Application Descriptions

7

Shutters and Blinds

50

Shutters and Blinds Actuators

2

Supplement 1
LTE-Mode Extensions

Summary

This document specifies the Functional Blocks for actuators in the Shutters and Blinds Application Domain.

Version 01.00.02 is a KNX Approved Standard.

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References

[01] Chapter 7/1/2 “Common Sensors”
[02] Chapter 7/50/1 “Shutters and Blinds Sensors”
[03] Chapter 7/50/2 “Actuators”
[04] Part 10/1 “Logical Tag Extended”

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Abbreviations

COV	Change Of Value
FS	FB Frost Sensor
IR	LTE-Mode InfoReport service
LTE-Mode	Logical Tag Extended easy mode
RS	FB Rain Sensor
SAB	FB Sunblind Actuator Basic
SCS	FB Scene Sensor
SSSB	FB Shutters and Blinds Sunblind Sensor Basic
W	LTE-Mode Write service
WS	FB Wind Sensor

1 FB Sunblind Actuator Basic (SAB)

1.1 Aims and objectives

The definitions in this document for FB Sunblind Actuator Basic (SAB) are an extension of the existing Specification in [03] to describe the standardized LTE-Mode runtime interface and LTE-Mode specific parameters of FB SAB.

The FB SAB is used in the Application Domain of Shutters and Sunblind control:

- to exchange control commands and status information with Shutters and Sunblind Sensors (FB SSSB, traditional direct sensor – actuator communication) where the control functionality, command arbitration and priority handling is located in the actuator

  ⇒ see also [02]
- to be connected and controlled by a **Shutters and Blinds Controller** (sensor – controller – actuator communication)

1.2 Functional specification

1.2.1 Overview

This functional specification focuses on LTE-Mode specific runtime process data exchange and LTE-Mode specific parameters. SAB functionality, state machines and standardized SAB parameters are already specified in [03] and are therefore only referenced in this document.

Runtime interworking and binding of SAB is based on LTE-Mode zoning concepts. Control commands and status feedback information are exchanged according to LTE-Mode mechanisms in a common BlindsGroup.

In the LTE-Mode runtime system BlindsGroup is mapped to existing LTE-Mode Geographical zones. Runtime process communication of SAB is disabled if BlindsGroup is ‘OutOfService’

If the SAB is connected to a Shutters and Blinds Controller, the LTE-Mode runtime data interface of the SAB is partially different from the runtime interworking between SAB and shutters and sunblind sensors SSSB. The different mechanisms are outlined in the following clauses.

The connection type (Sensor- or Controller-Connection) of the SAB is configurable via parameter ActuatorMode.

1.2.2 Application model for direct sensor – actuator binding

1.2.2.1 Illustrations

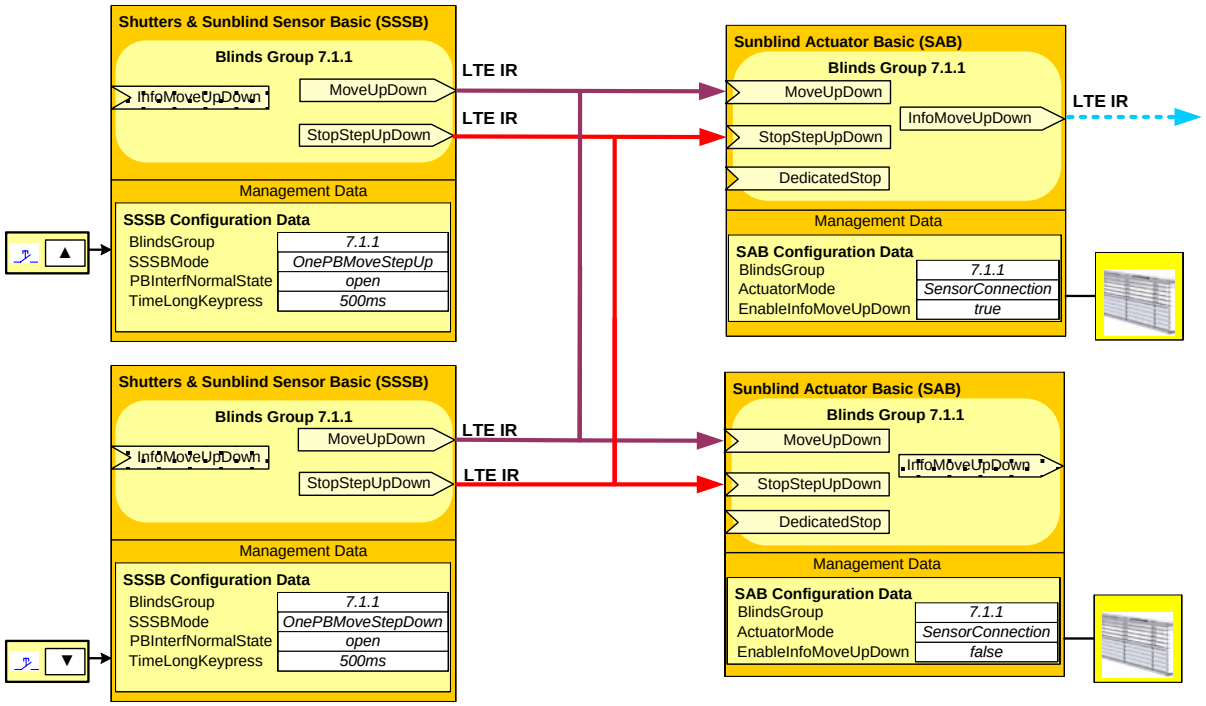

Figure 1 – Example of direct SSSB – SAB connection: manual blinds control, basic interworking

Figure 1 illustrates direct binding of two SSSB with two parallel blinds actuators SAB. Runtime interworking covers basic functionality to manually control blinds height and slats position.

Both SSSB are configured to be operated via 1 push-button or binary input.

- one SSSB to provide control commands to move up / step up / stop movement only
- one SSSB to provide control commands to move down / step down / stop movement only

Control command **MoveUpDown** is provided by the SSSB to trigger up/down movement.

Control command **StopStepUpDown** is provided by the SSSB to trigger

- a stop command if actuator is moving
- a gradual up/down movement of its slats if actuator is not moving

Both control commands are sent by the SSSB using LTE-Mode InfoReport Service and are received and processed by both SAB in the same BlindsGroup.

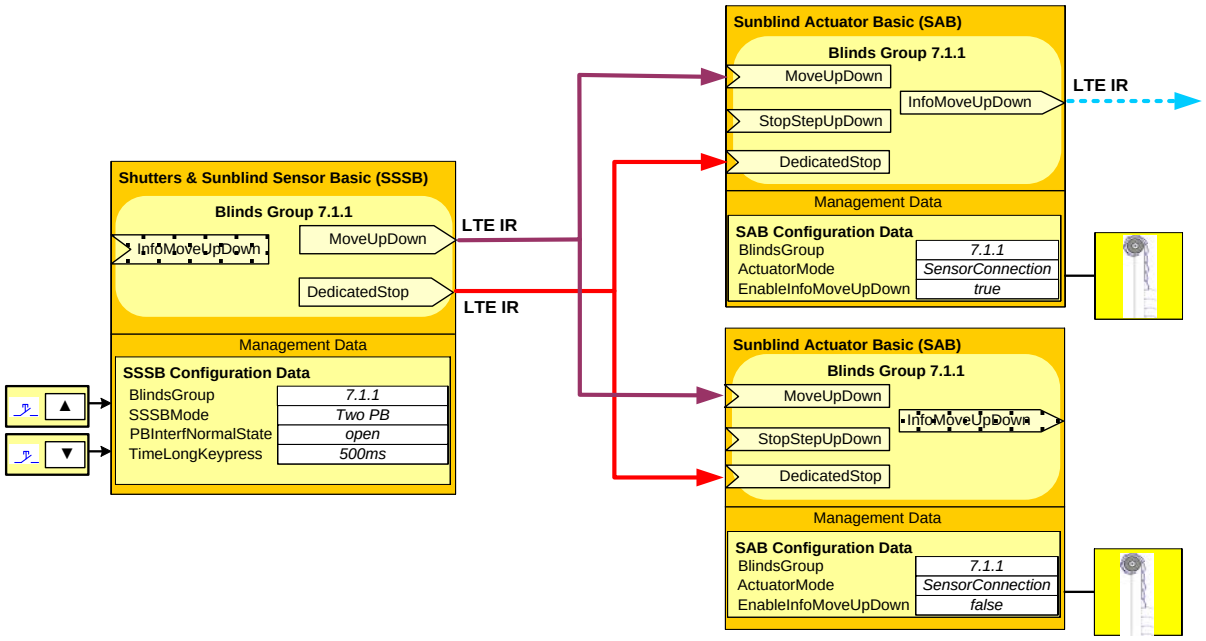

Figure 2 – Example of direct SSSB – SAB connection: manual shutter control, basic interworking

Figure 2 illustrates direct binding of one SSSB with two parallel actuators SAB. Runtime interworking covers basic functionality to manually control the shutter position.

SSSB is configured to be operated via 2 push-buttons or binary inputs.

- one push-button / binary input to provide control commands to move up / stop movement
- one push-button / binary input to provide control commands to move down / stop movement

Control command **MoveUpDown** is provided by the SSSB to trigger up/down movement of the shutter.

Specific control command **DedicatedStop** is provided by the SSSB instead of **StopStepUpDown** to trigger a stop command if the shutter is moving. DedicatedStop command is sent by the SSSB using LTE-Mode InfoReport Service and is received and processed by both SAB in the same BlindsGroup.

In the examples in Figure 1 and Figure 2 actuator feedback information **InfoMoveUpDown** is provided by one SAB (configured as group-speaker) to indicate the last moving direction. InfoMoveUpDown may be used to support e.g. the toggle functionality in the SSSB (1 push-button operation) or for any other purpose. However, in the examples above InfoMoveUpDown is in principle not needed on the SSSB.

Transmission of InfoMoveUpDown status information may be enabled or disabled via SAB configuration parameter EnableInfoMoveUpDown.

NOTE 1 Since both actuators are controlled together, InfoMoveUpDown could in principle be provided by both SAB. InfoMoveUpDown value of both actuator feedback messages would normally be identical (⇒ last wins principle on the input in the SSSB). Redundant InfoMoveUpDown messages create unnecessary traffic and should be avoided.

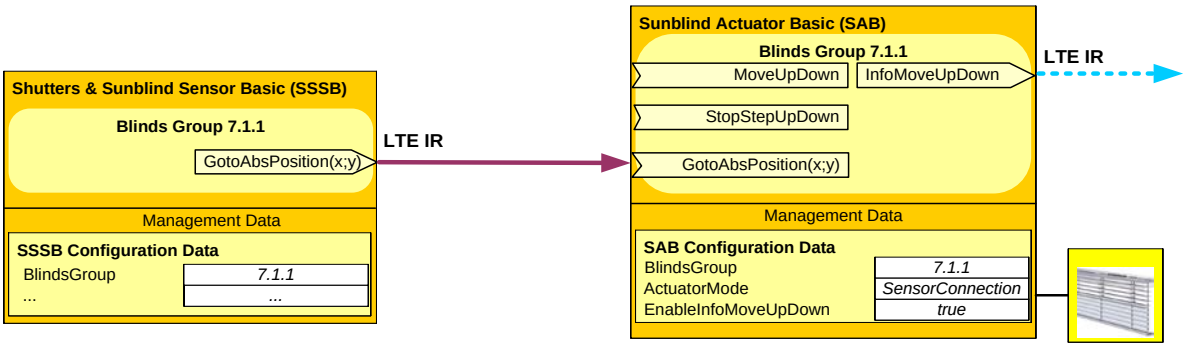

Figure 3 – SSSB providing combined absolute positioning command

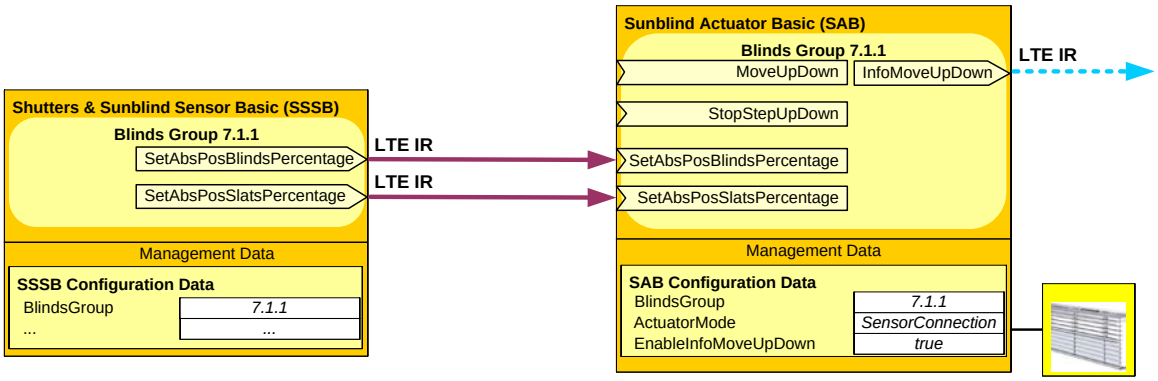

Figure 4 – SSSB providing separate height and slats positioning commands

Figure 3 and Figure 4 illustrate extended runtime interworking mechanisms between a SSSB and a SAB with the purpose to start moving the blinds towards an absolute position specified by the HeightPosition (%) and SlatsPosition (%).

