



| Write Variable Response: |                |        |               |   |
|--------------------------|----------------|--------|---------------|---|
| sWA TCStopCond2Ext       |                |        |               |   |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                                 |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge            |
| Command                  | TCStopCond2Ext | String | 14            | Stop condition 2 of trigger Evcnd extension |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| Read Variable:  | [STX]sRN TCStopCond2Ext[ETX]        |
| Read Variable Response:                                     | [STX]sRA TCStopCond2Ext 0 0[ETX]    |
| Write Variable:   | [STX]sWN TCStopCond2Ext 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TCStopCond2Ext[ETX]        |

### 2.24.5.7. Variable: TrigStopCondition3Ext

The following section contains a detailed description of the variable TrigStopCondition3Ext.

#### Variable Overview

| Variable Name         | Description                                 |
|-----------------------|---|
| TrigStopCondition3Ext | Stop condition 3 of trigger Evcnd extension |

|                       |   |
|-----------------------|---|
| Communication Name    | TCStopCond3Ext  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1066  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct            |             |
|-------------------|-------------|
| UseExtraValue     |             |
| <b>Bool</b>       |             |
| Value Range       | False, True |
| Initialisation    | False       |
| ExtraValue        |             |
| <b>FlexString</b> |             |
| Length            | 0..18       |
| Initialisation    |             |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |   |
|--------------------|----------------|--------|---------------|---|
| sRN TCStopCond3Ext |                |        |               |   |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                                 |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name                 |
| Command            | TCStopCond3Ext | String | 14            | Stop condition 3 of trigger Evcnd extension |

| Read Variable Response:                         |                |            |               |   |
|---|----------------|------------|---------------|---|
| sRA TCStopCond3Ext <UseExtraValue> <ExtraValue> |                |            |               |   |
| Telegram Part                                   | Telegram       | Type       | Length [Byte] | Description                                 |
| Command Type                                    | sRA            | String     | 3             | SOPAS Variable Read Acknowledge             |
| Command   | TCStopCond3Ext | String     | 14            | Stop condition 3 of trigger Evcnd extension |
| Variable Data 1                                 | UseExtraValue  | Bool       | 1             |   |
| Variable Data 2                                 | ExtraValue     | FlexString | 18            |   |

| Write Variable:                                 |                |            |               |   |
|---|----------------|------------|---------------|---|
| sWN TCStopCond3Ext <UseExtraValue> <ExtraValue> |                |            |               |   |
| Telegram Part                                   | Telegram       | Type       | Length [Byte] | Description                                 |
| Command Type                                    | sWN            | String     | 3             | Write SOPAS Variable by Name                |
| Command   | TCStopCond3Ext | String     | 14            | Stop condition 3 of trigger Evcnd extension |
| Variable Data 1                                 | UseExtraValue  | Bool       | 1             |   |
| Variable Data 2                                 | ExtraValue     | FlexString | 18            |   |

| Write Variable Response: |                |        |               |   |
|--------------------------|----------------|--------|---------------|---|
| sWA TCStopCond3Ext       |                |        |               |   |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                                 |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge            |
| Command                  | TCStopCond3Ext | String | 14            | Stop condition 3 of trigger Evcnd extension |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| Read Variable:  | [STX]sRN TCStopCond3Ext[ETX]        |
| Read Variable Response:                                     | [STX]sRA TCStopCond3Ext 0 0[ETX]    |
| Write Variable:   | [STX]sWN TCStopCond3Ext 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TCStopCond3Ext[ETX]        |

## 2.24.5.8. Variable: TriggerEcho

The following section contains a detailed description of the variable TriggerEcho.

### Variable Overview

| Variable Name | Description  |
|---------------|--|
| TriggerEcho   | Echo on/off for 21/22 triggers and user def. trigger cmd |

|                       |   |
|-----------------------|---|
| Communication Name    | SnglChrTrgEcho  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1067  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

### Variable Telegram Syntax

| Read Variable:     |                |        |               |  |
|--------------------|----------------|--------|---------------|--|
| sRN SnglChrTrgEcho |                |        |               |  |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description  |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name                              |
| Command            | SnglChrTrgEcho | String | 14            | Echo on/off for 21/22 triggers and user def. trigger cmd |

| Read Variable Response:   |                |        |               |  |
|---------------------------|----------------|--------|---------------|--|
| sRA SnglChrTrgEcho <data> |                |        |               |  |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description  |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge                          |
| Command                   | SnglChrTrgEcho | String | 14            | Echo on/off for 21/22 triggers and user def. trigger cmd |
| Variable Data             | data           | Bool   | 1             |  |

| Write Variable:           |                |        |               |  |
|---------------------------|----------------|--------|---------------|--|
| sWN SnglChrTrgEcho <data> |                |        |               |  |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description  |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name                             |
| Command                   | SnglChrTrgEcho | String | 14            | Echo on/off for 21/22 triggers and user def. trigger cmd |
| Variable Data             | data           | Bool   | 1             |  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA SnglChrTrgEcho       |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |                |        |               |  |
|--------------------------|----------------|--------|---------------|--|
| sWA SnglChrTrgEcho       |                |        |               |  |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description  |
| Command                  | SnglChrTrgEcho | String | 14            | Echo on/off for 21/22 triggers and user def. trigger cmd |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN SnglChrTrgEcho[ETX]   |
| Read Variable Response:                                     | [STX]sRA SnglChrTrgEcho 0[ETX] |
| Write Variable:   | [STX]sWN SnglChrTrgEcho 0[ETX] |
| Write Variable Response:                                    | [STX]sWA SnglChrTrgEcho[ETX]   |

### 2.24.5.9. Variable: UserDefTriggerStartCmd

The following section contains a detailed description of the variable UserDefTriggerStartCmd.

#### Variable Overview

| Variable Name          | Description                               |
|------------------------|---|
| UserDefTriggerStartCmd | User defined trigger start command string |

|                       |   |
|-----------------------|---|
| Communication Name    | UsrDfCmdTrgStart  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1068  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |       |
|----------------|-------|
| Length         | 0..26 |
| Initialisation | K     |





## Variable Telegram Syntax

| Read Variable:       |                  |        |               |   |
|----------------------|------------------|--------|---------------|---|
| sRN UsrDfCmdTrgStart |                  |        |               |   |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description                               |
| Command Type         | sRN              | String | 3             | Read SOPAS Variable by Name               |
| Command              | UsrDfCmdTrgStart | String | 16            | User defined trigger start command string |

| Read Variable Response:     |                  |            |               |   |
|-----------------------------|------------------|------------|---------------|---|
| sRA UsrDfCmdTrgStart <data> |                  |            |               |   |
| Telegram Part               | Telegram         | Type       | Length [Byte] | Description                               |
| Command Type                | sRA              | String     | 3             | SOPAS Variable Read Acknowledge           |
| Command                     | UsrDfCmdTrgStart | String     | 16            | User defined trigger start command string |
| Variable Data               | data             | FlexString | 26            |   |

| Write Variable:             |                  |            |               |   |
|-----------------------------|------------------|------------|---------------|---|
| sWN UsrDfCmdTrgStart <data> |                  |            |               |   |
| Telegram Part               | Telegram         | Type       | Length [Byte] | Description                               |
| Command Type                | sWN              | String     | 3             | Write SOPAS Variable by Name              |
| Command                     | UsrDfCmdTrgStart | String     | 16            | User defined trigger start command string |
| Variable Data               | data             | FlexString | 26            |   |

| Write Variable Response: |                  |        |               |   |
|--------------------------|------------------|--------|---------------|---|
| sWA UsrDfCmdTrgStart     |                  |        |               |   |
| Telegram Part            | Telegram         | Type   | Length [Byte] | Description                               |
| Command Type             | sWA              | String | 3             | SOPAS Variable Write Acknowledge          |
| Command                  | UsrDfCmdTrgStart | String | 16            | User defined trigger start command string |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| Read Variable:  | [STX]sRN UsrDfCmdTrgStart[ETX]      |
| Read Variable Response:                                     | [STX]sRA UsrDfCmdTrgStart 1 K[ETX]  |
| Write Variable:   | [STX]sWN UsrDfCmdTrgStart +1 K[ETX] |
| Write Variable Response:                                    | [STX]sWA UsrDfCmdTrgStart[ETX]      |



## 2.24.5.10. Variable: UserDefTriggerStopCmd

The following section contains a detailed description of the variable UserDefTriggerStopCmd.

### Variable Overview

| Variable Name         | Description                              |
|-----------------------|--|
| UserDefTriggerStopCmd | User defined trigger stop command string |

|                       |   |
|-----------------------|---|
| Communication Name    | UsrDfCmdTrgStop   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1069  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |       |
|----------------|-------|
| Length         | 0..26 |
| Initialisation | I     |

### Variable Telegram Syntax

| Read Variable:      |                 |        |               |  |
|---------------------|-----------------|--------|---------------|--|
| sRN UsrDfCmdTrgStop |                 |        |               |  |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                              |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name              |
| Command             | UsrDfCmdTrgStop | String | 15            | User defined trigger stop command string |

| Read Variable Response:    |                 |            |               |  |
|----------------------------|-----------------|------------|---------------|--|
| sRA UsrDfCmdTrgStop <data> |                 |            |               |  |
| Telegram Part              | Telegram        | Type       | Length [Byte] | Description                              |
| Command Type               | sRA             | String     | 3             | SOPAS Variable Read Acknowledge          |
| Command                    | UsrDfCmdTrgStop | String     | 15            | User defined trigger stop command string |
| Variable Data              | data            | FlexString | 26            |  |

| Write Variable:            |                 |            |               |  |
|----------------------------|-----------------|------------|---------------|--|
| sWN UsrDfCmdTrgStop <data> |                 |            |               |  |
| Telegram Part              | Telegram        | Type       | Length [Byte] | Description                              |
| Command Type               | sWN             | String     | 3             | Write SOPAS Variable by Name             |
| Command                    | UsrDfCmdTrgStop | String     | 15            | User defined trigger stop command string |
| Variable Data              | data            | FlexString | 26            |  |

| Write Variable Response: |                 |        |               |  |
|--------------------------|-----------------|--------|---------------|--|
| sWA UsrDfCmdTrgStop      |                 |        |               |  |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                              |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge         |
| Command                  | UsrDfCmdTrgStop | String | 15            | User defined trigger stop command string |



## Variable Telegram Examples

| Example: Default Values                                     |                                    |
|---|------------------------------------|
| Variable telegram examples with data set to default values. |                                    |
| Read Variable:  | [STX]sRN UsrDfCmdTrgStop[ETX]      |
| Read Variable Response:                                     | [STX]sRA UsrDfCmdTrgStop 1 I[ETX]  |
| Write Variable:   | [STX]sWN UsrDfCmdTrgStop +1 I[ETX] |
| Write Variable Response:                                    | [STX]sWA UsrDfCmdTrgStop[ETX]      |

### 2.24.5.11. Variable: SystemGateStartDelayTrack

The following section contains a detailed description of the variable SystemGateStartDelayTrack.

#### Variable Overview

| Variable Name             | Description                           |
|---------------------------|---------------------------------------|
| SystemGateStartDelayTrack | Start delay value if track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | TCSGStartDelTrk   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1072  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..50000 |
| Initialisation       | 0        |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable:      |                 |        |               |                                       |
|---------------------|-----------------|--------|---------------|---------------------------------------|
| sRN TCSGStartDelTrk |                 |        |               |                                       |
| Telegram Part       | Telegram        | Type   | Length [Byte] | Description                           |
| Command Type        | sRN             | String | 3             | Read SOPAS Variable by Name           |
| Command             | TCSGStartDelTrk | String | 15            | Start delay value if track controlled |

| Read Variable Response:    |                 |        |               |                                       |
|----------------------------|-----------------|--------|---------------|---------------------------------------|
| sRA TCSGStartDelTrk <data> |                 |        |               |                                       |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                           |
| Command Type               | sRA             | String | 3             | SOPAS Variable Read Acknowledge       |
| Command                    | TCSGStartDelTrk | String | 15            | Start delay value if track controlled |
| Variable Data              | data            | UInt   | 2             |                                       |



| Write Variable:            |                 |        |               |                                       |
|----------------------------|-----------------|--------|---------------|---------------------------------------|
| sWN TCSGStartDelTrk <data> |                 |        |               |                                       |
| Telegram Part              | Telegram        | Type   | Length [Byte] | Description                           |
| Command Type               | sWN             | String | 3             | Write SOPAS Variable by Name          |
| Command                    | TCSGStartDelTrk | String | 15            | Start delay value if track controlled |
| Variable Data              | data            | UInt   | 2             |                                       |

| Write Variable Response: |                 |        |               |                                       |
|--------------------------|-----------------|--------|---------------|---------------------------------------|
| sWA TCSGStartDelTrk      |                 |        |               |                                       |
| Telegram Part            | Telegram        | Type   | Length [Byte] | Description                           |
| Command Type             | sWA             | String | 3             | SOPAS Variable Write Acknowledge      |
| Command                  | TCSGStartDelTrk | String | 15            | Start delay value if track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN TCSGStartDelTrk[ETX]   |
| Read Variable Response:                                     | [STX]sRA TCSGStartDelTrk 0[ETX] |
| Write Variable:   | [STX]sWN TCSGStartDelTrk 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TCSGStartDelTrk[ETX]   |

### 2.24.5.12. Variable: SystemGateStopDelayTrack

The following section contains a detailed description of the variable SystemGateStopDelayTrack.

#### Variable Overview

| Variable Name            | Description                          |
|--------------------------|--------------------------------------|
| SystemGateStopDelayTrack | Stop delay value if track controlled |

|                       |   |
|-----------------------|---|
| Communication Name    | TCSGStopDelTrk  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1073  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..50000 |
| Initialisation       | 0        |
| Physical Unit        | mm       |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable:     |                |        |               |                                      |
|--------------------|----------------|--------|---------------|--------------------------------------|
| sRN TCSGStopDelTrk |                |        |               |                                      |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                          |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name          |
| Command            | TCSGStopDelTrk | String | 14            | Stop delay value if track controlled |

| Read Variable Response:   |                |        |               |                                      |
|---------------------------|----------------|--------|---------------|--------------------------------------|
| sRA TCSGStopDelTrk <data> |                |        |               |                                      |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                          |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge      |
| Command                   | TCSGStopDelTrk | String | 14            | Stop delay value if track controlled |
| Variable Data             | data           | UInt   | 2             |                                      |

| Write Variable:           |                |        |               |                                      |
|---------------------------|----------------|--------|---------------|--------------------------------------|
| sWN TCSGStopDelTrk <data> |                |        |               |                                      |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                          |
| Command Type              | sWN            | String | 3             | Write SOPAS Variable by Name         |
| Command                   | TCSGStopDelTrk | String | 14            | Stop delay value if track controlled |
| Variable Data             | data           | UInt   | 2             |                                      |

| Write Variable Response: |                |        |               |                                      |
|--------------------------|----------------|--------|---------------|--------------------------------------|
| sWA TCSGStopDelTrk       |                |        |               |                                      |
| Telegram Part            | Telegram       | Type   | Length [Byte] | Description                          |
| Command Type             | sWA            | String | 3             | SOPAS Variable Write Acknowledge     |
| Command                  | TCSGStopDelTrk | String | 14            | Stop delay value if track controlled |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN TCSGStopDelTrk[ETX]   |
| Read Variable Response:                                     | [STX]sRA TCSGStopDelTrk 0[ETX] |
| Write Variable:   | [STX]sWN TCSGStopDelTrk 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TCSGStopDelTrk[ETX]   |



### 2.24.5.13. Method: DoReadingGateDiag

The following section contains a detailed description of the method DoReadingGateDiag.

#### Method Overview

| Method Name       | Description  |
|-------------------|--|
| DoReadingGateDiag | executes a reading gate for the given number of scans and evaluates the result afterwards (comparable to obsolete command 2TT) |

|                    |               |
|--------------------|---------------|
| Communication Name | mTCdogatediag |
| Sopas Index        | 141           |
| Invocation Access  | Always        |

| Parameters           |           |
|----------------------|-----------|
| NbrScans             |           |
| UDInt                |           |
| Value Range          | 1..100000 |
| Initialisation       | 100       |
| Physical Unit        |           |
| Physical Unit Factor | 0.0       |

#### Method Telegram Syntax

| Method Invocation:           |               |        |               |  |
|------------------------------|---------------|--------|---------------|--|
| sMN mTCdogatediag <NbrScans> |               |        |               |  |
| Telegram Part                | Telegram      | Type   | Length [Byte] | Description  |
| Command Type                 | sMN           | String | 3             | Request (SOPAS Method by Name)   |
| Command                      | mTCdogatediag | String | 13            | executes a reading gate for the given number of scans and evaluates the result afterwards (comparable to obsolete command 2TT) |
| Parameter 1                  | NbrScans      | UDInt  | 4             |  |

| Method Return Value: |               |        |               |  |
|----------------------|---------------|--------|---------------|--|
| sAN mTCdogatediag    |               |        |               |  |
| Telegram Part        | Telegram      | Type   | Length [Byte] | Description  |
| Command Type         | sAN           | String | 3             | Result (SOPAS Method Result)   |
| Command              | mTCdogatediag | String | 13            | executes a reading gate for the given number of scans and evaluates the result afterwards (comparable to obsolete command 2TT) |

#### Method Telegram Examples

| Example: Default Values   |                                |
|---|--------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                |
| Method Invocation:  | [STX]sMN mTCdogatediag 64[ETX] |
| Method Return Value:  | [STX]sAN mTCdogatediag[ETX]    |



## 2.24.5.14. Method: StartPercentageEvaluation

The following section contains a detailed description of the method StartPercentageEvaluation.

### Method Overview

| Method Name               | Description                      |
|---------------------------|----------------------------------|
| StartPercentageEvaluation | starts the percentage evaluation |

|                    |             |
|--------------------|-------------|
| Communication Name | mTCstrtperc |
| Sopas Index        | 142         |
| Invocation Access  | Always      |

### Method Telegram Syntax

| Method Invocation: |             |        |               |                                  |
|--------------------|-------------|--------|---------------|----------------------------------|
| sMN mTCstrtperc    |             |        |               |                                  |
| Telegram Part      | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type       | sMN         | String | 3             | Request (SOPAS Method by Name)   |
| Command            | mTCstrtperc | String | 11            | starts the percentage evaluation |

| Method Return Value: |             |        |               |                                  |
|----------------------|-------------|--------|---------------|----------------------------------|
| sAN mTCstrtperc      |             |        |               |                                  |
| Telegram Part        | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type         | sAN         | String | 3             | Result (SOPAS Method Result)     |
| Command              | mTCstrtperc | String | 11            | starts the percentage evaluation |

### Method Telegram Examples

| Example: Default Values   |                           |
|---|---------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                           |
| Method Invocation:  | [STX]sMN mTCstrtperc[ETX] |
| Method Return Value:  | [STX]sAN mTCstrtperc[ETX] |



## 2.24.5.15. Method: StopPercentageEvaluation

The following section contains a detailed description of the method StopPercentageEvaluation.

### Method Overview

| Method Name              | Description                     |
|--------------------------|---------------------------------|
| StopPercentageEvaluation | stops the percentage evaluation |

|                    |            |
|--------------------|------------|
| Communication Name | mTCstpperc |
| Sopas Index        | 143        |
| Invocation Access  | Always     |

### Method Telegram Syntax

| Method Invocation: |            |        |               |                                 |
|--------------------|------------|--------|---------------|---------------------------------|
| sMN mTCstpperc     |            |        |               |                                 |
| Telegram Part      | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type       | sMN        | String | 3             | Request (SOPAS Method by Name)  |
| Command            | mTCstpperc | String | 10            | stops the percentage evaluation |

| Method Return Value: |            |        |               |                                 |
|----------------------|------------|--------|---------------|---------------------------------|
| sAN mTCstpperc       |            |        |               |                                 |
| Telegram Part        | Telegram   | Type   | Length [Byte] | Description                     |
| Command Type         | sAN        | String | 3             | Result (SOPAS Method Result)    |
| Command              | mTCstpperc | String | 10            | stops the percentage evaluation |

### Method Telegram Examples

| Example: Default Values   |                          |
|---|--------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                          |
| Method Invocation:  | [STX]sMN mTCstpperc[ETX] |
| Method Return Value:  | [STX]sAN mTCstpperc[ETX] |



## 2.24.6. Group: CodePostProcessing

### 2.24.6.1. Variable: EnableScriptCodePostProc

The following section contains a detailed description of the variable EnableScriptCodePostProc.

#### Variable Overview

| Variable Name            |  |
|--------------------------|--|
| EnableScriptCodePostProc |  |

|                       |   |
|-----------------------|---|
| Communication Name    | CPProcEnaSc   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1074  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN CPProcEnaSc |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | CPProcEnaSc | String | 11            |                             |

| Read Variable Response: |             |        |               |                                 |
|-------------------------|-------------|--------|---------------|---------------------------------|
| sRA CPProcEnaSc <data>  |             |        |               |                                 |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                     |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | CPProcEnaSc | String | 11            |                                 |
| Variable Data           | data        | Bool   | 1             |                                 |

| Write Variable:        |             |        |               |                              |
|------------------------|-------------|--------|---------------|------------------------------|
| sWN CPProcEnaSc <data> |             |        |               |                              |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                  |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name |
| Command                | CPProcEnaSc | String | 11            |                              |
| Variable Data          | data        | Bool   | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA CPProcEnaSc          |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |            |        |               |             |
|--------------------------|------------|--------|---------------|-------------|
| sWA CProcEnaSc           |            |        |               |             |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description |
| Command                  | CProcEnaSc | String | 11            |             |

## Variable Telegram Examples

| Example: Default Values                                     |                            |
|---|----------------------------|
| Variable telegram examples with data set to default values. |                            |
| <b>Read Variable:</b>                                       | [STX]sRN CProcEnaSc[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA CProcEnaSc 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN CProcEnaSc 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA CProcEnaSc[ETX]   |

## 2.24.7. Group: Decoding1DExtensions

### 2.24.7.1. Variable: OptimizedForPicketFenceReading

The following section contains a detailed description of the variable OptimizedForPicketFenceReading.

#### Variable Overview

| Variable Name                  |  |
|--------------------------------|--|
| OptimizedForPicketFenceReading |  |

|                       |   |
|-----------------------|---|
| Communication Name    | D1DOptPckFnc  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1076  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |                             |
|------------------|--------------|--------|---------------|-----------------------------|
| sRN D1DOptPckFnc |              |        |               |                             |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                 |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name |
| Command          | D1DOptPckFnc | String | 12            |                             |

| Read Variable Response: |              |        |               |                                 |
|-------------------------|--------------|--------|---------------|---------------------------------|
| sRA D1DOptPckFnc <data> |              |        |               |                                 |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | D1DOptPckFnc | String | 12            |                                 |
| Variable Data           | data         | Bool   | 1             |                                 |

| Write Variable:         |              |        |               |                              |
|-------------------------|--------------|--------|---------------|------------------------------|
| sWN D1DOptPckFnc <data> |              |        |               |                              |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                  |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name |
| Command                 | D1DOptPckFnc | String | 12            |                              |
| Variable Data           | data         | Bool   | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA D1DOptPckFnc         |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |              |        |               |             |
|--------------------------|--------------|--------|---------------|-------------|
| sWA D1DOptPckFnc         |              |        |               |             |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description |
| Command                  | D1DOptPckFnc | String | 12            |             |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| <b>Read Variable:</b>                                       | [STX]sRN D1DOptPckFnc[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA D1DOptPckFnc 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN D1DOptPckFnc 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA D1DOptPckFnc[ETX]   |

### 2.24.7.2. Variable: ExtendedSegmentation

The following section contains a detailed description of the variable ExtendedSegmentation.

#### Variable Overview

| Variable Name        | Description                        |
|----------------------|------------------------------------|
| ExtendedSegmentation | Extended segmentation for decoders |

|                       |   |
|-----------------------|---|
| Communication Name    | D1DExtSeg   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1077  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable: |           |        |               |                                    |
|----------------|-----------|--------|---------------|------------------------------------|
| sRN D1DExtSeg  |           |        |               |                                    |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description                        |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name        |
| Command        | D1DExtSeg | String | 9             | Extended segmentation for decoders |

| Read Variable Response: |           |        |               |                                    |
|-------------------------|-----------|--------|---------------|------------------------------------|
| sRA D1DExtSeg <data>    |           |        |               |                                    |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description                        |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge    |
| Command                 | D1DExtSeg | String | 9             | Extended segmentation for decoders |
| Variable Data           | data      | Bool   | 1             |                                    |

| Write Variable:      |           |        |               |                                    |
|----------------------|-----------|--------|---------------|------------------------------------|
| sWN D1DExtSeg <data> |           |        |               |                                    |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                        |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name       |
| Command              | D1DExtSeg | String | 9             | Extended segmentation for decoders |
| Variable Data        | data      | Bool   | 1             |                                    |

| Write Variable Response: |           |        |               |                                    |
|--------------------------|-----------|--------|---------------|------------------------------------|
| sWA D1DExtSeg            |           |        |               |                                    |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description                        |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | D1DExtSeg | String | 9             | Extended segmentation for decoders |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN D1DExtSeg[ETX]   |
| Read Variable Response:                                     | [STX]sRA D1DExtSeg 0[ETX] |
| Write Variable:   | [STX]sWN D1DExtSeg 0[ETX] |
| Write Variable Response:                                    | [STX]sWA D1DExtSeg[ETX]   |



## 2.24.8. Group: ScanView65x

### 2.24.8.1. Variable: ScanVWAOIDistance

The following section contains a detailed description of the variable ScanVWAOIDistance.

#### Variable Overview

| Variable Name     | Description   |
|-------------------|---|
| ScanVWAOIDistance | Distance at angle-of-interest, just for displaying purposes |

|                       |   |
|-----------------------|---|
| Communication Name    | DMAOIDIst   |
| Sopas Synchronisation | Variable is not relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1102  |
| Read-Access           | Always  |
| Write-Access          | Always  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       |          |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN DMAOIDIst  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                                 |
| Command        | DMAOIDIst | String | 9             | Distance at angle-of-interest, just for displaying purposes |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA DMAOIDIst <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description   |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                             |
| Command                 | DMAOIDIst | String | 9             | Distance at angle-of-interest, just for displaying purposes |
| Variable Data           | data      | UInt   | 2             |   |

| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN DMAOIDIst <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description   |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                                |
| Command              | DMAOIDIst | String | 9             | Distance at angle-of-interest, just for displaying purposes |
| Variable Data        | data      | UInt   | 2             |   |



| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA DMAOIDist            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                            |
| Command                  | DMAOIDist | String | 9             | Distance at angle-of-interest, just for displaying purposes |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DMAOIDist[ETX]   |
| Read Variable Response:                                     | [STX]sRA DMAOIDist 0[ETX] |
| Write Variable:   | [STX]sWN DMAOIDist 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DMAOIDist[ETX]   |

### 2.24.8.2. Variable: ScanVWAOI0RSSI

The following section contains a detailed description of the variable ScanVWAOI0RSSI.

#### Variable Overview

| Variable Name  | Description   |
|----------------|---|
| ScanVWAOI0RSSI | RSSI at angle-of-interest, just for displaying purposes |

|                       |   |
|-----------------------|---|
| Communication Name    | DMAOI0RSSI  |
| Sopas Synchronisation | Variable is not relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1103  |
| Read-Access           | Always  |
| Write-Access          | Always  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       |          |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |



## Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN DMAOIRSSI  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                             |
| Command        | DMAOIRSSI | String | 9             | RSSI at angle-of-interest, just for displaying purposes |

| Read Variable Response: |           |        |               |   |
|-------------------------|-----------|--------|---------------|---|
| sRA DMAOIRSSI <data>    |           |        |               |   |
| Telegram Part           | Telegram  | Type   | Length [Byte] | Description   |
| Command Type            | sRA       | String | 3             | SOPAS Variable Read Acknowledge                         |
| Command                 | DMAOIRSSI | String | 9             | RSSI at angle-of-interest, just for displaying purposes |
| Variable Data           | data      | UInt   | 2             |   |

| Write Variable:      |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sWN DMAOIRSSI <data> |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description   |
| Command Type         | sWN       | String | 3             | Write SOPAS Variable by Name                            |
| Command              | DMAOIRSSI | String | 9             | RSSI at angle-of-interest, just for displaying purposes |
| Variable Data        | data      | UInt   | 2             |   |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA DMAOIRSSI            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                        |
| Command                  | DMAOIRSSI | String | 9             | RSSI at angle-of-interest, just for displaying purposes |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN DMAOIRSSI[ETX]   |
| Read Variable Response:                                     | [STX]sRA DMAOIRSSI 0[ETX] |
| Write Variable:   | [STX]sWN DMAOIRSSI 0[ETX] |
| Write Variable Response:                                    | [STX]sWA DMAOIRSSI[ETX]   |





## 2.24.9. Group: DistMeas

### 2.24.9.1. Variable: uiNumOfParamFields

The following section contains a detailed description of the variable uiNumOfParamFields.

#### Variable Overview

| Variable Name      | Description                             |
|--------------------|---|
| uiNumOfParamFields | number of fields which are parametrized |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1139  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| UInt                 |      |
|----------------------|------|
| Value Range          | 0..1 |
| Initialisation       | 1    |
| Physical Unit        |      |
| Physical Unit Factor | 0.0  |

#### Variable Telegram Syntax

| Read Variable:         |                    |        |               |   |
|------------------------|--------------------|--------|---------------|---|
| sRN uiNumOfParamFields |                    |        |               |   |
| Telegram Part          | Telegram           | Type   | Length [Byte] | Description                             |
| Command Type           | sRN                | String | 3             | Read SOPAS Variable by Name             |
| Command                | uiNumOfParamFields | String | 18            | number of fields which are parametrized |

| Read Variable Response:       |                    |        |               |   |
|-------------------------------|--------------------|--------|---------------|---|
| sRA uiNumOfParamFields <data> |                    |        |               |   |
| Telegram Part                 | Telegram           | Type   | Length [Byte] | Description                             |
| Command Type                  | sRA                | String | 3             | SOPAS Variable Read Acknowledge         |
| Command                       | uiNumOfParamFields | String | 18            | number of fields which are parametrized |
| Variable Data                 | data               | UInt   | 2             |   |

| Write Variable:               |                    |        |               |   |
|-------------------------------|--------------------|--------|---------------|---|
| sWN uiNumOfParamFields <data> |                    |        |               |   |
| Telegram Part                 | Telegram           | Type   | Length [Byte] | Description                             |
| Command Type                  | sWN                | String | 3             | Write SOPAS Variable by Name            |
| Command                       | uiNumOfParamFields | String | 18            | number of fields which are parametrized |
| Variable Data                 | data               | UInt   | 2             |   |



| Write Variable Response: |                    |        |               |   |
|--------------------------|--------------------|--------|---------------|---|
| sWA uiNumOfParamFields   |                    |        |               |   |
| Telegram Part            | Telegram           | Type   | Length [Byte] | Description                             |
| Command Type             | sWA                | String | 3             | SOPAS Variable Write Acknowledge        |
| Command                  | uiNumOfParamFields | String | 18            | number of fields which are parametrized |

## Variable Telegram Examples

| Example: Default Values                                     |                                    |
|---|------------------------------------|
| Variable telegram examples with data set to default values. |                                    |
| <b>Read Variable:</b>                                       | [STX]sRN uiNumOfParamFields[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA uiNumOfParamFields 1[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN uiNumOfParamFields 1[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA uiNumOfParamFields[ETX]   |

### 2.24.9.2. Variable: LFETeachInDiffToPlane

The following section contains a detailed description of the variable LFETeachInDiffToPlane.

#### Variable Overview

| Variable Name         | Description                          |
|-----------------------|--------------------------------------|
| LFETeachInDiffToPlane | Difference to conv. belt at teach-in |

|                       |   |
|-----------------------|---|
| Communication Name    | LFEdtp  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1140  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| DInt                 |               |
|----------------------|---------------|
| Value Range          | 0..2147483647 |
| Initialisation       | 50            |
| Physical Unit        | mm            |
| Physical Unit Factor | 0.0           |



## Variable Telegram Syntax

| Read Variable: |          |        |               |                                      |
|----------------|----------|--------|---------------|--------------------------------------|
| sRN LFE dtp    |          |        |               |                                      |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                          |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name          |
| Command        | LFE dtp  | String | 6             | Difference to conv. belt at teach-in |

| Read Variable Response: |          |        |               |                                      |
|-------------------------|----------|--------|---------------|--------------------------------------|
| sRA LFE dtp <data>      |          |        |               |                                      |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                          |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge      |
| Command                 | LFE dtp  | String | 6             | Difference to conv. belt at teach-in |
| Variable Data           | data     | DInt   | 4             |                                      |

| Write Variable:    |          |        |               |                                      |
|--------------------|----------|--------|---------------|--------------------------------------|
| sWN LFE dtp <data> |          |        |               |                                      |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                          |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name         |
| Command            | LFE dtp  | String | 6             | Difference to conv. belt at teach-in |
| Variable Data      | data     | DInt   | 4             |                                      |

| Write Variable Response: |          |        |               |                                      |
|--------------------------|----------|--------|---------------|--------------------------------------|
| sWA LFE dtp              |          |        |               |                                      |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                          |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge     |
| Command                  | LFE dtp  | String | 6             | Difference to conv. belt at teach-in |

## Variable Telegram Examples

| Example: Default Values                                     |                           |
|---|---------------------------|
| Variable telegram examples with data set to default values. |                           |
| Read Variable:  | [STX]sRN LFE dtp[ETX]     |
| Read Variable Response:                                     | [STX]sRA LFE dtp 32[ETX]  |
| Write Variable:   | [STX]sWN LFE dtp +50[ETX] |
| Write Variable Response:                                    | [STX]sWA LFE dtp[ETX]     |



### 2.24.9.3. Method: LFEstartTeachInFieldContour

The following section contains a detailed description of the method LFEstartTeachInFieldContour.

#### Method Overview

| Method Name                 | Description                       |
|-----------------------------|-----------------------------------|
| LFEstartTeachInFieldContour | TeachIn function field to contour |

|                    |                         |
|--------------------|-------------------------|
| Communication Name | mLFEstartTIFieldContour |
| Sopas Index        | 147                     |
| Invocation Access  | AuthorizedClient        |

| Return Values        |                                      |
|----------------------|--------------------------------------|
| uiRet                | 0 method successful, otherwise error |
| <b>UDInt</b>         |                                      |
| Value Range          | 0..4294967295                        |
| Initialisation       | 0                                    |
| Physical Unit        |                                      |
| Physical Unit Factor | 0.0                                  |

#### Method Telegram Syntax

| Method Invocation:          |                         |        |               |                                   |
|-----------------------------|-------------------------|--------|---------------|-----------------------------------|
| sMN mLFEstartTIFieldContour |                         |        |               |                                   |
| Telegram Part               | Telegram                | Type   | Length [Byte] | Description                       |
| Command Type                | sMN                     | String | 3             | Request (SOPAS Method by Name)    |
| Command                     | mLFEstartTIFieldContour | String | 23            | TeachIn function field to contour |

| Method Return Value:                |                         |        |               |                                      |
|-------------------------------------|-------------------------|--------|---------------|--------------------------------------|
| sAN mLFEstartTIFieldContour <uiRet> |                         |        |               |                                      |
| Telegram Part                       | Telegram                | Type   | Length [Byte] | Description                          |
| Command Type                        | sAN                     | String | 3             | Result (SOPAS Method Result)         |
| Command                             | mLFEstartTIFieldContour | String | 23            | TeachIn function field to contour    |
| Return Value 1                      | uiRet                   | UDInt  | 4             | 0 method successful, otherwise error |

#### Method Telegram Examples

| Example: Default Values   |   |
|---|---|
| Method telegram examples with parameter data and return value data set to default values. |   |
| Method Invocation:  | [STX]sMN mLFEstartTIFieldContour[ETX]   |
| Method Return Value:  | [STX]sAN mLFEstartTIFieldContour 0[ETX] |



## 2.24.10. Group: MatchTeachIn

### 2.24.10.1. Variable: MTIGeneralSettings

The following section contains a detailed description of the variable MTIGeneralSettings.

#### Variable Overview

| Variable Name      | Description                                 |
|--------------------|---|
| MTIGeneralSettings | General settings for both teach-in channels |

|                       |   |
|-----------------------|---|
| Communication Name    | MTIGnrlStt  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1142  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct             |       |  |             |
|--------------------|-------|--|-------------|
| codeMode           |       |  |             |
| Enum8              |       |  |             |
| Default Value      |       | 1  |             |
|                    | Value | Name                                       | Description |
|                    | 0     | TX_ALL_CODES                               |             |
|                    | 1     | TX_SELECTED_CODES                          |             |
|                    | 2     | TX_ONLY_PHARMA_CODE                        |             |
| codeConfigHandling |       |  |             |
| Enum8              |       |  |             |
| Default Value      |       | 0  |             |
|                    | Value | Name                                       | Description |
|                    | 0     | TX_DONT_CHANGE_CODE_CONFIG                 |             |
|                    | 1     | TX_CHANGE_CODE_CONFIG_TO_LAST_TEACHED_CODE |             |
|                    | 2     | TX_WIDEN_CODE_CONFIG_ON_LAST_TEACHED_CODE  |             |
| savePermanent      |       |  |             |
| Bool               |       |  |             |
| Value Range        |       | False, True                                |             |
| Initialisation     |       | False                                      |             |
| triggerType        |       |  |             |
| Enum8              |       |  |             |
| Default Value      |       | 0  |             |
|                    | Value | Name                                       | Description |
|                    | 0     | TX_EXTRA_TEACH_TRIGGER                     |             |
|                    | 1     | TX_STD_TRIGGER_NEEDED                      |             |
| hmiAllowed         |       |  |             |
| Bool               |       |  |             |
| Value Range        |       | False, True                                |             |
| Initialisation     |       | True                                       |             |



## Variable Telegram Syntax

| Read Variable: |            |        |               |   |
|----------------|------------|--------|---------------|---|
| sRN MTIGnrlStt |            |        |               |   |
| Telegram Part  | Telegram   | Type   | Length [Byte] | Description                                 |
| Command Type   | sRN        | String | 3             | Read SOPAS Variable by Name                 |
| Command        | MTIGnrlStt | String | 10            | General settings for both teach-in channels |

| Read Variable Response:   |                    |        |               |   |
|---|--------------------|--------|---------------|---|
| sRA MTIGnrlStt <codeMode> <codeConfigHandling> <savePermanent> <triggerType> <hmiAllowed> |                    |        |               |   |
| Telegram Part   | Telegram           | Type   | Length [Byte] | Description                                 |
| Command Type  | sRA                | String | 3             | SOPAS Variable Read Acknowledge             |
| Command   | MTIGnrlStt         | String | 10            | General settings for both teach-in channels |
| Variable Data 1   | codeMode           | Enum8  | 1             |   |
| Variable Data 2   | codeConfigHandling | Enum8  | 1             |   |
| Variable Data 3   | savePermanent      | Bool   | 1             |   |
| Variable Data 4   | triggerType        | Enum8  | 1             |   |
| Variable Data 5   | hmiAllowed         | Bool   | 1             |   |

| Write Variable:   |                    |        |               |   |
|---|--------------------|--------|---------------|---|
| sWN MTIGnrlStt <codeMode> <codeConfigHandling> <savePermanent> <triggerType> <hmiAllowed> |                    |        |               |   |
| Telegram Part   | Telegram           | Type   | Length [Byte] | Description                                 |
| Command Type  | sWN                | String | 3             | Write SOPAS Variable by Name                |
| Command   | MTIGnrlStt         | String | 10            | General settings for both teach-in channels |
| Variable Data 1   | codeMode           | Enum8  | 1             |   |
| Variable Data 2   | codeConfigHandling | Enum8  | 1             |   |
| Variable Data 3   | savePermanent      | Bool   | 1             |   |
| Variable Data 4   | triggerType        | Enum8  | 1             |   |
| Variable Data 5   | hmiAllowed         | Bool   | 1             |   |

| Write Variable Response: |            |        |               |   |
|--------------------------|------------|--------|---------------|---|
| sWA MTIGnrlStt           |            |        |               |   |
| Telegram Part            | Telegram   | Type   | Length [Byte] | Description                                 |
| Command Type             | sWA        | String | 3             | SOPAS Variable Write Acknowledge            |
| Command                  | MTIGnrlStt | String | 10            | General settings for both teach-in channels |

## Variable Telegram Examples

| Example: Default Values                                     |                                    |
|---|------------------------------------|
| Variable telegram examples with data set to default values. |                                    |
| Read Variable:  | [STX]sRN MTIGnrlStt[ETX]           |
| Read Variable Response:                                     | [STX]sRA MTIGnrlStt 1 0 0 0 1[ETX] |
| Write Variable:   | [STX]sWN MTIGnrlStt 1 0 0 0 1[ETX] |
| Write Variable Response:                                    | [STX]sWA MTIGnrlStt[ETX]           |



## 2.24.10.2. Variable: MTIChannelSettings1

The following section contains a detailed description of the variable MTIChannelSettings1.

### Variable Overview

| Variable Name       | Description         |
|---------------------|---------------------|
| MTIChannelSettings1 | Config for channel1 |

|                       |   |
|-----------------------|---|
| Communication Name    | MTIChnl1Stt   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1143  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |       |                    |             |
|----------------|-------|--------------------|-------------|
| triggerSrc     |       |                    |             |
| Enum8          |       |                    |             |
| Default Value  |       | 0                  |             |
|                | Value | Name               | Description |
|                | 0     | TX_INACTIVE        |             |
|                | 1     | TX_SENS1           |             |
|                | 2     | TX_SENS2           |             |
|                | 3     | TX_EXT_SENS1       |             |
|                | 4     | TX_EXT_SENS2       |             |
|                | 5     | TX_CDF600_FIELDBUS |             |
| teachContent   |       |                    |             |
| Bool           |       |                    |             |
| Value Range    |       | False, True        |             |
| Initialisation |       | True               |             |
| teachID        |       |                    |             |
| Bool           |       |                    |             |
| Value Range    |       | False, True        |             |
| Initialisation |       | True               |             |
| teachLength    |       |                    |             |
| Bool           |       |                    |             |
| Value Range    |       | False, True        |             |
| Initialisation |       | True               |             |
| negativeMatch  |       |                    |             |
| Bool           |       |                    |             |
| Value Range    |       | False, True        |             |
| Initialisation |       | False              |             |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN MTIChnl1Stt |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | MTIChnl1Stt | String | 11            | Config for channel1         |

| Read Variable Response:   |               |        |               |                                 |
|---|---------------|--------|---------------|---------------------------------|
| sRA MTIChnl1Stt <triggerSrc> <teachContent> <teachID> <teachLength> <negativeMatch> |               |        |               |                                 |
| Telegram Part   | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type  | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command   | MTIChnl1Stt   | String | 11            | Config for channel1             |
| Variable Data 1   | triggerSrc    | Enum8  | 1             |                                 |
| Variable Data 2   | teachContent  | Bool   | 1             |                                 |
| Variable Data 3   | teachID       | Bool   | 1             |                                 |
| Variable Data 4   | teachLength   | Bool   | 1             |                                 |
| Variable Data 5   | negativeMatch | Bool   | 1             |                                 |

| Write Variable:   |               |        |               |                              |
|---|---------------|--------|---------------|------------------------------|
| sWN MTIChnl1Stt <triggerSrc> <teachContent> <teachID> <teachLength> <negativeMatch> |               |        |               |                              |
| Telegram Part   | Telegram      | Type   | Length [Byte] | Description                  |
| Command Type  | sWN           | String | 3             | Write SOPAS Variable by Name |
| Command   | MTIChnl1Stt   | String | 11            | Config for channel1          |
| Variable Data 1   | triggerSrc    | Enum8  | 1             |                              |
| Variable Data 2   | teachContent  | Bool   | 1             |                              |
| Variable Data 3   | teachID       | Bool   | 1             |                              |
| Variable Data 4   | teachLength   | Bool   | 1             |                              |
| Variable Data 5   | negativeMatch | Bool   | 1             |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA MTIChnl1Stt          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | MTIChnl1Stt | String | 11            | Config for channel1              |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| Read Variable:  | [STX]sRN MTIChnl1Stt[ETX]           |
| Read Variable Response:                                     | [STX]sRA MTIChnl1Stt 0 1 1 1 0[ETX] |
| Write Variable:   | [STX]sWN MTIChnl1Stt 0 1 1 1 0[ETX] |
| Write Variable Response:                                    | [STX]sWA MTIChnl1Stt[ETX]           |



### 2.24.10.3. Variable: MTIChannelStopSettings1

The following section contains a detailed description of the variable MTIChannelStopSettings1.

#### Variable Overview

| Variable Name           | Description                         |
|-------------------------|-------------------------------------|
| MTIChannelStopSettings1 | Stopping settings for dyn. teach-in |

|                       |   |
|-----------------------|---|
| Communication Name    | MTIChnl1Stp   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1144  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                                  |             |
|---------------|-------|----------------------------------|-------------|
| Default Value |       | TX_STOPPED_BY_TRIGGER_SRC        |             |
|               | Value | Name                             | Description |
|               | 0     | TX_STOPPED_BY_TRIGGER_SRC        |             |
|               | 1     | TX_STOPPED_BY_OBJ_TRIG           |             |
|               | 2     | TX_STOPPED_BY_VALID_TEACHED_CODE |             |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                                     |
|-----------------|-------------|--------|---------------|-------------------------------------|
| sRN MTIChnl1Stp |             |        |               |                                     |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                         |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name         |
| Command         | MTIChnl1Stp | String | 11            | Stopping settings for dyn. teach-in |

| Read Variable Response: |             |        |               |                                     |
|-------------------------|-------------|--------|---------------|-------------------------------------|
| sRA MTIChnl1Stp <data>  |             |        |               |                                     |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                         |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | MTIChnl1Stp | String | 11            | Stopping settings for dyn. teach-in |
| Variable Data           | data        | Enum8  | 1             |                                     |

| Write Variable:        |             |        |               |                                     |
|------------------------|-------------|--------|---------------|-------------------------------------|
| sWN MTIChnl1Stp <data> |             |        |               |                                     |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                         |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name        |
| Command                | MTIChnl1Stp | String | 11            | Stopping settings for dyn. teach-in |
| Variable Data          | data        | Enum8  | 1             |                                     |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA MTIChnl1Stp          |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |             |        |               |                                     |
|--------------------------|-------------|--------|---------------|-------------------------------------|
| sWA MTIChnl1Stp          |             |        |               |                                     |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                         |
| Command                  | MTIChnl1Stp | String | 11            | Stopping settings for dyn. teach-in |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN MTIChnl1Stp[ETX]   |
| Read Variable Response:                                     | [STX]sRA MTIChnl1Stp 0[ETX] |
| Write Variable:   | [STX]sWN MTIChnl1Stp 0[ETX] |
| Write Variable Response:                                    | [STX]sWA MTIChnl1Stp[ETX]   |

## 2.24.10.4. Variable: MTIChannel1Condition

The following section contains a detailed description of the variable MTIChannel1Condition.

### Variable Overview

| Variable Name        | Description                    |
|----------------------|--------------------------------|
| MTIChannel1Condition | Dest. condition for teach-in 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | MTIChnl1Cnd   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1145  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |          |
|----------------|----------|
| Length         | 0..18    |
| Initialisation | TeachIn1 |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                                |
|-----------------|-------------|--------|---------------|--------------------------------|
| sRN MTIChnl1Cnd |             |        |               |                                |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                    |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name    |
| Command         | MTIChnl1Cnd | String | 11            | Dest. condition for teach-in 1 |

| Read Variable Response: |             |            |               |                                 |
|-------------------------|-------------|------------|---------------|---------------------------------|
| sRA MTIChnl1Cnd <data>  |             |            |               |                                 |
| Telegram Part           | Telegram    | Type       | Length [Byte] | Description                     |
| Command Type            | sRA         | String     | 3             | SOPAS Variable Read Acknowledge |
| Command                 | MTIChnl1Cnd | String     | 11            | Dest. condition for teach-in 1  |
| Variable Data           | data        | FlexString | 18            |                                 |

| Write Variable:        |             |            |               |                                |
|------------------------|-------------|------------|---------------|--------------------------------|
| sWN MTIChnl1Cnd <data> |             |            |               |                                |
| Telegram Part          | Telegram    | Type       | Length [Byte] | Description                    |
| Command Type           | sWN         | String     | 3             | Write SOPAS Variable by Name   |
| Command                | MTIChnl1Cnd | String     | 11            | Dest. condition for teach-in 1 |
| Variable Data          | data        | FlexString | 18            |                                |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA MTIChnl1Cnd          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | MTIChnl1Cnd | String | 11            | Dest. condition for teach-in 1   |

## Variable Telegram Examples

| Example: Default Values                                     |                                       |
|---|---------------------------------------|
| Variable telegram examples with data set to default values. |                                       |
| Read Variable:  | [STX]sRN MTIChnl1Cnd[ETX]             |
| Read Variable Response:                                     | [STX]sRA MTIChnl1Cnd 8 TeachIn1[ETX]  |
| Write Variable:   | [STX]sWN MTIChnl1Cnd +8 TeachIn1[ETX] |
| Write Variable Response:                                    | [STX]sWA MTIChnl1Cnd[ETX]             |



## 2.24.10.5. Variable: MTIChannelSettings2

The following section contains a detailed description of the variable MTIChannelSettings2.

### Variable Overview

| Variable Name       | Description         |
|---------------------|---------------------|
| MTIChannelSettings2 | Config for channel2 |

|                       |   |
|-----------------------|---|
| Communication Name    | MTIChnl2Stt   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1146  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |       |                    |             |
|----------------|-------|--------------------|-------------|
| triggerSrc     |       |                    |             |
| Enum8          |       |                    |             |
| Default Value  |       | 0                  |             |
|                | Value | Name               | Description |
|                | 0     | TX_INACTIVE        |             |
|                | 1     | TX_SENS1           |             |
|                | 2     | TX_SENS2           |             |
|                | 3     | TX_EXT_SENS1       |             |
|                | 4     | TX_EXT_SENS2       |             |
|                | 5     | TX_CDF600_FIELDBUS |             |
| teachContent   |       |                    |             |
| Bool           |       |                    |             |
| Value Range    |       | False, True        |             |
| Initialisation |       | True               |             |
| teachID        |       |                    |             |
| Bool           |       |                    |             |
| Value Range    |       | False, True        |             |
| Initialisation |       | True               |             |
| teachLength    |       |                    |             |
| Bool           |       |                    |             |
| Value Range    |       | False, True        |             |
| Initialisation |       | True               |             |
| negativeMatch  |       |                    |             |
| Bool           |       |                    |             |
| Value Range    |       | False, True        |             |
| Initialisation |       | False              |             |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |                             |
|-----------------|-------------|--------|---------------|-----------------------------|
| sRN MTIChnl2Stt |             |        |               |                             |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                 |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name |
| Command         | MTIChnl2Stt | String | 11            | Config for channel2         |

| Read Variable Response:   |               |        |               |                                 |
|---|---------------|--------|---------------|---------------------------------|
| sRA MTIChnl2Stt <triggerSrc> <teachContent> <teachID> <teachLength> <negativeMatch> |               |        |               |                                 |
| Telegram Part   | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type  | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command   | MTIChnl2Stt   | String | 11            | Config for channel2             |
| Variable Data 1   | triggerSrc    | Enum8  | 1             |                                 |
| Variable Data 2   | teachContent  | Bool   | 1             |                                 |
| Variable Data 3   | teachID       | Bool   | 1             |                                 |
| Variable Data 4   | teachLength   | Bool   | 1             |                                 |
| Variable Data 5   | negativeMatch | Bool   | 1             |                                 |

| Write Variable:   |               |        |               |                              |
|---|---------------|--------|---------------|------------------------------|
| sWN MTIChnl2Stt <triggerSrc> <teachContent> <teachID> <teachLength> <negativeMatch> |               |        |               |                              |
| Telegram Part   | Telegram      | Type   | Length [Byte] | Description                  |
| Command Type  | sWN           | String | 3             | Write SOPAS Variable by Name |
| Command   | MTIChnl2Stt   | String | 11            | Config for channel2          |
| Variable Data 1   | triggerSrc    | Enum8  | 1             |                              |
| Variable Data 2   | teachContent  | Bool   | 1             |                              |
| Variable Data 3   | teachID       | Bool   | 1             |                              |
| Variable Data 4   | teachLength   | Bool   | 1             |                              |
| Variable Data 5   | negativeMatch | Bool   | 1             |                              |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA MTIChnl2Stt          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | MTIChnl2Stt | String | 11            | Config for channel2              |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| Read Variable:  | [STX]sRN MTIChnl2Stt[ETX]           |
| Read Variable Response:                                     | [STX]sRA MTIChnl2Stt 0 1 1 1 0[ETX] |
| Write Variable:   | [STX]sWN MTIChnl2Stt 0 1 1 1 0[ETX] |
| Write Variable Response:                                    | [STX]sWA MTIChnl2Stt[ETX]           |



## 2.24.10.6. Variable: MTIChannelStopSettings2

The following section contains a detailed description of the variable MTIChannelStopSettings2.

### Variable Overview

| Variable Name           | Description                         |
|-------------------------|-------------------------------------|
| MTIChannelStopSettings2 | Stopping settings for dyn. teach-in |

|                       |   |
|-----------------------|---|
| Communication Name    | MTIChnl2Stp   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1147  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                           |             |
|---------------|-------|---------------------------|-------------|
| Default Value |       | TX_STOPPED_BY_TRIGGER_SRC |             |
|               | Value | Name                      | Description |
|               | 0     | TX_STOPPED_BY_TRIGGER_SRC |             |
|               | 1     | TX_STOPPED_BY_OBJ_TRIG    |             |

### Variable Telegram Syntax

| Read Variable:  |             |        |               |                                     |
|-----------------|-------------|--------|---------------|-------------------------------------|
| sRN MTIChnl2Stp |             |        |               |                                     |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                         |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name         |
| Command         | MTIChnl2Stp | String | 11            | Stopping settings for dyn. teach-in |

| Read Variable Response: |             |        |               |                                     |
|-------------------------|-------------|--------|---------------|-------------------------------------|
| sRA MTIChnl2Stp <data>  |             |        |               |                                     |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                         |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge     |
| Command                 | MTIChnl2Stp | String | 11            | Stopping settings for dyn. teach-in |
| Variable Data           | data        | Enum8  | 1             |                                     |

| Write Variable:        |             |        |               |                                     |
|------------------------|-------------|--------|---------------|-------------------------------------|
| sWN MTIChnl2Stp <data> |             |        |               |                                     |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                         |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name        |
| Command                | MTIChnl2Stp | String | 11            | Stopping settings for dyn. teach-in |
| Variable Data          | data        | Enum8  | 1             |                                     |

| Write Variable Response: |             |        |               |                                     |
|--------------------------|-------------|--------|---------------|-------------------------------------|
| sWA MTIChnl2Stp          |             |        |               |                                     |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                         |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge    |
| Command                  | MTIChnl2Stp | String | 11            | Stopping settings for dyn. teach-in |



## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN MTIChnl2Stp[ETX]   |
| Read Variable Response:                                     | [STX]sRA MTIChnl2Stp 0[ETX] |
| Write Variable:   | [STX]sWN MTIChnl2Stp 0[ETX] |
| Write Variable Response:                                    | [STX]sWA MTIChnl2Stp[ETX]   |

### 2.24.10.7. Variable: MTIChannel2Condition

The following section contains a detailed description of the variable MTIChannel2Condition.

#### Variable Overview

| Variable Name        | Description                    |
|----------------------|--------------------------------|
| MTIChannel2Condition | Dest. condition for teach-in 2 |

|                       |   |
|-----------------------|---|
| Communication Name    | MTIChnl2Cnd   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1148  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |          |
|----------------|----------|
| Length         | 0..18    |
| Initialisation | TeachIn2 |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |                                |
|-----------------|-------------|--------|---------------|--------------------------------|
| sRN MTIChnl2Cnd |             |        |               |                                |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                    |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name    |
| Command         | MTIChnl2Cnd | String | 11            | Dest. condition for teach-in 2 |

| Read Variable Response: |             |            |               |                                 |
|-------------------------|-------------|------------|---------------|---------------------------------|
| sRA MTIChnl2Cnd <data>  |             |            |               |                                 |
| Telegram Part           | Telegram    | Type       | Length [Byte] | Description                     |
| Command Type            | sRA         | String     | 3             | SOPAS Variable Read Acknowledge |
| Command                 | MTIChnl2Cnd | String     | 11            | Dest. condition for teach-in 2  |
| Variable Data           | data        | FlexString | 18            |                                 |



| Write Variable:        |             |            |               |                                |
|------------------------|-------------|------------|---------------|--------------------------------|
| sWN MTIChnl2Cnd <data> |             |            |               |                                |
| Telegram Part          | Telegram    | Type       | Length [Byte] | Description                    |
| Command Type           | sWN         | String     | 3             | Write SOPAS Variable by Name   |
| Command                | MTIChnl2Cnd | String     | 11            | Dest. condition for teach-in 2 |
| Variable Data          | data        | FlexString | 18            |                                |

| Write Variable Response: |             |        |               |                                  |
|--------------------------|-------------|--------|---------------|----------------------------------|
| sWA MTIChnl2Cnd          |             |        |               |                                  |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                      |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | MTIChnl2Cnd | String | 11            | Dest. condition for teach-in 2   |

## Variable Telegram Examples

| Example: Default Values                                     |                                       |
|---|---------------------------------------|
| Variable telegram examples with data set to default values. |                                       |
| Read Variable:  | [STX]sRN MTIChnl2Cnd[ETX]             |
| Read Variable Response:                                     | [STX]sRA MTIChnl2Cnd 8 TeachIn2[ETX]  |
| Write Variable:   | [STX]sWN MTIChnl2Cnd +8 TeachIn2[ETX] |
| Write Variable Response:                                    | [STX]sWA MTIChnl2Cnd[ETX]             |





## 2.24.11. Group: ApplicationCounters

### 2.24.11.1. Variable: APCCCounterCondition01

The following section contains a detailed description of the variable APCCCounterCondition01.