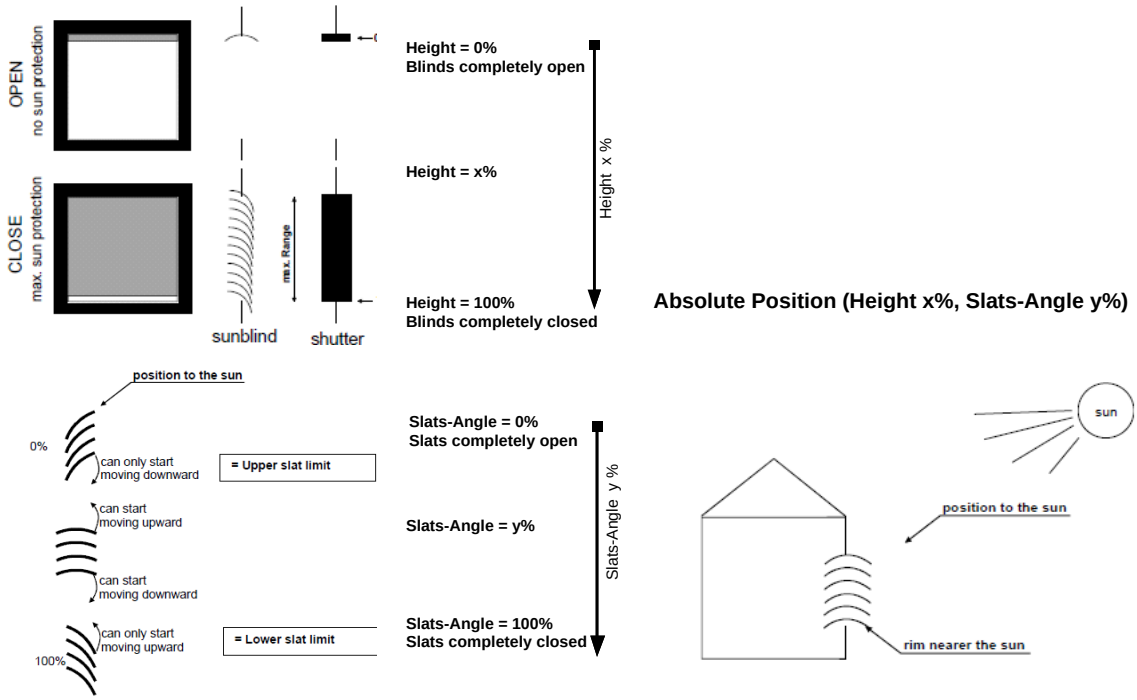

Figure 5 – Representation of height and slats position in percent

Control command **GotoAbsPosition(x;y)** according to Figure 3 contains both HeightPosition(x) and SlatsPosition(y) and validity attributes for both position fields. Combination of both position fields in one message ensures consistency of the target position. The actuator will usually move the blinds to the target HeigthPosition first and will then move the slats to the target SlatsPosition.

Usage of combined control command GotoAbsPosition is recommended if the actuator supports control of height- and slats-angle position (e.g. for Venetian sunblind)

Control commands **SetAbsPosBlindsPercentage** and **SetAbsPosSlatsPercentage** according to Figure 4 are used to control HeightPosition(x) and SlatsPosition(y) independently. Usage of separate control commands SetAbsPosBlindsPercentage and SetAbsPosSlatsPercentage is recommended if either height – or slats-angle position can be controlled (e.g. for shutters or vertical jalousies).

Absolute positioning control commands are provided by the SSSB using LTE-Mode InfoReport Service and are received and processed by the SAB in the same BlindsGroup.

Absolute positioning control commands have the same priority as inputs MoveUpDown, StopStepUpDown or DedicatedStop (last wins principle).

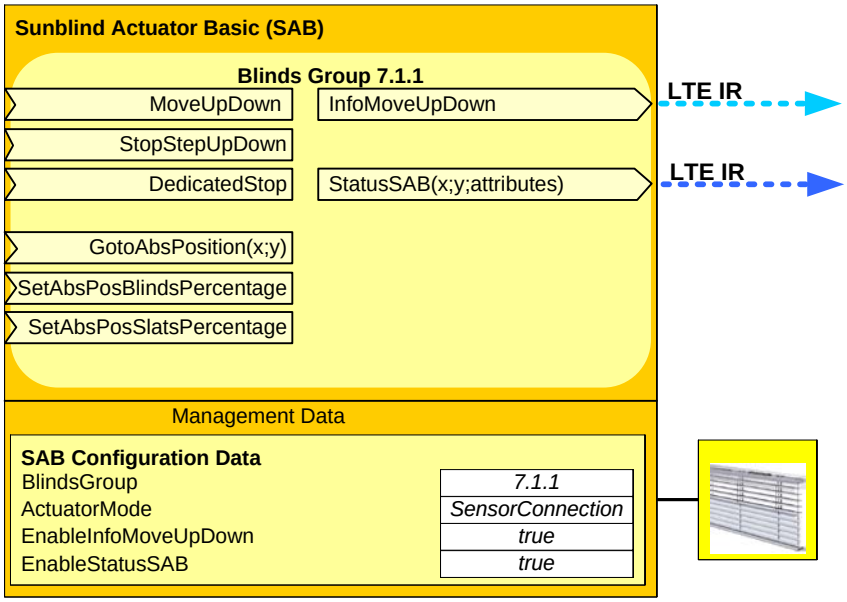

Figure 6 – Actuator status information

Figure 6 illustrates extended actuator status information **StatusSAB** that may be provided by the SAB in addition to InfoMoveUpDown signal. StatusSAB contains the current Height- and Slats-Position and additional status attributes in one message with the goal to ensure consistent status actuator information.

NOTE 2 Actuator status information should be provided by one group-speaker only if multiple actuators are controlled together in one BlindsGroup.

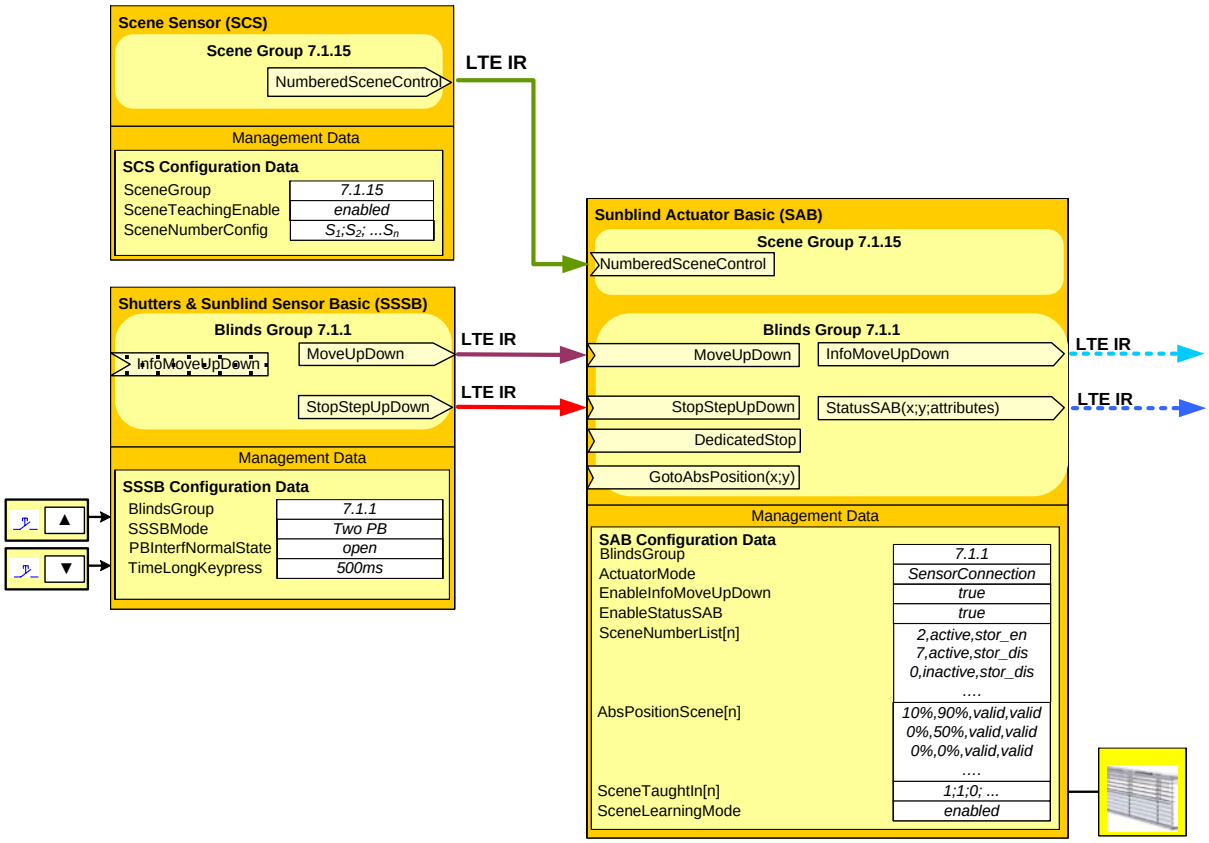

Figure 7 – Example Scene Control

Figure 7 illustrates the binding of a SAB with a SSSB and a Scene Sensor SCS (see [01]).

SCS provides **NumberedSceneControl** information to recall or teach-in a scene. NumberedSceneControl message is distributed using LTE-Mode InfoReport mechanisms in a dedicated SceneGroup.

In the LTE-Mode runtime system SceneGroup is mapped to existing LTE-Mode Geographical zones.

On SAB the NumberedSceneControl input has the same priority as MoveUpDown, StopStepUpDown, DedicatedStop, GotoAbsPosition etc. inputs (last wins principle).

NumberedSceneControl command is received and processed by the SABs belonging to a SceneGroup. After the execution of a scene recall command the SAB group-speaker will provide updated actuator feedback information.

Execution of the scene command by the SAB depends on various local scene configuration parameters. Therefore multiple SAB in the same BlindsGroup may react differently. In this case actuator status information of the group-speaker will not represent the current state of all SAB in the BlindsGroup!

It is highly recommended that pre-engineered scene configuration (storage function disabled) shall be identical for all SAB in the same BlindsGroup. The problem of inconsistent scene execution does not occur if scene learning feature is enabled on all SAB for a given scene number.

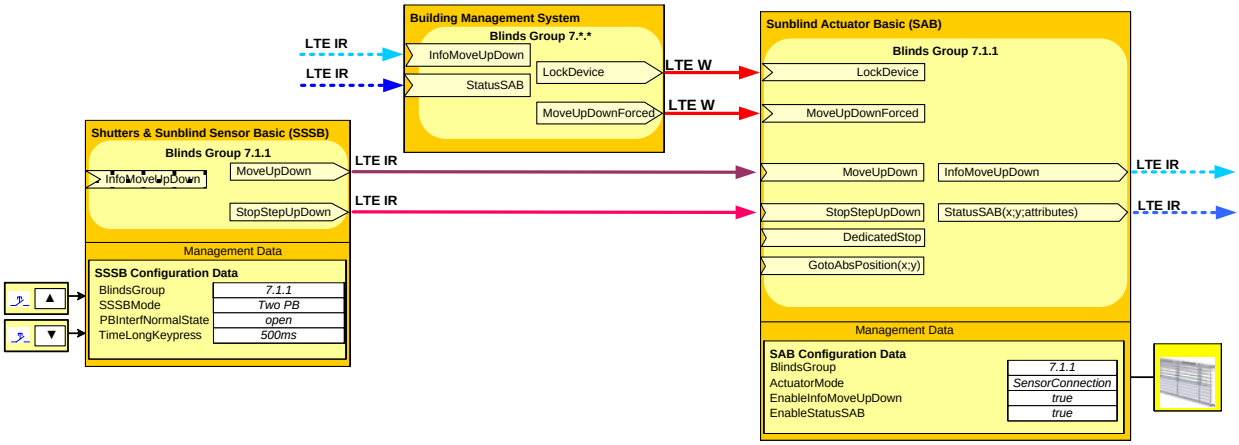

Figure 8 – Example of Building Management System overriding local SSSB commands

Figure 8 illustrates direct sensor actuator binding in combination with a Building Management System that may control the actuator with highest priority.

A Building Management System may trigger a forced up or down movement of the sunblind via prioritized control command **MoveUpDownForced** using LTE-Mode Write. Lower priority control command inputs on the SAB are overruled as long as the 'forced' attribute in MoveUpDownForced is set. If the 'forced' attribute is reset, the sunblind actuator can be controlled via lower priority inputs again.

A Building Management System may freeze the actual state of the actuator via control command **LockDevice** using LTE-Mode Write Service. The specific behaviour related to lock and unlock states and transitions can be controlled with additional SAB configuration parameters.

LTE-Mode wildcard features may be used to control all actuators in the same BuildingZone (e.g. 7.*.*).

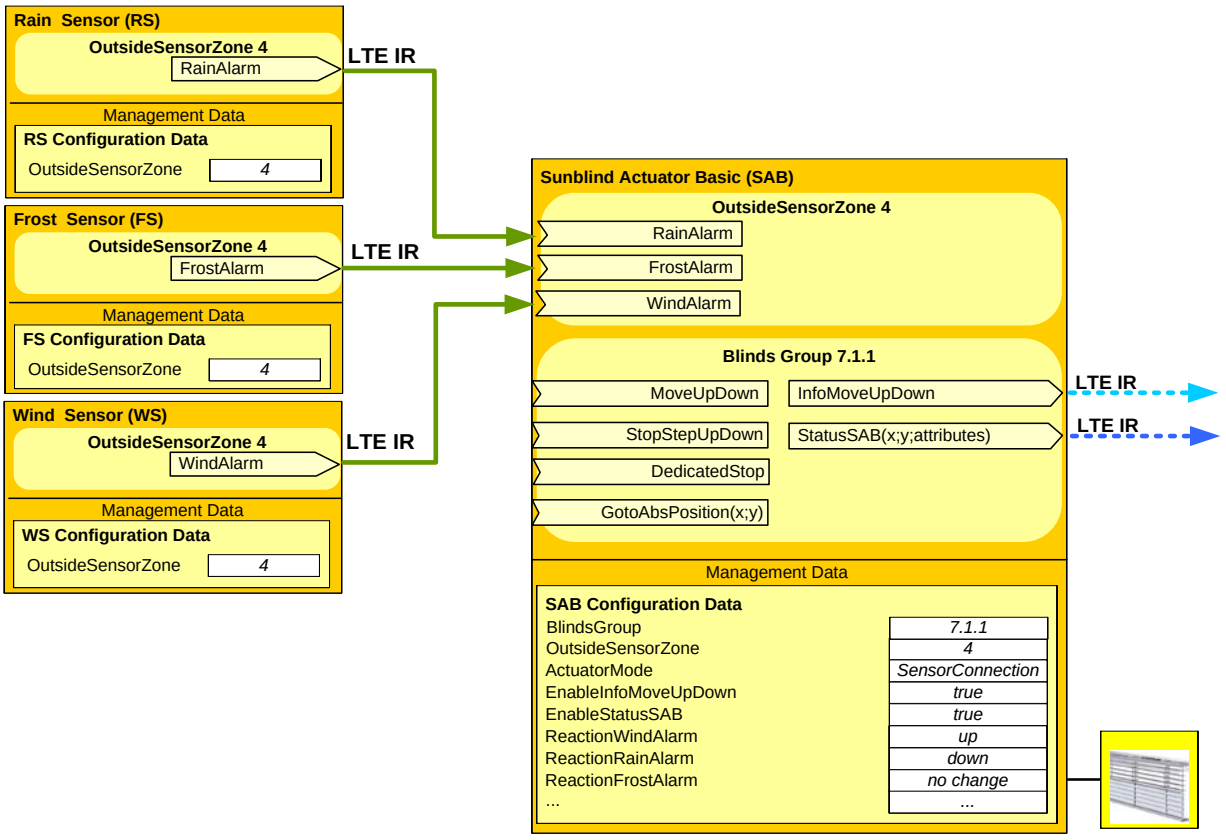

Figure 9 – Weather sensors overriding local SSSB commands

Weather sensors may be connected to the actuator to move the sunblind to a secure position in case of wind / frost / rain alarm and to block it for any further manual control. Weather alarm signals are provided by the corresponding sensor Functional Block using LTE-Mode InfoReport mechanisms in a dedicated OutsideSensorZone.