#### Variable Overview

| Variable Name          | Description                 |
|------------------------|-----------------------------|
| APCCCounterCondition01 | Enum of permanent counter 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCC01   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1156  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | 0                      |             |
|               | Value | Name                   | Description |
|               | 0     | TX_DEACTIVATED         |             |
|               | 1     | TX_INPUT1              |             |
|               | 2     | TX_INPUT2              |             |
|               | 3     | TX_EXT_IN1             |             |
|               | 4     | TX_EXT_IN2             |             |
|               | 5     | TX_FIELDBUS_TRIGGER_IN |             |
|               | 6     | TX_FIELDBUS_TEACH_IN1  |             |
|               | 7     | TX_FIELDBUS_TEACH_IN2  |             |
|               | 8     | TX_OUTPUT1             |             |
|               | 9     | TX_OUTPUT2             |             |
|               | 10    | TX_EXT_OUT1            |             |
|               | 11    | TX_EXT_OUT2            |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN APCCC01    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | APCCC01  | String | 7             | Enum of permanent counter 1 |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA APCCC01 <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | APCCC01  | String | 7             | Enum of permanent counter 1     |
| Variable Data           | data     | Enum8  | 1             |                                 |



| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN APCCC01 <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | APCCC01  | String | 7             | Enum of permanent counter 1  |
| Variable Data      | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA APCCC01              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | APCCC01  | String | 7             | Enum of permanent counter 1      |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN APCCC01[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCCC01 0[ETX] |
| Write Variable:   | [STX]sWN APCCC01 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCC01[ETX]   |

### 2.24.11.2. Variable: APCCounterConditionStruct01

The following section contains a detailed description of the variable APCCounterConditionStruct01.

#### Variable Overview

| Variable Name               | Description  |
|-----------------------------|--|
| APCCounterConditionStruct01 | Struct of permanent counter for condition name based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCCS01  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1157  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..18       |
| Initialisation |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN APCCCS01   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                                    |
| Command        | APCCCS01 | String | 8             | Struct of permanent counter for condition name based observing |

| Read Variable Response:                   |               |            |               |  |
|---|---------------|------------|---------------|--|
| sRA APCCCS01 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                                |
| Command                                   | APCCCS01      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable:                           |               |            |               |  |
|---|---------------|------------|---------------|--|
| sWN APCCCS01 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sWN           | String     | 3             | Write SOPAS Variable by Name                                   |
| Command                                   | APCCCS01      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA APCCCS01             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                               |
| Command                  | APCCCS01 | String | 8             | Struct of permanent counter for condition name based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN APCCCS01[ETX]        |
| Read Variable Response:                                     | [STX]sRA APCCCS01 0 0[ETX]    |
| Write Variable:   | [STX]sWN APCCCS01 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCCS01[ETX]        |

### 2.24.11.3. Variable: APCCounterDBTagStruct01

The following section contains a detailed description of the variable APCCounterDBTagStruct01.

#### Variable Overview

| Variable Name           | Description   |
|-------------------------|---|
| APCCounterDBTagStruct01 | Struct of permanent counter for dbtag based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCDTS01   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1158  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct            |             |
|-------------------|-------------|
| UseExtraValue     |             |
| <b>Bool</b>       |             |
| Value Range       | False, True |
| Initialisation    | True        |
| ExtraValue        |             |
| <b>FlexString</b> |             |
| Length            | 0..6        |
| Initialisation    | NC          |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN APCCDTS01  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                           |
| Command        | APCCDTS01 | String | 9             | Struct of permanent counter for dbtag based observing |

| Read Variable Response:                    |               |            |               |   |
|--|---------------|------------|---------------|---|
| sRA APCCDTS01 <UseExtraValue> <ExtraValue> |               |            |               |   |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description   |
| Command Type                               | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                       |
| Command                                    | APCCDTS01     | String     | 9             | Struct of permanent counter for dbtag based observing |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |   |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |   |

| Write Variable:                            |           |        |               |   |
|--|-----------|--------|---------------|---|
| sWN APCCDTS01 <UseExtraValue> <ExtraValue> |           |        |               |   |
| Telegram Part                              | Telegram  | Type   | Length [Byte] | Description   |
| Command Type                               | sWN       | String | 3             | Write SOPAS Variable by Name                          |
| Command                                    | APCCDTS01 | String | 9             | Struct of permanent counter for dbtag based observing |



| Write Variable:                            |               |            |               |             |
|--|---------------|------------|---------------|-------------|
| sWN APCCDTS01 <UseExtraValue> <ExtraValue> |               |            |               |             |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |             |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |             |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA APCCDTS01            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                      |
| Command                  | APCCDTS01 | String | 9             | Struct of permanent counter for dbtag based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN APCCDTS01[ETX]         |
| Read Variable Response:                                     | [STX]sRA APCCDTS01 1 2 NC[ETX]  |
| Write Variable:   | [STX]sWN APCCDTS01 1 +2 NC[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCDTS01[ETX]         |

### 2.24.11.4. Variable: APCIsPermanent01

The following section contains a detailed description of the variable APCIsPermanent01.

#### Variable Overview

| Variable Name    | Description                                   |
|------------------|---|
| APCIsPermanent01 | Defines whether a counter is permanent or not |

|                       |   |
|-----------------------|---|
| Communication Name    | APCIsPerm01   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1159  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN APCIsPerm01 |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                   |
| Command         | APCIsPerm01 | String | 11            | Defines whether a counter is permanent or not |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA APCIsPerm01 <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge               |
| Command                 | APCIsPerm01 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data           | data        | Bool   | 1             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN APCIsPerm01 <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                  |
| Command                | APCIsPerm01 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data          | data        | Bool   | 1             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA APCIsPerm01          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge              |
| Command                  | APCIsPerm01 | String | 11            | Defines whether a counter is permanent or not |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN APCIsPerm01[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCIsPerm01 0[ETX] |
| Write Variable:   | [STX]sWN APCIsPerm01 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCIsPerm01[ETX]   |



### 2.24.11.5. Variable: APCCounterCondition02

The following section contains a detailed description of the variable APCCounterCondition02.

#### Variable Overview

| Variable Name         | Description                 |
|-----------------------|-----------------------------|
| APCCounterCondition02 | Enum of permanent counter 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCC02   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1160  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | 0                      |             |
|               | Value | Name                   | Description |
|               | 0     | TX_DEACTIVATED         |             |
|               | 1     | TX_INPUT1              |             |
|               | 2     | TX_INPUT2              |             |
|               | 3     | TX_EXT_IN1             |             |
|               | 4     | TX_EXT_IN2             |             |
|               | 5     | TX_FIELDBUS_TRIGGER_IN |             |
|               | 6     | TX_FIELDBUS_TEACH_IN1  |             |
|               | 7     | TX_FIELDBUS_TEACH_IN2  |             |
|               | 8     | TX_OUTPUT1             |             |
|               | 9     | TX_OUTPUT2             |             |
|               | 10    | TX_EXT_OUT1            |             |
|               | 11    | TX_EXT_OUT2            |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN APCCC02    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | APCCC02  | String | 7             | Enum of permanent counter 1 |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA APCCC02 <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | APCCC02  | String | 7             | Enum of permanent counter 1     |
| Variable Data           | data     | Enum8  | 1             |                                 |



| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN APCCC02 <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | APCCC02  | String | 7             | Enum of permanent counter 1  |
| Variable Data      | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA APCCC02              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | APCCC02  | String | 7             | Enum of permanent counter 1      |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN APCCC02[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCCC02 0[ETX] |
| Write Variable:   | [STX]sWN APCCC02 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCC02[ETX]   |

### 2.24.11.6. Variable: APCCCounterConditionStruct02

The following section contains a detailed description of the variable APCCCounterConditionStruct02.

#### Variable Overview

| Variable Name                | Description  |
|------------------------------|--|
| APCCCounterConditionStruct02 | Struct of permanent counter for condition name based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCCS02  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1161  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..18       |
| Initialisation |             |





## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN APCCCS02   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                                    |
| Command        | APCCCS02 | String | 8             | Struct of permanent counter for condition name based observing |

| Read Variable Response:                   |               |            |               |  |
|---|---------------|------------|---------------|--|
| sRA APCCCS02 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                                |
| Command                                   | APCCCS02      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable:                           |               |            |               |  |
|---|---------------|------------|---------------|--|
| sWN APCCCS02 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sWN           | String     | 3             | Write SOPAS Variable by Name                                   |
| Command                                   | APCCCS02      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA APCCCS02             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                               |
| Command                  | APCCCS02 | String | 8             | Struct of permanent counter for condition name based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN APCCCS02[ETX]        |
| Read Variable Response:                                     | [STX]sRA APCCCS02 0 0[ETX]    |
| Write Variable:   | [STX]sWN APCCCS02 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCCS02[ETX]        |



## 2.24.11.7. Variable: APCCounterDBTagStruct02

The following section contains a detailed description of the variable APCCounterDBTagStruct02.

### Variable Overview

| Variable Name           | Description   |
|-------------------------|---|
| APCCounterDBTagStruct02 | Struct of permanent counter for dbtag based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCDTS02   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1162  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | True        |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..6        |
| Initialisation | SCGR        |

### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN APCCDTS02  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                           |
| Command        | APCCDTS02 | String | 9             | Struct of permanent counter for dbtag based observing |

| Read Variable Response:                    |               |            |               |   |
|--|---------------|------------|---------------|---|
| sRA APCCDTS02 <UseExtraValue> <ExtraValue> |               |            |               |   |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description   |
| Command Type                               | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                       |
| Command                                    | APCCDTS02     | String     | 9             | Struct of permanent counter for dbtag based observing |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |   |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |   |

| Write Variable:                            |           |        |               |   |
|--|-----------|--------|---------------|---|
| sWN APCCDTS02 <UseExtraValue> <ExtraValue> |           |        |               |   |
| Telegram Part                              | Telegram  | Type   | Length [Byte] | Description   |
| Command Type                               | sWN       | String | 3             | Write SOPAS Variable by Name                          |
| Command                                    | APCCDTS02 | String | 9             | Struct of permanent counter for dbtag based observing |



| Write Variable:                            |               |            |               |             |
|--|---------------|------------|---------------|-------------|
| sWN APCCDTS02 <UseExtraValue> <ExtraValue> |               |            |               |             |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |             |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |             |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA APCCDTS02            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                      |
| Command                  | APCCDTS02 | String | 9             | Struct of permanent counter for dbtag based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN APCCDTS02[ETX]           |
| Read Variable Response:                                     | [STX]sRA APCCDTS02 1 4 SCGR[ETX]  |
| Write Variable:   | [STX]sWN APCCDTS02 1 +4 SCGR[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCDTS02[ETX]           |

### 2.24.11.8. Variable: APCIsPermanent02

The following section contains a detailed description of the variable APCIsPermanent02.

#### Variable Overview

| Variable Name    | Description                                   |
|------------------|---|
| APCIsPermanent02 | Defines whether a counter is permanent or not |

|                       |   |
|-----------------------|---|
| Communication Name    | APCIsPerm02   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1163  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN APCIsPerm02 |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                   |
| Command         | APCIsPerm02 | String | 11            | Defines whether a counter is permanent or not |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA APCIsPerm02 <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge               |
| Command                 | APCIsPerm02 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data           | data        | Bool   | 1             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN APCIsPerm02 <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                  |
| Command                | APCIsPerm02 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data          | data        | Bool   | 1             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA APCIsPerm02          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge              |
| Command                  | APCIsPerm02 | String | 11            | Defines whether a counter is permanent or not |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN APCIsPerm02[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCIsPerm02 0[ETX] |
| Write Variable:   | [STX]sWN APCIsPerm02 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCIsPerm02[ETX]   |



### 2.24.11.9. Variable: APCCounterCondition03

The following section contains a detailed description of the variable APCCounterCondition03.

#### Variable Overview

| Variable Name         | Description                 |
|-----------------------|-----------------------------|
| APCCounterCondition03 | Enum of permanent counter 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCC03   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1164  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | 0                      |             |
|               | Value | Name                   | Description |
|               | 0     | TX_DEACTIVATED         |             |
|               | 1     | TX_INPUT1              |             |
|               | 2     | TX_INPUT2              |             |
|               | 3     | TX_EXT_IN1             |             |
|               | 4     | TX_EXT_IN2             |             |
|               | 5     | TX_FIELDBUS_TRIGGER_IN |             |
|               | 6     | TX_FIELDBUS_TEACH_IN1  |             |
|               | 7     | TX_FIELDBUS_TEACH_IN2  |             |
|               | 8     | TX_OUTPUT1             |             |
|               | 9     | TX_OUTPUT2             |             |
|               | 10    | TX_EXT_OUT1            |             |
|               | 11    | TX_EXT_OUT2            |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN APCCC03    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | APCCC03  | String | 7             | Enum of permanent counter 1 |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA APCCC03 <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | APCCC03  | String | 7             | Enum of permanent counter 1     |
| Variable Data           | data     | Enum8  | 1             |                                 |



| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN APCCC03 <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | APCCC03  | String | 7             | Enum of permanent counter 1  |
| Variable Data      | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA APCCC03              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | APCCC03  | String | 7             | Enum of permanent counter 1      |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| <b>Read Variable:</b>                                       | [STX]sRN APCCC03[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA APCCC03 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN APCCC03 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA APCCC03[ETX]   |

### 2.24.11.10. Variable: APCCCounterConditionStruct03

The following section contains a detailed description of the variable APCCCounterConditionStruct03.

#### Variable Overview

| Variable Name                | Description  |
|------------------------------|--|
| APCCCounterConditionStruct03 | Struct of permanent counter for condition name based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCCS03  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1165  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct            |             |
|-------------------|-------------|
| UseExtraValue     |             |
| <b>Bool</b>       |             |
| Value Range       | False, True |
| Initialisation    | False       |
| ExtraValue        |             |
| <b>FlexString</b> |             |
| Length            | 0..18       |
| Initialisation    |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN APCCCS03   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                                    |
| Command        | APCCCS03 | String | 8             | Struct of permanent counter for condition name based observing |

| Read Variable Response:                   |               |            |               |  |
|---|---------------|------------|---------------|--|
| sRA APCCCS03 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                                |
| Command                                   | APCCCS03      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable:                           |               |            |               |  |
|---|---------------|------------|---------------|--|
| sWN APCCCS03 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sWN           | String     | 3             | Write SOPAS Variable by Name                                   |
| Command                                   | APCCCS03      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA APCCCS03             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                               |
| Command                  | APCCCS03 | String | 8             | Struct of permanent counter for condition name based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN APCCCS03[ETX]        |
| Read Variable Response:                                     | [STX]sRA APCCCS03 0 0[ETX]    |
| Write Variable:   | [STX]sWN APCCCS03 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCCS03[ETX]        |



## 2.24.11.11. Variable: APCCounterDBTagStruct03

The following section contains a detailed description of the variable APCCounterDBTagStruct03.

### Variable Overview

| Variable Name           | Description   |
|-------------------------|---|
| APCCounterDBTagStruct03 | Struct of permanent counter for dbtag based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCDTS03   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1166  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | True        |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..6        |
| Initialisation | SCNR        |

### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN APCCDTS03  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                           |
| Command        | APCCDTS03 | String | 9             | Struct of permanent counter for dbtag based observing |

| Read Variable Response:                    |               |            |               |   |
|--|---------------|------------|---------------|---|
| sRA APCCDTS03 <UseExtraValue> <ExtraValue> |               |            |               |   |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description   |
| Command Type                               | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                       |
| Command                                    | APCCDTS03     | String     | 9             | Struct of permanent counter for dbtag based observing |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |   |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |   |

| Write Variable:                            |           |        |               |   |
|--|-----------|--------|---------------|---|
| sWN APCCDTS03 <UseExtraValue> <ExtraValue> |           |        |               |   |
| Telegram Part                              | Telegram  | Type   | Length [Byte] | Description   |
| Command Type                               | sWN       | String | 3             | Write SOPAS Variable by Name                          |
| Command                                    | APCCDTS03 | String | 9             | Struct of permanent counter for dbtag based observing |





| Write Variable:                            |               |            |               |             |
|--|---------------|------------|---------------|-------------|
| sWN APCCDTS03 <UseExtraValue> <ExtraValue> |               |            |               |             |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |             |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |             |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA APCCDTS03            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                      |
| Command                  | APCCDTS03 | String | 9             | Struct of permanent counter for dbtag based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                                   |
|---|-----------------------------------|
| Variable telegram examples with data set to default values. |                                   |
| Read Variable:  | [STX]sRN APCCDTS03[ETX]           |
| Read Variable Response:                                     | [STX]sRA APCCDTS03 1 4 SCNR[ETX]  |
| Write Variable:   | [STX]sWN APCCDTS03 1 +4 SCNR[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCDTS03[ETX]           |

### 2.24.11.12. Variable: APCIsPermanent03

The following section contains a detailed description of the variable APCIsPermanent03.

#### Variable Overview

| Variable Name    | Description                                   |
|------------------|---|
| APCIsPermanent03 | Defines whether a counter is permanent or not |

|                       |   |
|-----------------------|---|
| Communication Name    | APCIsPerm03   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1167  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN APCIsPerm03 |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                   |
| Command         | APCIsPerm03 | String | 11            | Defines whether a counter is permanent or not |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA APCIsPerm03 <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge               |
| Command                 | APCIsPerm03 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data           | data        | Bool   | 1             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN APCIsPerm03 <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                  |
| Command                | APCIsPerm03 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data          | data        | Bool   | 1             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA APCIsPerm03          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge              |
| Command                  | APCIsPerm03 | String | 11            | Defines whether a counter is permanent or not |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN APCIsPerm03[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCIsPerm03 0[ETX] |
| Write Variable:   | [STX]sWN APCIsPerm03 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCIsPerm03[ETX]   |



### 2.24.11.13. Variable: APCCounterCondition04

The following section contains a detailed description of the variable APCCounterCondition04.

#### Variable Overview

| Variable Name         | Description                 |
|-----------------------|-----------------------------|
| APCCounterCondition04 | Enum of permanent counter 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCC04   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1168  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | 0                      |             |
|               | Value | Name                   | Description |
|               | 0     | TX_DEACTIVATED         |             |
|               | 1     | TX_INPUT1              |             |
|               | 2     | TX_INPUT2              |             |
|               | 3     | TX_EXT_IN1             |             |
|               | 4     | TX_EXT_IN2             |             |
|               | 5     | TX_FIELDBUS_TRIGGER_IN |             |
|               | 6     | TX_FIELDBUS_TEACH_IN1  |             |
|               | 7     | TX_FIELDBUS_TEACH_IN2  |             |
|               | 8     | TX_OUTPUT1             |             |
|               | 9     | TX_OUTPUT2             |             |
|               | 10    | TX_EXT_OUT1            |             |
|               | 11    | TX_EXT_OUT2            |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN APCCC04    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | APCCC04  | String | 7             | Enum of permanent counter 1 |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA APCCC04 <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | APCCC04  | String | 7             | Enum of permanent counter 1     |
| Variable Data           | data     | Enum8  | 1             |                                 |



| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN APCCC04 <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | APCCC04  | String | 7             | Enum of permanent counter 1  |
| Variable Data      | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA APCCC04              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | APCCC04  | String | 7             | Enum of permanent counter 1      |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN APCCC04[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCCC04 0[ETX] |
| Write Variable:   | [STX]sWN APCCC04 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCC04[ETX]   |

### 2.24.11.14. Variable: APCCCounterConditionStruct04

The following section contains a detailed description of the variable APCCCounterConditionStruct04.

#### Variable Overview

| Variable Name                | Description  |
|------------------------------|--|
| APCCCounterConditionStruct04 | Struct of permanent counter for condition name based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCCS04  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1169  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | True        |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..18       |
| Initialisation | Match1      |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN APCCCS04   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                                    |
| Command        | APCCCS04 | String | 8             | Struct of permanent counter for condition name based observing |

| Read Variable Response:                   |               |            |               |  |
|---|---------------|------------|---------------|--|
| sRA APCCCS04 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                                |
| Command                                   | APCCCS04      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable:                           |               |            |               |  |
|---|---------------|------------|---------------|--|
| sWN APCCCS04 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sWN           | String     | 3             | Write SOPAS Variable by Name                                   |
| Command                                   | APCCCS04      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA APCCCS04             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                               |
| Command                  | APCCCS04 | String | 8             | Struct of permanent counter for condition name based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                                    |
|---|------------------------------------|
| Variable telegram examples with data set to default values. |                                    |
| Read Variable:  | [STX]sRN APCCCS04[ETX]             |
| Read Variable Response:                                     | [STX]sRA APCCCS04 1 6 Match1[ETX]  |
| Write Variable:   | [STX]sWN APCCCS04 1 +6 Match1[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCCS04[ETX]             |



## 2.24.11.15. Variable: APCCounterDBTagStruct04

The following section contains a detailed description of the variable APCCounterDBTagStruct04.

### Variable Overview

| Variable Name           | Description   |
|-------------------------|---|
| APCCounterDBTagStruct04 | Struct of permanent counter for dbtag based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCDTS04   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1170  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..6        |
| Initialisation |             |

### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN APCCDTS04  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                           |
| Command        | APCCDTS04 | String | 9             | Struct of permanent counter for dbtag based observing |

| Read Variable Response:                    |               |            |               |   |
|--|---------------|------------|---------------|---|
| sRA APCCDTS04 <UseExtraValue> <ExtraValue> |               |            |               |   |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description   |
| Command Type                               | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                       |
| Command                                    | APCCDTS04     | String     | 9             | Struct of permanent counter for dbtag based observing |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |   |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |   |

| Write Variable:                            |           |        |               |   |
|--|-----------|--------|---------------|---|
| sWN APCCDTS04 <UseExtraValue> <ExtraValue> |           |        |               |   |
| Telegram Part                              | Telegram  | Type   | Length [Byte] | Description   |
| Command Type                               | sWN       | String | 3             | Write SOPAS Variable by Name                          |
| Command                                    | APCCDTS04 | String | 9             | Struct of permanent counter for dbtag based observing |



| Write Variable:                            |               |            |               |             |
|--|---------------|------------|---------------|-------------|
| sWN APCCDTS04 <UseExtraValue> <ExtraValue> |               |            |               |             |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |             |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |             |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA APCCDTS04            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                      |
| Command                  | APCCDTS04 | String | 9             | Struct of permanent counter for dbtag based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN APCCDTS04[ETX]        |
| Read Variable Response:                                     | [STX]sRA APCCDTS04 0 0[ETX]    |
| Write Variable:   | [STX]sWN APCCDTS04 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCDTS04[ETX]        |

### 2.24.11.16. Variable: APCIsPermanent04

The following section contains a detailed description of the variable APCIsPermanent04.

#### Variable Overview

| Variable Name    | Description                                   |
|------------------|---|
| APCIsPermanent04 | Defines whether a counter is permanent or not |

|                       |   |
|-----------------------|---|
| Communication Name    | APCIsPerm04   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1171  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN APCIsPerm04 |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                   |
| Command         | APCIsPerm04 | String | 11            | Defines whether a counter is permanent or not |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA APCIsPerm04 <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge               |
| Command                 | APCIsPerm04 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data           | data        | Bool   | 1             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN APCIsPerm04 <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                  |
| Command                | APCIsPerm04 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data          | data        | Bool   | 1             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA APCIsPerm04          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge              |
| Command                  | APCIsPerm04 | String | 11            | Defines whether a counter is permanent or not |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN APCIsPerm04[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCIsPerm04 0[ETX] |
| Write Variable:   | [STX]sWN APCIsPerm04 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCIsPerm04[ETX]   |





## 2.24.11.17. Variable: APCCounterCondition05

The following section contains a detailed description of the variable APCCounterCondition05.

### Variable Overview

| Variable Name         | Description                 |
|-----------------------|-----------------------------|
| APCCounterCondition05 | Enum of permanent counter 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCC05   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1172  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | 0                      |             |
|               | Value | Name                   | Description |
|               | 0     | TX_DEACTIVATED         |             |
|               | 1     | TX_INPUT1              |             |
|               | 2     | TX_INPUT2              |             |
|               | 3     | TX_EXT_IN1             |             |
|               | 4     | TX_EXT_IN2             |             |
|               | 5     | TX_FIELDBUS_TRIGGER_IN |             |
|               | 6     | TX_FIELDBUS_TEACH_IN1  |             |
|               | 7     | TX_FIELDBUS_TEACH_IN2  |             |
|               | 8     | TX_OUTPUT1             |             |
|               | 9     | TX_OUTPUT2             |             |
|               | 10    | TX_EXT_OUT1            |             |
|               | 11    | TX_EXT_OUT2            |             |

### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN APCCC05    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | APCCC05  | String | 7             | Enum of permanent counter 1 |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA APCCC05 <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | APCCC05  | String | 7             | Enum of permanent counter 1     |
| Variable Data           | data     | Enum8  | 1             |                                 |



| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN APCCC05 <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | APCCC05  | String | 7             | Enum of permanent counter 1  |
| Variable Data      | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA APCCC05              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | APCCC05  | String | 7             | Enum of permanent counter 1      |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN APCCC05[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCCC05 0[ETX] |
| Write Variable:   | [STX]sWN APCCC05 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCC05[ETX]   |

### 2.24.11.18. Variable: APCCCounterConditionStruct05

The following section contains a detailed description of the variable APCCCounterConditionStruct05.

#### Variable Overview

| Variable Name                | Description  |
|------------------------------|--|
| APCCCounterConditionStruct05 | Struct of permanent counter for condition name based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCCS05  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1173  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | True        |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..18       |
| Initialisation | TeachIn1    |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN APCCCS05   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                                    |
| Command        | APCCCS05 | String | 8             | Struct of permanent counter for condition name based observing |

| Read Variable Response:                   |               |            |               |  |
|---|---------------|------------|---------------|--|
| sRA APCCCS05 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                                |
| Command                                   | APCCCS05      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable:                           |               |            |               |  |
|---|---------------|------------|---------------|--|
| sWN APCCCS05 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sWN           | String     | 3             | Write SOPAS Variable by Name                                   |
| Command                                   | APCCCS05      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA APCCCS05             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                               |
| Command                  | APCCCS05 | String | 8             | Struct of permanent counter for condition name based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                                      |
|---|--------------------------------------|
| Variable telegram examples with data set to default values. |                                      |
| Read Variable:  | [STX]sRN APCCCS05[ETX]               |
| Read Variable Response:                                     | [STX]sRA APCCCS05 1 8 TeachIn1[ETX]  |
| Write Variable:   | [STX]sWN APCCCS05 1 +8 TeachIn1[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCCS05[ETX]               |



## 2.24.11.19. Variable: APCCounterDBTagStruct05

The following section contains a detailed description of the variable APCCounterDBTagStruct05.

### Variable Overview

| Variable Name           | Description   |
|-------------------------|---|
| APCCounterDBTagStruct05 | Struct of permanent counter for dbtag based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCDTS05   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1174  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..6        |
| Initialisation |             |

### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN APCCDTS05  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                           |
| Command        | APCCDTS05 | String | 9             | Struct of permanent counter for dbtag based observing |

| Read Variable Response:                    |               |            |               |   |
|--|---------------|------------|---------------|---|
| sRA APCCDTS05 <UseExtraValue> <ExtraValue> |               |            |               |   |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description   |
| Command Type                               | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                       |
| Command                                    | APCCDTS05     | String     | 9             | Struct of permanent counter for dbtag based observing |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |   |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |   |

| Write Variable:                            |           |        |               |   |
|--|-----------|--------|---------------|---|
| sWN APCCDTS05 <UseExtraValue> <ExtraValue> |           |        |               |   |
| Telegram Part                              | Telegram  | Type   | Length [Byte] | Description   |
| Command Type                               | sWN       | String | 3             | Write SOPAS Variable by Name                          |
| Command                                    | APCCDTS05 | String | 9             | Struct of permanent counter for dbtag based observing |



| Write Variable:                            |               |            |               |             |
|--|---------------|------------|---------------|-------------|
| sWN APCCDTS05 <UseExtraValue> <ExtraValue> |               |            |               |             |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |             |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |             |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA APCCDTS05            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                      |
| Command                  | APCCDTS05 | String | 9             | Struct of permanent counter for dbtag based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN APCCDTS05[ETX]        |
| Read Variable Response:                                     | [STX]sRA APCCDTS05 0 0[ETX]    |
| Write Variable:   | [STX]sWN APCCDTS05 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCDTS05[ETX]        |

### 2.24.11.20. Variable: APCIsPermanent05

The following section contains a detailed description of the variable APCIsPermanent05.