The behaviour of the actuator in case of a weather alarm is manufacturer specific or may be defined by additional parameters ReactionWindAlarm, ReactionRainAlarm, ReactionFrostAlarm.

In case of wind or frost or rain alarm, all other control commands with lower priority shall not be executed
However weather alarms can be overruled by a prioritized MoveUpDownForced control command, see Figure 8

1.2.2.2 SAB input signals

The Functional Block SAB receives sunblind control commands primarily from FB SSSB and optionally from various other sensor FBs. In addition the sunblind position may be locked or overruled by a Management Station. SAB moves the sunblind accordingly up, down or to a predefined position as well as stops the sunblind movement and steps the slats up/down.

The following SAB control command inputs are used in case of direct sensor-actuator connection:

- **MoveUpDown**: mandatory, low priority LTE-Mode IR input to receive control commands from FB SSSB to move the sunblind up or down
- **StopStepUpDown**: mandatory, low priority LTE-Mode IR input to receive stop/step control commands from FB SSSB. Depending on the received command this control signal triggers:
  - either a stop command if the sunblind is moving
  - or a gradual up/down movement of its slats if the sunblind is not moving
- **DedicatedStop**: optional, low priority LTE-Mode IR input to receive a dedicated control command from FB SSSB to stop movement of the sunblind. This command does not trigger a step to change the position of the slats
- **GotoAbsPosition**: optional, low priority LTE-Mode IR input to receive a dedicated control command from FB SSSB to start moving the sunblind towards the absolute target position specified by the combined command fields HeightPosition (%) and SlatsPosition(%).

  Validity of HeightPosition and SlatsPosition fields is indicated by two dedicated attributes.

  Field SlatsPosition shall be ignored if the actuator is only able to control the height position (e.g. in case of shutter control).

  Field HeightPosition shall be ignored if the actuator is only able to control the angle position of the slats (e.g. control of vertical sunblinds).
- **SetAbsPosBlindsPercentage**: optional, low priority LTE-Mode IR input to receive a dedicated control command from FB SSSB to start moving the blinds towards a target height position (%).

  NOTE 3 In the LTE-Mode implementation control signal SetAbsPosBlindsLength is not supported.
- **SetAbsPosSlatsPercentage**: optional, low priority LTE-Mode IR input to receive a dedicated control command from FB SSSB to move the slats to the target slats-angle position (%).

  NOTE 4 In the LTE-Mode implementation control signal SetAbsPosSlatsDegrees is not supported.
- **NumberedSceneControl**: optional, low priority LTE-Mode IR input to receive numbered scene commands from a scene sensor SCS. This trigger input is used to call and store a maximum of 64 different sunblind positions in the SAB. NumberedSceneControl message is distributed by FB Scene Sensor SCS in a dedicated SceneGroup.

  The number of scenes supported by the actuator can be lower than 64. It is optionally allowed that the functionality of the actuator is solely limited to recalling scenes without teaching.

  Scene configuration parameters:
  - SceneLearningModeEnable defines globally for all scenes if teach-in function is enabled or not
  - SceneNumbers defines a list of Scene Numbers that are supported by FB SAB.

    Each element of the list defines for a dedicated scene:
    - the corresponding SceneNumber (0 to 63)
    - scene active/inactive
    - storage function enable/disable
  - AbsPositionSceneNumber defines the absolute height- and angle- position of the slats for a dedicated scene

  NOTE 5 In the LTE-Mode implementation the Datapoints for binary scene control as well as SceneNumber to recall numbered scenes are not supported.

- **WindAlarm**: optional, medium priority LTE-Mode IR input to receive wind alarm information from FB Wind Sensor WS to start moving the blinds to a secure position and to block it for any further manual control towards as long as the wind alarm is active.

  WindAlarm message is distributed by FB WS in a dedicated OutsideSensorZone

- **RainAlarm**: optional, medium priority LTE-Mode IR input to receive rain alarm information from FB Rain Sensor RS to start moving the blinds to a secure position and to block it for any further manual control towards as long as the rain alarm is active.

  RainAlarm message is distributed by FB RS in a dedicated OutsideSensorZone

- **FrostAlarm**: optional, medium priority LTE-Mode IR input to receive frost alarm information from FB Frost Sensor FS to start moving the blinds to a secure position and to block it for any further manual control towards as long as the frost alarm is active.

  FrostAlarm message is distributed by FB FS in a dedicated OutsideSensorZone

- **MoveUpDownForced**: optional. high priority LTE-Mode W input to be written by e.g. a Building Management Station.

- This control command is used to overrule lower priority inputs by a management client according to the following rules:

Value of MoveUpDownForced	Mandatory behaviour of the actuator
00b, 01b	MoveUpDownForced is inactive. Low priority inputs are active.
10b	high priority forced move up
11b	high priority forced move down

- **LockDevice**: optional, high priority LTE-Mode W input to be written by e.g. a Building Management Station. This control command is used to freeze the actual position of the sunblind by a management client. The specific behaviour related to lock and unlock states and transitions can be controlled with additional parameters.
- **ControlModeUser**: optional LTE-Mode IR input to receive a control command from FB SSSB to indicate whether automatic control or manual control is requested by the room occupant. This process signal is usually intended for the runtime communication between a SSSB and a Shutters & Blinds Controller, see specification of FB SSSB and illustration in clause 1.2.3.1.
- However, from the perspective of the SSSB the Controller behaves like a SAB actuator proxy to emulate traditional direct Sensor – Actuator communication. Therefore input ‘ControlModeUser’ is listed in this document as process signal of actuator proxy FB SAB.

  In case of sophisticated actuators with built in controller functionality this input signal may also be useful on the SAB for direct Sensor - Actuator communication.

In case of direct sensor – actuator connection, the following SAB inputs are generally disabled:

- MoveUpDownCmd,
- StopStepUpDownCmd
- DedicatedStopCmd
- AbsPositionSetp
- AbsHeightPositionSetp
- AbsSlatsPositionSetp

The behaviour is controlled by SAB configuration parameter ActuatorMode

1.2.2.3 Input priority handling

High priority input MoveUpDownForced having the value ‘high priority forced move up’ or ‘high priority forced move down’ shall override the following low priority inputs:

- MoveUpDown,
- StopStepUpDown
- DedicatedStop
- GotoAbsPosition
- SetAbsPosBlindsPercentage
- SetAbsPosSlatsPercentage
- NumberedSceneControl

and the following medium priority inputs:

- WindAlarm
- RainAlarm
- FrostAlarm.

Groups of inputs with the same priority shall be processed independently from each other, i.e. the last message notification to an input shall be executed.

Medium priority alarm states from weather sensors shall inhibit lower priority control commands, see above.

High priority input LockDevice shall inhibit all low and medium priority inputs.

Priority of input LockDevice vs. input MoveUpDownForced: the behaviour is manufacturer specific.

1.2.2.4 SAB output signals

- **InfoMoveUpDown**: optional LTE-Mode IR output to indicate the last moving direction of the sunblind actuator. Transmission of this output signal is triggered by COV only (no heartbeat).This information can be used solely for visualization purposes or for implementing the toggle functionality in the SSSB.Spontaneous transmission of InfoMoveUpDown in the LTE-Mode runtime system may be enabled or disabled via configuration parameter EnableInfoMoveUpDown. However the value of InfoMoveUpDown is always accessible via Property Read service.
- **StatusSAB:** mandatory LTE-Mode IR output to indicate the current status of the sunblind actuator.
  - HeightPosition: actual height position represented as percentage value
  - SlatsPosition: actual slats-angle represented as percentage value
  - Attributes (bitset):
    - ValidHeightPos: to indicate the reliability of field HeightPosition
    - ValidSlatsPos: to indicate the reliability of field SlatsPosition
    - UpperEndPos: to indicate if the sunblind has reached the upper end position
    - LowerEndPos: to indicate if the sunblind has reached the lower end position
    - LowerPredefPos: to indicate if the sunblind has reached the lower predefined position (typically height 100 %, slats-angle <100 %)
    - DriveState: to indicate if the sunblind has reached the target position or if it is moving
    - TargetHPosRestrict to indicate that the target height position cannot be reached due to some limitation of the moving range
    - TargetSPosRestrict to indicate that the target slats-angle position cannot be reached due to some limitation of the moving range
    - WeatherAlarm: to indicate if at least one of the inputs Wind-/Rain-/Frost-Alarm is ‘in alarm’
    - Forced: to indicate if up/down position is forced by MoveUpDownForced input
    - Locked: to indicate if movement is locked, e.g. by DeviceLocked input
    - LocalOverride: to indicate if the actuator setvalue is locally overridden, e.g. via a local user interface
    - Failure to indicate a general failure of the actuator or the connected drive

  StatusSAB shall be transmitted when the drive has stopped a movement. SAB may optionally transmit intermediate updates of StatusSAB while moving. StatusSAB is cyclically repeated (heartbeat).

  This information can be used solely for visualization purposes or for any other purpose.

  Spontaneous transmission of StatusSAB in the LTE-Mode runtime system may be enabled or disabled via configuration parameter EnableStatusSAB. However the value of StatusSAB is always accessible via Property Read service.
- **ControlModeEff***:* optional LTE-Mode IR output to indicate if manual or automatic control is currently active in the BlindsGroup. This process signal is usually intended for the runtime communication between a SSSB and a Shutters & Blinds Controller, see specification of FB SSSB and illustration in clause 1.2.3.1.

  However, from the perspective of the SSSB the Controller behaves like a SAB actuator proxy to emulate traditional direct Sensor – Actuator communication. Therefore output ‘ControlModeEff’ is listed in this document as process signal of actuator proxy FB SAB.

In case of sophisticated actuators with built in controller functionality this signal may also be useful on the SAB for direct Sensor - Actuator communication.

1.2.3 Application model for sensor – controller – actuator binding

1.2.3.1 Illustrations

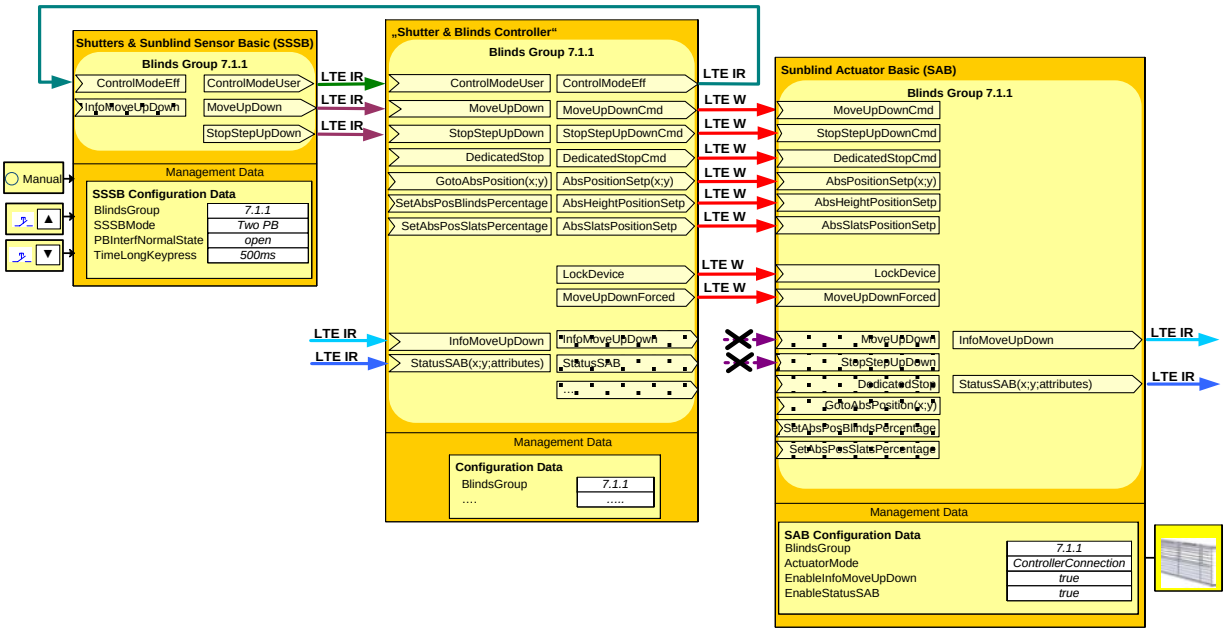

Figure 10 – Sunblind sensor – controller – actuator model: basic features

Figure 10 illustrates the basic application model for indirect binding of Sunblind Sensor SSSB with a Sunblind Actuator SAB via a Shutter & Blinds Controller.

The application model supports binding of SSSB – Controller - SAB in the same LTE-Mode BlindsGroup. However it is possible to configure separate BlindsGroups for SSSB - Controller and Controller-SAB bindings.

Runtime interworking SSSB – Controller

The LTE-Mode Shutter & Blinds application model does not define a dedicated 'Shutter & Blinds Controller' FB. The design and runtime interface of the Shutter & Blinds Controller is manufacturer specific. However in the runtime system, the Shutter & Blinds Controller shall emulate a Sunblind Actuator 'proxy SAB' as the counterpart for the Sunblind Sensors SSSB.

Sunblind Sensors SSSB are connected to the Controller to notify direct control commands requested by the room occupant (manual control). The runtime interface between SSSB and the Controller is the same as for sensor – actuator binding ⇒ see 1.2.2.

Inputs **MoveUpDown**, **StopStepUpDown**, **DedicatedStop** etc. on the Controller are usually processed with the same priority (last wins principle).

In addition the SSSB may provide the optional signal **ControlModeUser** representing a request by the user to change from manual to automatic control mode (and vice versa). The Controller provides the current control mode **ControlModeEff** (automatic/manual) as optional feedback information for the SSSB. For further details: see specification of FB SSSB and the statements in 1.2.2.2 and 1.2.2.4

The Controller determines the resulting control command to change the setpoint of the connected SAB according to control commands from SSSB and other criteria (e.g. scheduler, room occupancy etc.).

Runtime interworking Controller- SAB:

Direct control commands **MoveUpDownCmd, StopStepUpDownCmd, DedicatedStopCmd** are introduced on the SAB

- to trigger up/down movement of the sunblind
- to stop movement
- to perform a gradual up/down movement of the slats

The commands are sent to the SAB using LTE-Mode Write Service [1)] and are executed by the actuator with the same low priority (last wins principle).