#### Variable Overview

| Variable Name    | Description                                   |
|------------------|---|
| APCIsPermanent05 | Defines whether a counter is permanent or not |

|                       |   |
|-----------------------|---|
| Communication Name    | APCIsPerm05   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1175  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN APCIsPerm05 |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                   |
| Command         | APCIsPerm05 | String | 11            | Defines whether a counter is permanent or not |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA APCIsPerm05 <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge               |
| Command                 | APCIsPerm05 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data           | data        | Bool   | 1             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN APCIsPerm05 <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                  |
| Command                | APCIsPerm05 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data          | data        | Bool   | 1             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA APCIsPerm05          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge              |
| Command                  | APCIsPerm05 | String | 11            | Defines whether a counter is permanent or not |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN APCIsPerm05[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCIsPerm05 0[ETX] |
| Write Variable:   | [STX]sWN APCIsPerm05 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCIsPerm05[ETX]   |



## 2.24.11.21. Variable: APCCounterCondition06

The following section contains a detailed description of the variable APCCounterCondition06.

### Variable Overview

| Variable Name         | Description                 |
|-----------------------|-----------------------------|
| APCCounterCondition06 | Enum of permanent counter 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCC06   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1176  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | 0                      |             |
|               | Value | Name                   | Description |
|               | 0     | TX_DEACTIVATED         |             |
|               | 1     | TX_INPUT1              |             |
|               | 2     | TX_INPUT2              |             |
|               | 3     | TX_EXT_IN1             |             |
|               | 4     | TX_EXT_IN2             |             |
|               | 5     | TX_FIELDBUS_TRIGGER_IN |             |
|               | 6     | TX_FIELDBUS_TEACH_IN1  |             |
|               | 7     | TX_FIELDBUS_TEACH_IN2  |             |
|               | 8     | TX_OUTPUT1             |             |
|               | 9     | TX_OUTPUT2             |             |
|               | 10    | TX_EXT_OUT1            |             |
|               | 11    | TX_EXT_OUT2            |             |

### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN APCCC06    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | APCCC06  | String | 7             | Enum of permanent counter 1 |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA APCCC06 <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | APCCC06  | String | 7             | Enum of permanent counter 1     |
| Variable Data           | data     | Enum8  | 1             |                                 |



| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN APCCC06 <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | APCCC06  | String | 7             | Enum of permanent counter 1  |
| Variable Data      | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA APCCC06              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | APCCC06  | String | 7             | Enum of permanent counter 1      |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN APCCC06[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCCC06 0[ETX] |
| Write Variable:   | [STX]sWN APCCC06 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCC06[ETX]   |

### 2.24.11.22. Variable: APCCCounterConditionStruct06

The following section contains a detailed description of the variable APCCCounterConditionStruct06.

#### Variable Overview

| Variable Name                | Description  |
|------------------------------|--|
| APCCCounterConditionStruct06 | Struct of permanent counter for condition name based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCCS06  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1177  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..18       |
| Initialisation |             |





## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN APCCCS06   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                                    |
| Command        | APCCCS06 | String | 8             | Struct of permanent counter for condition name based observing |

| Read Variable Response:                   |               |            |               |  |
|---|---------------|------------|---------------|--|
| sRA APCCCS06 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                                |
| Command                                   | APCCCS06      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable:                           |               |            |               |  |
|---|---------------|------------|---------------|--|
| sWN APCCCS06 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sWN           | String     | 3             | Write SOPAS Variable by Name                                   |
| Command                                   | APCCCS06      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA APCCCS06             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                               |
| Command                  | APCCCS06 | String | 8             | Struct of permanent counter for condition name based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN APCCCS06[ETX]        |
| Read Variable Response:                                     | [STX]sRA APCCCS06 0 0[ETX]    |
| Write Variable:   | [STX]sWN APCCCS06 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCCS06[ETX]        |



### 2.24.11.23. Variable: APCCounterDBTagStruct06

The following section contains a detailed description of the variable APCCounterDBTagStruct06.

#### Variable Overview

| Variable Name           | Description   |
|-------------------------|---|
| APCCounterDBTagStruct06 | Struct of permanent counter for dbtag based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCDTS06   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1178  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | True        |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..6        |
| Initialisation | NY          |

#### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN APCCDTS06  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                           |
| Command        | APCCDTS06 | String | 9             | Struct of permanent counter for dbtag based observing |

| Read Variable Response:                    |               |            |               |   |
|--|---------------|------------|---------------|---|
| sRA APCCDTS06 <UseExtraValue> <ExtraValue> |               |            |               |   |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description   |
| Command Type                               | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                       |
| Command                                    | APCCDTS06     | String     | 9             | Struct of permanent counter for dbtag based observing |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |   |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |   |

| Write Variable:                            |           |        |               |   |
|--|-----------|--------|---------------|---|
| sWN APCCDTS06 <UseExtraValue> <ExtraValue> |           |        |               |   |
| Telegram Part                              | Telegram  | Type   | Length [Byte] | Description   |
| Command Type                               | sWN       | String | 3             | Write SOPAS Variable by Name                          |
| Command                                    | APCCDTS06 | String | 9             | Struct of permanent counter for dbtag based observing |



| Write Variable:                            |               |            |               |             |
|--|---------------|------------|---------------|-------------|
| sWN APCCDTS06 <UseExtraValue> <ExtraValue> |               |            |               |             |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |             |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |             |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA APCCDTS06            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                      |
| Command                  | APCCDTS06 | String | 9             | Struct of permanent counter for dbtag based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN APCCDTS06[ETX]         |
| Read Variable Response:                                     | [STX]sRA APCCDTS06 1 2 NY[ETX]  |
| Write Variable:   | [STX]sWN APCCDTS06 1 +2 NY[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCDTS06[ETX]         |

### 2.24.11.24. Variable: APCIsPermanent06

The following section contains a detailed description of the variable APCIsPermanent06.

#### Variable Overview

| Variable Name    | Description                                   |
|------------------|---|
| APCIsPermanent06 | Defines whether a counter is permanent or not |

|                       |   |
|-----------------------|---|
| Communication Name    | APCIsPerm06   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1179  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN APCIsPerm06 |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                   |
| Command         | APCIsPerm06 | String | 11            | Defines whether a counter is permanent or not |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA APCIsPerm06 <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge               |
| Command                 | APCIsPerm06 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data           | data        | Bool   | 1             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN APCIsPerm06 <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                  |
| Command                | APCIsPerm06 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data          | data        | Bool   | 1             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA APCIsPerm06          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge              |
| Command                  | APCIsPerm06 | String | 11            | Defines whether a counter is permanent or not |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN APCIsPerm06[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCIsPerm06 0[ETX] |
| Write Variable:   | [STX]sWN APCIsPerm06 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCIsPerm06[ETX]   |



## 2.24.11.25. Variable: APCCounterCondition07

The following section contains a detailed description of the variable APCCounterCondition07.

### Variable Overview

| Variable Name         | Description                 |
|-----------------------|-----------------------------|
| APCCounterCondition07 | Enum of permanent counter 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCC07   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1180  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | 0                      |             |
|               | Value | Name                   | Description |
|               | 0     | TX_DEACTIVATED         |             |
|               | 1     | TX_INPUT1              |             |
|               | 2     | TX_INPUT2              |             |
|               | 3     | TX_EXT_IN1             |             |
|               | 4     | TX_EXT_IN2             |             |
|               | 5     | TX_FIELDBUS_TRIGGER_IN |             |
|               | 6     | TX_FIELDBUS_TEACH_IN1  |             |
|               | 7     | TX_FIELDBUS_TEACH_IN2  |             |
|               | 8     | TX_OUTPUT1             |             |
|               | 9     | TX_OUTPUT2             |             |
|               | 10    | TX_EXT_OUT1            |             |
|               | 11    | TX_EXT_OUT2            |             |

### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN APCCC07    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | APCCC07  | String | 7             | Enum of permanent counter 1 |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA APCCC07 <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | APCCC07  | String | 7             | Enum of permanent counter 1     |
| Variable Data           | data     | Enum8  | 1             |                                 |



| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN APCCC07 <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | APCCC07  | String | 7             | Enum of permanent counter 1  |
| Variable Data      | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA APCCC07              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | APCCC07  | String | 7             | Enum of permanent counter 1      |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN APCCC07[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCCC07 0[ETX] |
| Write Variable:   | [STX]sWN APCCC07 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCC07[ETX]   |

### 2.24.11.26. Variable: APCCCounterConditionStruct07

The following section contains a detailed description of the variable APCCCounterConditionStruct07.

#### Variable Overview

| Variable Name                | Description  |
|------------------------------|--|
| APCCCounterConditionStruct07 | Struct of permanent counter for condition name based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCCS07  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1181  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..18       |
| Initialisation |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN APCCCS07   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                                    |
| Command        | APCCCS07 | String | 8             | Struct of permanent counter for condition name based observing |

| Read Variable Response:                   |               |            |               |  |
|---|---------------|------------|---------------|--|
| sRA APCCCS07 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                                |
| Command                                   | APCCCS07      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable:                           |               |            |               |  |
|---|---------------|------------|---------------|--|
| sWN APCCCS07 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sWN           | String     | 3             | Write SOPAS Variable by Name                                   |
| Command                                   | APCCCS07      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA APCCCS07             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                               |
| Command                  | APCCCS07 | String | 8             | Struct of permanent counter for condition name based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN APCCCS07[ETX]        |
| Read Variable Response:                                     | [STX]sRA APCCCS07 0 0[ETX]    |
| Write Variable:   | [STX]sWN APCCCS07 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCCS07[ETX]        |



## 2.24.11.27. Variable: APCCounterDBTagStruct07

The following section contains a detailed description of the variable APCCounterDBTagStruct07.

### Variable Overview

| Variable Name           | Description   |
|-------------------------|---|
| APCCounterDBTagStruct07 | Struct of permanent counter for dbtag based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCDTS07   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1182  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..6        |
| Initialisation |             |

### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN APCCDTS07  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                           |
| Command        | APCCDTS07 | String | 9             | Struct of permanent counter for dbtag based observing |

| Read Variable Response:                    |               |            |               |   |
|--|---------------|------------|---------------|---|
| sRA APCCDTS07 <UseExtraValue> <ExtraValue> |               |            |               |   |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description   |
| Command Type                               | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                       |
| Command                                    | APCCDTS07     | String     | 9             | Struct of permanent counter for dbtag based observing |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |   |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |   |

| Write Variable:                            |           |        |               |   |
|--|-----------|--------|---------------|---|
| sWN APCCDTS07 <UseExtraValue> <ExtraValue> |           |        |               |   |
| Telegram Part                              | Telegram  | Type   | Length [Byte] | Description   |
| Command Type                               | sWN       | String | 3             | Write SOPAS Variable by Name                          |
| Command                                    | APCCDTS07 | String | 9             | Struct of permanent counter for dbtag based observing |





| Write Variable:                            |               |            |               |             |
|--|---------------|------------|---------------|-------------|
| sWN APCCDTS07 <UseExtraValue> <ExtraValue> |               |            |               |             |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |             |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |             |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA APCCDTS07            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                      |
| Command                  | APCCDTS07 | String | 9             | Struct of permanent counter for dbtag based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN APCCDTS07[ETX]        |
| Read Variable Response:                                     | [STX]sRA APCCDTS07 0 0[ETX]    |
| Write Variable:   | [STX]sWN APCCDTS07 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCDTS07[ETX]        |

## 2.24.11.28. Variable: APCIsPermanent07

The following section contains a detailed description of the variable APCIsPermanent07.

### Variable Overview

| Variable Name    | Description                                   |
|------------------|---|
| APCIsPermanent07 | Defines whether a counter is permanent or not |

|                       |   |
|-----------------------|---|
| Communication Name    | APCIsPerm07   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1183  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN APCIsPerm07 |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                   |
| Command         | APCIsPerm07 | String | 11            | Defines whether a counter is permanent or not |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA APCIsPerm07 <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge               |
| Command                 | APCIsPerm07 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data           | data        | Bool   | 1             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN APCIsPerm07 <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                  |
| Command                | APCIsPerm07 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data          | data        | Bool   | 1             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA APCIsPerm07          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge              |
| Command                  | APCIsPerm07 | String | 11            | Defines whether a counter is permanent or not |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN APCIsPerm07[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCIsPerm07 0[ETX] |
| Write Variable:   | [STX]sWN APCIsPerm07 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCIsPerm07[ETX]   |



## 2.24.11.29. Variable: APCCounterCondition08

The following section contains a detailed description of the variable APCCounterCondition08.

### Variable Overview

| Variable Name         | Description                 |
|-----------------------|-----------------------------|
| APCCounterCondition08 | Enum of permanent counter 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCC08   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1184  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | 0                      |             |
|               | Value | Name                   | Description |
|               | 0     | TX_DEACTIVATED         |             |
|               | 1     | TX_INPUT1              |             |
|               | 2     | TX_INPUT2              |             |
|               | 3     | TX_EXT_IN1             |             |
|               | 4     | TX_EXT_IN2             |             |
|               | 5     | TX_FIELDBUS_TRIGGER_IN |             |
|               | 6     | TX_FIELDBUS_TEACH_IN1  |             |
|               | 7     | TX_FIELDBUS_TEACH_IN2  |             |
|               | 8     | TX_OUTPUT1             |             |
|               | 9     | TX_OUTPUT2             |             |
|               | 10    | TX_EXT_OUT1            |             |
|               | 11    | TX_EXT_OUT2            |             |

### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN APCCC08    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | APCCC08  | String | 7             | Enum of permanent counter 1 |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA APCCC08 <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | APCCC08  | String | 7             | Enum of permanent counter 1     |
| Variable Data           | data     | Enum8  | 1             |                                 |



| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN APCCC08 <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | APCCC08  | String | 7             | Enum of permanent counter 1  |
| Variable Data      | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA APCCC08              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | APCCC08  | String | 7             | Enum of permanent counter 1      |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN APCCC08[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCCC08 0[ETX] |
| Write Variable:   | [STX]sWN APCCC08 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCC08[ETX]   |

### 2.24.11.30. Variable: APCCCounterConditionStruct08

The following section contains a detailed description of the variable APCCCounterConditionStruct08.

#### Variable Overview

| Variable Name                | Description  |
|------------------------------|--|
| APCCCounterConditionStruct08 | Struct of permanent counter for condition name based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCCS08  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1185  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..18       |
| Initialisation |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN APCCCS08   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                                    |
| Command        | APCCCS08 | String | 8             | Struct of permanent counter for condition name based observing |

| Read Variable Response:                   |               |            |               |  |
|---|---------------|------------|---------------|--|
| sRA APCCCS08 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                                |
| Command                                   | APCCCS08      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable:                           |               |            |               |  |
|---|---------------|------------|---------------|--|
| sWN APCCCS08 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sWN           | String     | 3             | Write SOPAS Variable by Name                                   |
| Command                                   | APCCCS08      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA APCCCS08             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                               |
| Command                  | APCCCS08 | String | 8             | Struct of permanent counter for condition name based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN APCCCS08[ETX]        |
| Read Variable Response:                                     | [STX]sRA APCCCS08 0 0[ETX]    |
| Write Variable:   | [STX]sWN APCCCS08 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCCS08[ETX]        |



## 2.24.11.31. Variable: APCCounterDBTagStruct08

The following section contains a detailed description of the variable APCCounterDBTagStruct08.

### Variable Overview

| Variable Name           | Description   |
|-------------------------|---|
| APCCounterDBTagStruct08 | Struct of permanent counter for dbtag based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCDTS08   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1186  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..6        |
| Initialisation |             |

### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN APCCDTS08  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                           |
| Command        | APCCDTS08 | String | 9             | Struct of permanent counter for dbtag based observing |

| Read Variable Response:                    |               |            |               |   |
|--|---------------|------------|---------------|---|
| sRA APCCDTS08 <UseExtraValue> <ExtraValue> |               |            |               |   |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description   |
| Command Type                               | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                       |
| Command                                    | APCCDTS08     | String     | 9             | Struct of permanent counter for dbtag based observing |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |   |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |   |

| Write Variable:                            |           |        |               |   |
|--|-----------|--------|---------------|---|
| sWN APCCDTS08 <UseExtraValue> <ExtraValue> |           |        |               |   |
| Telegram Part                              | Telegram  | Type   | Length [Byte] | Description   |
| Command Type                               | sWN       | String | 3             | Write SOPAS Variable by Name                          |
| Command                                    | APCCDTS08 | String | 9             | Struct of permanent counter for dbtag based observing |



| Write Variable:                            |               |            |               |             |
|--|---------------|------------|---------------|-------------|
| sWN APCCDTS08 <UseExtraValue> <ExtraValue> |               |            |               |             |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |             |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |             |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA APCCDTS08            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                      |
| Command                  | APCCDTS08 | String | 9             | Struct of permanent counter for dbtag based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN APCCDTS08[ETX]        |
| Read Variable Response:                                     | [STX]sRA APCCDTS08 0 0[ETX]    |
| Write Variable:   | [STX]sWN APCCDTS08 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCDTS08[ETX]        |

## 2.24.11.32. Variable: APCIsPermanent08

The following section contains a detailed description of the variable APCIsPermanent08.

### Variable Overview

| Variable Name    | Description                                   |
|------------------|---|
| APCIsPermanent08 | Defines whether a counter is permanent or not |

|                       |   |
|-----------------------|---|
| Communication Name    | APCIsPerm08   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1187  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN APCIsPerm08 |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                   |
| Command         | APCIsPerm08 | String | 11            | Defines whether a counter is permanent or not |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA APCIsPerm08 <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge               |
| Command                 | APCIsPerm08 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data           | data        | Bool   | 1             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN APCIsPerm08 <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                  |
| Command                | APCIsPerm08 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data          | data        | Bool   | 1             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA APCIsPerm08          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge              |
| Command                  | APCIsPerm08 | String | 11            | Defines whether a counter is permanent or not |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN APCIsPerm08[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCIsPerm08 0[ETX] |
| Write Variable:   | [STX]sWN APCIsPerm08 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCIsPerm08[ETX]   |





### 2.24.11.33. Variable: APCCounterCondition09

The following section contains a detailed description of the variable APCCounterCondition09.

#### Variable Overview

| Variable Name         | Description                 |
|-----------------------|-----------------------------|
| APCCounterCondition09 | Enum of permanent counter 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCC09   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1188  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | 0                      |             |
|               | Value | Name                   | Description |
|               | 0     | TX_DEACTIVATED         |             |
|               | 1     | TX_INPUT1              |             |
|               | 2     | TX_INPUT2              |             |
|               | 3     | TX_EXT_IN1             |             |
|               | 4     | TX_EXT_IN2             |             |
|               | 5     | TX_FIELDBUS_TRIGGER_IN |             |
|               | 6     | TX_FIELDBUS_TEACH_IN1  |             |
|               | 7     | TX_FIELDBUS_TEACH_IN2  |             |
|               | 8     | TX_OUTPUT1             |             |
|               | 9     | TX_OUTPUT2             |             |
|               | 10    | TX_EXT_OUT1            |             |
|               | 11    | TX_EXT_OUT2            |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN APCCC09    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | APCCC09  | String | 7             | Enum of permanent counter 1 |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA APCCC09 <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | APCCC09  | String | 7             | Enum of permanent counter 1     |
| Variable Data           | data     | Enum8  | 1             |                                 |



| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN APCCC09 <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | APCCC09  | String | 7             | Enum of permanent counter 1  |
| Variable Data      | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA APCCC09              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | APCCC09  | String | 7             | Enum of permanent counter 1      |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN APCCC09[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCCC09 0[ETX] |
| Write Variable:   | [STX]sWN APCCC09 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCC09[ETX]   |

### 2.24.11.34. Variable: APCCCounterConditionStruct09

The following section contains a detailed description of the variable APCCCounterConditionStruct09.

#### Variable Overview

| Variable Name                | Description  |
|------------------------------|--|
| APCCCounterConditionStruct09 | Struct of permanent counter for condition name based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCCS09  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1189  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..18       |
| Initialisation |             |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN APCCCS09   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                                    |
| Command        | APCCCS09 | String | 8             | Struct of permanent counter for condition name based observing |

| Read Variable Response:                   |               |            |               |  |
|---|---------------|------------|---------------|--|
| sRA APCCCS09 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                                |
| Command                                   | APCCCS09      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable:                           |               |            |               |  |
|---|---------------|------------|---------------|--|
| sWN APCCCS09 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sWN           | String     | 3             | Write SOPAS Variable by Name                                   |
| Command                                   | APCCCS09      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA APCCCS09             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                               |
| Command                  | APCCCS09 | String | 8             | Struct of permanent counter for condition name based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN APCCCS09[ETX]        |
| Read Variable Response:                                     | [STX]sRA APCCCS09 0 0[ETX]    |
| Write Variable:   | [STX]sWN APCCCS09 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCCS09[ETX]        |



## 2.24.11.35. Variable: APCCounterDBTagStruct09

The following section contains a detailed description of the variable APCCounterDBTagStruct09.

### Variable Overview

| Variable Name           | Description   |
|-------------------------|---|
| APCCounterDBTagStruct09 | Struct of permanent counter for dbtag based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCDTS09   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1190  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..6        |
| Initialisation |             |

### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN APCCDTS09  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                           |
| Command        | APCCDTS09 | String | 9             | Struct of permanent counter for dbtag based observing |

| Read Variable Response:                    |               |            |               |   |
|--|---------------|------------|---------------|---|
| sRA APCCDTS09 <UseExtraValue> <ExtraValue> |               |            |               |   |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description   |
| Command Type                               | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                       |
| Command                                    | APCCDTS09     | String     | 9             | Struct of permanent counter for dbtag based observing |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |   |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |   |

| Write Variable:                            |           |        |               |   |
|--|-----------|--------|---------------|---|
| sWN APCCDTS09 <UseExtraValue> <ExtraValue> |           |        |               |   |
| Telegram Part                              | Telegram  | Type   | Length [Byte] | Description   |
| Command Type                               | sWN       | String | 3             | Write SOPAS Variable by Name                          |
| Command                                    | APCCDTS09 | String | 9             | Struct of permanent counter for dbtag based observing |



| Write Variable:                            |               |            |               |             |
|--|---------------|------------|---------------|-------------|
| sWN APCCDTS09 <UseExtraValue> <ExtraValue> |               |            |               |             |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |             |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |             |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA APCCDTS09            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                      |
| Command                  | APCCDTS09 | String | 9             | Struct of permanent counter for dbtag based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN APCCDTS09[ETX]        |
| Read Variable Response:                                     | [STX]sRA APCCDTS09 0 0[ETX]    |
| Write Variable:   | [STX]sWN APCCDTS09 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCDTS09[ETX]        |

### 2.24.11.36. Variable: APCIsPermanent09

The following section contains a detailed description of the variable APCIsPermanent09.

#### Variable Overview

| Variable Name    | Description                                   |
|------------------|---|
| APCIsPermanent09 | Defines whether a counter is permanent or not |

|                       |   |
|-----------------------|---|
| Communication Name    | APCIsPerm09   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1191  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN APCIsPerm09 |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                   |
| Command         | APCIsPerm09 | String | 11            | Defines whether a counter is permanent or not |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA APCIsPerm09 <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge               |
| Command                 | APCIsPerm09 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data           | data        | Bool   | 1             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN APCIsPerm09 <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                  |
| Command                | APCIsPerm09 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data          | data        | Bool   | 1             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA APCIsPerm09          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge              |
| Command                  | APCIsPerm09 | String | 11            | Defines whether a counter is permanent or not |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN APCIsPerm09[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCIsPerm09 0[ETX] |
| Write Variable:   | [STX]sWN APCIsPerm09 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCIsPerm09[ETX]   |



## 2.24.11.37. Variable: APCCounterCondition10

The following section contains a detailed description of the variable APCCounterCondition10.

### Variable Overview

| Variable Name         | Description                 |
|-----------------------|-----------------------------|
| APCCounterCondition10 | Enum of permanent counter 1 |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCC10   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1192  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                        |             |
|---------------|-------|------------------------|-------------|
| Default Value |       | 0                      |             |
|               | Value | Name                   | Description |
|               | 0     | TX_DEACTIVATED         |             |
|               | 1     | TX_INPUT1              |             |
|               | 2     | TX_INPUT2              |             |
|               | 3     | TX_EXT_IN1             |             |
|               | 4     | TX_EXT_IN2             |             |
|               | 5     | TX_FIELDBUS_TRIGGER_IN |             |
|               | 6     | TX_FIELDBUS_TEACH_IN1  |             |
|               | 7     | TX_FIELDBUS_TEACH_IN2  |             |
|               | 8     | TX_OUTPUT1             |             |
|               | 9     | TX_OUTPUT2             |             |
|               | 10    | TX_EXT_OUT1            |             |
|               | 11    | TX_EXT_OUT2            |             |

### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN APCCC10    |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | APCCC10  | String | 7             | Enum of permanent counter 1 |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA APCCC10 <data>      |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | APCCC10  | String | 7             | Enum of permanent counter 1     |
| Variable Data           | data     | Enum8  | 1             |                                 |



| Write Variable:    |          |        |               |                              |
|--------------------|----------|--------|---------------|------------------------------|
| sWN APCCC10 <data> |          |        |               |                              |
| Telegram Part      | Telegram | Type   | Length [Byte] | Description                  |
| Command Type       | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command            | APCCC10  | String | 7             | Enum of permanent counter 1  |
| Variable Data      | data     | Enum8  | 1             |                              |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA APCCC10              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | APCCC10  | String | 7             | Enum of permanent counter 1      |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN APCCC10[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCCC10 0[ETX] |
| Write Variable:   | [STX]sWN APCCC10 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCC10[ETX]   |

### 2.24.11.38. Variable: APCCCounterConditionStruct10

The following section contains a detailed description of the variable APCCCounterConditionStruct10.

#### Variable Overview

| Variable Name                | Description  |
|------------------------------|--|
| APCCCounterConditionStruct10 | Struct of permanent counter for condition name based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCCS10  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1193  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..18       |
| Initialisation |             |





## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN APCCCS10   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                                    |
| Command        | APCCCS10 | String | 8             | Struct of permanent counter for condition name based observing |

| Read Variable Response:                   |               |            |               |  |
|---|---------------|------------|---------------|--|
| sRA APCCCS10 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                                |
| Command                                   | APCCCS10      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable:                           |               |            |               |  |
|---|---------------|------------|---------------|--|
| sWN APCCCS10 <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part                             | Telegram      | Type       | Length [Byte] | Description  |
| Command Type                              | sWN           | String     | 3             | Write SOPAS Variable by Name                                   |
| Command                                   | APCCCS10      | String     | 8             | Struct of permanent counter for condition name based observing |
| Variable Data 1                           | UseExtraValue | Bool       | 1             |  |
| Variable Data 2                           | ExtraValue    | FlexString | 18            |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA APCCCS10             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                               |
| Command                  | APCCCS10 | String | 8             | Struct of permanent counter for condition name based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN APCCCS10[ETX]        |
| Read Variable Response:                                     | [STX]sRA APCCCS10 0 0[ETX]    |
| Write Variable:   | [STX]sWN APCCCS10 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCCS10[ETX]        |



## 2.24.11.39. Variable: APCCounterDBTagStruct10

The following section contains a detailed description of the variable APCCounterDBTagStruct10.