SAB inputs **AbsPositionSetp**(x;y), **AbsHeightPositionSetp, AbsSlatsPositionSetp** are introduced with the purpose to move the sunblind towards an absolute position specified by the HeightPosition (%) and SlatsPosition (%)
The commands are sent to the SAB using LTE-Mode Write Service [1)] and are executed by the actuator with the same low priority (last wins principle)

The Controller may trigger a forced up or down movement of the sunblind via prioritized control command **MoveUpDownForced** using LTE-Mode Write Service; ⇒ see 1.2.2, Figure 8 Lower priority control command inputs on the SAB are overruled as long as the 'forced' attribute in MoveUpDown-Forced is set. If the 'forced' attribute is reset, the sunblind actuator can be controlled via lower priority inputs again.

The Controller may freeze the actual state of the actuator via control command **LockDevice** using LTE-Mode Write Service ⇒ see 1.2.2, Figure 8

The following SAB inputs are generally disabled to inhibit all direct control commands from SSSB:

- MoveUpDown
- StopStepUpDown
- DedicatedStop
- GotoAbsPosition
- SetAbsPosBlindsPercentage
- SetAbsPosSlatsPercentage

These inputs are disabled on the SAB via configuration parameter ActuatorMode.

SAB status information:

Same behaviour as for SSSB – SAB binding

⇒ see 1.2.2, Figure 6

Usually actuator status information is provided by one SAB only (configured to act as group-speaker).

SAB status information may be received by the Controller and the SSSB as well, if SSSB – Controller - SAB are connected via the same LTE-Mode BlindsGroup. Otherwise the Controller may act as an actuator proxy to route SAB status information to the SSSB in a different BlindsGroup; see example in Figure 11.

1) Please note that LTE Mode Write Service addresses the destination FB of the receiver (in this example the SAB) whereas LTE-Mode InfoReport Service contains the source FB of the sender.

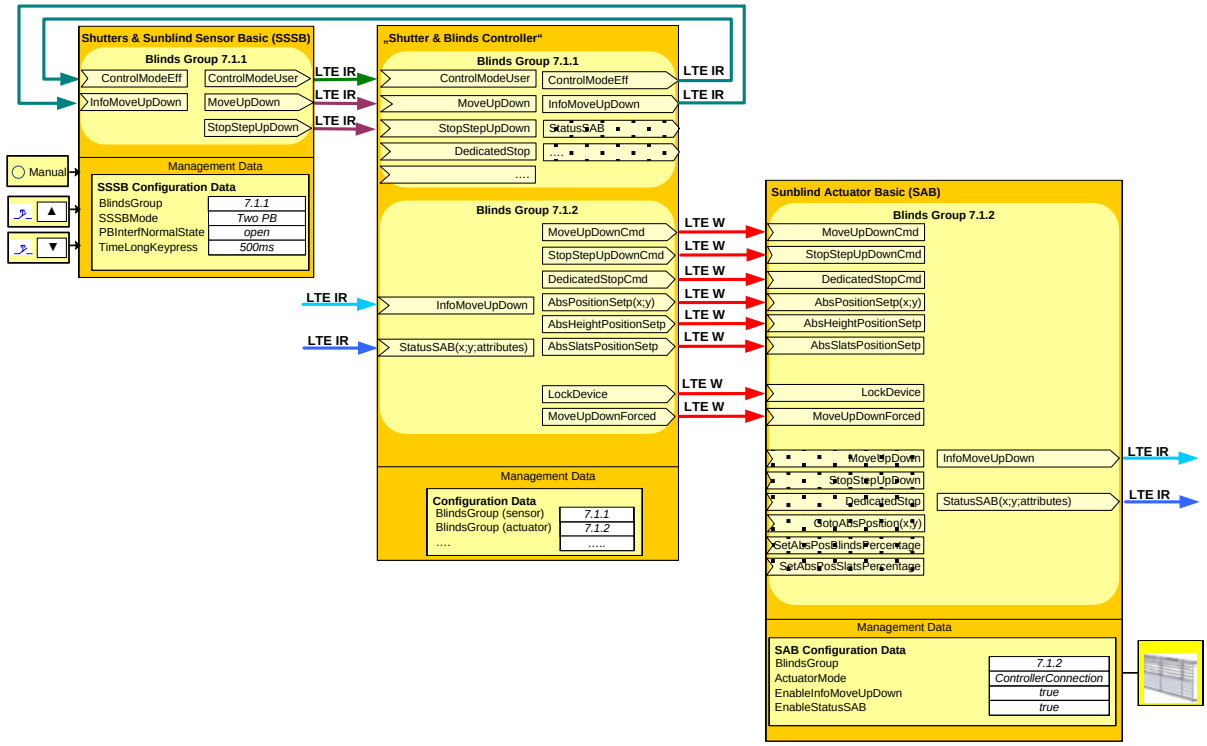

Figure 11 – Example with separate BlindsGroups for sensors and actuators

Figure 11 illustrates binding of sensors and actuators with the Controller via separate BlindsGroups.

- SSSB is connected to the Controller via in BlindsGroup 7.1.1.
- SAB is connected to the Controller via in BlindsGroup 7.1.2.

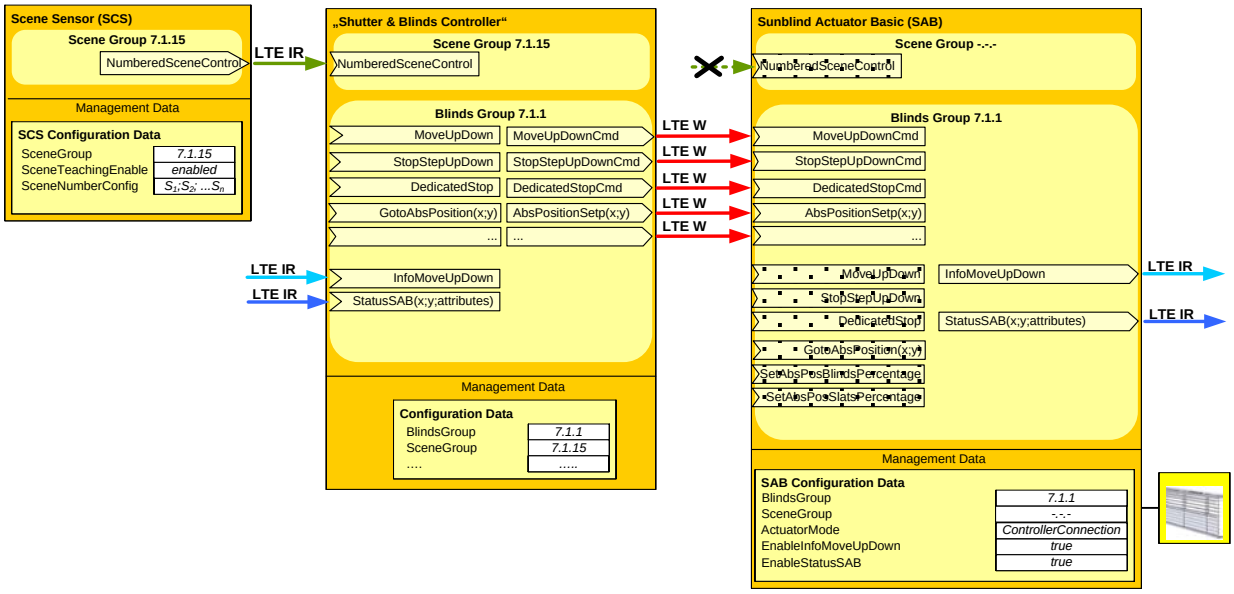

Figure 12 – Execution of Scene commands by the Controller

Figure 12 illustrates the binding of the Controller with a Scene Sensor SCS (see [01]).

SCS provides NumberedSceneControl information to recall or teach-in a scene. NumberedSceneControl message is distributed using LTE-Mode InfoReport mechanisms in a dedicated SceneGroup. In the LTE-Mode runtime system SceneGroup is mapped to existing LTE-Mode Geographical zones.

NumberedSceneControl command is received and processed by the Controller. Mapping of NumberedSceneControl command to scene number specific actuator states is handled by the Controller. The corresponding control commands are sent to the sunblind actuators that are affected by the scene command.

Input NumberedSceneControl on the SAB shall be disabled via SceneGroup to be configured with the value ‘OutOfService’

This is the preferred model to handle scenes by the Controller. Parallel SAB in a BlindsGroup are controlled in the same way and therefore actuator feedback information of the group-speaker represents the state of all actuators in the BlindsGroup.

Alternative scene control model:

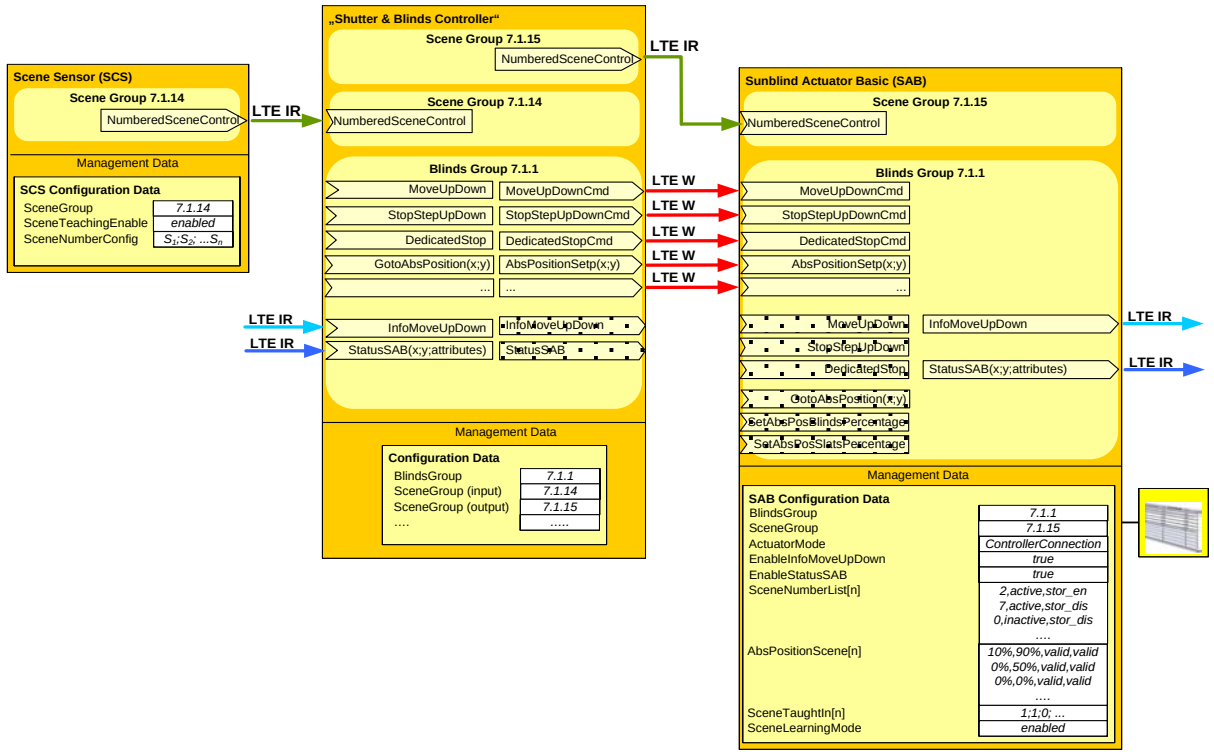

Figure 13 – Combined execution of Scene commands by the Controller and Actuator

Figure 13 illustrates an alternative solution to handle scenes by the Controller and the Actuator in a combined way.

Scene Sensor SCS and Sunblind Actuators shall belong to separate SceneGroups to inhibit direct communication between the SCS and the SAB.

NumberedSceneControl command from the SCS is received by the Controller and may be further processed and propagated to specific Sunblind Actuators. Transformation of the NumberedSceneControl command by the Controller includes a mapping of scene numbers and scene groups.

The Controller acts as a proxy SCS and generates corresponding NumberedSceneControl command using LTE-Mode InfoReport Service.

NumberedSceneControl command is received and processed by the SABs belonging to that SceneGroup; See description of Figure 7.
Execution of the scene command by the SAB depends on local scene configuration parameters. Therefore multiple SAB in the same BlindsGroup may react differently. In this case actuator status information of the group-speaker will not represent the state of all SAB in the BlindsGroup.

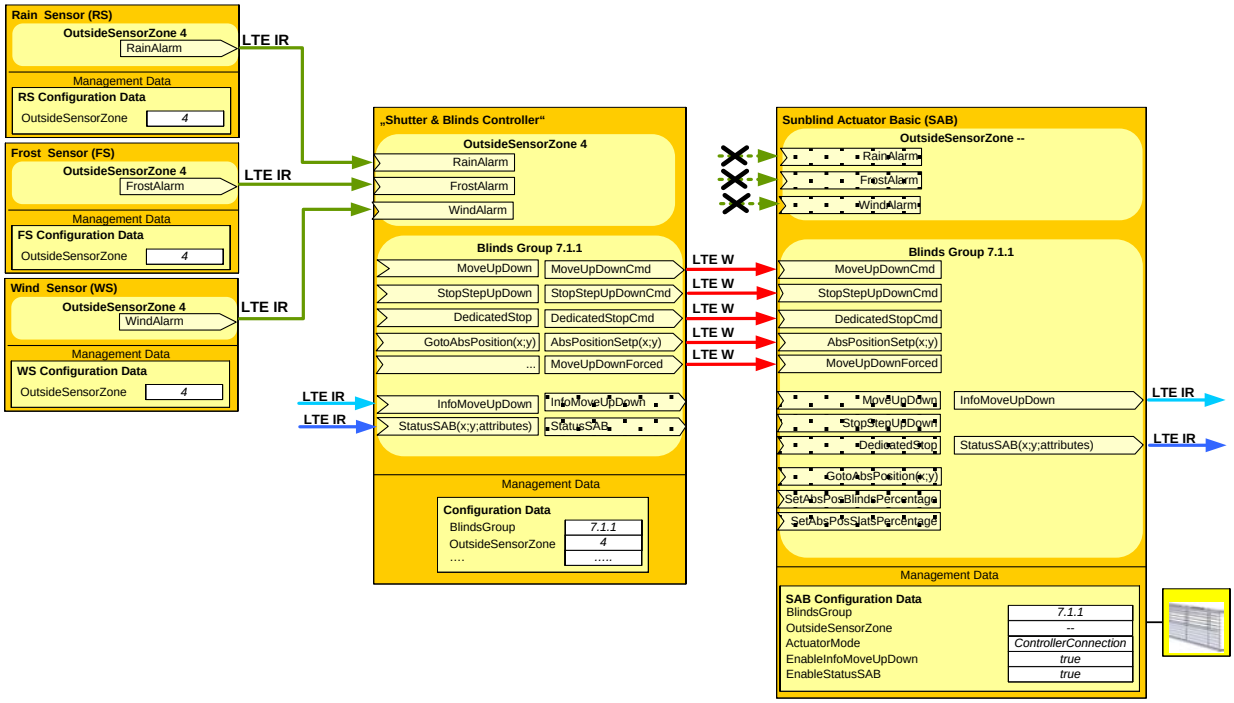

Figure 14 – Connection of weather sensors

Weather sensors may be connected to the Controller to indicate that the sunblind should be moved to a secure position in case of wind / frost / rain alarm and to block it for any further manual control. Weather alarm signals are provided by the corresponding sensor Functional Block using LTE-Mode InfoReport mechanisms in a dedicated OutsideSensorZone.

The Controller determines the resulting control command (e.g. MoveUpDownForced) to move the sunblind to a secure position. The behaviour of the Controller in case of a weather alarm is manufacturer specific.

Weather alarm inputs on the SAB shall be disabled via OutsideSensorZone to be configured with the value ‘OutOfService’

1.2.3.2 SAB input signals

SAB provides various inputs to control the position of the sunblind and the angle of the slats by the connected Controller. The application program of the actuator prioritizes the different inputs to determine the resulting actuator setpoint.

- **MoveUpDownCmd**: mandatory, low priority LTE-Mode W input to trigger up or down movement of the sunblind

  ⇒ same behaviour as MoveUpDown LTE-Mode IR command from SSSB.

- **StopStepUpDownCmd**: mandatory, low priority LTE-Mode W input. Depending on the received command this control signal triggers:

  - either a stop command if the sunblind is moving
  - or a gradual up/down movement of its slats if the sunblind is not moving

  ⇒ same behaviour as StopStepUpDown LTE-Mode IR command from SSSB

- **DedicatedStopCmd**: optional, low priority LTE-Mode W to stop movement of the sunblind. This command does not trigger a step to change the position of the slats.

  ⇒ same behaviour as DedicatedStop LTE-Mode IR command from SSSB

- **AbsPositionSetp**: optional, low priority LTE-Mode W input to set the absolute target position of the sunblind and the slats specified by the combined command fields HeightPosition (%) and SlatsPosition (%).Validity of HeightPosition and SlatsPosition fields is indicated by two dedicated attributes.

  ⇒ same behaviour as GotoAbsPosition LTE-Mode IR input from SSSB

- **AbsHeightPositionSetp**: optional, low priority LTE-Mode W input to control the HeightPosition (%) of the sunblind only

  ⇒ same behaviour as SetAbsPosBlindsPercentage LTE-Mode IR input from SSSB

- **AbsSlatsPositionSetp**: optional, low priority LTE-Mode W input to control the SlatsPosition (%) only

  ⇒ same behaviour as SetAbsPosSlatsPercentage LTE-Mode IR input from SSSB

- **LockDevice**: same functionality as described in clause 1.2.2.2

- **MoveUpDownForced**: same functionality as described in clause 1.2.2.2

- **NumberedSceneControl**: optional, low priority LTE-Mode IR input to receive numbered scene commands from the Controller emulating a scene sensor SCS

  ⇒ same functionality as described in clause 1.2.2.2

  ⇒ execution of numbered scene commands is not recommended if the SAB is connected to a Controller

If the SAB is connected to a Controller, the following SAB LTE-Mode IR inputs are generally disabled via parameter ActuatorMode:

- MoveUpDown
- StopStepUpDown
- DedicatedStop
- GotoAbsPosition
- SetAbsPosBlindsPercentage
- SetAbsPosSlatsPercentage
- ControlModeUser

It is highly recommended to connect weather alarm sensors to the Controller only and to disable the corresponding inputs WindAlarm, RainAlarm, FrostAlarm on the SAB by setting the parameter OutsideSensorZone to the value 'OutOfService'

1.2.3.3 Input priority handling

Groups of inputs with the same priority shall be processed independently from each other, i.e. the last message notification to an input shall be executed. The actuator drive model calculates the resulting TargetPosition of the sunblind which may be represented and accessible via an optional local Property.

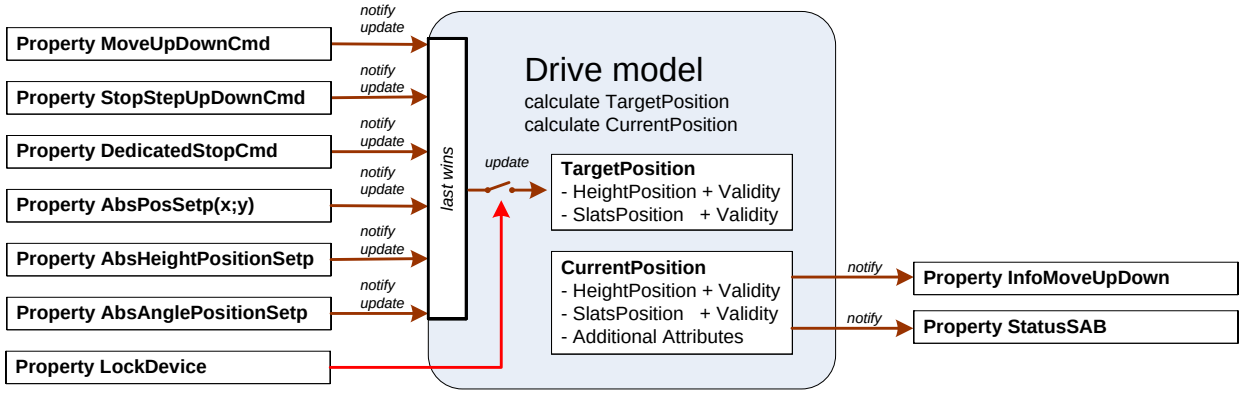

Figure 15 – Example of input priority handling

High priority input MoveUpDownForced having the value 'high priority forced move up' or 'high priority forced move down' shall overrule the following low priority LTE-Mode W inputs:

- MoveUpDownCmd,
- StopStepUpDownCmd
- DedicatedStopCmd
- AbsPositionSetp
- AbsHeightPositionSetp
- AbsSlatsPositionSetp

Priority of inputs LockDevice vs. input MoveUpDownForced: the behaviour is manufacturer specific.

1.2.3.4 SAB Output signals

Same functionality as specified in 1.2.2.4

1.3 Functional Block diagram

FB Sunblind Actuator Basic (SAB)	800
Inputs	**Outputs**
Binding Grp.: BlindsGroup (Geographical)	
IR: SSSB.MoveUpDown	IR: InfoMoveUpDown
IR: SSSB.StopStepUpDown	IR: StatusSAB
IR: SSSB.DedicatedStop	IR: ControlModeEff
IR: SSSB.SetAbsPosBlindsPercentage	
IR: SSSB.SetAbsPosSlatsPercentage	
IR: SSSB.GotoAbsPosition	
IR: SSSB.ControlModeUser	
W: MoveUpDownCmd	
W: StopStepUpDownCmd	
W: DedicatedStopCmd	
W: LockDevice	
W: MoveUpDownForced	
W: AbsHeightPositionSetp	
W: AbsSlatsPositionSetp	
W: AbsPositionSetp	
Binding Grp.: SceneGroup (Geographical)	
IR: SCS.NumberedSceneControl	
Binding Grp.: OutsideSensorZone	
IR: WS.WindAlarm	
IR: RS.RainAlarm	
IR: FS.FrostAlarm	

additional I/Os	**Parameters**
-	BlindsGroup (Geographical)
	SceneGroup
	OutsideSensorZone
	ActuatorMode
	EnableInfoMoveUpDown
	EnableStatusSAB
	MoveDownTime + MoveUpTime
	AdditionalMoveTime
	ReversionPauseTime
	SlatStepTime
	MaximumSlatMoveTime + NumberOfSlatSteps
	PowerReturnMode + PowerReturnValue
	BusFailureMode + BusFailureValue
	BusReturnMode + BusReturnValue
	PowerFailureMode
	BehaviourAtLocking + LockSetvalue
	BehaviourAtUnlocking + UnlockSetvalue
	SceneLearningModeEnable
	SceneNumberList[n]
	SceneTaughtIn[n]
	AbsPositionScene[n]
	EnableBlindsMode
	ReactionWindAlarm
	ReactionRainAlarm
	ReactionFrostAlarm
	TimeoutWindAlarm
	TimeoutRainAlarm
	TimeoutFrostAlarm

mandatory optional IR: LTE-Mode InfoReport W: LTE-Mode Write

Figure 16 – Functional Block Diagram for FB Shutters and blinds sunblind Sensor Basic

NOTE 6 The LTE-Mode Write Service addresses the destination FB of the receiver (i.e. SAB for the MoveUpDownCmd input) whereas LTE-Mode InfoReport Service contains the source FB of the sender (i.e. SCS for the NumberedSceneControl input). Therefore all LTE-Mode W inputs are directly addressing local properties of the SAB. For further details: see LTE-Mode Specification in [04].

1.4 Datapoints

Datapoint	Description	Datapoint Type	SAB PID
Inputs			
SSSB.MoveUpDown	Request from a Sunblind Sensor SSSB to move the blinds up (=0) or down (=1)	DPT_UpDown (1.008)	SSSB PID 61
SSSB.StopStepUpDown	Request from a Sunblind Sensor SSSB to stop movement of the sunblind or to perform a step Up/Down	DPT_Step (1.007)	SSSB PID 62
SSSB.DedicatedStop	Request from a Sunblind Sensor SSSB to stop movement of the shutter	DPT_Trigger (1.017)	SSSB PID 63
SSSB.SetAbsPosBlinds Percentage	Request from a Sunblind Sensor SSSB to set the absolute position of the blinds in percentage.	DPT_Scaling (5.001)	SSSB PID 65
SSSB.SetAbsPos SlatsPercentage	Request from a Sunblind Sensor SSSB to set the absolute position of the slats in percentage.	DPT_Scaling (5.001)	SSSB PID 66
SSSB.GotoAbsPosition	Request from a Sunblind Sensor SSSB to start moving the blinds towards the absolute position specified by the combined command fields HeightPosition (%) and SlatsPosition (%) Validity of the individual command fields is indicated by two additional attributes	DPT_CombinedPosition (240.800)	SSSB PID 67
SSSB.ControlModeUser	Request from a Sunblind Sensor SSSB to select automatic or manual control of the sunblind	DPT_BlindsControlMode (20.804)	SSSB PID 64
SCS.NumberedSceneControl	Trigger form a Scene Sensor or a Controller (sender FB SCS) to recall or learn the output state related to the encoded scene number	DPT_SceneControl (18.001)	SCS PID 51
WS.WindAlarm	Indication from a Wind Sensor to move the sunblind to a secure position in case of strong wind and to block it for any further control. The secure position can be controlled by an additional parameter	DPT_Alarm (1.005)	WS PID 51
FS.FrostAlarm	Indication from a Frost Sensor to move the sunblind to a secure position in case of frost alarm and to block it for any further control. The secure position can be controlled by an additional parameter	DPT_Alarm (1.005)	FS PID 51
RS.RainAlarm	Indication from a Rain Sensor to move the sunblind to a secure position in case of rain alarm and to block it for any further control. The secure position can be controlled by an additional parameter	DPT_Alarm (1.005)	RS PID 51
MoveUpDownCmd	Input to be written by a Controller to trigger up (=0) or down (=1) movement of the sunblind	DPT_UpDown (1.008)	PID 61
StopStepUpDownCmd	Input to be written by a Controller to stop movement of the sunblind or to perform a step up/down	DPT_Step (1.007)	PID 62

Datapoint	Description	Datapoint Type	SAB PID
Inputs			
DedicatedStopCmd	Input to be written by a Controller to stop movement of the shutter	DPT_Trigger (1.017)	PID 63
MoveUpDownForced	Input to be written by a Controller or by a BMS to move the sunblind to a forced up or down position and to block it for any further control	DPT_Direction1_Control (2.008)	PID 65
AbsHeightPositionSetp	Input to be written by a Controller to control the HeightPosition (%) of the sunblind.	DPT_Scaling (5.001)	PID 66
AbsSlatsPositionSetp	Input to be written by a Controller to control the angle position (%) of the slats	DPT_Scaling (5.001)	PID 67
AbsPositionSetp	Input to be written by a Controller to start moving the blinds towards the absolute position specified by the combined command fields HeightPosition (%) and SlatsPosition (%) Validity of the individual command fields is indicated by two additional attributes	DPT_CombinedPosition (240.800)	PID 68
LockDevice	Input to freeze the actual setpoint of the actuator e.g. by a Controller or by a BMS. The specific behaviour related to lock and unlock states and transitions can be controlled with additional parameters	DPT_Enable (1.003)	PID 69

Datapoint	Description	Datapoint Type	SAB PID
Outputs			
InfoMoveUpDown	Feedback information from the actuator to indicate the last moving direction	DPT_UpDown (1.008)	PID 51
StatusSAB	Feedback information from the actuator to indicate - current HeightPosition - current SlatsPosition - various attributes	DPT_StatusSAB (241.800)	PID 52
ControlModeEff	Feedback information from the actuator to indicate if manual or automatic control is currently active in the BlindsGroup	DPT_BlindsControlMode (20.804)	PID 54

Datapoint	Description	Datapoint Type	SAB PID
Parameters			
BlindsGroup (3 Properties)	LTE-Mode Geographical Zone - Building zone like Floor, Apartment - Room within the Building zone - Subzone within the Room	- DPT_UcountValue8_Z (202.002) - DPT_UcountValue8_Z (202.002) - DPT_UcountValue8_Z (202.002)	PID 101-103
SceneGroup (3 Properties)	LTE-Mode Geographical Zone - Building zone like Floor, Apartment - Room within the Building zone - Subzone within the Room	- DPT_UcountValue8_Z (202.002) - DPT_UcountValue8_Z (202.002) - DPT_UcountValue8_Z	PID 104-106

Datapoint	Description	Datapoint Type	SAB PID
Parameters			
		(202.002)	
OutsideSensorZone	LTE-Mode Zone for Wind, Rain, Frost Alarm sensors	- DPT_UcountValue8_Z (202.002)	PID 107
ActuatorMode	Parameter to define whether the Actuator is connected to a Sensor (SSSB) or to a Controller 1: SensorConnection 2: ControllerConnection	DPT_ActuatorConnectType (20.020)	PID 110
EnableInfoMoveUpDown	Parameter to enable or disable transmission of actuator state InfoMoveUpDown	DPT_Enable (1.003)	PID 111
EnableStatusSAB	Parameter to enable or disable transmission of actuator state StatusSAB	DPT_Enable (1.003)	PID 112
MoveDownTime	Time to move the sunblind from the final upper to the final lower position.	DPT_TimePeriodSec (7.005)	PID 113
MoveUpTime	Time to move the sunblind from the final lower to the final upper position.	DPT_TimePeriodSec (7.005)	PID 114
AdditionalMoveTime	Additional time to move the sunblind from the upper/lower position to the end- switch position	DPT_TimePeriodSec (7.005)	PID 115
ReversionPauseTime	Stop Time before changing the moving direction	DPT_TimePeriodMsec (7.002)	PID 116
SlatStepTime	Time to move the slat for one step.	DPT_TimePeriodMsec (7.002)	PID 117
NumberOfSlatSteps	Number of steps to move the slats from the final upper 0 % to the final lower 100 % position	DPT_Value_1_Ucount (5.010)	PID 118
MaximumSlatMoveTime	Time to move the slats from the final upper 0 % to the final lower 100 % position	DPT_TimePeriodMsec (7.002)	PID 119
PowerReturnMode	Parameter to define the behaviour of the actuator after return of the supply power or after a restart of the application: - 0 = up - 1 = down - 2 = no change - 3 = value according additional parameter ⇒ PowerReturnValue - 4 = stop	DPT_SABExceptBehaviour (20.801)	PID 120
PowerReturnValue	Parameter in addition to parameter PowerReturnMode = 3; to define the HeightPosition (%) and SlatsPosition (%)after power return	DPT_CombinedPosition (240.800)	PID 121
BusFailureMode	Parameter to define the behaviour of the actuator in case of a bus failure: - 0 = up - 1 = down - 2 = no change - 3 = value according additional parameter ⇒ BusFailureValue - 4 = stop	DPT_SABExceptBehaviour (20.801)	PID 122