### Variable Overview

| Variable Name           | Description   |
|-------------------------|---|
| APCCounterDBTagStruct10 | Struct of permanent counter for dbtag based observing |

|                       |   |
|-----------------------|---|
| Communication Name    | APCCDTS10   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1194  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |             |
|----------------|-------------|
| UseExtraValue  |             |
| Bool           |             |
| Value Range    | False, True |
| Initialisation | False       |
| ExtraValue     |             |
| FlexString     |             |
| Length         | 0..6        |
| Initialisation |             |

### Variable Telegram Syntax

| Read Variable: |           |        |               |   |
|----------------|-----------|--------|---------------|---|
| sRN APCCDTS10  |           |        |               |   |
| Telegram Part  | Telegram  | Type   | Length [Byte] | Description   |
| Command Type   | sRN       | String | 3             | Read SOPAS Variable by Name                           |
| Command        | APCCDTS10 | String | 9             | Struct of permanent counter for dbtag based observing |

| Read Variable Response:                    |               |            |               |   |
|--|---------------|------------|---------------|---|
| sRA APCCDTS10 <UseExtraValue> <ExtraValue> |               |            |               |   |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description   |
| Command Type                               | sRA           | String     | 3             | SOPAS Variable Read Acknowledge                       |
| Command                                    | APCCDTS10     | String     | 9             | Struct of permanent counter for dbtag based observing |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |   |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |   |

| Write Variable:                            |           |        |               |   |
|--|-----------|--------|---------------|---|
| sWN APCCDTS10 <UseExtraValue> <ExtraValue> |           |        |               |   |
| Telegram Part                              | Telegram  | Type   | Length [Byte] | Description   |
| Command Type                               | sWN       | String | 3             | Write SOPAS Variable by Name                          |
| Command                                    | APCCDTS10 | String | 9             | Struct of permanent counter for dbtag based observing |



| Write Variable:                            |               |            |               |             |
|--|---------------|------------|---------------|-------------|
| sWN APCCDTS10 <UseExtraValue> <ExtraValue> |               |            |               |             |
| Telegram Part                              | Telegram      | Type       | Length [Byte] | Description |
| Variable Data 1                            | UseExtraValue | Bool       | 1             |             |
| Variable Data 2                            | ExtraValue    | FlexString | 6             |             |

| Write Variable Response: |           |        |               |   |
|--------------------------|-----------|--------|---------------|---|
| sWA APCCDTS10            |           |        |               |   |
| Telegram Part            | Telegram  | Type   | Length [Byte] | Description   |
| Command Type             | sWA       | String | 3             | SOPAS Variable Write Acknowledge                      |
| Command                  | APCCDTS10 | String | 9             | Struct of permanent counter for dbtag based observing |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN APCCDTS10[ETX]        |
| Read Variable Response:                                     | [STX]sRA APCCDTS10 0 0[ETX]    |
| Write Variable:   | [STX]sWN APCCDTS10 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCCDTS10[ETX]        |

### 2.24.11.40. Variable: APCIsPermanent10

The following section contains a detailed description of the variable APCIsPermanent10.

#### Variable Overview

| Variable Name    | Description                                   |
|------------------|---|
| APCIsPermanent10 | Defines whether a counter is permanent or not |

|                       |   |
|-----------------------|---|
| Communication Name    | APCIsPerm10   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1195  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN APCIsPerm10 |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                   |
| Command         | APCIsPerm10 | String | 11            | Defines whether a counter is permanent or not |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA APCIsPerm10 <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge               |
| Command                 | APCIsPerm10 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data           | data        | Bool   | 1             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN APCIsPerm10 <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                  |
| Command                | APCIsPerm10 | String | 11            | Defines whether a counter is permanent or not |
| Variable Data          | data        | Bool   | 1             |   |

| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA APCIsPerm10          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge              |
| Command                  | APCIsPerm10 | String | 11            | Defines whether a counter is permanent or not |

## Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN APCIsPerm10[ETX]   |
| Read Variable Response:                                     | [STX]sRA APCIsPerm10 0[ETX] |
| Write Variable:   | [STX]sWN APCIsPerm10 0[ETX] |
| Write Variable Response:                                    | [STX]sWA APCIsPerm10[ETX]   |



## 2.24.11.41. Method: ResetAppCounter

The following section contains a detailed description of the method ResetAppCounter.

### Method Overview

| Method Name     | Description                     |
|-----------------|---------------------------------|
| ResetAppCounter | Resets the application counters |

|                    |           |
|--------------------|-----------|
| Communication Name | mAPCReset |
| Sopas Index        | 148       |
| Invocation Access  | Always    |

### Method Telegram Syntax

| Method Invocation: |           |        |               |                                 |
|--------------------|-----------|--------|---------------|---------------------------------|
| sMN mAPCReset      |           |        |               |                                 |
| Telegram Part      | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type       | sMN       | String | 3             | Request (SOPAS Method by Name)  |
| Command            | mAPCReset | String | 9             | Resets the application counters |

| Method Return Value: |           |        |               |                                 |
|----------------------|-----------|--------|---------------|---------------------------------|
| sAN mAPCReset        |           |        |               |                                 |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description                     |
| Command Type         | sAN       | String | 3             | Result (SOPAS Method Result)    |
| Command              | mAPCReset | String | 9             | Resets the application counters |

### Method Telegram Examples

| Example: Default Values   |                         |
|---|-------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                         |
| Method Invocation:  | [STX]sMN mAPCReset[ETX] |
| Method Return Value:  | [STX]sAN mAPCReset[ETX] |



## 2.24.11.42. Method: StoreAppCounter

The following section contains a detailed description of the method StoreAppCounter.

### Method Overview

| Method Name     | Description   |
|-----------------|---|
| StoreAppCounter | Trigere the permanent storage of the permanent application counters |

|                    |           |
|--------------------|-----------|
| Communication Name | mAPCStore |
| Sopas Index        | 149       |
| Invocation Access  | Always    |

### Method Telegram Syntax

| Method Invocation: |           |        |               |   |
|--------------------|-----------|--------|---------------|---|
| sMN mAPCStore      |           |        |               |   |
| Telegram Part      | Telegram  | Type   | Length [Byte] | Description   |
| Command Type       | sMN       | String | 3             | Request (SOPAS Method by Name)                                      |
| Command            | mAPCStore | String | 9             | Trigere the permanent storage of the permanent application counters |

| Method Return Value: |           |        |               |   |
|----------------------|-----------|--------|---------------|---|
| sAN mAPCStore        |           |        |               |   |
| Telegram Part        | Telegram  | Type   | Length [Byte] | Description   |
| Command Type         | sAN       | String | 3             | Result (SOPAS Method Result)  |
| Command              | mAPCStore | String | 9             | Trigere the permanent storage of the permanent application counters |

### Method Telegram Examples

| Example: Default Values   |                         |
|---|-------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                         |
| Method Invocation:  | [STX]sMN mAPCStore[ETX] |
| Method Return Value:  | [STX]sAN mAPCStore[ETX] |



## 2.24.12. Group: ObjAdmin

### 2.24.12.1. Variable: ObjDevListCodesCondition

The following section contains a detailed description of the variable ObjDevListCodesCondition.

#### Variable Overview

| Variable Name            | Description  |
|--------------------------|--|
| ObjDevListCodesCondition | Condition for codes used to form the object related dev. list (DMBF, DMSF, DMSB) |

|                       |   |
|-----------------------|---|
| Communication Name    | OADevLstCond  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1196  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Struct         |       |                 |             |
|----------------|-------|-----------------|-------------|
| EnumValue      |       |                 |             |
| Enum8          |       |                 |             |
| Default Value  |       | TX_NO_CONDITION |             |
|                | Value | Name            | Description |
|                | 0     | TX_NO_CONDITION |             |
| UseExtraValue  |       |                 |             |
| Bool           |       |                 |             |
| Value Range    |       | False, True     |             |
| Initialisation |       | False           |             |
| ExtraValue     |       |                 |             |
| FlexString     |       |                 |             |
| Length         |       | 0..18           |             |
| Initialisation |       |                 |             |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |  |
|------------------|--------------|--------|---------------|--|
| sRN OADevLstCond |              |        |               |  |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description  |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name  |
| Command          | OADevLstCond | String | 12            | Condition for codes used to form the object related dev. list (DMBF, DMSF, DMSB) |

| Read Variable Response:                                   |               |        |               |  |
|---|---------------|--------|---------------|--|
| sRA OADevLstCond <EnumValue> <UseExtraValue> <ExtraValue> |               |        |               |  |
| Telegram Part   | Telegram      | Type   | Length [Byte] | Description  |
| Command Type  | sRA           | String | 3             | SOPAS Variable Read Acknowledge  |
| Command   | OADevLstCond  | String | 12            | Condition for codes used to form the object related dev. list (DMBF, DMSF, DMSB) |
| Variable Data 1   | EnumValue     | Enum8  | 1             |  |
| Variable Data 2   | UseExtraValue | Bool   | 1             |  |



| Read Variable Response:                                   |            |            |               |             |
|---|------------|------------|---------------|-------------|
| sRA OADevLstCond <EnumValue> <UseExtraValue> <ExtraValue> |            |            |               |             |
| Telegram Part   | Telegram   | Type       | Length [Byte] | Description |
| Variable Data 3   | ExtraValue | FlexString | 18            |             |

| Write Variable:   |               |            |               |  |
|---|---------------|------------|---------------|--|
| sWN OADevLstCond <EnumValue> <UseExtraValue> <ExtraValue> |               |            |               |  |
| Telegram Part   | Telegram      | Type       | Length [Byte] | Description  |
| Command Type  | sWN           | String     | 3             | Write SOPAS Variable by Name   |
| Command   | OADevLstCond  | String     | 12            | Condition for codes used to form the object related dev. list (DMBF, DMSF, DMSB) |
| Variable Data 1   | EnumValue     | Enum8      | 1             |  |
| Variable Data 2   | UseExtraValue | Bool       | 1             |  |
| Variable Data 3   | ExtraValue    | FlexString | 18            |  |

| Write Variable Response: |              |        |               |  |
|--------------------------|--------------|--------|---------------|--|
| sWA OADevLstCond         |              |        |               |  |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description  |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | OADevLstCond | String | 12            | Condition for codes used to form the object related dev. list (DMBF, DMSF, DMSB) |

## Variable Telegram Examples

| Example: Default Values                                     |                                     |
|---|-------------------------------------|
| Variable telegram examples with data set to default values. |                                     |
| Read Variable:  | [STX]sRN OADevLstCond[ETX]          |
| Read Variable Response:                                     | [STX]sRA OADevLstCond 0 0 0[ETX]    |
| Write Variable:   | [STX]sWN OADevLstCond 0 0 +0 0[ETX] |
| Write Variable Response:                                    | [STX]sWA OADevLstCond[ETX]          |





## 2.24.13. Group: ExternalDataInputHandling

### 2.24.13.1. Variable: ED\_DataForwardDestination

The following section contains a detailed description of the variable ED\_DataForwardDestination.

#### Variable Overview

| Variable Name             | Description                               |
|---------------------------|---|
| ED_DataForwardDestination | Destination interface for data forwarding |

|                       |   |
|-----------------------|---|
| Communication Name    | EDFwDs  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1198  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                         |             |
|---------------|-------|-------------------------|-------------|
| Default Value |       | 1                       |             |
|               | Value | Name                    | Description |
|               | 0     | TX_EDI_FWD_DST_SER_HOST |             |
|               | 1     | TX_EDI_FWD_DST_SER_AUX  |             |
|               | 2     | TX_EDI_FWD_DST_ETH_HOST |             |
|               | 3     | TX_EDI_FWD_DST_ETH_AUX  |             |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN EDFwDs     |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                               |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name               |
| Command        | EDFwDs   | String | 6             | Destination interface for data forwarding |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA EDFwDs <data>       |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                               |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge           |
| Command                 | EDFwDs   | String | 6             | Destination interface for data forwarding |
| Variable Data           | data     | Enum8  | 1             |   |

| Write Variable:   |          |        |               |   |
|-------------------|----------|--------|---------------|---|
| sWN EDFwDs <data> |          |        |               |   |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description                               |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name              |
| Command           | EDFwDs   | String | 6             | Destination interface for data forwarding |
| Variable Data     | data     | Enum8  | 1             |   |



| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA EDFwDs               |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                               |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge          |
| Command                  | EDFwDs   | String | 6             | Destination interface for data forwarding |

## Variable Telegram Examples

| Example: Default Values                                     |                         |
|---|-------------------------|
| Variable telegram examples with data set to default values. |                         |
| Read Variable:  | [STX]sRN EDFwDs [ETX]   |
| Read Variable Response:                                     | [STX]sRA EDFwDs 1 [ETX] |
| Write Variable:   | [STX]sWN EDFwDs 1 [ETX] |
| Write Variable Response:                                    | [STX]sWA EDFwDs [ETX]   |

### 2.24.13.2. Variable: ED\_DataForwardFrameRxHeader

The following section contains a detailed description of the variable ED\_DataForwardFrameRxHeader.

#### Variable Overview

| Variable Name               | Description   |
|-----------------------------|---|
| ED_DataForwardFrameRxHeader | Defines the receive framing start characters for Data Forwarding Commands |

|                       |   |
|-----------------------|---|
| Communication Name    | EDFwRFH   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1199  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |       |
|----------------|-------|
| Length         | 0..10 |
| Initialisation | \x02/ |



## Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN EDFwRFH    |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name   |
| Command        | EDFwRFH  | String | 7             | Defines the receive framing start characters for Data Forwarding Commands |

| Read Variable Response: |          |            |               |   |
|-------------------------|----------|------------|---------------|---|
| sRA EDFwRFH <data>      |          |            |               |   |
| Telegram Part           | Telegram | Type       | Length [Byte] | Description   |
| Command Type            | sRA      | String     | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | EDFwRFH  | String     | 7             | Defines the receive framing start characters for Data Forwarding Commands |
| Variable Data           | data     | FlexString | 10            |   |

| Write Variable:    |          |            |               |   |
|--------------------|----------|------------|---------------|---|
| sWN EDFwRFH <data> |          |            |               |   |
| Telegram Part      | Telegram | Type       | Length [Byte] | Description   |
| Command Type       | sWN      | String     | 3             | Write SOPAS Variable by Name  |
| Command            | EDFwRFH  | String     | 7             | Defines the receive framing start characters for Data Forwarding Commands |
| Variable Data      | data     | FlexString | 10            |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA EDFwRFH              |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description   |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | EDFwRFH  | String | 7             | Defines the receive framing start characters for Data Forwarding Commands |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN EDFwRFH[ETX]          |
| Read Variable Response:                                     | [STX]sRA EDFwRFH 5 \x02/[ETX]  |
| Write Variable:   | [STX]sWN EDFwRFH +5 \x02/[ETX] |
| Write Variable Response:                                    | [STX]sWA EDFwRFH[ETX]          |

### 2.24.13.3. Variable: ED\_DataForwardFrameRxTerminator

The following section contains a detailed description of the variable ED\_DataForwardFrameRxTerminator.

#### Variable Overview

| Variable Name                   | Description  |
|---------------------------------|--|
| ED_DataForwardFrameRxTerminator | Defines the receive framing stop characters for Data Forwarding Commands |

|                       |   |
|-----------------------|---|
| Communication Name    | EDFwRFT   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1200  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |       |
|----------------|-------|
| Length         | 0..10 |
| Initialisation | \x03  |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN EDFwRFT    |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name  |
| Command        | EDFwRFT  | String | 7             | Defines the receive framing stop characters for Data Forwarding Commands |

| Read Variable Response: |          |            |               |  |
|-------------------------|----------|------------|---------------|--|
| sRA EDFwRFT <data>      |          |            |               |  |
| Telegram Part           | Telegram | Type       | Length [Byte] | Description  |
| Command Type            | sRA      | String     | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | EDFwRFT  | String     | 7             | Defines the receive framing stop characters for Data Forwarding Commands |
| Variable Data           | data     | FlexString | 10            |  |

| Write Variable:    |          |            |               |  |
|--------------------|----------|------------|---------------|--|
| sWN EDFwRFT <data> |          |            |               |  |
| Telegram Part      | Telegram | Type       | Length [Byte] | Description  |
| Command Type       | sWN      | String     | 3             | Write SOPAS Variable by Name   |
| Command            | EDFwRFT  | String     | 7             | Defines the receive framing stop characters for Data Forwarding Commands |
| Variable Data      | data     | FlexString | 10            |  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EDFwRFT              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA EDFwRFT              |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command                  | EDFwRFT  | String | 7             | Defines the receive framing stop characters for Data Forwarding Commands |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN EDFwRFT[ETX]         |
| Read Variable Response:                                     | [STX]sRA EDFwRFT 4 \x03[ETX]  |
| Write Variable:   | [STX]sWN EDFwRFT +4 \x03[ETX] |
| Write Variable Response:                                    | [STX]sWA EDFwRFT[ETX]         |

### 2.24.13.4. Variable: ED\_DataForwardFrameTxHeader

The following section contains a detailed description of the variable ED\_DataForwardFrameTxHeader.

#### Variable Overview

| Variable Name               | Description   |
|-----------------------------|---|
| ED_DataForwardFrameTxHeader | Defines the transmit framing start characters for Data Forwarding |

|                       |   |
|-----------------------|---|
| Communication Name    | EDFwTFH   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1201  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |       |
|----------------|-------|
| Length         | 0..10 |
| Initialisation | \x02/ |



## Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN EDFwTFH    |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                                       |
| Command        | EDFwTFH  | String | 7             | Defines the transmit framing start characters for Data Forwarding |

| Read Variable Response: |          |            |               |   |
|-------------------------|----------|------------|---------------|---|
| sRA EDFwTFH <data>      |          |            |               |   |
| Telegram Part           | Telegram | Type       | Length [Byte] | Description   |
| Command Type            | sRA      | String     | 3             | SOPAS Variable Read Acknowledge                                   |
| Command                 | EDFwTFH  | String     | 7             | Defines the transmit framing start characters for Data Forwarding |
| Variable Data           | data     | FlexString | 10            |   |

| Write Variable:    |          |            |               |   |
|--------------------|----------|------------|---------------|---|
| sWN EDFwTFH <data> |          |            |               |   |
| Telegram Part      | Telegram | Type       | Length [Byte] | Description   |
| Command Type       | sWN      | String     | 3             | Write SOPAS Variable by Name                                      |
| Command            | EDFwTFH  | String     | 7             | Defines the transmit framing start characters for Data Forwarding |
| Variable Data      | data     | FlexString | 10            |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA EDFwTFH              |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description   |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge                                  |
| Command                  | EDFwTFH  | String | 7             | Defines the transmit framing start characters for Data Forwarding |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN EDFwTFH[ETX]          |
| Read Variable Response:                                     | [STX]sRA EDFwTFH 5 \x02/[ETX]  |
| Write Variable:   | [STX]sWN EDFwTFH +5 \x02/[ETX] |
| Write Variable Response:                                    | [STX]sWA EDFwTFH[ETX]          |

## 2.24.13.5. Variable: ED\_DataForwardFrameTxTerminator

The following section contains a detailed description of the variable ED\_DataForwardFrameTxTerminator.

### Variable Overview

| Variable Name                   | Description  |
|---------------------------------|--|
| ED_DataForwardFrameTxTerminator | Defines the transmit framing stop characters for Data Forwarding |

|                       |   |
|-----------------------|---|
| Communication Name    | EDFwTFT   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1202  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |       |
|----------------|-------|
| Length         | 0..10 |
| Initialisation | \x03  |

### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN EDFwTFT    |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name                                      |
| Command        | EDFwTFT  | String | 7             | Defines the transmit framing stop characters for Data Forwarding |

| Read Variable Response: |          |            |               |  |
|-------------------------|----------|------------|---------------|--|
| sRA EDFwTFT <data>      |          |            |               |  |
| Telegram Part           | Telegram | Type       | Length [Byte] | Description  |
| Command Type            | sRA      | String     | 3             | SOPAS Variable Read Acknowledge                                  |
| Command                 | EDFwTFT  | String     | 7             | Defines the transmit framing stop characters for Data Forwarding |
| Variable Data           | data     | FlexString | 10            |  |

| Write Variable:    |          |            |               |  |
|--------------------|----------|------------|---------------|--|
| sWN EDFwTFT <data> |          |            |               |  |
| Telegram Part      | Telegram | Type       | Length [Byte] | Description  |
| Command Type       | sWN      | String     | 3             | Write SOPAS Variable by Name                                     |
| Command            | EDFwTFT  | String     | 7             | Defines the transmit framing stop characters for Data Forwarding |
| Variable Data      | data     | FlexString | 10            |  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EDFwTFT              |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA EDFwTFT              |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command                  | EDFWTFT  | String | 7             | Defines the transmit framing stop characters for Data Forwarding |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN EDFwTFT[ETX]         |
| Read Variable Response:                                     | [STX]sRA EDFwTFT 4 \x03[ETX]  |
| Write Variable:   | [STX]sWN EDFwTFT +4 \x03[ETX] |
| Write Variable Response:                                    | [STX]sWA EDFwTFT[ETX]         |

### 2.24.13.6. Variable: ED\_AuxReadResultBarcodeType

The following section contains a detailed description of the variable ED\_AuxReadResultBarcodeType.

#### Variable Overview

| Variable Name               | Description   |
|-----------------------------|---|
| ED_AuxReadResultBarcodeType | Defines how to determine the barcode type for the auxiliary read result: Use fixed barcode type or use first input character as barcode type identifier |

|                       |   |
|-----------------------|---|
| Communication Name    | EDArTy  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1203  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| Enum8         |       |                              |             |
|---------------|-------|------------------------------|-------------|
| Default Value |       | TX_EDI_RS_TYPE_C39           |             |
|               | Value | Name                         | Description |
|               | 0     | TX_EDI_RS_TYPE_BY_IDENTIFIER |             |
|               | 1     | TX_EDI_RS_TYPE_CODABAR       |             |
|               | 2     | TX_EDI_RS_TYPE_C39           |             |
|               | 3     | TX_EDI_RS_TYPE_EAN           |             |
|               | 4     | TX_EDI_RS_TYPE_UPC           |             |
|               | 5     | TX_EDI_RS_TYPE_25IL          |             |
|               | 6     | TX_EDI_RS_TYPE_C93           |             |
|               | 7     | TX_EDI_RS_TYPE_C128          |             |
|               | 8     | TX_EDI_RS_TYPE_GS1DATABAR    |             |
|               | 9     | TX_EDI_RS_TYPE_PHARMA        |             |





## Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN EDArTy     |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name   |
| Command        | EDArTy   | String | 7             | Defines ihow to determine the barcode type fo the auxiliary read result: Use fixed barcode type or use first input character as barcode type identifier |

| Read Variable Response: |          |        |               |   |
|-------------------------|----------|--------|---------------|---|
| sRA EDArTy <data>       |          |        |               |   |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description   |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | EDArTy   | String | 7             | Defines ihow to determine the barcode type fo the auxiliary read result: Use fixed barcode type or use first input character as barcode type identifier |
| Variable Data           | data     | Enum8  | 1             |   |

| Write Variable:   |          |        |               |   |
|-------------------|----------|--------|---------------|---|
| sWN EDArTy <data> |          |        |               |   |
| Telegram Part     | Telegram | Type   | Length [Byte] | Description   |
| Command Type      | sWN      | String | 3             | Write SOPAS Variable by Name  |
| Command           | EDArTy   | String | 7             | Defines ihow to determine the barcode type fo the auxiliary read result: Use fixed barcode type or use first input character as barcode type identifier |
| Variable Data     | data     | Enum8  | 1             |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA EDArTy               |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description   |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | EDArTy   | String | 7             | Defines ihow to determine the barcode type fo the auxiliary read result: Use fixed barcode type or use first input character as barcode type identifier |

## Variable Telegram Examples

| Example: Default Values                                     |                        |
|---|------------------------|
| Variable telegram examples with data set to default values. |                        |
| Read Variable:  | [STX]sRN EDArTy[ETX]   |
| Read Variable Response:                                     | [STX]sRA EDArTy 2[ETX] |
| Write Variable:   | [STX]sWN EDArTy 2[ETX] |
| Write Variable Response:                                    | [STX]sWA EDArTy[ETX]   |

### 2.24.13.7. Variable: ED\_AuxReadResultFrameRxHeader

The following section contains a detailed description of the variable ED\_AuxReadResultFrameRxHeader.

#### Variable Overview

| Variable Name                 | Description  |
|-------------------------------|--|
| ED_AuxReadResultFrameRxHeader | Defines the receive framing start characters for Data Aux read result Commands |

|                       |   |
|-----------------------|---|
| Communication Name    | EDArSRFH  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1204  |
| Storage               | Variable is stored in ParamEEPROM                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |       |
|----------------|-------|
| Length         | 0..10 |
| Initialisation | \x02> |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN EDArSRFH   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name  |
| Command        | EDArSRFH | String | 8             | Defines the receive framing start characters for Data Aux read result Commands |

| Read Variable Response: |          |            |               |  |
|-------------------------|----------|------------|---------------|--|
| sRA EDArSRFH <data>     |          |            |               |  |
| Telegram Part           | Telegram | Type       | Length [Byte] | Description  |
| Command Type            | sRA      | String     | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | EDArSRFH | String     | 8             | Defines the receive framing start characters for Data Aux read result Commands |
| Variable Data           | data     | FlexString | 10            |  |

| Write Variable:     |          |            |               |  |
|---------------------|----------|------------|---------------|--|
| sWN EDArSRFH <data> |          |            |               |  |
| Telegram Part       | Telegram | Type       | Length [Byte] | Description  |
| Command Type        | sWN      | String     | 3             | Write SOPAS Variable by Name   |
| Command             | EDArSRFH | String     | 8             | Defines the receive framing start characters for Data Aux read result Commands |
| Variable Data       | data     | FlexString | 10            |  |

| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA EDArSRFH             |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA EDArSRFH             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command                  | EDArSRFH | String | 8             | Defines the receive framing start characters for Data Aux read result Commands |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN EDArSRFH[ETX]          |
| Read Variable Response:                                     | [STX]sRA EDArSRFH 5 \x02>[ETX]  |
| Write Variable:   | [STX]sWN EDArSRFH +5 \x02>[ETX] |
| Write Variable Response:                                    | [STX]sWA EDArSRFH[ETX]          |

### 2.24.13.8. Variable: ED\_AuxReadResultFrameRxTerminator

The following section contains a detailed description of the variable ED\_AuxReadResultFrameRxTerminator.

#### Variable Overview

| Variable Name                     | Description  |
|-----------------------------------|--|
| ED_AuxReadResultFrameRxTerminator | Defines the receive framing stop characters for Aux read result Commands |

|                       |   |
|-----------------------|---|
| Communication Name    | EDArSRFT  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1205  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |       |
|----------------|-------|
| Length         | 0..10 |
| Initialisation | \x03  |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN EDArSRFT   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name  |
| Command        | EDArSRFT | String | 8             | Defines the receive framing stop characters for Aux read result Commands |

| Read Variable Response: |          |            |               |  |
|-------------------------|----------|------------|---------------|--|
| sRA EDArSRFT <data>     |          |            |               |  |
| Telegram Part           | Telegram | Type       | Length [Byte] | Description  |
| Command Type            | sRA      | String     | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | EDArSRFT | String     | 8             | Defines the receive framing stop characters for Aux read result Commands |
| Variable Data           | data     | FlexString | 10            |  |

| Write Variable:     |          |            |               |  |
|---------------------|----------|------------|---------------|--|
| sWN EDArSRFT <data> |          |            |               |  |
| Telegram Part       | Telegram | Type       | Length [Byte] | Description  |
| Command Type        | sWN      | String     | 3             | Write SOPAS Variable by Name   |
| Command             | EDArSRFT | String     | 8             | Defines the receive framing stop characters for Aux read result Commands |
| Variable Data       | data     | FlexString | 10            |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA EDArSRFT             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | EDArSRFT | String | 8             | Defines the receive framing stop characters for Aux read result Commands |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN EDArSRFT[ETX]         |
| Read Variable Response:                                     | [STX]sRA EDArSRFT 4 \x03[ETX]  |
| Write Variable:   | [STX]sWN EDArSRFT +4 \x03[ETX] |
| Write Variable Response:                                    | [STX]sWA EDArSRFT[ETX]         |

### 2.24.13.9. Variable: ED\_DataStringAcqDefault

The following section contains a detailed description of the variable ED\_DataStringAcqDefault.

#### Variable Overview

| Variable Name           | Description                          |
|-------------------------|--------------------------------------|
| ED_DataStringAcqDefault | default value for string acquisition |

|                       |   |
|-----------------------|---|
| Communication Name    | EDAcqDf   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1206  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |                |
|----------------|----------------|
| Length         | 0..50          |
| Initialisation | NoDataReceived |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |                                      |
|----------------|----------|--------|---------------|--------------------------------------|
| sRN EDAcqDf    |          |        |               |                                      |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                          |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name          |
| Command        | EDAcqDf  | String | 7             | default value for string acquisition |

| Read Variable Response: |          |            |               |                                      |
|-------------------------|----------|------------|---------------|--------------------------------------|
| sRA EDAcqDf <data>      |          |            |               |                                      |
| Telegram Part           | Telegram | Type       | Length [Byte] | Description                          |
| Command Type            | sRA      | String     | 3             | SOPAS Variable Read Acknowledge      |
| Command                 | EDAcqDf  | String     | 7             | default value for string acquisition |
| Variable Data           | data     | FlexString | 50            |                                      |

| Write Variable:    |          |            |               |                                      |
|--------------------|----------|------------|---------------|--------------------------------------|
| sWN EDAcqDf <data> |          |            |               |                                      |
| Telegram Part      | Telegram | Type       | Length [Byte] | Description                          |
| Command Type       | sWN      | String     | 3             | Write SOPAS Variable by Name         |
| Command            | EDAcqDf  | String     | 7             | default value for string acquisition |
| Variable Data      | data     | FlexString | 50            |                                      |

| Write Variable Response: |          |        |               |                                      |
|--------------------------|----------|--------|---------------|--------------------------------------|
| sWA EDAcqDf              |          |        |               |                                      |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                          |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge     |
| Command                  | EDAcqDf  | String | 7             | default value for string acquisition |



## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN EDAcqDf [ETX]                   |
| Read Variable Response:                                     | [STX]sRA EDAcqDf E NoDataReceived[ETX]   |
| Write Variable:   | [STX]sWN EDAcqDf +14 NoDataReceived[ETX] |
| Write Variable Response:                                    | [STX]sWA EDAcqDf [ETX]                   |

### 2.24.13.10. Variable: ED\_DataStringAcqFrameRxHeader

The following section contains a detailed description of the variable ED\_DataStringAcqFrameRxHeader.