Datapoint	Description	Datapoint Type	SAB PID
Parameters			
BusFailureValue	Parameter in addition to parameter BusFailureMode = 3; to define the behaviour in case of a bus failure	DPT_CombinedPosition (240.800)	PID 123
BusReturnMode	Parameter to define the behaviour of the actuator in case of a recovery of the bus: - 0 = up - 1 = down - 2 = no change - 3 = value according additional parameter ⇒ BusReturnValue - 4 = stop	DPT_SABExceptBehaviour (20.801)	PID 124
BusReturnValue	Parameter in addition to parameter BusReturnMode = 3; to define the behaviour after a recovery of the bus.	DPT_CombinedPosition (240.800)	PID 125
PowerFailureMode	Parameter to define the behaviour of the actuator in case of the supply power failure, to switch e.g. a bistable relay before power down of the device: - 0 = up - 1 = down - 2 = no change - 4 = stop	DPT_SABExceptBehaviour (20.801)	PID 126
BehaviourAtLocking	Parameter to define the behaviour of the actuator in case of input LockDevice changing from false -> true: - 0 = up - 1 = down - 2 = no change - 3 = value according to parameter LockSetvalue - 4 = stop	DPT_SABBehaviour_Lock_Unlock (20.802)	PID 127
LockSetvalue	Parameter in addition to parameter BehaviourAtLocking = 3; to define the behaviour at the beginning of the lock state	DPT_CombinedPosition (240.800)	PID 128
BehaviourAtUnlocking	Parameter to define the behaviour of the actuator in case of input LockDevice changing from true -> false: - 0 = up - 1 = down - 2 = no change - 3 = value according to parameter UnlockSetvalue - 5 = updated value - 6 = value before locking	DPT_SABBehaviour_Lock_Unlock (20.802)	PID 129
UnlockSetvalue	Parameter in addition to parameter BehaviourAtUnlocking = 3; to define the behaviour at the end of the lock state	DPT_CombinedPosition (240.800)	PID 130
SceneLearningModeEna	Enables or disables globally for all	DPT_Enable (1.003)	PID 131

Datapoint	Description	Datapoint Type	SAB PID
Parameters			
ble	scene numbers the learning of new scenes, regardless of the value of any field Storage Function of the Scene Index in the Parameter SceneNumbers.		
SceneNumberList[n]	List of Scene Numbers that are supported by this FB SAB. This parameter is implemented as an array property with n (up to 64) elements. This list shall allow linking a Scene Number to a Scene Index within the FB. Each array element defines for a dedicated scene: SceneNumber (0 to 63) activation/inactivation storage function enable/disable	DPT_SceneConfig (238.001)	PID 132
SceneTaughtIn[n]	This parameter is implemented as an array property with n (up to 64) elements. Each element indicates for a dedicated scene, whether the scene n has been taught in or not	DPT_BOOL	PID 133
AbsPositionScene[n]	This parameter is implemented as an array property with n (up to 64) elements. Each element defines the height and slats-angle position and validity attributes for a dedicated scene	DPT_CombinedPosition (240.800)	PID 134
EnableBlindsMode	Determines whether the actuator functions as a blinds actuator (with slats) or only as a shutter actuator (no slats –> step command is interpreted as stop)	DPT_Enable (1.003)	PID 135
ReactionWindAlarm	Defines the behaviour of the actuator in case of a wind alarm whether to move the sunblind to final upper or final lower position or no reaction	DPT_Alarm_Reaction (23.002)	PID 140
ReactionRainAlarm	Defines the behaviour of the actuator in case of a rain alarm whether to move the sunblind to final upper or final lower position or no reaction	DPT_Alarm_Reaction (23.002)	PID 141
ReactionFrostAlarm	Defines the behaviour of the actuator in case of a frost alarm whether to move the sunblind to final upper or final lower position or no reaction	DPT_Alarm_Reaction (23.002)	PID 142
TimeoutWindAlarm	Defines the timeout period for receiving a message on input WindAlarm.	DPT_TimePeriodMin (7.006)	PID 143
TimeoutRainAlarm	Defines the timeout period for receiving a message on input RainAlarm.	DPT_TimePeriodMin (7.006)	PID 144
TimeoutFrostAlarm	Defines the timeout period for receiving a message on input FrostAlarm.	DPT_TimePeriodMin (7.006)	PID 145

Table 1 - support of LTE-Mode runtime process data

		ActuatorMode	
		SensorConnection	**ControllerConnection**
Inputs	SSSB.MoveUpDown	M	NA
	SSSB.StopStepUpDown	M	NA
	SSSB.DedicatedStop	O	NA
	SSSB.SetAbsPosBlindsPercentage	O	NA
	SSSB.SetAbsPosSlatsPercentage	O	NA
	SSSB.GotoAbsPosition	O	NA
	SSSB.ControlModeUser 2)	O	NA
	SCS.NumberedSceneControl	O	O
	WS.WindAlarm	O	O
	RS.RainAlarm	O	O
	FS.FrostAlarm	O	O
	MoveUpDownCmd	NA	M
	StopStepUpDownCmd	NA	M
	DedicatedStopCmd	NA	O
	LockDevice	O	O
	MoveUpDownForced	O	O
	AbsHeightPositionSetp	NA	O
	AbsSlatsPositionSetp	NA	O
	AbsPositionSetp	NA	O
Outputs	InfoMoveUpDown	O	O
	StatusSAB	M	M
	ControlModeEff 2)	O	O

2) Process signals ‘ControlModeUser’ and ‘ControlModeEff’ are usually intended for the runtime communication between a SSSB and a Shutters & Blinds Controller, see specification of FB SSSB. However, from the perspective of the SSSB the Controller behaves like a SAB actuator proxy to emulate traditional direct Sensor – Actuator communication. Therefore input ‘ControlModeUser’ and output ‘ControlModeEff’ are listed in this document as process signals of actuator proxy FB SAB. In case of sophisticated actuators with built in controller functionality these signals may also be useful on the SAB for direct Sensor - Actuator communication. In case of Sensor - Controller – Actuator communication, the SAB in the Actuator shall disable these process signals.

Table 2 - LTE-Mode specific Properties

		Support
Parameter	BlindsGroup	M
	SceneGroup	O
	OutsideSensorZone	O
	ActuatorMode	M
	EnableInfoMoveUpDown	O
	EnableStatusSAB	M

Table 3 - Standard Properties of Interface Object

		Support
Parameter	MoveDownTime	O
	MoveUpTime	O
	AdditionalMoveTime	O
	ReversionPauseTime	O
	SlatStepTime	O
	NumberOfSlatSteps	O
	MaximumSlatMoveTime	O
	PowerReturnMode	O
	PowerReturnValue	O
	BusFailureMode	O
	BusFailureValue	O
	BusReturnMode	O
	BusReturnValue	O
	PowerFailureMode	O
	BehaviourAtLocking	O
	LockSetvalue	O
	BehaviourAtUnlocking	O
	UnlockSetvalue	O
	SceneLearningModeEnable	O
	SceneNumberList[n]	O
	SceneTaughtIn[n]	O
	AbsPositionScene[n]	O
	EnableBlindsMode	O
	ReactionWindAlarm	O
	ReactionRainAlarm	O
	ReactionFrostAlarm	O
	TimeoutWindAlarm	O
	TimeoutRainAlarm	O
	TimeoutFrostAlarm	O
Diagnostic Data	--	

1.5 Detailed specification of the Datapoints

1.5.1 Output InfoMoveUpDown

FB: SAB	**LTE-Mode Server Output Name:** InfoMoveUpDown	Mandatory ☐ Optional ☒

Description:

The output InfoMoveUpDown provides feedback information from the actuator to indicate the last moving direction.
The message shall be sent when the sunblind starts moving and not when entering in the state stepping.
This information can be used solely for visualization purposes or for implementing the toggle functionality in the SSSB or for other purposes.

DPT:	Name	DPT_UpDown	DPT ID	1.008	Datatype format	B_1

Field	Description	Sup.	Range	Unit	COV	Default
b	This field shall indicate the moving direction up (0) or down (1)	M	{0, 1}	-	-	-

Communication:

Binding Group:

Class	Type	Default
Geographical ☒	BuildingZone.Room.Subzone	cs (see parameter BlindsGroup)
Application Specific ☐		
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID): 800 (SAB)		Property ID: 51	
LTE-Mode-Services (event): InfoReport ☒ (LTE-Mode Read-Response polling of the output shall always be supported)	COV ☒	MinRepTime: -- sec	Heartbeat: -- min	
	Output per default communicating ☒		Binding Group Wildcard allowed ☐	
	Tx Prio:	High ☐	Normal ☒	Low ☐
	Transm after Powerup: Stored Value ☒	Act Value ☐	Default Value ☐	
Property-Service (individual access):	Read only ☒	Read/Write ☐		

Exception Handling:	Save at Powerdown ☒
--	

Special Features:

- If multiple actuators are in the same zone, each actuator may send its own InfoMoveUpDown message. Since all actuators in the same zone are controlled together, subsequent InfoMoveUpDown feedback messages from parallel actuators would be identical ⇒ last wins principle on the receivers.
- Group speaker: in order to reduce network traffic, one group speaker out of all SAB in the same BlindsGroup can be nominated by SAB configuration via parameter EnableInfoMoveUpDown.

1.5.2 Output StatusSAB

FB: SAB	**LTE-Mode Server Output Name:** StatusSAB	Mandatory ☒ [2] Optional ☐

Description:

Output StatusSAB indicates provides feedback information from the actuator to indicate the current HeightPosition, SlatsPosition and various status attributes.
StatusSAB shall be transmitted:
- when the drive has completed a motion (State MOVING -> STOPPED)
- if one of the Attributes changes its value in State STOPPED

StatusSAB may be transmitted
- when the sunblind starts moving (transition to State MOVING) with an allowed latency (e.g. few hundreds of ms)
- It is additionally allowed to transmit intermediate updates of StatusSAB during a motion in State MOVING, however, at maximum once per minute.

StatusSAB must not be transmitted when entering the State STEPPING

This information can be useful for the application program of the Controller or it may be used solely for visualization or for other purposes

DPT:	Name	DPT_StatusSAB	DPT ID	241.800	Datatype format	$U_8U_8B_{16}$

Field	Description		Sup.	Range	Unit	COV	Default
HeightPosition	Current height position in %		M	0 % to 100 %	%	cs	cs
SlatsPosition	Current slats-angle position %		M	0 % to 100 %	%	cs	cs
Attributes	Bit #						
- UpperEndPos	0	Upper end position reached	O [3]	{0, 1}		Y	0
- LowerEndPos	1	Lower end position reached	O [3]	{0, 1}		Y	0
- LowerPredefPos	2	Lower predefined position reached; typically height 100 %, slats-angle <100 %	O [3]	{0, 1}		Y	0
- DriveState	3	Indicates whether the target position is reached (1) or the drive is moving (0)	M	{0, 1}		Y	1
- TargetHPosRestrict	4	Restriction of target height position. Position cannot be reached	O	{0, 1}		Y	0
- TargetSPosRestrict	5	Restriction of target slats position. Position cannot be reached	O	{0, 1}		Y	0
- WeatherAlarm	6	At least one of the inputs Wind-/Rain-/Frost-Alarm is 'in alarm'	O	{0, 1}		Y	0
- Forced	7	up/down position is forced by MoveUpDownForced input	O	{0, 1}		Y	0
- Locked	8	Movement is locked by DeviceLocked input	O	{0, 1}		Y	0
- LocalOverride	9	indicates if the actuator setvalue is locally overridden, e.g. via a local user interface	O	{0, 1}		Y	0
- Failure	10	General actuator failure	O	{0, 1}		Y	0
- reserved	11 12 13		NA	0		--	0
- ValidHeightPos	14	Validity of field HeightPosition	M	{0, 1}			cs
- ValidSlatsPos	15	Validity of field SlatsPosition	M	{0, 1}			cs

Communication:		
Binding Group:		
Class	Type	Default
Geographical ☒	BuildingZone.Room.Subzone	cs (see parameter BlindsGroup)
Application Specific ☐		
Unassigned ☐	Broadcast ☐ Configurable ☐	
DP Address:	IO Type(ID): 800 (SAB)	Property ID: 52
LTE-Mode-Services (event): InfoReport ☒ (LTE-Mode Read-Response polling of the output shall always be supported)	COV ☒ MinRepTime: 10s [1] sec	Heartbeat: 15 min
	Output per default communicating ☒	Binding Group Wildcard allowed ☒
	Tx Prio: High ☐ Normal ☒ Low ☐	
	Transm after Powerup: : Stored Value ☐ Act Value ☒ Default Value ☐	
Property-Service (individual access):	Read only ☒ Read/Write ☐	
Exception Handling:		Save at Powerdown ☐
--		

Special Features:

[1] in State MOVING StatusSAB may be updated at maximum once per minute

[2] Spontaneous transmission of StatusSAB in the LTE-Mode runtime system may be enabled or disabled via configuration parameter EnableStatusSAB. However the value of StatusSAB is always accessible via Property Read service.

Group speaker: in order to reduce network traffic, one group speaker out of all SAB in the same BlindsGroup can be nominated by SAB configuration via parameter EnableStatusSAB. If transmission of StatusSAB is disabled, this signal can't be used for life-check and supervisory functions for individual actuators anymore

[3] StatusSAB does not contain information whether or not the actuator has the ability to detect such positions. As long as the position attributes are 0, the client of this information does not know if the position is not reached or if the information is not supported by the SAB.

The client of StatusSAB may test and learn autonomously during commissioning if the position attributes are supported by moving the blinds to the upper end lower end positions. The corresponding position flags will temporarily change to 1 during that test if the position can be detected, e.g. via end switches. An alternative solution would be that the client of StatusSAB is informed via configuration if the SAB supports the position flags.

1.5.3 Output ControlModeEff

FB: SAB	**LTE-Mode Server Output Name:** ControlModeEff	Mandatory ☐ Optional ☒[1)]

Description:

Output ControlModeEff indicates if manual or automatic control is currently active in the BlindsGroup. This information can be used solely for visualization purposes, or to synchronize ControlModeUser values of multiple SSSB in the same zone, or for other purposes

DPT:	Name	DPT_BlindsControlMode	DPT ID	20.804	Datatype format	N_8

Field	Description	Sup.	Range	Unit	COV	Default
ControlMode	This field shall indicate whether automatic control (0) or manual control (1) is currently active values 2 to 255 are reserved for future extensions	M	0, 1 *)	-	Y	cs

Communication:

Binding Group:

Class	Type	Default
Geographical ☒	BuildingZone.Room.Subzone	cs (see parameter BlindsGroup)
Application Specific ☐		
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID): 800 (SAB)	Property ID: 54
LTE-Mode-Services (event): InfoReport ☒ (LTE-Mode Read-Response polling of the output shall always be supported)	COV ☒ MinRepTime: -- sec Heartbeat: 15 min	
	Output per default communicating ☒	Binding Group Wildcard allowed ☒
	Tx Prio: High ☐ Normal ☒ Low ☐	
	Transm after Powerup: : Stored Value ☐ Act Value ☒ Default Value ☒	
Property-Service (individual access):	Read only ☒ Read/Write ☐	

Exception Handling:	Save at Powerdown ☐
--	

Special Features:

[1)] Usually this output may only implemented in a Controller which emulates a SAB actuator proxy, see comments in clause 1.2.2.4 and 1.2.3.4

This output is disabled if the SAB is controlled by a Controller (⇒ see parameter ActuatorMode)

1.5.4 Input MoveUpDown

FB: SAB	**LTE-Mode Client Input Name:** MoveUpDown	Mandatory ☒ [1] Optional ☐

Description:

The input MoveUpDown indicates the request from a Sunblind Sensor SSSB to trigger movement of the blinds up (=0) or down (=1). The behaviour of the SAB on the reception of data on the input MoveUpDown shall comply with the actuator state machine description as specified in [03].

DPT:	Name	DPT_UpDown	DPT ID	1.008	Datatype format	B_1

Field	Description	Sup.	Unit	Default
b	This field shall indicate whether the sunblinds actuator will move up (0) or down (1)	M	--	none

Communication:

Binding Group:

Class	Type	Default
Geographical ☒	BuildingZone.Room.Subzone	cs (see parameter BlindsGroup)
Application Specific ☐		
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID): 801 (SSSB)	Property ID: 61
LTE-Mode-Service (event): InfoReport ☒	InfoReport Sniffer on Binding Group: --	
	Timeout: -- Min	
LTE-Mode-Service (polling): Read – Response ☐	Read Wildcard / Resp Sniffer on Binding Group: --	

Value after Powerup:	Default Value ☐	Stored Value ☐
Exception Handling:		Save at Powerdown ☐

--

Special Features:

This low priority input on the actuator can be overruled by other inputs. See priority handling in clause 1.2.2.3

[1] This input is disabled if the SAB is controlled by a Controller (⇒ see parameter ActuatorMode)

1.5.5 Input StopStepUpDown

FB: SAB	**LTE-Mode Client Input Name:** StopStepUpDown	Mandatory ☒ [1] Optional ☐

Description:

The input StopStepUpDown indicates the request from a Sunblind Sensor SSSB to stop movement of the sunblind or to perform a step Up/Down. The behaviour of the SAB on the reception of data on the input StopStepUpDown shall comply with the actuator state machine description as specified in [03].

DPT:	Name	DPT_Step	DPT ID	1.007	Datatype format	B_1

Field	Description	Sup.	Unit	Default
b	Indicates a request to perform a gradual movement 0: step up or stop 1: step down or stop	M	--	none

Communication:

Binding Group:

Class	Type	Default
Geographical ☒	BuildingZone.Room.Subzone	cs (see parameter BlindsGroup)
Application Specific ☐		
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID): 801 (SSSB)	Property ID: 62
LTE-Mode-Service (event): InfoReport ☒	InfoReport Sniffer on Binding Group: --	
	Timeout: --	Min
LTE-Mode-Service (polling): Read – Response ☐	Read Wildcard / Resp Sniffer on Binding Group: --	

Value after Powerup: Default Value ☐ Stored Value ☐

Exception Handling: Save at Powerdown ☐

--

Special Features:

This low priority input on the actuator can be overruled by other inputs. See priority handling in clause 1.2.2.3

[1] This input is disabled if the SAB is controlled by a Controller (⇒ see parameter ActuatorMode)

1.5.6 Input DedicatedStop

FB: SAB	**LTE-Mode Client Input Name:** DedicatedStop	Mandatory ☐ Optional ☒ [1)]

Description:

The input DedicatedStop indicates the request (trigger) from a Sunblind Sensor SSSB to stop movement of the shutter / sunblind.
DedicatedStop is primarily used instead of StopStepUpDown to stop movement of shutters.
It may be used for blinds applications for realization of a dedicated stop (e.g. central function).
The behaviour of the SAB on the reception of data on the input DedicatedStop shall comply with the actuator state machine description as specified in [03].

DPT:	Name	DPT_Trigger	DPT ID	1.017	Datatype format	B_1

Field	Description	Sup.	Unit	Default
b	0, 1: Requests to stop movement	M	--	none

Communication:

Binding Group:

Class	Type	Default
Geographical ☒	BuildingZone.Room.Subzone	cs (see parameter BlindsGroup)
Application Specific ☐		
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID): 801 (SSSB)	Property ID: 63
LTE-Mode-Service (event): InfoReport ☒	InfoReport Sniffer on Binding Group: --	Timeout: -- Min
LTE-Mode-Service (polling): Read – Response ☐	Read Wildcard / Resp Sniffer on Binding Group: --	

Value after Powerup: Default Value ☐ Stored Value ☐

Exception Handling: Save at Powerdown ☐

--

Special Features:

This low priority input on the actuator can be overruled by other inputs. See priority handling in clause 1.2.2.3

[1)] This input is disabled if the SAB is controlled by a Controller (⇒ see parameter ActuatorMode)

1.5.7 Input SetAbsPosBlindsPercentage

FB: SAB	**LTE-Mode Client Input Name:** SetAbsPosBlindsPercentage	Mandatory ☐ Optional ☒[1)]

Description:

An update of input SetAbsPosBlindsPercentage indicates the request from a Sunblind Sensor SSSB to start moving the blinds towards the target height position (%) between 0 % (fully open) and 100 % (fully closed). See Figure 5.
The behaviour of the SAB on the reception of data on the input SetAbsPosBlindsPercentage shall comply with the actuator state machine description as specified in [03].

DPT:	Name	DPT_Scaling	DPT ID	5.001	Datatype format	U_8

Field	Description	Sup.	Unit	Default
Unsigned value	Target height position of the sunblind in percentage	M	%	none

Communication:

Binding Group:

Class	Type	Default
Geographical ☒	BuildingZone.Room.Subzone	cs (see parameter BlindsGroup)
Application Specific ☐		
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID):	801 (SSSB)	Property ID:	65
LTE-Mode-Service (event): InfoReport ☒	InfoReport Sniffer on Binding Group:	--		
	Timeout:	--	Min	
LTE-Mode-Service (polling): Read – Response ☐	Read Wildcard / Resp Sniffer on Binding Group:	--		

Value after Powerup: Default Value ☐ Stored Value ☐

Exception Handling: Save at Powerdown ☐

--

Special Features:

This low priority input on the actuator can be overruled by other inputs. See priority handling in clause 1.2.2.3

[1)] This input is disabled if the SAB is controlled by a Controller (⇒ see parameter ActuatorMode)

1.5.8 Input SetAbsPosSlatsPercentage

FB: SAB	**LTE-Mode Client Input Name:**	SetAbsPosSlats-Percentage	Mandatory ☐ Optional ☒[1)]

Description:

An update of input SetAbsPosSlatsPercentage indicates the request from a Sunblind Sensor SSSB to start moving the slats towards the target slats-angle position (%) between 0 % and 100 %.
See Figure 5.
The behaviour of the SAB on the reception of data on the input SetAbsPosSlatsPercentage shall comply with the actuator state machine description as specified in [03].

DPT:	Name	DPT_Scaling	DPT ID	5.001	Datatype format	U_8

Field	Description	Sup.	Unit	Default
Unsigned value	Target angle position of the slats in percentage	M	%	none

Communication:

Binding Group:

Class	Type	Default
Geographical ☒	BuildingZone.Room.Subzone	cs (see parameter BlindsGroup)
Application Specific ☐		
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID):	801 (SSSB)	Property ID:	66
LTE-Mode-Service (event): InfoReport ☒	InfoReport Sniffer on Binding Group:	--		
	Timeout:	--	Min	
LTE-Mode-Service (polling): Read – Response ☐	Read Wildcard / Resp Sniffer on Binding Group:	--		

Value after Powerup: Default Value ☐ Stored Value ☐

Exception Handling: Save at Powerdown ☐

--

Special Features:

This low priority input on the actuator can be overruled by other inputs. See priority handling in clause 1.2.2.3

[1)] This input is disabled if the SAB is controlled by a Controller (⇒ see parameter ActuatorMode)

1.5.9 Input GotoAbsPosition

FB: SAB	**LTE-Mode Client Input Name:** GotoAbsPosition	Mandatory ☐ Optional ☒[1)]

Description:

An update of input GotoAbsPosition indicates the request from a Sunblind Sensor SSSB to start moving the blinds towards the absolute position specified by the combined command fields HeightPosition (%) and SlatsPosition (%). See Figure 5.
Validity of the individual command fields is indicated by two additional attributes.
The behaviour of the SAB on the reception of data on the input GotoAbsPosition shall comply with the actuator state machine description as specified in [03].
Field SlatsPosition shall be ignored if the actuator is only able to control the height position (e.g. in case of shutter control).
Field HeightPosition shall be ignored if the actuator is only able to control the angle position of the slats (e.g. control of vertical sunblinds).

DPT:	Name	DPT_CombinedPosition	DPT ID	240.800	Datatype format	$U_8U_8B_8$

Field	Description		Sup.	Unit	Default
HeightPosition	Target height position of the blinds in percentage		M	%	none
SlatsPosition	Target slats-angle position in percentage		M	%	none
Attributes	Bit #				
- ValidHeightPos	0	Validity of field HeightPosition: - false: value of HeightPosition is void - true: value of HeightPosition is valid	M	--	none
- ValidSlatsPos	1	Validity of field SlatsPosition: - false: value of SlatsPosition is void - true: value of SlatsPosition is valid	M	--	none
- reserved	2-7	reserved bits shall be ignored			

Communication:

Binding Group:

Class	Type	Default
Geographical ☒	BuildingZone.Room.Subzone	cs (see parameter BlindsGroup)
Application Specific ☐		
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID):	801 (SSSB)	Property ID:	67
LTE-Mode-Service (event): InfoReport ☒	InfoReport Sniffer on Binding Group:	--		
	Timeout:	--	Min	
LTE-Mode-Service (polling): Read – Response ☐	Read Wildcard / Resp Sniffer on Binding Group:	--		

Value after Powerup: Default Value ☐ Stored Value ☐

Exception Handling: Save at Powerdown ☐

--

Special Features:

This low priority input on the actuator can be overruled by other inputs. See priority handling in clause 1.2.2.3

[1)] This input is disabled if the SAB is controlled by a Controller (⇒ see parameter ActuatorMode)

1.5.10 Input ControlModeUser

FB: SAB	**LTE-Mode Client Input Name:**	ControlModeUser	Mandatory ☐ Optional ☒

Description:

An update of input ControlModeUser indicates the request from a Sunblind Sensor SSSB to request automatic or manual control of the sunblinds

DPT:	Name	DPT_BlindsControlMode	DPT ID	20.804	Datatype format	N_8

Field	Description	Sup.	Unit	Default
ControlMode	This field shall indicate whether automatic control (0) or manual control (1) is currently active values 2 to 255 are reserved for future extensions	M	--	cs

Communication:

Binding Group:

Class	Type	Default
Geographical ☒	BuildingZone.Room.Subzone	cs (see parameter BlindsGroup)
Application Specific ☐		
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID):	801 (SSSB)	Property ID:	64
LTE-Mode-Service (event): InfoReport ☒	InfoReport Sniffer on Binding Group:		--	
	Timeout:	--	Min	
LTE-Mode-Service (polling): Read – Response ☐	Read Wildcard / Resp Sniffer on Binding Group:		--	

Value after Powerup:	Default Value ☒	Stored Value ☒ [2]
Exception Handling:		Save at Powerdown ☒ [2]

--

Special Features:

[1] Usually this input may only implemented in a Controller which emulates a SAB actuator proxy, see comments in clause 1.2.2.2

This input is disabled if the SAB is controlled by a Controller (⇒ see parameter ActuatorMode)

[2] Initialization of this input after power return is implementation specific. Persistent storage is an optional feature.

1.5.11 Input NumberedSceneControl

FB: SAB	**LTE-Mode Client Input Name:**	NumberedScene-Control	Mandatory ☐ Optional ☒

Description:

The input NumberedSceneControl indicates the request from a Scene Sensor SCS or from a Scene Sensor proxy in a Controller to recall or learn a scene identified by the contained scene number (0 to 63). The maximum scene number that is supported by the actuator is company specific.

DPT:	Name	DPT_SceneControl	DPT ID	18.001	Datatype format	$B_1r_1U_6$

Field	Description	Sup.	Unit	Default
c	Control information to encode recall/learning of the scene control information: 0: recall the scene corresponding to the field SceneNumber 1: teach-in the scene corresponding to the field SceneNumber	M	-	-
SceneNumber	Selects the number of the scene to be controlled (0..63)	M	-	-

Communication:

Binding Group:

Class	Type	Default
Geographical ☒	BuildingZone.Room.Subzone	cs (see parameter SceneGroup)
Application Specific ☐		
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID):	403(SCS)	Property ID:	51
LTE-Mode-Service (event): InfoReport ☒	InfoReport Sniffer on Binding Group:	--		
	Timeout:	--	Min	
LTE-Mode-Service (polling): Read – Response ☐	Read Wildcard / Resp Sniffer on Binding Group:	--		

Value after Powerup: Default Value ☐ Stored Value ☐

Exception Handling: Save at Powerdown ☐

An application may support less than the maximum number of 64 scenes. If a scene is called/learned with a scene number that is not supported, then the device shall not react.