#### Variable Overview

| Variable Name                 | Description   |
|-------------------------------|---|
| ED_DataStringAcqFrameRxHeader | Defines the receive framing start characters for Data string acquisition Commands |

|                       |   |
|-----------------------|---|
| Communication Name    | EDAcqRFH  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1207  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |       |
|----------------|-------|
| Length         | 0..10 |
| Initialisation | \x02& |

#### Variable Telegram Syntax

| Read Variable: |          |        |               |   |
|----------------|----------|--------|---------------|---|
| sRN EDAcqRFH   |          |        |               |   |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description   |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name   |
| Command        | EDAcqRFH | String | 8             | Defines the receive framing start characters for Data string acquisition Commands |

| Read Variable Response: |          |            |               |   |
|-------------------------|----------|------------|---------------|---|
| sRA EDAcqRFH <data>     |          |            |               |   |
| Telegram Part           | Telegram | Type       | Length [Byte] | Description   |
| Command Type            | sRA      | String     | 3             | SOPAS Variable Read Acknowledge   |
| Command                 | EDAcqRFH | String     | 8             | Defines the receive framing start characters for Data string acquisition Commands |
| Variable Data           | data     | FlexString | 10            |   |



| Write Variable:     |          |            |               |   |
|---------------------|----------|------------|---------------|---|
| sWN EDAcqRFH <data> |          |            |               |   |
| Telegram Part       | Telegram | Type       | Length [Byte] | Description   |
| Command Type        | sWN      | String     | 3             | Write SOPAS Variable by Name  |
| Command             | EDAcqRFH | String     | 8             | Defines the receive framing start characters for Data string acquisition Commands |
| Variable Data       | data     | FlexString | 10            |   |

| Write Variable Response: |          |        |               |   |
|--------------------------|----------|--------|---------------|---|
| sWA EDAcqRFH             |          |        |               |   |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description   |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                  | EDAcqRFH | String | 8             | Defines the receive framing start characters for Data string acquisition Commands |

## Variable Telegram Examples

| Example: Default Values                                     |                                 |
|---|---------------------------------|
| Variable telegram examples with data set to default values. |                                 |
| Read Variable:  | [STX]sRN EDAcqRFH[ETX]          |
| Read Variable Response:                                     | [STX]sRA EDAcqRFH 5 \x02&[ETX]  |
| Write Variable:   | [STX]sWN EDAcqRFH +5 \x02&[ETX] |
| Write Variable Response:                                    | [STX]sWA EDAcqRFH[ETX]          |

### 2.24.13.11. Variable: ED\_DataStringAcqFrameRxTerminator

The following section contains a detailed description of the variable ED\_DataStringAcqFrameRxTerminator.

#### Variable Overview

| Variable Name                     | Description  |
|-----------------------------------|--|
| ED_DataStringAcqFrameRxTerminator | Defines the receive framing stop characters for Data string acquisition Commands |

|                       |   |
|-----------------------|---|
| Communication Name    | EDAcqRFT  |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1208  |
| Storage               | Variable is stored in ParamEEProm                       |
| Read-Access           | Always  |
| Write-Access          | AuthorizedClient  |

| FlexString     |       |
|----------------|-------|
| Length         | 0..10 |
| Initialisation | \x03  |



## Variable Telegram Syntax

| Read Variable: |          |        |               |  |
|----------------|----------|--------|---------------|--|
| sRN EDAcqRFT   |          |        |               |  |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description  |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name  |
| Command        | EDAcqRFT | String | 8             | Defines the receive framing stop characters for Data string acquisition Commands |

| Read Variable Response: |          |            |               |  |
|-------------------------|----------|------------|---------------|--|
| sRA EDAcqRFT <data>     |          |            |               |  |
| Telegram Part           | Telegram | Type       | Length [Byte] | Description  |
| Command Type            | sRA      | String     | 3             | SOPAS Variable Read Acknowledge  |
| Command                 | EDAcqRFT | String     | 8             | Defines the receive framing stop characters for Data string acquisition Commands |
| Variable Data           | data     | FlexString | 10            |  |

| Write Variable:     |          |            |               |  |
|---------------------|----------|------------|---------------|--|
| sWN EDAcqRFT <data> |          |            |               |  |
| Telegram Part       | Telegram | Type       | Length [Byte] | Description  |
| Command Type        | sWN      | String     | 3             | Write SOPAS Variable by Name   |
| Command             | EDAcqRFT | String     | 8             | Defines the receive framing stop characters for Data string acquisition Commands |
| Variable Data       | data     | FlexString | 10            |  |

| Write Variable Response: |          |        |               |  |
|--------------------------|----------|--------|---------------|--|
| sWA EDAcqRFT             |          |        |               |  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description  |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge   |
| Command                  | EDAcqRFT | String | 8             | Defines the receive framing stop characters for Data string acquisition Commands |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN EDAcqRFT[ETX]         |
| Read Variable Response:                                     | [STX]sRA EDAcqRFT 4 \x03[ETX]  |
| Write Variable:   | [STX]sWN EDAcqRFT +4 \x03[ETX] |
| Write Variable Response:                                    | [STX]sWA EDAcqRFT[ETX]         |





## 2.24.14. Group: DynamicParameter

### 2.24.14.1. Method: DPForceRunlevelChange

The following section contains a detailed description of the method DPForceRunlevelChange.

#### Method Overview

| Method Name           | Description                         |
|-----------------------|-------------------------------------|
| DPForceRunlevelChange | Method to trigger a runlevel change |

|                    |                     |
|--------------------|---------------------|
| Communication Name | DPForceRunLvlChange |
| Sopas Index        | 150                 |
| Invocation Access  | AuthorizedClient    |

#### Method Telegram Syntax

| Method Invocation:      |                     |        |               |                                     |
|-------------------------|---------------------|--------|---------------|-------------------------------------|
| sMN DPForceRunLvlChange |                     |        |               |                                     |
| Telegram Part           | Telegram            | Type   | Length [Byte] | Description                         |
| Command Type            | sMN                 | String | 3             | Request (SOPAS Method by Name)      |
| Command                 | DPForceRunLvlChange | String | 19            | Method to trigger a runlevel change |

| Method Return Value:    |                     |        |               |                                     |
|-------------------------|---------------------|--------|---------------|-------------------------------------|
| sAN DPForceRunLvlChange |                     |        |               |                                     |
| Telegram Part           | Telegram            | Type   | Length [Byte] | Description                         |
| Command Type            | sAN                 | String | 3             | Result (SOPAS Method Result)        |
| Command                 | DPForceRunLvlChange | String | 19            | Method to trigger a runlevel change |

#### Method Telegram Examples

| Example: Default Values   |                                   |
|---|-----------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                   |
| Method Invocation:  | [STX]sMN DPForceRunLvlChange[ETX] |
| Method Return Value:  | [STX]sAN DPForceRunLvlChange[ETX] |

## 2.25. Interface Block: Diag

### 2.25.1. Group: DeviceInformation

#### 2.25.1.1. Method: BootupCDF

The following section contains a detailed description of the method BootupCDF.

##### Method Overview

| Method Name        | Description                        |
|--------------------|------------------------------------|
| BootupCDF          | Called as bootup message of CDF600 |
| Communication Name | mDIBootCdf                         |
| Sopas Index        | 151                                |
| Invocation Access  | Always                             |

##### Method Telegram Syntax

| Method Invocation:   |            |        |               |                                    |
|----------------------|------------|--------|---------------|------------------------------------|
| sMN mDIBootCdf       |            |        |               |                                    |
| Telegram Part        | Telegram   | Type   | Length [Byte] | Description                        |
| Command Type         | sMN        | String | 3             | Request (SOPAS Method by Name)     |
| Command              | mDIBootCdf | String | 10            | Called as bootup message of CDF600 |
| Method Return Value: |            |        |               |                                    |
| sAN mDIBootCdf       |            |        |               |                                    |
| Telegram Part        | Telegram   | Type   | Length [Byte] | Description                        |
| Command Type         | sAN        | String | 3             | Result (SOPAS Method Result)       |
| Command              | mDIBootCdf | String | 10            | Called as bootup message of CDF600 |

##### Method Telegram Examples

| Example: Default Values   |                          |
|---|--------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                          |
| Method Invocation:  | [STX]sMN mDIBootCdf[ETX] |
| Method Return Value:  | [STX]sAN mDIBootCdf[ETX] |



## 2.25.2. Group: CodeDiag

### 2.25.2.1. Method: mTestCode

The following section contains a detailed description of the method mTestCode.

#### Method Overview

| Method Name       |             |
|-------------------|-------------|
| mTestCode         |             |
| Sopas Index       | 152         |
| Invocation Access | Always      |
| Parameters        |             |
| CodeDef           |             |
| FlexString        |             |
| Length            | 0..512      |
| Initialisation    |             |
| Return Values     |             |
| Success           |             |
| Bool              |             |
| Value Range       | False, True |
| Initialisation    | False       |

#### Method Telegram Syntax

| Method Invocation:      |           |            |               |                                |
|-------------------------|-----------|------------|---------------|--------------------------------|
| sMN mTestCode <CodeDef> |           |            |               |                                |
| Telegram Part           | Telegram  | Type       | Length [Byte] | Description                    |
| Command Type            | sMN       | String     | 3             | Request (SOPAS Method by Name) |
| Command                 | mTestCode | String     | 9             |                                |
| Parameter 1             | CodeDef   | FlexString | 512           |                                |
| Method Return Value:    |           |            |               |                                |
| sAN mTestCode <Success> |           |            |               |                                |
| Telegram Part           | Telegram  | Type       | Length [Byte] | Description                    |
| Command Type            | sAN       | String     | 3             | Result (SOPAS Method Result)   |
| Command                 | mTestCode | String     | 9             |                                |
| Return Value 1          | Success   | Bool       | 1             |                                |



## Method Telegram Examples

| Example: Default Values   |                              |
|---|------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                              |
| Method Invocation:  | [STX]sMN mTestCode +0 0[ETX] |
| Method Return Value:  | [STX]sAN mTestCode 0[ETX]    |



## 2.26. Interface Block: Fieldbus

### 2.26.1. Group: Fieldbus

#### 2.26.1.1. Variable: FieldbusAvailable

The following section contains a detailed description of the variable FieldbusAvailable.

##### Variable Overview

| Variable Name     | Description           |
|-------------------|-----------------------|
| FieldbusAvailable | Is Fieldbus available |

|                       |   |
|-----------------------|---|
| Communication Name    | FB_Av   |
| Sopas Synchronisation | Variable is not relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1291  |
| Read-Access           | Always  |
| Write-Access          | Always  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

##### Variable Telegram Syntax

| Read Variable: |          |        |               |                             |
|----------------|----------|--------|---------------|-----------------------------|
| sRN FB_Av      |          |        |               |                             |
| Telegram Part  | Telegram | Type   | Length [Byte] | Description                 |
| Command Type   | sRN      | String | 3             | Read SOPAS Variable by Name |
| Command        | FB_Av    | String | 5             | Is Fieldbus available       |

| Read Variable Response: |          |        |               |                                 |
|-------------------------|----------|--------|---------------|---------------------------------|
| sRA FB_Av <data>        |          |        |               |                                 |
| Telegram Part           | Telegram | Type   | Length [Byte] | Description                     |
| Command Type            | sRA      | String | 3             | SOPAS Variable Read Acknowledge |
| Command                 | FB_Av    | String | 5             | Is Fieldbus available           |
| Variable Data           | data     | Bool   | 1             |                                 |

| Write Variable:  |          |        |               |                              |
|------------------|----------|--------|---------------|------------------------------|
| sWN FB_Av <data> |          |        |               |                              |
| Telegram Part    | Telegram | Type   | Length [Byte] | Description                  |
| Command Type     | sWN      | String | 3             | Write SOPAS Variable by Name |
| Command          | FB_Av    | String | 5             | Is Fieldbus available        |
| Variable Data    | data     | Bool   | 1             |                              |



| Write Variable Response: |          |        |               |                                  |
|--------------------------|----------|--------|---------------|----------------------------------|
| sWA FB_Av                |          |        |               |                                  |
| Telegram Part            | Telegram | Type   | Length [Byte] | Description                      |
| Command Type             | sWA      | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | FB_Av    | String | 5             | Is Fieldbus available            |

## Variable Telegram Examples

| Example: Default Values                                     |                       |
|---|-----------------------|
| Variable telegram examples with data set to default values. |                       |
| Read Variable:  | [STX]sRN FB_Av[ETX]   |
| Read Variable Response:                                     | [STX]sRA FB_Av 0[ETX] |
| Write Variable:   | [STX]sWN FB_Av 0[ETX] |
| Write Variable Response:                                    | [STX]sWA FB_Av[ETX]   |

## 2.26.2. Group: EthernetIPCommand

### 2.26.2.1. Variable: EIPControlBitsPlcOut

The following section contains a detailed description of the variable EIPControlBitsPlcOut.

#### Variable Overview

| Variable Name        | Description                                     |
|----------------------|---|
| EIPControlBitsPlcOut | Command Word received by sensor from EthernetIP |

|                       |   |
|-----------------------|---|
| Communication Name    | EIPCMCtrlOut  |
| Sopas Synchronisation | Variable is not relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1294  |
| Read-Access           | Always  |
| Write-Access          | Always  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0        |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable:   |              |        |               |   |
|------------------|--------------|--------|---------------|---|
| sRN EIPCMCtrlOut |              |        |               |   |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                                     |
| Command Type     | sRN          | String | 3             | Read SOPAS Variable by Name                     |
| Command          | EIPCMCtrlOut | String | 12            | Command Word received by sensor from EthernetIP |

| Read Variable Response: |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sRA EIPCMCtrlOut <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                     |
| Command Type            | sRA          | String | 3             | SOPAS Variable Read Acknowledge                 |
| Command                 | EIPCMCtrlOut | String | 12            | Command Word received by sensor from EthernetIP |
| Variable Data           | data         | UInt   | 2             |   |

| Write Variable:         |              |        |               |   |
|-------------------------|--------------|--------|---------------|---|
| sWN EIPCMCtrlOut <data> |              |        |               |   |
| Telegram Part           | Telegram     | Type   | Length [Byte] | Description                                     |
| Command Type            | sWN          | String | 3             | Write SOPAS Variable by Name                    |
| Command                 | EIPCMCtrlOut | String | 12            | Command Word received by sensor from EthernetIP |
| Variable Data           | data         | UInt   | 2             |   |



| Write Variable Response: |              |        |               |   |
|--------------------------|--------------|--------|---------------|---|
| sWA EIPCMCtrlOut         |              |        |               |   |
| Telegram Part            | Telegram     | Type   | Length [Byte] | Description                                     |
| Command Type             | sWA          | String | 3             | SOPAS Variable Write Acknowledge                |
| Command                  | EIPCMCtrlOut | String | 12            | Command Word received by sensor from EthernetIP |

## Variable Telegram Examples

| Example: Default Values                                     |                              |
|---|------------------------------|
| Variable telegram examples with data set to default values. |                              |
| Read Variable:  | [STX]sRN EIPCMCtrlOut[ETX]   |
| Read Variable Response:                                     | [STX]sRA EIPCMCtrlOut 0[ETX] |
| Write Variable:   | [STX]sWN EIPCMCtrlOut 0[ETX] |
| Write Variable Response:                                    | [STX]sWA EIPCMCtrlOut[ETX]   |





## 2.26.3. Group: ProfibusCommand

### 2.26.3.1. Variable: ControlBitsPlcOut

The following section contains a detailed description of the variable ControlBitsPlcOut.

#### Variable Overview

| Variable Name     | Description                                   |
|-------------------|---|
| ControlBitsPlcOut | Command Word received by sensor from Profibus |

|                       |   |
|-----------------------|---|
| Communication Name    | PBCMCtrlOut   |
| Sopas Synchronisation | Variable is not relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1297  |
| Read-Access           | Always  |
| Write-Access          | Always  |

| UInt                 |          |
|----------------------|----------|
| Value Range          | 0..65535 |
| Initialisation       | 0        |
| Physical Unit        |          |
| Physical Unit Factor | 0.0      |

#### Variable Telegram Syntax

| Read Variable:  |             |        |               |   |
|-----------------|-------------|--------|---------------|---|
| sRN PBCMCtrlOut |             |        |               |   |
| Telegram Part   | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type    | sRN         | String | 3             | Read SOPAS Variable by Name                   |
| Command         | PBCMCtrlOut | String | 11            | Command Word received by sensor from Profibus |

| Read Variable Response: |             |        |               |   |
|-------------------------|-------------|--------|---------------|---|
| sRA PBCMCtrlOut <data>  |             |        |               |   |
| Telegram Part           | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type            | sRA         | String | 3             | SOPAS Variable Read Acknowledge               |
| Command                 | PBCMCtrlOut | String | 11            | Command Word received by sensor from Profibus |
| Variable Data           | data        | UInt   | 2             |   |

| Write Variable:        |             |        |               |   |
|------------------------|-------------|--------|---------------|---|
| sWN PBCMCtrlOut <data> |             |        |               |   |
| Telegram Part          | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type           | sWN         | String | 3             | Write SOPAS Variable by Name                  |
| Command                | PBCMCtrlOut | String | 11            | Command Word received by sensor from Profibus |
| Variable Data          | data        | UInt   | 2             |   |



| Write Variable Response: |             |        |               |   |
|--------------------------|-------------|--------|---------------|---|
| sWA PBCMCtrlOut          |             |        |               |   |
| Telegram Part            | Telegram    | Type   | Length [Byte] | Description                                   |
| Command Type             | sWA         | String | 3             | SOPAS Variable Write Acknowledge              |
| Command                  | PBCMCtrlOut | String | 11            | Command Word received by sensor from Profibus |

### Variable Telegram Examples

| Example: Default Values                                     |                             |
|---|-----------------------------|
| Variable telegram examples with data set to default values. |                             |
| Read Variable:  | [STX]sRN PBCMCtrlOut[ETX]   |
| Read Variable Response:                                     | [STX]sRA PBCMCtrlOut 0[ETX] |
| Write Variable:   | [STX]sWN PBCMCtrlOut 0[ETX] |
| Write Variable Response:                                    | [STX]sWA PBCMCtrlOut[ETX]   |

### 2.26.3.2. Variable: vPBEndOfParam

The following section contains a detailed description of the variable vPBEndOfParam.

#### Variable Overview

| Variable Name |  |
|---------------|--|
| vPBEndOfParam |  |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1369  |
| Read-Access           | Always  |
| Write-Access          | Always  |

| Enum8         |       |                |             |
|---------------|-------|----------------|-------------|
| Default Value |       | 1              |             |
|               | Value | Name           | Description |
|               | 0     | TX_DO_NOT_SAVE |             |
|               | 1     | TX_DO_SAVE     |             |



## Variable Telegram Syntax

| Read Variable:    |               |        |               |                             |
|-------------------|---------------|--------|---------------|-----------------------------|
| sRN vPBEndOfParam |               |        |               |                             |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                 |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name |
| Command           | vPBEndOfParam | String | 13            |                             |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA vPBEndOfParam <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | vPBEndOfParam | String | 13            |                                 |
| Variable Data            | data          | Enum8  | 1             |                                 |

| Write Variable:          |               |        |               |                              |
|--------------------------|---------------|--------|---------------|------------------------------|
| sWN vPBEndOfParam <data> |               |        |               |                              |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                  |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name |
| Command                  | vPBEndOfParam | String | 13            |                              |
| Variable Data            | data          | Enum8  | 1             |                              |

| Write Variable Response: |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sWA vPBEndOfParam        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | vPBEndOfParam | String | 13            |                                  |

## Variable Telegram Examples

| Example: Default Values                                     |                               |
|---|-------------------------------|
| Variable telegram examples with data set to default values. |                               |
| Read Variable:  | [STX]sRN vPBEndOfParam[ETX]   |
| Read Variable Response:                                     | [STX]sRA vPBEndOfParam 1[ETX] |
| Write Variable:   | [STX]sWN vPBEndOfParam 1[ETX] |
| Write Variable Response:                                    | [STX]sWA vPBEndOfParam[ETX]   |



### 2.26.3.3. Variable: vPBCommandX20

The following section contains a detailed description of the variable vPBCommandX20.

#### Variable Overview

| Variable Name         |   |
|-----------------------|---|
| vPBCommandX20         |   |
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET.                       |
| Sopas Index           | 1370  |
| Read-Access           | Always  |
| Write-Access          | Always  |
| Array                 |   |
| Length                | 20  |
| Default Value         | {{0},{0},{0},{0},{0},{0},{0},{0},{0},{0},{0},{0},{0},{0},{0},{0},{0},{0},{0}} |
| UserType              |   |
| Asci127_t             | See the chapter "User Types" for details.                                     |

#### Variable Telegram Syntax

| Read Variable:           |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sRN vPBCommandX20        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sRN           | String | 3             | Read SOPAS Variable by Name      |
| Command                  | vPBCommandX20 | String | 13            |                                  |
| Read Variable Response:  |               |        |               |                                  |
| sRA vPBCommandX20 <data> |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge  |
| Command                  | vPBCommandX20 | String | 13            |                                  |
| Variable Data            | data          | Array  | 20            |                                  |
| Write Variable:          |               |        |               |                                  |
| sWN vPBCommandX20 <data> |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name     |
| Command                  | vPBCommandX20 | String | 13            |                                  |
| Variable Data            | data          | Array  | 20            |                                  |
| Write Variable Response: |               |        |               |                                  |
| sWA vPBCommandX20        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | vPBCommandX20 | String | 13            |                                  |



## Variable Telegram Examples

| Example: Default Values                                     |   |
|---|---|
| Variable telegram examples with data set to default values. |   |
| <b>Read Variable:</b>                                       | [STX]sRN vPBCommandX20[ETX]   |
| <b>Read Variable Response:</b>                              | [STX]sRA vPBCommandX20 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN vPBCommandX20 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA vPBCommandX20[ETX]   |

### 2.26.3.4. Variable: vPBCommandX30

The following section contains a detailed description of the variable vPBCommandX30.

#### Variable Overview

| Variable Name |  |
|---------------|--|
| vPBCommandX30 |  |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1371  |
| Read-Access           | Always  |
| Write-Access          | Always  |

| Array         |   |
|---------------|---|
| Length        | 30  |
| Default Value | {{0},{0}} |
|               | <b>UserType</b>   |
|               | Asci127_t See the chapter "User Types" for details.   |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |                             |
|-------------------|---------------|--------|---------------|-----------------------------|
| sRN vPBCommandX30 |               |        |               |                             |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                 |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name |
| Command           | vPBCommandX30 | String | 13            |                             |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA vPBCommandX30 <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | vPBCommandX30 | String | 13            |                                 |
| Variable Data            | data          | Array  | 30            |                                 |



|                                 |                 |             |                      |                                  |
|---------------------------------|-----------------|-------------|----------------------|----------------------------------|
| <b>Write Variable Response:</b> |                 |             |                      |                                  |
| sWA vPBCommandX30               |                 |             |                      |                                  |
| <b>Telegram Part</b>            | <b>Telegram</b> | <b>Type</b> | <b>Length [Byte]</b> | <b>Description</b>               |
| Command Type                    | sWA             | String      | 3                    | SOPAS Variable Write Acknowledge |
| Command                         | vPBCommandX30   | String      | 13                   |                                  |

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| <b>Read Variable:</b>                                       | [STX]sRN vPBCommandX30[ETX]  |
| <b>Read Variable Response:</b>                              | [STX]sRA vPBCommandX30 0<br>0 0 0 0 0 0[ETX] |
| <b>Write Variable:</b>                                      | [STX]sWN vPBCommandX30 0<br>0 0 0 0 0 0[ETX] |
| <b>Write Variable Response:</b>                             | [STX]sWA vPBCommandX30[ETX]  |

|               |   |
|---------------|---|
| <b>Array</b>  |   |
| Length        | 50  |
| Default Value | {(0),(0)} |
|               | <b>UserType</b>   |
| Ascii127 t    | See the chapter "User Types" for details.   |



## Variable Telegram Syntax

| Read Variable:    |               |        |               |                             |
|-------------------|---------------|--------|---------------|-----------------------------|
| sRN vPBCommandX50 |               |        |               |                             |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                 |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name |
| Command           | vPBCommandX50 | String | 13            |                             |

| Read Variable Response:   |                |        |               |                                 |
|---------------------------|----------------|--------|---------------|---------------------------------|
| sRA vPBCCommandX50 <data> |                |        |               |                                 |
| Telegram Part             | Telegram       | Type   | Length [Byte] | Description                     |
| Command Type              | sRA            | String | 3             | SOPAS Variable Read Acknowledge |
| Command                   | vPBCCommandX50 | String | 13            |                                 |
| Variable Data             | data           | Array  | 50            |                                 |

|                          |                 |             |                      |                              |
|--------------------------|-----------------|-------------|----------------------|------------------------------|
| <b>Write Variable:</b>   |                 |             |                      |                              |
| sWN vPBCommandX50 <data> |                 |             |                      |                              |
| <b>Telegram Part</b>     | <b>Telegram</b> | <b>Type</b> | <b>Length [Byte]</b> | <b>Description</b>           |
| Command Type             | sWN             | String      | 3                    | Write SOPAS Variable by Name |
| Command                  | vPBCommandX50   | String      | 13                   |                              |
| Variable Data            | data            | Array       | 50                   |                              |

| Write Variable Response: |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sWA vPBCommandX50        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | vPBCommandX50 | String | 13            |                                  |

## Variable Telegram Examples

[illegible]



The following section contains a detailed description of the variable vPBCCommandX100.

[illegible]

|                       |                 |             |                      |                             |
|-----------------------|-----------------|-------------|----------------------|-----------------------------|
| <b>Read Variable:</b> |                 |             |                      |                             |
| sRN vPBCommandX100    |                 |             |                      |                             |
| <b>Telegram Part</b>  | <b>Telegram</b> | <b>Type</b> | <b>Length [Byte]</b> | <b>Description</b>          |
| Command Type          | sRN             | String      | 3                    | Read SOPAS Variable by Name |
| Command               | vPBCommandX100  | String      | 14                   |                             |

|                                |                 |             |                      |                                 |
|--------------------------------|-----------------|-------------|----------------------|---------------------------------|
| <b>Read Variable Response:</b> |                 |             |                      |                                 |
| sRA vPBCommandX100 <data>      |                 |             |                      |                                 |
| <b>Telegram Part</b>           | <b>Telegram</b> | <b>Type</b> | <b>Length [Byte]</b> | <b>Description</b>              |
| Command Type                   | sRA             | String      | 3                    | SOPAS Variable Read Acknowledge |
| Command                        | vPBCommandX100  | String      | 14                   |                                 |
| Variable Data                  | data            | Array       | 100                  |                                 |

|                           |                 |             |                      |                              |
|---------------------------|-----------------|-------------|----------------------|------------------------------|
| <b>Write Variable:</b>    |                 |             |                      |                              |
| sWN vPBCommandX100 <data> |                 |             |                      |                              |
| <b>Telegram Part</b>      | <b>Telegram</b> | <b>Type</b> | <b>Length [Byte]</b> | <b>Description</b>           |
| Command Type              | sWN             | String      | 3                    | Write SOPAS Variable by Name |
| Command                   | vPBCommandX100  | String      | 14                   |                              |
| Variable Data             | data            | Array       | 100                  |                              |

|                                 |                 |             |                      |                                  |
|---------------------------------|-----------------|-------------|----------------------|----------------------------------|
| <b>Write Variable Response:</b> |                 |             |                      |                                  |
| sWA vPBCommandX100              |                 |             |                      |                                  |
| <b>Telegram Part</b>            | <b>Telegram</b> | <b>Type</b> | <b>Length [Byte]</b> | <b>Description</b>               |
| Command Type                    | sWA             | String      | 3                    | SOPAS Variable Write Acknowledge |
| Command                         | vPBCommandX100  | String      | 14                   |                                  |





## Variable Telegram Examples

| <b>Example: Default Values</b>                              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Variable telegram examples with data set to default values. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Read Variable:</b>                                       | [STX]sRN vPBCommandX100[ETX]   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Read Variable Response:</b>                              | [STX]sRA vPBCommandX100 0<br>0 0<br>0 0<br>0 0 0 0 [ETX] |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Write Variable:</b>                                      | [STX]sWN vPBCommandX100 0<br>0 0<br>0 0<br>0 0 0 0 [ETX]   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <b>Write Variable Response:</b>                             | [STX]sWA vPBCommandX100[ETX]   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

#### 2.26.3.7. Variable: vPBTeach1DynIn

The following section contains a detailed description of the variable vPBTeach1DynIn.

## Variable Overview

| Variable Name  |   |          |  |           |   |  |   |          |  |           |   |
|--|---|----------|--|-----------|---|--|---|----------|--|-----------|---|
| vPBTech1DynIn  |   |          |  |           |   |  |   |          |  |           |   |
|  |   |          |  |           |   |  |   |          |  |           |   |
| Sopas Synchronisation  | Variable is relevant for synchronisation with SOPAS ET.   |          |  |           |   |  |   |          |  |           |   |
| Sopas Index  | 1374  |          |  |           |   |  |   |          |  |           |   |
| Read-Access  | Always  |          |  |           |   |  |   |          |  |           |   |
| Write-Access   | Always  |          |  |           |   |  |   |          |  |           |   |
|  |   |          |  |           |   |  |   |          |  |           |   |
| Struct   |   |          |  |           |   |  |   |          |  |           |   |
| szTechInChars  |   |          |  |           |   |  |   |          |  |           |   |
| <table border="1"> <tr> <th colspan="2">Array</th> </tr> <tr> <td>Length</td> <td>29</td> </tr> <tr> <td></td> <td> <table border="1"> <tr> <th colspan="2">UserType</th> </tr> <tr> <td>Asci127 t</td> <td>See the chapter "User Types" for details.</td> </tr> </table> </td> </tr> </table> |   | Array    |  | Length    | 29  |  | <table border="1"> <tr> <th colspan="2">UserType</th> </tr> <tr> <td>Asci127 t</td> <td>See the chapter "User Types" for details.</td> </tr> </table> | UserType |  | Asci127 t | See the chapter "User Types" for details. |
| Array  |   |          |  |           |   |  |   |          |  |           |   |
| Length   | 29  |          |  |           |   |  |   |          |  |           |   |
|  | <table border="1"> <tr> <th colspan="2">UserType</th> </tr> <tr> <td>Asci127 t</td> <td>See the chapter "User Types" for details.</td> </tr> </table> | UserType |  | Asci127 t | See the chapter "User Types" for details. |  |   |          |  |           |   |
| UserType   |   |          |  |           |   |  |   |          |  |           |   |
| Asci127 t  | See the chapter "User Types" for details.   |          |  |           |   |  |   |          |  |           |   |



| Struct     |  |
|------------|--|
| CodeLength |  |
| Enum8      |  |
|            |  |



| Struct |       |            |             |
|--------|-------|------------|-------------|
|        | Value | Name       | Description |
|        | 0     | TX_ENUM_0  |             |
|        | 1     | TX_ENUM_1  |             |
|        | 2     | TX_ENUM_2  |             |
|        | 3     | TX_ENUM_3  |             |
|        | 4     | TX_ENUM_4  |             |
|        | 5     | TX_ENUM_5  |             |
|        | 6     | TX_ENUM_6  |             |
|        | 7     | TX_ENUM_7  |             |
|        | 8     | TX_ENUM_8  |             |
|        | 9     | TX_ENUM_9  |             |
|        | 10    | TX_ENUM_10 |             |
|        | 11    | TX_ENUM_11 |             |
|        | 12    | TX_ENUM_12 |             |
|        | 13    | TX_ENUM_13 |             |
|        | 14    | TX_ENUM_14 |             |
|        | 15    | TX_ENUM_15 |             |
|        | 16    | TX_ENUM_16 |             |
|        | 17    | TX_ENUM_17 |             |
|        | 18    | TX_ENUM_18 |             |
|        | 19    | TX_ENUM_19 |             |
|        | 20    | TX_ENUM_20 |             |
|        | 21    | TX_ENUM_21 |             |
|        | 22    | TX_ENUM_22 |             |
|        | 23    | TX_ENUM_23 |             |
|        | 24    | TX_ENUM_24 |             |
|        | 25    | TX_ENUM_25 |             |
|        | 26    | TX_ENUM_26 |             |
|        | 27    | TX_ENUM_27 |             |
|        | 28    | TX_ENUM_28 |             |
|        | 29    | TX_ENUM_29 |             |
|        | 30    | TX_ENUM_30 |             |
|        | 31    | TX_ENUM_31 |             |
|        | 32    | TX_ENUM_32 |             |
|        | 33    | TX_ENUM_33 |             |
|        | 34    | TX_ENUM_34 |             |
|        | 35    | TX_ENUM_35 |             |
|        | 36    | TX_ENUM_36 |             |
|        | 37    | TX_ENUM_37 |             |
|        | 38    | TX_ENUM_38 |             |
|        | 39    | TX_ENUM_39 |             |
|        | 40    | TX_ENUM_40 |             |
|        | 41    | TX_ENUM_41 |             |
|        | 42    | TX_ENUM_42 |             |
|        | 43    | TX_ENUM_43 |             |
|        | 44    | TX_ENUM_44 |             |
|        | 45    | TX_ENUM_45 |             |
|        | 46    | TX_ENUM_46 |             |
|        | 47    | TX_ENUM_47 |             |
|        | 48    | TX_ENUM_48 |             |
|        | 49    | TX_ENUM_49 |             |
|        | 50    | TX_ENUM_50 |             |
|        | 51    | TX_ENUM_51 |             |
|        | 52    | TX_ENUM_52 |             |



| Struct |    |            |  |
|--------|----|------------|--|
|        | 53 | TX_ENUM_53 |  |
|        | 54 | TX_ENUM_54 |  |
|        | 55 | TX_ENUM_55 |  |
|        | 56 | TX_ENUM_56 |  |
|        | 57 | TX_ENUM_57 |  |
|        | 58 | TX_ENUM_58 |  |
|        | 59 | TX_ENUM_59 |  |
|        | 60 | TX_ENUM_60 |  |
|        | 61 | TX_ENUM_61 |  |
|        | 62 | TX_ENUM_62 |  |
|        | 63 | TX_ENUM_63 |  |
|        | 64 | TX_ENUM_64 |  |
|        | 65 | TX_ENUM_65 |  |
|        | 66 | TX_ENUM_66 |  |
|        | 67 | TX_ENUM_67 |  |
|        | 68 | TX_ENUM_68 |  |
|        | 69 | TX_ENUM_69 |  |
|        | 70 | TX_ENUM_70 |  |
|        | 71 | TX_ENUM_71 |  |
|        | 72 | TX_ENUM_72 |  |
|        | 73 | TX_ENUM_73 |  |
|        | 74 | TX_ENUM_74 |  |
|        | 75 | TX_ENUM_75 |  |
|        | 76 | TX_ENUM_76 |  |
|        | 77 | TX_ENUM_77 |  |
|        | 78 | TX_ENUM_78 |  |
|        | 79 | TX_ENUM_79 |  |
|        | 80 | TX_ENUM_80 |  |
|        | 81 | TX_ENUM_81 |  |
|        | 82 | TX_ENUM_82 |  |
|        | 83 | TX_ENUM_83 |  |
|        | 84 | TX_ENUM_84 |  |
|        | 85 | TX_ENUM_85 |  |
|        | 86 | TX_ENUM_86 |  |
|        | 87 | TX_ENUM_87 |  |
|        | 88 | TX_ENUM_88 |  |
|        | 89 | TX_ENUM_89 |  |
|        | 90 | TX_ENUM_90 |  |
|        | 91 | TX_ENUM_91 |  |
|        | 92 | TX_ENUM_92 |  |
|        | 93 | TX_ENUM_93 |  |
|        | 94 | TX_ENUM_94 |  |
|        | 95 | TX_ENUM_95 |  |
|        | 96 | TX_ENUM_96 |  |
|        | 97 | TX_ENUM_97 |  |
|        | 98 | TX_ENUM_98 |  |
|        | 99 | TX_ENUM_99 |  |



| Struct               |                 |                  |             |  |
|----------------------|-----------------|------------------|-------------|--|
| CodeType             |                 |                  |             |  |
|                      | Enum8           |                  |             |  |
|                      | Value           | Name             | Description |  |
|                      | 0               | TX_ENUM_0        |             |  |
|                      | 1               | Codabar          |             |  |
|                      | 2               | Code39           |             |  |
|                      | 3               | UPC              |             |  |
|                      | 4               | EAN              |             |  |
|                      | 5               | IL25             |             |  |
|                      | 7               | MSI Code         |             |  |
|                      | 8               | Code93           |             |  |
|                      | 9               | Code128          |             |  |
|                      | 10              | Ean128           |             |  |
|                      | 11              | Pharma           |             |  |
|                      | 12              | Postnet          |             |  |
|                      | 13              | Code25Industrial |             |  |
|                      | 14              | RSS Code         |             |  |
|                      | 17              | PDF417           |             |  |
|                      | 20              | MCZellweger      |             |  |
|                      | 21              | ZellwegerBarcode |             |  |
|                      | 22              | AddonCode        |             |  |
|                      | 23              | JapanesePostal   |             |  |
|                      | 24              | C32              |             |  |
|                      | 25              | DataBar_14       |             |  |
|                      | 26              | DataBar_Limited  |             |  |
|                      | 27              | DataBar_Expanded |             |  |
|                      | uSequenceNumber |                  |             |  |
|                      | USInt           |                  |             |  |
|                      | Value Range     |                  | 0..255      |  |
| Initialisation       |                 | 0                |             |  |
| Physical Unit        |                 |                  |             |  |
| Physical Unit Factor |                 | 0.0              |             |  |

## Variable Telegram Syntax

| Read Variable:     |                |        |               |                             |
|--------------------|----------------|--------|---------------|-----------------------------|
| sRN vPBTeach1DynIn |                |        |               |                             |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                 |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name |
| Command            | vPBTeach1DynIn | String | 14            |                             |

| Read Variable Response:   |                 |        |               |                                 |
|---|-----------------|--------|---------------|---------------------------------|
| sRA vPBTeach1DynIn <szTeachInChars> <CodeLength> <CodeType> <uSequenceNumber> |                 |        |               |                                 |
| Telegram Part   | Telegram        | Type   | Length [Byte] | Description                     |
| Command Type  | sRA             | String | 3             | SOPAS Variable Read Acknowledge |
| Command   | vPBTeach1DynIn  | String | 14            |                                 |
| Variable Data 1   | szTeachInChars  | Array  | 29            |                                 |
| Variable Data 2   | CodeLength      | Enum8  | 1             |                                 |
| Variable Data 3   | CodeType        | Enum8  | 1             |                                 |
| Variable Data 4   | uSequenceNumber | USInt  | 1             |                                 |



```
sWN vPBTeach1DynIn <szTeachInChars> <CodeLength> <CodeType> <uSequenceNumber>
```

| Telegram Part   | Telegram       | Type   | Length [Byte] | Description                  |
|-----------------|----------------|--------|---------------|------------------------------|
| Command Type    | sWN            | String | 3             | Write SOPAS Variable by Name |
| Command         | vPBTeach1DynIn | String | 14            |                              |
| Variable Data 1 | szTeachInChars | Array  | 29            |                              |
| Variable Data 2 | CodeLength     | Enum8  | 1             |                              |
| Variable Data 3 | CodeType       | Enum8  | 1             |                              |
| Variable Data 4 | uSquenceNumber | USInt  | 1             |                              |

## sWA vPBTeach1DynIn

| Telegram Part | Telegram      | Type   | Length [Byte] | Description                      |
|---------------|---------------|--------|---------------|----------------------------------|
| Command Type  | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command       | vPBTeach1Dvnl | String | 14            |                                  |

### Example: Default Values

Variable telegram examples with data set to default values.

|                                 |  |
|---------------------------------|--|
| <b>Read Variable:</b>           | [STX]sRN vPBTeach1DynIn[ETX]   |
| <b>Read Variable Response:</b>  | [STX]sRA vPBTeach1DynIn 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30<br>30 30 30 30 30 30 30 30 30 30 30 30 30 30 0 0 0[ETX] |
| <b>Write Variable:</b>          | [STX]sWN vPBTeach1DynIn 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30<br>30 30 30 30 30 30 30 30 30 30 30 30 30 30 0 0 0[ETX] |
| <b>Write Variable Response:</b> | [STX]sWA vPBTeach1DynIn[ETX]   |

The following section contains a detailed description of the variable vPBTeach2DynIn.

## Variable Name

vPBTeach2DynIn

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1375  |
| Read-Access           | Always  |
| Write-Access          | Always  |

## szTeachInChars

|              |   |
|--------------|---|
| <b>Array</b> |   |
| Length       | 29  |
|              | <b>UserType</b>                                     |
|              | Asci127 t See the chapter "User Types" for details. |



| Struct     |  |
|------------|--|
| CodeLength |  |
| Enum8      |  |
|            |  |



| Struct |       |            |             |
|--------|-------|------------|-------------|
|        | Value | Name       | Description |
|        | 0     | TX_ENUM_0  |             |
|        | 1     | TX_ENUM_1  |             |
|        | 2     | TX_ENUM_2  |             |
|        | 3     | TX_ENUM_3  |             |
|        | 4     | TX_ENUM_4  |             |
|        | 5     | TX_ENUM_5  |             |
|        | 6     | TX_ENUM_6  |             |
|        | 7     | TX_ENUM_7  |             |
|        | 8     | TX_ENUM_8  |             |
|        | 9     | TX_ENUM_9  |             |
|        | 10    | TX_ENUM_10 |             |
|        | 11    | TX_ENUM_11 |             |
|        | 12    | TX_ENUM_12 |             |
|        | 13    | TX_ENUM_13 |             |
|        | 14    | TX_ENUM_14 |             |
|        | 15    | TX_ENUM_15 |             |
|        | 16    | TX_ENUM_16 |             |
|        | 17    | TX_ENUM_17 |             |
|        | 18    | TX_ENUM_18 |             |
|        | 19    | TX_ENUM_19 |             |
|        | 20    | TX_ENUM_20 |             |
|        | 21    | TX_ENUM_21 |             |
|        | 22    | TX_ENUM_22 |             |
|        | 23    | TX_ENUM_23 |             |
|        | 24    | TX_ENUM_24 |             |
|        | 25    | TX_ENUM_25 |             |
|        | 26    | TX_ENUM_26 |             |
|        | 27    | TX_ENUM_27 |             |
|        | 28    | TX_ENUM_28 |             |
|        | 29    | TX_ENUM_29 |             |
|        | 30    | TX_ENUM_30 |             |
|        | 31    | TX_ENUM_31 |             |
|        | 32    | TX_ENUM_32 |             |
|        | 33    | TX_ENUM_33 |             |
|        | 34    | TX_ENUM_34 |             |
|        | 35    | TX_ENUM_35 |             |
|        | 36    | TX_ENUM_36 |             |
|        | 37    | TX_ENUM_37 |             |
|        | 38    | TX_ENUM_38 |             |
|        | 39    | TX_ENUM_39 |             |
|        | 40    | TX_ENUM_40 |             |
|        | 41    | TX_ENUM_41 |             |
|        | 42    | TX_ENUM_42 |             |
|        | 43    | TX_ENUM_43 |             |
|        | 44    | TX_ENUM_44 |             |
|        | 45    | TX_ENUM_45 |             |
|        | 46    | TX_ENUM_46 |             |
|        | 47    | TX_ENUM_47 |             |
|        | 48    | TX_ENUM_48 |             |
|        | 49    | TX_ENUM_49 |             |
|        | 50    | TX_ENUM_50 |             |
|        | 51    | TX_ENUM_51 |             |
|        | 52    | TX_ENUM_52 |             |





| Struct |    |            |  |
|--------|----|------------|--|
|        | 53 | TX_ENUM_53 |  |
|        | 54 | TX_ENUM_54 |  |
|        | 55 | TX_ENUM_55 |  |
|        | 56 | TX_ENUM_56 |  |
|        | 57 | TX_ENUM_57 |  |
|        | 58 | TX_ENUM_58 |  |
|        | 59 | TX_ENUM_59 |  |
|        | 60 | TX_ENUM_60 |  |
|        | 61 | TX_ENUM_61 |  |
|        | 62 | TX_ENUM_62 |  |
|        | 63 | TX_ENUM_63 |  |
|        | 64 | TX_ENUM_64 |  |
|        | 65 | TX_ENUM_65 |  |
|        | 66 | TX_ENUM_66 |  |
|        | 67 | TX_ENUM_67 |  |
|        | 68 | TX_ENUM_68 |  |
|        | 69 | TX_ENUM_69 |  |
|        | 70 | TX_ENUM_70 |  |
|        | 71 | TX_ENUM_71 |  |
|        | 72 | TX_ENUM_72 |  |
|        | 73 | TX_ENUM_73 |  |
|        | 74 | TX_ENUM_74 |  |
|        | 75 | TX_ENUM_75 |  |
|        | 76 | TX_ENUM_76 |  |
|        | 77 | TX_ENUM_77 |  |
|        | 78 | TX_ENUM_78 |  |
|        | 79 | TX_ENUM_79 |  |
|        | 80 | TX_ENUM_80 |  |
|        | 81 | TX_ENUM_81 |  |
|        | 82 | TX_ENUM_82 |  |
|        | 83 | TX_ENUM_83 |  |
|        | 84 | TX_ENUM_84 |  |
|        | 85 | TX_ENUM_85 |  |
|        | 86 | TX_ENUM_86 |  |
|        | 87 | TX_ENUM_87 |  |
|        | 88 | TX_ENUM_88 |  |
|        | 89 | TX_ENUM_89 |  |
|        | 90 | TX_ENUM_90 |  |
|        | 91 | TX_ENUM_91 |  |
|        | 92 | TX_ENUM_92 |  |
|        | 93 | TX_ENUM_93 |  |
|        | 94 | TX_ENUM_94 |  |
|        | 95 | TX_ENUM_95 |  |
|        | 96 | TX_ENUM_96 |  |
|        | 97 | TX_ENUM_97 |  |
|        | 98 | TX_ENUM_98 |  |
|        | 99 | TX_ENUM_99 |  |



| Struct               |                 |                  |             |  |
|----------------------|-----------------|------------------|-------------|--|
| CodeType             |                 |                  |             |  |
|                      | Enum8           |                  |             |  |
|                      | Value           | Name             | Description |  |
|                      | 0               | TX_ENUM_0        |             |  |
|                      | 1               | Codabar          |             |  |
|                      | 2               | Code39           |             |  |
|                      | 3               | UPC              |             |  |
|                      | 4               | EAN              |             |  |
|                      | 5               | IL25             |             |  |
|                      | 7               | MSI Code         |             |  |
|                      | 8               | Code93           |             |  |
|                      | 9               | Code128          |             |  |
|                      | 10              | Ean128           |             |  |
|                      | 11              | Pharma           |             |  |
|                      | 12              | Postnet          |             |  |
|                      | 13              | Code25Industrial |             |  |
|                      | 14              | RSS Code         |             |  |
|                      | 17              | PDF417           |             |  |
|                      | 20              | MCZellweger      |             |  |
|                      | 21              | ZellwegerBarcode |             |  |
|                      | 22              | AddonCode        |             |  |
|                      | 23              | JapanesePostal   |             |  |
|                      | 24              | C32              |             |  |
|                      | 25              | DataBar_14       |             |  |
|                      | 26              | DataBar_Limited  |             |  |
|                      | 27              | DataBar_Expanded |             |  |
|                      | uSequenceNumber |                  |             |  |
|                      | USInt           |                  |             |  |
|                      | Value Range     |                  | 0..255      |  |
| Initialisation       |                 | 0                |             |  |
| Physical Unit        |                 |                  |             |  |
| Physical Unit Factor |                 | 0.0              |             |  |

## Variable Telegram Syntax

| Read Variable:     |                |        |               |                             |
|--------------------|----------------|--------|---------------|-----------------------------|
| sRN vPBTeach2DynIn |                |        |               |                             |
| Telegram Part      | Telegram       | Type   | Length [Byte] | Description                 |
| Command Type       | sRN            | String | 3             | Read SOPAS Variable by Name |
| Command            | vPBTeach2DynIn | String | 14            |                             |

| Read Variable Response:   |                 |        |               |                                 |
|---|-----------------|--------|---------------|---------------------------------|
| sRA vPBTeach2DynIn <szTeachInChars> <CodeLength> <CodeType> <uSequenceNumber> |                 |        |               |                                 |
| Telegram Part   | Telegram        | Type   | Length [Byte] | Description                     |
| Command Type  | sRA             | String | 3             | SOPAS Variable Read Acknowledge |
| Command   | vPBTeach2DynIn  | String | 14            |                                 |
| Variable Data 1   | szTeachInChars  | Array  | 29            |                                 |
| Variable Data 2   | CodeLength      | Enum8  | 1             |                                 |
| Variable Data 3   | CodeType        | Enum8  | 1             |                                 |
| Variable Data 4   | uSequenceNumber | USInt  | 1             |                                 |



```
sWN vPBTeach2DynIn <szTeachInChars> <CodeLength> <CodeType> <uSequenceNumber>
```

Write Variable Response:

sWA vPBTeach2DynIn

### Example: Default Values

Variable telegram examples with data set to default values.

Variable Name

PBTeachIn1Out

USInt1155



## Variable Telegram Syntax

| Read Variable:    |               |        |               |                             |
|-------------------|---------------|--------|---------------|-----------------------------|
| sRN PBTeachIn1Out |               |        |               |                             |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                 |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name |
| Command           | PBTeachIn1Out | String | 13            |                             |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA PBTeachIn1Out <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | PBTeachIn1Out | String | 13            |                                 |
| Variable Data            | data          | USInt  | 1             |                                 |

| Write Variable:          |               |        |               |                              |
|--------------------------|---------------|--------|---------------|------------------------------|
| sWN PBTeachIn1Out <data> |               |        |               |                              |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                  |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name |
| Command                  | PBTeachIn1Out | String | 13            |                              |
| Variable Data            | data          | USInt  | 1             |                              |

| Write Variable Response: |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sWA PBTeachIn1Out        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | PBTeachIn1Out | String | 13            |                                  |

## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN PBTeachIn1Out[ETX]    |
| Read Variable Response:                                     | [STX]sRA PBTeachIn1Out FF[ETX] |
| Write Variable:   | [STX]sWN PBTeachIn1Out FF[ETX] |
| Write Variable Response:                                    | [STX]sWA PBTeachIn1Out[ETX]    |



### 2.26.3.10. Variable: PBTeachIn2Out

The following section contains a detailed description of the variable PBTeachIn2Out.

#### Variable Overview

| Variable Name |
|---------------|
| PBTeachIn2Out |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1377  |
| Read-Access           | Always  |
| Write-Access          | Always  |

| USInt                |        |
|----------------------|--------|
| Value Range          | 0..255 |
| Initialisation       | 255    |
| Physical Unit        |        |
| Physical Unit Factor | 0.0    |

#### Variable Telegram Syntax

| Read Variable:    |               |        |               |                             |
|-------------------|---------------|--------|---------------|-----------------------------|
| sRN PBTeachIn2Out |               |        |               |                             |
| Telegram Part     | Telegram      | Type   | Length [Byte] | Description                 |
| Command Type      | sRN           | String | 3             | Read SOPAS Variable by Name |
| Command           | PBTeachIn2Out | String | 13            |                             |

| Read Variable Response:  |               |        |               |                                 |
|--------------------------|---------------|--------|---------------|---------------------------------|
| sRA PBTeachIn2Out <data> |               |        |               |                                 |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                     |
| Command Type             | sRA           | String | 3             | SOPAS Variable Read Acknowledge |
| Command                  | PBTeachIn2Out | String | 13            |                                 |
| Variable Data            | data          | USInt  | 1             |                                 |

| Write Variable:          |               |        |               |                              |
|--------------------------|---------------|--------|---------------|------------------------------|
| sWN PBTeachIn2Out <data> |               |        |               |                              |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                  |
| Command Type             | sWN           | String | 3             | Write SOPAS Variable by Name |
| Command                  | PBTeachIn2Out | String | 13            |                              |
| Variable Data            | data          | USInt  | 1             |                              |

| Write Variable Response: |               |        |               |                                  |
|--------------------------|---------------|--------|---------------|----------------------------------|
| sWA PBTeachIn2Out        |               |        |               |                                  |
| Telegram Part            | Telegram      | Type   | Length [Byte] | Description                      |
| Command Type             | sWA           | String | 3             | SOPAS Variable Write Acknowledge |
| Command                  | PBTeachIn2Out | String | 13            |                                  |



## Variable Telegram Examples

| Example: Default Values                                     |                                |
|---|--------------------------------|
| Variable telegram examples with data set to default values. |                                |
| Read Variable:  | [STX]sRN PBTeachIn2Out[ETX]    |
| Read Variable Response:                                     | [STX]sRA PBTeachIn2Out FF[ETX] |
| Write Variable:   | [STX]sWN PBTeachIn2Out FF[ETX] |
| Write Variable Response:                                    | [STX]sWA PBTeachIn2Out[ETX]    |

### 2.26.3.11. Method: ExecutePBCmd

The following section contains a detailed description of the method ExecutePBCmd.

#### Method Overview

| Method Name  | Description                       |
|--------------|-----------------------------------|
| ExecutePBCmd | Execute a command received via PB |

|                    |              |
|--------------------|--------------|
| Communication Name | mPBCMexecCmd |
| Sopas Index        | 153          |
| Invocation Access  | Always       |

| Parameters  |                          |
|-------------|--------------------------|
| CmdString   |                          |
| <div></div> | <b>Array</b>             |
|             | Length 0..2080           |
|             | <b>USInt</b>             |
|             | Value Range 0..255       |
|             | Initialisation 0         |
|             | Physical Unit            |
|             | Physical Unit Factor 0.0 |

| Return Values |                          |
|---------------|--------------------------|
| RespString    |                          |
| <div></div>   | <b>Array</b>             |
|               | Length 0..4094           |
|               | <b>USInt</b>             |
|               | Value Range 0..255       |
|               | Initialisation 0         |
|               | Physical Unit            |
|               | Physical Unit Factor 0.0 |



## Method Telegram Syntax

| Method Invocation:           |              |        |               |                                   |
|------------------------------|--------------|--------|---------------|-----------------------------------|
| sMN mPBCMexecCmd <CmdString> |              |        |               |                                   |
| Telegram Part                | Telegram     | Type   | Length [Byte] | Description                       |
| Command Type                 | sMN          | String | 3             | Request (SOPAS Method by Name)    |
| Command                      | mPBCMexecCmd | String | 12            | Execute a command received via PB |
| Parameter 1                  | CmdString    | Array  | 2080          |                                   |

| Method Response: |              |        |               |                                     |
|------------------|--------------|--------|---------------|-------------------------------------|
| sMA mPBCMexecCmd |              |        |               |                                     |
| Telegram Part    | Telegram     | Type   | Length [Byte] | Description                         |
| Command Type     | sMA          | String | 3             | Response (SOPAS Method Acknowledge) |
| Command          | mPBCMexecCmd | String | 12            | Execute a command received via PB   |

| Method Return Value:          |              |        |               |                                   |
|-------------------------------|--------------|--------|---------------|-----------------------------------|
| sAN mPBCMexecCmd <RespString> |              |        |               |                                   |
| Telegram Part                 | Telegram     | Type   | Length [Byte] | Description                       |
| Command Type                  | sAN          | String | 3             | Result (SOPAS Method Result)      |
| Command                       | mPBCMexecCmd | String | 12            | Execute a command received via PB |
| Return Value 1                | RespString   | Array  | 4094          |                                   |

## Method Telegram Examples

| Example: Default Values   |                               |
|---|-------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                               |
| Method Invocation:  | [STX]sMN mPBCMexecCmd +0[ETX] |
| Method Response:  | [STX]sMA mPBCMexecCmd[ETX]    |
| Method Return Value:  | [STX]sAN mPBCMexecCmd 0[ETX]  |

## 2.27. Interface Block: Files

### 2.27.1. Group: HKAViewer

#### 2.27.1.1. Variable: HKAFFileRefreshRunning

The following section contains a detailed description of the variable HKAFFileRefreshRunning.

##### Variable Overview

| Variable Name          | Description  |
|------------------------|--|
| HKAFFileRefreshRunning | Is enabled when a hka file refreshing is currently running |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1378  |
| Read-Access           | Always  |
| Write-Access          | Always  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

##### Variable Telegram Syntax

| Read Variable:             |                        |        |               |  |
|----------------------------|------------------------|--------|---------------|--|
| sRN HKAFFileRefreshRunning |                        |        |               |  |
| Telegram Part              | Telegram               | Type   | Length [Byte] | Description  |
| Command Type               | sRN                    | String | 3             | Read SOPAS Variable by Name                                |
| Command                    | HKAFFileRefreshRunning | String | 21            | Is enabled when a hka file refreshing is currently running |

| Read Variable Response:           |                        |        |               |  |
|-----------------------------------|------------------------|--------|---------------|--|
| sRA HKAFFileRefreshRunning <data> |                        |        |               |  |
| Telegram Part                     | Telegram               | Type   | Length [Byte] | Description  |
| Command Type                      | sRA                    | String | 3             | SOPAS Variable Read Acknowledge                            |
| Command                           | HKAFFileRefreshRunning | String | 21            | Is enabled when a hka file refreshing is currently running |
| Variable Data                     | data                   | Bool   | 1             |  |

| Write Variable:                   |                        |        |               |  |
|-----------------------------------|------------------------|--------|---------------|--|
| sWN HKAFFileRefreshRunning <data> |                        |        |               |  |
| Telegram Part                     | Telegram               | Type   | Length [Byte] | Description  |
| Command Type                      | sWN                    | String | 3             | Write SOPAS Variable by Name                               |
| Command                           | HKAFFileRefreshRunning | String | 21            | Is enabled when a hka file refreshing is currently running |
| Variable Data                     | data                   | Bool   | 1             |  |





| Write Variable Response:   |                        |        |               |  |
|----------------------------|------------------------|--------|---------------|--|
| sWA HKAFfileRefreshRunning |                        |        |               |  |
| Telegram Part              | Telegram               | Type   | Length [Byte] | Description  |
| Command Type               | sWA                    | String | 3             | SOPAS Variable Write Acknowledge                           |
| Command                    | HKAFfileRefreshRunning | String | 21            | Is enabled when a hka file refreshing is currently running |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN HKAFfileRefreshRunning[ETX]   |
| Read Variable Response:                                     | [STX]sRA HKAFfileRefreshRunning 0[ETX] |
| Write Variable:   | [STX]sWN HKAFfileRefreshRunning 0[ETX] |
| Write Variable Response:                                    | [STX]sWA HKAFfileRefreshRunning[ETX]   |

### 2.27.1.2. Variable: HKAFfileRefreshToggle

The following section contains a detailed description of the variable HKAFfileRefreshToggle.

#### Variable Overview

| Variable Name         | Description   |
|-----------------------|---|
| HKAFfileRefreshToggle | Switch to signal that a new hka file is written and now available |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1379  |
| Read-Access           | Always  |
| Write-Access          | Always  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:            |                       |        |               |   |
|---------------------------|-----------------------|--------|---------------|---|
| sRN HKAFFileRefreshToggle |                       |        |               |   |
| Telegram Part             | Telegram              | Type   | Length [Byte] | Description   |
| Command Type              | sRN                   | String | 3             | Read SOPAS Variable by Name                                       |
| Command                   | HKAFFileRefreshToggle | String | 20            | Switch to signal that a new hka file is written and now available |

| Read Variable Response:          |                       |        |               |   |
|----------------------------------|-----------------------|--------|---------------|---|
| sRA HKAFFileRefreshToggle <data> |                       |        |               |   |
| Telegram Part                    | Telegram              | Type   | Length [Byte] | Description   |
| Command Type                     | sRA                   | String | 3             | SOPAS Variable Read Acknowledge                                   |
| Command                          | HKAFFileRefreshToggle | String | 20            | Switch to signal that a new hka file is written and now available |
| Variable Data                    | data                  | Bool   | 1             |   |

| Write Variable:                  |                       |        |               |   |
|----------------------------------|-----------------------|--------|---------------|---|
| sWN HKAFFileRefreshToggle <data> |                       |        |               |   |
| Telegram Part                    | Telegram              | Type   | Length [Byte] | Description   |
| Command Type                     | sWN                   | String | 3             | Write SOPAS Variable by Name                                      |
| Command                          | HKAFFileRefreshToggle | String | 20            | Switch to signal that a new hka file is written and now available |
| Variable Data                    | data                  | Bool   | 1             |   |

| Write Variable Response:  |                       |        |               |   |
|---------------------------|-----------------------|--------|---------------|---|
| sWA HKAFFileRefreshToggle |                       |        |               |   |
| Telegram Part             | Telegram              | Type   | Length [Byte] | Description   |
| Command Type              | sWA                   | String | 3             | SOPAS Variable Write Acknowledge                                  |
| Command                   | HKAFFileRefreshToggle | String | 20            | Switch to signal that a new hka file is written and now available |

## Variable Telegram Examples

| Example: Default Values                                     |                                       |
|---|---------------------------------------|
| Variable telegram examples with data set to default values. |                                       |
| Read Variable:  | [STX]sRN HKAFFileRefreshToggle[ETX]   |
| Read Variable Response:                                     | [STX]sRA HKAFFileRefreshToggle 0[ETX] |
| Write Variable:   | [STX]sWN HKAFFileRefreshToggle 0[ETX] |
| Write Variable Response:                                    | [STX]sWA HKAFFileRefreshToggle[ETX]   |



### 2.27.1.3. Method: HKAFFileRefresh62x64x

The following section contains a detailed description of the method HKAFFileRefresh62x64x.

#### Method Overview

| Method Name           | Description  |
|-----------------------|--|
| HKAFFileRefresh62x64x | measures video amplitude (HKA) for 62x64x and writes to a file |

|                    |                        |
|--------------------|------------------------|
| Communication Name | mHKAFFileRefresh62x64x |
| Sopas Index        | 154                    |
| Invocation Access  | Always                 |

| Parameters                |   |   |       |
|---------------------------|---|---|-------|
| CoordSystem               |   |   |       |
|                           |   | <b>Enum8</b>  |       |
|                           |   | Default Value   |       |
|                           |   | 0   |       |
|                           |   |   | Value |
|                           | 0 | TX_CARTESIAN_COORDS   |       |
|                           | 1 | TX_POLAR_COORDS   |       |
| DistanceToObjectCartesian |   | Distance from device front edge. Ignored if coordSystem = polar   |       |
|                           |   | <b>UInt</b>   |       |
|                           |   | Value Range   |       |
|                           |   | 10..999   |       |
|                           |   | Initialisation  |       |
|                           |   | 280   |       |
| Physical Unit             |   |   |       |
| Physical Unit Factor      |   | 0.0   |       |
| CodeHeightCartesian       |   | Distance from CP50 to the center of the eval region. Negative values to CP100. Ignored if coordSystem = polar |       |
|                           |   | <b>Int</b>  |       |
|                           |   | Value Range   |       |
|                           |   | -999..999   |       |
|                           |   | Initialisation  |       |
|                           |   | 0   |       |
| Physical Unit             |   |   |       |
| Physical Unit Factor      |   | 0.0   |       |
| DistanceToObjectPolar     |   | Distance from virtual scan axis. Ignored if coordSystem = cartesian   |       |
|                           |   | <b>UInt</b>   |       |
|                           |   | Value Range   |       |
|                           |   | 10..999   |       |
|                           |   | Initialisation  |       |
|                           |   | 280   |       |
| Physical Unit             |   |   |       |
| Physical Unit Factor      |   | 0.0   |       |
| CPPolar                   |   | Angle to center of eval position in per cent. Ignored if coordSystem = cartesian                              |       |
|                           |   | <b>UInt</b>   |       |
|                           |   | Value Range   |       |
|                           |   | 0..100  |       |
|                           |   | Initialisation  |       |
|                           |   | 50  |       |
| Physical Unit             |   |   |       |
| Physical Unit Factor      |   | 0.0   |       |
| EvalWidth                 |   | Size of the region to evaluate.   |       |
|                           |   | <b>UInt</b>   |       |
|                           |   | Value Range   |       |
|                           |   | 10..200   |       |
|                           |   | Initialisation  |       |
|                           |   | 50  |       |
| Physical Unit             |   |   |       |
| Physical Unit Factor      |   | 0.0   |       |



| Parameters            |       |   |  |
|-----------------------|-------|---|--|
| NumberOfScansPerFacet |       | Number of Scans for each facet. Max number of scans = 64 * NumberOfScansPerFacet. |  |
| <b>UInt</b>           |       |   |  |
| Value Range           |       | 1..10   |  |
| Initialisation        |       | 1   |  |
| Physical Unit         |       |   |  |
| Physical Unit Factor  |       | 0.0   |  |
| LaserOn               |       | TRUE: no effect. FALSE: Laser switched of during measurement to get offet value.  |  |
| <b>Bool</b>           |       |   |  |
| Value Range           |       | False, True   |  |
| Initialisation        |       | True  |  |
| Traces                |       | Defines how many information will be traced after measurement                     |  |
| <b>Enum8</b>          |       |   |  |
| Default Value         |       | 0   |  |
|                       | Value | Name  | Description  |
|                       | 0     | TX_NO_TRACES  | no traces will be sent.  |
|                       | 1     | TX_ONLY_STATISTICS  | statistic data will be sent via MStrace event.   |
|                       | 2     | TX_ONLY_RAWTABLE  | table with raw data will be sent via MStrace event. Warning: too much traces will delay results! |
|                       | 3     | TX_STATISTICS_AND_RAWTABLE  | all data will be sent via MStrace event. Warning: too much traces will delay results!            |
| Password              |       |   |  |
| <b>String</b>         |       |   |  |
| Length                |       | 5   |  |
| Initialisation        |       |   |  |

| Return Values             |                                       |
|---------------------------|---------------------------------------|
| DistanceToObjectCartesian | calculated if coordSystem = polar     |
| UInt                      |                                       |
| Value Range               | 0..65535                              |
| Initialisation            |                                       |
| Physical Unit             |                                       |
| Physical Unit Factor      | 0.0                                   |
| HightCartesian            | calculated if coordSystem = polar     |
| Int                       |                                       |
| Value Range               | -32768..32767                         |
| Initialisation            |                                       |
| Physical Unit             |                                       |
| Physical Unit Factor      | 0.0                                   |
| DistanceToObjectPolar     | calculated if coordSystem = cartesian |
| UInt                      |                                       |
| Value Range               | 0..65535                              |
| Initialisation            |                                       |
| Physical Unit             |                                       |
| Physical Unit Factor      | 0.0                                   |



| Return Values         |   |
|-----------------------|---|
| CPPolar               | calculated if coordSystem = cartesian   |
| <b>UInt</b>           |   |
| Value Range           | 0..65535  |
| Initialisation        |   |
| Physical Unit         |   |
| Physical Unit Factor  | 0.0   |
| EvalWidth             | as given  |
| <b>UInt</b>           |   |
| Value Range           | 0..65535  |
| Initialisation        |   |
| Physical Unit         |   |
| Physical Unit Factor  | 0.0   |
| NumberOfScansPerFacet | as given  |
| <b>UInt</b>           |   |
| Value Range           | 0..65535  |
| Initialisation        |   |
| Physical Unit         |   |
| Physical Unit Factor  | 0.0   |
| LaserOn               | as given  |
| <b>Bool</b>           |   |
| Value Range           | False, True   |
| Initialisation        | True  |
| AmplVals              | values: [facet1_min, facet1_max, facet1_mean, ..., facet8_mean, avg_min, AVG_MAX, avg_mean]. For EA-measurement used value: AVG_MAX |
| <b>Array</b>          |   |
| Length                | 27  |
| <b>Real</b>           |   |
| Value Range           | See specification IEEE 754  |
| Initialisation        |   |
| Physical Unit         |   |
| Physical Unit Factor  | 0.0   |

## Method Telegram Syntax

| Method Invocation:   |                           |        |               |   |
|--|---------------------------|--------|---------------|---|
| sMN mHKAFileRefresh62x64x <CoordSystem> <DistanceToObjectCartesian> <CodeHightCartesian> <DistanceToObjectPolar> <CPPolar> <EvalWidth> <NumberOfScansPerFacet> <LaserOn> <Traces> <Password> |                           |        |               |   |
| Telegram Part  | Telegram                  | Type   | Length [Byte] | Description   |
| Command Type   | sMN                       | String | 3             | Request (SOPAS Method by Name)  |
| Command  | mHKAFileRefresh62x64x     | String | 21            | measures video amplitude (HKA) for 62x64x and writes to a file  |
| Parameter 1  | CoordSystem               | Enum8  | 1             |   |
| Parameter 2  | DistanceToObjectCartesian | UInt   | 2             | Distance from device front edge. Ignored if coordSystem = polar   |
| Parameter 3  | CodeHightCartesian        | Int    | 2             | Distance from CP50 to the center of the eval region. Negative values to CP100. Ignored if coordSystem = polar |
| Parameter 4  | DistanceToObjectPolar     | UInt   | 2             | Distance from virtual scan axis. Ignored if coordSystem = cartesian   |
| Parameter 5  | CPPolar                   | UInt   | 2             | Angle to center of eval position in per cent. Ignored if coordSystem = cartesian                              |
| Parameter 6  | EvalWidth                 | UInt   | 2             | Size of the region to evaluate.   |



| Method Invocation:   |                       |        |               |   |
|--|-----------------------|--------|---------------|---|
| sMN mHKAFileRefresh62x64x <CoordSystem> <DistanceToObjectCartesian> <CodeHightCartesian> <DistanceToObjectPolar> <CPPolar> <EvalWidth> <NumberOfScansPerFacet> <LaserOn> <Traces> <Password> |                       |        |               |   |
| Telegram Part  | Telegram              | Type   | Length [Byte] | Description   |
| Parameter 7  | NumberOfScansPerFacet | UInt   | 2             | Number of Scans for each facet. Max number of scans = 64 * NumberOfScansPerFacet. |
| Parameter 8  | LaserOn               | Bool   | 1             | TRUE: no effect. FALSE: Laser switched of during measurement to get offet value.  |
| Parameter 9  | Traces                | Enum8  | 1             | Defines how many information will be traced after measurement                     |
| Parameter 10   | Password              | String | 5             |   |

| Method Return Value:  |                           |        |               |  |
|---|---------------------------|--------|---------------|--|
| sAN mHKAFileRefresh62x64x <DistanceToObjectCartesian> <HightCartesian> <DistanceToObjectPolar> <CPPolar> <EvalWidth> <NumberOfScansPerFacet> <LaserOn> <AmplVals> |                           |        |               |  |
| Telegram Part   | Telegram                  | Type   | Length [Byte] | Description  |
| Command Type  | sAN                       | String | 3             | Result (SOPAS Method Result)   |
| Command   | mHKAFileRefresh62x64x     | String | 21            | measures video amplitude (HKA) for 62x64x and writes to a file   |
| Return Value 1  | DistanceToObjectCartesian | UInt   | 2             | calculated if coordSystem = polar  |
| Return Value 2  | HightCartesian            | Int    | 2             | calculated if coordSystem = polar  |
| Return Value 3  | DistanceToObjectPolar     | UInt   | 2             | calculated if coordSystem = cartesian  |
| Return Value 4  | CPPolar                   | UInt   | 2             | calculated if coordSystem = cartesian  |
| Return Value 5  | EvalWidth                 | UInt   | 2             | as given   |
| Return Value 6  | NumberOfScansPerFacet     | UInt   | 2             | as given   |
| Return Value 7  | LaserOn                   | Bool   | 1             | as given   |
| Return Value 8  | AmplVals                  | Array  | 108           | values: [facet1_min, facet1_max, facet1_mean, ..., facet8_mean, avg_min, AVG_MAX, avg_mean].<br>For EA-measurement used value: AVG_MAX |

## Method Telegram Examples

| Example: Default Values   |   |
|---|---|
| Method telegram examples with parameter data and return value data set to default values. |   |
| Method Invocation:  | [STX]sMN mHKAFileRefresh62x64x 0 118 +0 118 32 32 1 1 0 [ETX]   |
| Method Return Value:  | [STX]sAN mHKAFileRefresh62x64x 0 0 0 0 0 0 1 00000000 00000000 00000000<br>00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000<br>00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000<br>00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000<br>00000000[ETX] |



#### 2.27.1.4. Method: HKAFFileRefresh65x

The following section contains a detailed description of the method HKAFFileRefresh65x.

##### Method Overview

| Method Name        | Description   |
|--------------------|---|
| HKAFFileRefresh65x | measures video amplitude (HKA) for 65x and writes to a file |

|                    |                     |
|--------------------|---------------------|
| Communication Name | mHKAFFileRefresh65x |
| Sopas Index        | 155                 |
| Invocation Access  | Always              |

| Parameters           |  |
|----------------------|--|
| DataMux              | DataMux Setting of the fpga                                |
| <b>UInt</b>          |  |
| Value Range          | 2..6   |
| Initialisation       | 3  |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |
| Facets               | the number of facettes which are recorded                  |
| <b>UInt</b>          |  |
| Value Range          | 1..7   |
| Initialisation       | 1  |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |
| CPStart              | CP start value   |
| <b>Real</b>          |  |
| Value Range          | See specification IEEE 754 0.0..100.0                      |
| Initialisation       | 50.0   |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |
| MaxNumberOfValues    | Max Number of Values which should be recorded              |
| <b>UInt</b>          |  |
| Value Range          | 100..8192  |
| Initialisation       | 8192   |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |
| ValueStep            | Value Step. greater than 1 if you want to interleave codes |
| <b>UInt</b>          |  |
| Value Range          | 1..100   |
| Initialisation       | 1  |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |
| Password             |  |
| <b>String</b>        |  |
| Length               | 5  |
| Initialisation       |  |



| Return Values        |  |
|----------------------|--|
| DataMux              | Last used DataMux Setting of the fpga                                |
| <b>UInt</b>          |  |
| Value Range          | 2..6   |
| Initialisation       | 3  |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |
| Facets               | Last used the number of facettes which are recorded                  |
| <b>UInt</b>          |  |
| Value Range          | 1..7   |
| Initialisation       | 7  |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |
| CPStart              | Last used hor start value  |
| <b>Real</b>          |  |
| Value Range          | See specification IEEE 754 0.0..100.0                                |
| Initialisation       | 50.0   |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |
| MaxNumberOfValues    | Last used Max Number of Values which should be recorded              |
| <b>UInt</b>          |  |
| Value Range          | 100..8192  |
| Initialisation       | 8192   |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |
| ValueStep            | Last used Value Step. greater than 1 if you want to interleave codes |
| <b>UInt</b>          |  |
| Value Range          | 1..100   |
| Initialisation       | 1  |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |
| ScanFrequency        | Last used Scan Frequency   |
| <b>UInt</b>          |  |
| Value Range          | 0..65535   |
| Initialisation       |  |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |
| FocusPosition        | Last used FocusPosition  |
| <b>UInt</b>          |  |
| Value Range          | 0..65535   |
| Initialisation       |  |
| Physical Unit        |  |
| Physical Unit Factor | 0.0  |





## Method Telegram Syntax

| Method Invocation:   |                    |        |               |   |
|--|--------------------|--------|---------------|---|
| sMN mHKAFileRefresh65x <DataMux> <Facets> <CPStart> <MaxNumberOfValues> <ValueStep> <Password> |                    |        |               |   |
| Telegram Part  | Telegram           | Type   | Length [Byte] | Description   |
| Command Type   | sMN                | String | 3             | Request (SOPAS Method by Name)                              |
| Command  | mHKAFileRefresh65x | String | 18            | measures video amplitude (HKA) for 65x and writes to a file |
| Parameter 1  | DataMux            | UInt   | 2             | DataMux Setting of the fpga                                 |
| Parameter 2  | Facets             | UInt   | 2             | the number of facettes which are recorded                   |
| Parameter 3  | CPStart            | Real   | 4             | CP start value  |
| Parameter 4  | MaxNumberOfValues  | UInt   | 2             | Max Number of Values which should be recorded               |
| Parameter 5  | ValueStep          | UInt   | 2             | Value Step. greater than 1 if you want to interleave codes  |
| Parameter 6  | Password           | String | 5             |   |

| Method Return Value:  |                    |        |               |  |
|---|--------------------|--------|---------------|--|
| sAN mHKAFileRefresh65x <DataMux> <Facets> <CPStart> <MaxNumberOfValues> <ValueStep> <ScanFrequency> <FocusPosition> |                    |        |               |  |
| Telegram Part   | Telegram           | Type   | Length [Byte] | Description  |
| Command Type  | sAN                | String | 3             | Result (SOPAS Method Result)   |
| Command   | mHKAFileRefresh65x | String | 18            | measures video amplitude (HKA) for 65x and writes to a file          |
| Return Value 1  | DataMux            | UInt   | 2             | Last used DataMux Setting of the fpga                                |
| Return Value 2  | Facets             | UInt   | 2             | Last used the number of facettes which are recorded                  |
| Return Value 3  | CPStart            | Real   | 4             | Last used hor start value  |
| Return Value 4  | MaxNumberOfValues  | UInt   | 2             | Last used Max Number of Values which should be recorded              |
| Return Value 5  | ValueStep          | UInt   | 2             | Last used Value Step. greater than 1 if you want to interleave codes |
| Return Value 6  | ScanFrequency      | UInt   | 2             | Last used Scan Frequency   |
| Return Value 7  | FocusPosition      | UInt   | 2             | Last used FocusPosition  |

## Method Telegram Examples

| Example: Default Values   |   |
|---|---|
| Method telegram examples with parameter data and return value data set to default values. |   |
| Method Invocation:  | [STX]sMN mHKAFileRefresh65x 3 1 +50.0 2000 1 [ETX]        |
| Method Return Value:  | [STX]sAN mHKAFileRefresh65x 3 7 42480000 2000 1 0 0 [ETX] |

## 2.27.2. Group: TempHistoryViewer

### 2.27.2.1. Variable: TempFileRefreshRunning

The following section contains a detailed description of the variable TempFileRefreshRunning.

#### Variable Overview

| Variable Name          | Description  |
|------------------------|--|
| TempFileRefreshRunning | Is enabled when a temperature file refreshing is currently running |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is not relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1380  |
| Read-Access           | Always  |
| Write-Access          | Always  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |

#### Variable Telegram Syntax

| Read Variable:             |                        |        |               |  |
|----------------------------|------------------------|--------|---------------|--|
| sRN TempFileRefreshRunning |                        |        |               |  |
| Telegram Part              | Telegram               | Type   | Length [Byte] | Description  |
| Command Type               | sRN                    | String | 3             | Read SOPAS Variable by Name  |
| Command                    | TempFileRefreshRunning | String | 22            | Is enabled when a temperature file refreshing is currently running |

| Read Variable Response:           |                        |        |               |  |
|-----------------------------------|------------------------|--------|---------------|--|
| sRA TempFileRefreshRunning <data> |                        |        |               |  |
| Telegram Part                     | Telegram               | Type   | Length [Byte] | Description  |
| Command Type                      | sRA                    | String | 3             | SOPAS Variable Read Acknowledge                                    |
| Command                           | TempFileRefreshRunning | String | 22            | Is enabled when a temperature file refreshing is currently running |
| Variable Data                     | data                   | Bool   | 1             |  |

| Write Variable:                   |                        |        |               |  |
|-----------------------------------|------------------------|--------|---------------|--|
| sWN TempFileRefreshRunning <data> |                        |        |               |  |
| Telegram Part                     | Telegram               | Type   | Length [Byte] | Description  |
| Command Type                      | sWN                    | String | 3             | Write SOPAS Variable by Name                                       |
| Command                           | TempFileRefreshRunning | String | 22            | Is enabled when a temperature file refreshing is currently running |
| Variable Data                     | data                   | Bool   | 1             |  |

| Write Variable Response:   |          |        |               |                                  |
|----------------------------|----------|--------|---------------|----------------------------------|
| sWA TempFileRefreshRunning |          |        |               |                                  |
| Telegram Part              | Telegram | Type   | Length [Byte] | Description                      |
| Command Type               | sWA      | String | 3             | SOPAS Variable Write Acknowledge |



| Write Variable Response:   |                        |        |               |  |
|----------------------------|------------------------|--------|---------------|--|
| sWA TempFileRefreshRunning |                        |        |               |  |
| Telegram Part              | Telegram               | Type   | Length [Byte] | Description  |
| Command                    | TempFileRefreshRunning | String | 22            | Is enabled when a temperature file refreshing is currently running |

## Variable Telegram Examples

| Example: Default Values                                     |  |
|---|--|
| Variable telegram examples with data set to default values. |  |
| Read Variable:  | [STX]sRN TempFileRefreshRunning[ETX]   |
| Read Variable Response:                                     | [STX]sRA TempFileRefreshRunning 0[ETX] |
| Write Variable:   | [STX]sWN TempFileRefreshRunning 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TempFileRefreshRunning[ETX]   |

### 2.27.2.2. Variable: TempFileRefreshToggle

The following section contains a detailed description of the variable TempFileRefreshToggle.

#### Variable Overview

| Variable Name         | Description   |
|-----------------------|---|
| TempFileRefreshToggle | Switch to signal that a new temperature file is written and now available |

|                       |   |
|-----------------------|---|
| Sopas Synchronisation | Variable is not relevant for synchronisation with SOPAS ET. |
| Sopas Index           | 1381  |
| Read-Access           | Always  |
| Write-Access          | Always  |

| Bool           |             |
|----------------|-------------|
| Value Range    | False, True |
| Initialisation | False       |



## Variable Telegram Syntax

| Read Variable:            |                       |        |               |   |
|---------------------------|-----------------------|--------|---------------|---|
| sRN TempFileRefreshToggle |                       |        |               |   |
| Telegram Part             | Telegram              | Type   | Length [Byte] | Description   |
| Command Type              | sRN                   | String | 3             | Read SOPAS Variable by Name   |
| Command                   | TempFileRefreshToggle | String | 21            | Switch to signal that a new temperature file is written and now available |

| Read Variable Response:          |                       |        |               |   |
|----------------------------------|-----------------------|--------|---------------|---|
| sRA TempFileRefreshToggle <data> |                       |        |               |   |
| Telegram Part                    | Telegram              | Type   | Length [Byte] | Description   |
| Command Type                     | sRA                   | String | 3             | SOPAS Variable Read Acknowledge   |
| Command                          | TempFileRefreshToggle | String | 21            | Switch to signal that a new temperature file is written and now available |
| Variable Data                    | data                  | Bool   | 1             |   |

| Write Variable:                  |                       |        |               |   |
|----------------------------------|-----------------------|--------|---------------|---|
| sWN TempFileRefreshToggle <data> |                       |        |               |   |
| Telegram Part                    | Telegram              | Type   | Length [Byte] | Description   |
| Command Type                     | sWN                   | String | 3             | Write SOPAS Variable by Name  |
| Command                          | TempFileRefreshToggle | String | 21            | Switch to signal that a new temperature file is written and now available |
| Variable Data                    | data                  | Bool   | 1             |   |

| Write Variable Response:  |                       |        |               |   |
|---------------------------|-----------------------|--------|---------------|---|
| sWA TempFileRefreshToggle |                       |        |               |   |
| Telegram Part             | Telegram              | Type   | Length [Byte] | Description   |
| Command Type              | sWA                   | String | 3             | SOPAS Variable Write Acknowledge  |
| Command                   | TempFileRefreshToggle | String | 21            | Switch to signal that a new temperature file is written and now available |

## Variable Telegram Examples

| Example: Default Values                                     |                                       |
|---|---------------------------------------|
| Variable telegram examples with data set to default values. |                                       |
| Read Variable:  | [STX]sRN TempFileRefreshToggle[ETX]   |
| Read Variable Response:                                     | [STX]sRA TempFileRefreshToggle 0[ETX] |
| Write Variable:   | [STX]sWN TempFileRefreshToggle 0[ETX] |
| Write Variable Response:                                    | [STX]sWA TempFileRefreshToggle[ETX]   |



### 2.27.2.3. Method: TempFileRefresh

The following section contains a detailed description of the method TempFileRefresh.

#### Method Overview

| Method Name     | Description   |
|-----------------|---|
| TempFileRefresh | reads temperature history values and writes to a file |

|                    |                  |
|--------------------|------------------|
| Communication Name | mTempFileRefresh |
| Sopas Index        | 156              |
| Invocation Access  | Always           |

#### Method Telegram Syntax

| Method Invocation:   |                  |        |               |   |
|----------------------|------------------|--------|---------------|---|
| sMN mTempFileRefresh |                  |        |               |   |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description   |
| Command Type         | sMN              | String | 3             | Request (SOPAS Method by Name)                        |
| Command              | mTempFileRefresh | String | 16            | reads temperature history values and writes to a file |

| Method Return Value: |                  |        |               |   |
|----------------------|------------------|--------|---------------|---|
| sAN mTempFileRefresh |                  |        |               |   |
| Telegram Part        | Telegram         | Type   | Length [Byte] | Description   |
| Command Type         | sAN              | String | 3             | Result (SOPAS Method Result)                          |
| Command              | mTempFileRefresh | String | 16            | reads temperature history values and writes to a file |

#### Method Telegram Examples

| Example: Default Values   |                                |
|---|--------------------------------|
| Method telegram examples with parameter data and return value data set to default values. |                                |
| Method Invocation:  | [STX]sMN mTempFileRefresh[ETX] |
| Method Return Value:  | [STX]sAN mTempFileRefresh[ETX] |



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Brasil  
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China  
Danmark  
Deutschland  
España  
France  
Great Britain  
India  
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Italia  
Japan

Nederlands  
Norge  
Österreich  
Polska  
Republic of Korea  
Republika Slovenija  
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