Special Features:

This low priority input on the actuator can be overruled by other inputs. See priority handling in clause 1.2.2.3

1.5.12 Input WindAlarm

FB: SAB	**LTE-Mode Client Input Name:**	WindAlarm	Mandatory ☐ Optional ☒

Description:

Indication from a Wind Sensor to move the sunblind to a secure position in case of strong wind and to block it for any further control. The secure position can be controlled by an additional parameter ReactionWindAlarm.
During wind alarm, all other control commands with lower priority shall not be executed.
The wind alarm status shall be cleared if the received Datapoint value is 'no alarm'.

DPT:	Name	DPT_Alarm	DPT ID	1.005	Datatype format	B_1

Field	Description	Sup.	Unit	Default
b	This field shall indicate whether there is a wind 'alarm' (1) or 'no alarm' (0)	M	--	cs [2]

Communication:

Binding Group:

Class	Type	Default
Geographical ☐		
Application Specific ☒	OutsideSensorZone	cs
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID):	802 (WS)	Property ID:	51
LTE-Mode-Service (event): InfoReport ☒	InfoReport Sniffer on Binding Group:		--	
	Timeout: [1]	21	Min	
LTE-Mode-Service (polling): Read – Response ☒ [2]	Read Wildcard / Resp Sniffer on Binding Group:		--	

Value after Powerup: Default Value ☐ [2] Stored Value ☐

Exception Handling: Save at Powerdown ☐

If the receive timeout expires, the actuator shall react in the same way as if WindAlarm = 'alarm'.

Special Features:

This medium priority input on the actuator can be overruled by high priority inputs. See priority handling in clause 1.2.2.3

[1] Timeout is either fixed or defined by parameter TimeoutWindAlarm

[2] The internal wind alarm state after power return is manufacturer specific. The actuator may be locked until an update of the sensor value = 'no alarm' is received. The actuator may actively read WindAlarm from the remote sensor to shorten the latency caused by the heartbeat period of the process signal

1.5.13 Input FrostAlarm

FB: SAB	**LTE-Mode Client Input Name:**	FrostAlarm	Mandatory ☐ Optional ☒

Description:

Indication from a Frost Sensor to move the sunblind to a secure position in case of frost and to block it for any further control. The secure position can be controlled by an additional parameter ReactionFrostAlarm. During frost alarm, all other control commands with lower priority shall not be executed.
The frost alarm status shall be cleared if the received Datapoint value is 'no alarm'.

DPT:	Name	DPT_Alarm	DPT ID	1.005	Datatype format	B_1

Field	Description	Sup.	Unit	Default
b	This field shall indicate whether there is a frost 'alarm' (1) or 'no alarm' (0)	M	--	cs [2]

Communication:

Binding Group:

Class	Type	Default
Geographical ☐		
Application Specific ☒	OutsideSensorZone	cs
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID):	804 (FS)	Property ID:	51
LTE-Mode-Service (event): InfoReport ☒	InfoReport Sniffer on Binding Group:		--	
	Timeout: [1]	21	Min	
LTE-Mode-Service (polling): Read – Response ☒ [2]	Read Wildcard / Resp Sniffer on Binding Group:		--	

Value after Powerup: Default Value ☐ [2] Stored Value ☐

Exception Handling: Save at Powerdown ☐

If the receive timeout expires, the actuator shall react in the same way as if FrostAlarm = 'alarm'.

Special Features:

This medium priority input on the actuator can be overruled by high priority inputs. See priority handling in clause 1.2.2.3

[1] Timeout is either fixed or defined by parameter TimeoutFrostAlarm

[2] The internal frost alarm state after power return is manufacturer specific. The actuator may be locked until an update of the sensor value = 'no alarm' is received. The actuator may actively read FrostAlarm from the remote sensor to shorten the latency caused by the heartbeat period of the process signal

1.5.14 Input RainAlarm

FB: SAB	**LTE-Mode Client Input Name:**	RainAlarm	Mandatory ☐ Optional ☒

Description:

Indication from a Rain Sensor to move the sunblind to a secure position in case of rain alarm and to block it for any further control. The secure position can be controlled by an additional parameter ReactionRainAlarm.
During rain alarm, all other control commands with lower priority shall not be executed.
The rain alarm status shall be cleared if the received Datapoint value is 'no alarm'.

DPT:	Name	DPT_Alarm	DPT ID	1.005	Datatype format	B_1

Field	Description	Sup.	Unit	Default
b	This field shall indicate whether there is a rain 'alarm' (1) or 'no alarm' (0)	M	--	cs [2]

Communication:

Binding Group:

Class	Type	Default
Geographical ☐		
Application Specific ☒	OutsideSensorZone	cs
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID):	803 (RS)	Property ID:	51
LTE-Mode-Service (event): InfoReport ☒	InfoReport Sniffer on Binding Group:		--	
	Timeout: [1]	21	Min	
LTE-Mode-Service (polling): Read – Response ☒ [2]	Read Wildcard / Resp Sniffer on Binding Group:		--	

Value after Powerup: Default Value ☐ [2] Stored Value ☐

Exception Handling: Save at Powerdown ☐

If the receive timeout expires, the actuator shall react in the same way as if RainAlarm = 'alarm'.

Special Features:

This medium priority input on the actuator can be overruled by high priority inputs. See priority handling in clause 1.2.2.3

[1] Timeout is either fixed or defined by parameter TimeoutRainAlarm

[2] The internal rain alarm state after power return is manufacturer specific. The actuator may be locked until an update of the sensor value = 'no alarm' is received. The actuator may actively read RainAlarm from the remote sensor to shorten the latency caused by the heartbeat period of the process signal

1.5.15 Input MoveUpDownCmd

FB: SAB	**LTE-Mode Server Input Name:**	MoveUpDownCmd	Mandatory ☒ [1] Optional ☐				
Description:							
The input MoveUpDownCmd is written by a Controller to trigger up (=0) or down (=1) movement of the sunblind. The behaviour of the SAB on the reception of data on the input MoveUpDownCmd shall be the same as for input MoveUpDown and shall comply with the actuator state machine description as specified in [03].							
DPT:	Name	DPT_UpDown	DPT ID	1.008	Datatype format	B_1	
Field	Description				Sup.	Unit	Default
b	This field indicates the requested movement direction of the sunblind up (0) or down (1)				M	--	none
Communication:							
Binding Group:							
Class	Type			Default			
Geographical ☒	BuildingZone.Room.Subzone			cs (see parameter BlindsGroup)			
Application Specific ☐							
Unassigned ☐	Broadcast ☐	Configurable ☐					
DP Address:	IO Type(ID):	800 (SAB)	Property ID:	61			
LTE-Mode-Service (event): Write ☒	Timeout:	--	Min				
Property-Service (individual access):	Read only ☐	Read/Write ☒					
Value after Power-up:	Default Value ☐	Stored Value ☐					
Exception Handling:	Save at Power-down ☐						
This property has the functionality of a trigger input, i.e. after power-return or a restart of the application program the local initial value of this property is ignored. An update of this input at runtime by a remote Controller triggers movement of the actuator.							
Special Features:							
This input can be overruled by high priority inputs MoveUpDownForced or LockDevice. See priority handling in clause 1.2.3.3 [1] If the SAB is directly connected to sensor FB SSSB, MoveUpDownCmd input is disabled. The behaviour is controlled by configuration parameter ActuatorMode.							

1.5.16 Input StopStepUpDownCmd

FB: SAB	LTE-Mode Server Input Name:	StopStepUpDown-Cmd	Mandatory ☒ 1) Optional ☐

Description:

The input StopStepUpDownCmd is written by a Controller to stop movement of the sunblind or to perform a step up/down. The behaviour of the SAB on the reception of data on the input StopStepUpDownCmd shall be the same as for input StopStepUpDown and shall comply with the actuator state machine description as specified in [03].

DPT:	Name	DPT_Step	DPT ID	1.007	Datatype format	B_1

Field	Description	Sup.	Unit	Default
b	This field indicates a request to perform a gradual movement 0: step up or stop 1: step down or stop	M	--	none

Communication:

Binding Group:

Class	Type	Default
Geographical ☒	BuildingZone.Room.Subzone	cs (see parameter BlindsGroup)
Application Specific ☐		
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID):	800 (SAB)	Property ID:	62
LTE-Mode-Service (event): Write ☒	Timeout:	--	Min	
Property-Service (individual access):	Read only ☐		Read/Write ☒	

Value after Power-up: Default Value ☐ Stored Value ☐

Exception Handling: Save at Power-down ☐

This property has the functionality of a trigger input, i.e. after power-return or a restart of the application program the local initial value of this property is ignored. Any update of this input at runtime by a remote Controller shall trigger a stop or a step.

Special Features:

This input can be overruled by high priority inputs MoveUpDownForced or LockDevice. See priority handling in clause 1.2.3.3

1) If the SAB is directly connected to sensor FB SSSB, StopStepUpDownCmd input is disabled. The behaviour is controlled by configuration parameter ActuatorMode.

1.5.17 Input DedicatedStopCmd

FB: SAB	**LTE-Mode Server Input Name:**	DedicatedStopCmd	Mandatory ☐ Optional ☒ [1)]

Description:

The input DedicatedStopCmd is written by a Controller to stop movement of the shutter / sunblind. The behaviour of the SAB on the reception of data on the input DedicatedStopCmd shall be the same as for input DedicatedStop and shall comply with the actuator state machine description as specified in [03].

DPT:	Name	DPT_Trigger	DPT ID	1.017	Datatype format	B_1

Field	Description	Sup.	Unit	Default
b	0, 1: Requests to stop movement	M	--	none

Communication:

Binding Group:

Class	Type	Default
Geographical ☒	BuildingZone.Room.Subzone	cs (see parameter BlindsGroup)
Application Specific ☐		
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID):	800 (SAB)	Property ID:	63
LTE-Mode-Service (event): Write ☒	Timeout:	--	Min	
Property-Service (individual access):	Read only ☐	Read/Write ☒		

Value after Power-up: Default Value ☐ Stored Value ☐

Exception Handling: Save at Power-down ☐

This property has the functionality of a trigger input, i.e. after power-return or a restart of the application program the local initial value of this property is ignored. An update of this input at runtime by a remote Controller triggers a stop.

Special Features:

This input can be overruled by high priority inputs MoveUpDownForced or LockDevice. See priority handling in clause 1.2.3.3

[1)] If the SAB is directly connected to sensor FB SSSB, DedicatedStopCmd input is disabled. The behaviour is controlled by configuration parameter ActuatorMode.

1.5.18 Input LockDevice

FB: SAB	**LTE-Mode Server Input Name:** LockDevice	Mandatory ☐ Optional ☒

Description:

Input to freeze the actual setpoint of the actuator e.g. by a Controller or by a Building Management Station. The specific behaviour related to lock and unlock states and transitions can be controlled with additional parameters BehaviourAtLocking / LockSetvalue and BehaviourAtUnlocking / UnlockSetvalue

DPT:	Name	DPT_Enable	DPT ID	1.003	Datatype format	B_1

Field	Description	Sup.	Unit	Default
b	1: shall lock the actuator on its current state 0: shall unlock the actuator	M	--	cs

Communication:

Binding Group:

Class	Type	Default
Geographical ☒	BuildingZone.Room.Subzone	cs (see parameter BlindsGroup)
Application Specific ☐		
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID): 800 (SAB)	Property ID: 69

LTE-Mode-Service (event): Write ☒	Timeout:	--	Min
Property-Service (individual access):	Read only ☐	Read/Write ☒	

Value after Power-up: Default Value ☐ Stored Value ☐

Exception Handling: Save at Power-down ☐

Behaviour after power-return: either persistent storage of LockDevice value or initialization with a default value is allowed. The mechanism is product specific and may be defined by parameters.

Usually after power-return the default value is set to unlocked (0)

Special Features:

This high priority input on the actuator can overrule other lower priority inputs. See priority handling in clause 1.2.2.3 and 1.2.3.3

1.5.19 Input MoveUpDownForced

FB: SAB	**LTE-Mode Server Input Name:** MoveUpDownForced	Mandatory ☐ Optional ☒

Description:

The input MoveUpDownCmd is written by a Controller or by a BMS to move the sunblind to a forced up or down position and to block it for any further control.
Forced control is deactivated if the value '00b' or '01b' is received and the sunblind actuator can be controlled by the Datapoints of low and medium priority again.
The behaviour of the SAB on the reception of data on the input MoveUpDownForced shall comply with the actuator state machine description as specified in [03].

DPT:	Name	DPT_Direction1_Control	DPT ID	2.008	Datatype format	B_1

Field	Description	Sup.	Unit	Default
c	0: MoveUpDownForced is inactive. Lower priority inputs are active. 1: MoveUpDownForced is active. Forced up/down movement according v field Lower priority inputs are overruled.	M	--	cs
v	If c=0: v is void If c=1: - v=0: forced-move up - v=1: forced-move down	M	--	cs

Communication:

Binding Group:

Class	Type	Default
Geographical ☒	BuildingZone.Room.Subzone	cs (see parameter BlindsGroup)
Application Specific ☐		
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID):	800 (SAB)	Property ID:	65
LTE-Mode-Service (event): Write ☒	Timeout:	--	Min	
Property-Service (individual access):	Read only ☐		Read/Write ☒	

Value after Power-up:	Default Value ☐	Stored Value ☐
Exception Handling:	Save at Power-down ☐	

Behaviour after power-return: either persistent storage of MoveUpDownForced value or initialization with a default value is allowed. The mechanism is product specific and may be defined by parameters.

Special Features:

This high priority input on the actuator can overrule other lower priority inputs. See priority handling in clause 1.2.2.3 and 1.2.3.3

1.5.20 Input AbsHeightPositionSetp

FB: SAB	**LTE-Mode Server Input Name:** AbsHeightPosition-Setp	Mandatory ☐ Optional ☒ [1)]

Description:

The input AbsHeightPositionSetp is written by a Controller or to control the HeightPosition (%) of the sunblind between 0 % (fully open) and 100 % (fully closed). See Figure 5.
The behaviour of the SAB on the reception of data on the input AbsHeightPositionSetp is the same as for input SetAbsPosBlindsPercentage and shall comply with the actuator state machine description as specified in [03].

DPT:	Name	DPT_Scaling	DPT ID	5.001	Datatype format	U_8

Field	Description	Sup.	Unit	Default
Unsigned value	Target height position of the sunblind in percentage	M	%	none

Communication:

Binding Group:

Class	Type	Default
Geographical ☒	BuildingZone.Room.Subzone	cs (see parameter BlindsGroup)
Application Specific ☐		
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID):	800 (SAB)	Property ID:	66
LTE-Mode-Service (event): Write ☒	Timeout:	--	Min	
Property-Service (individual access):	Read only ☐		Read/Write ☒	

Value after Power-up: Default Value ☐ Stored Value ☐

Exception Handling: Save at Power-down ☐

After power-return or a restart of the application program the local initial value of this property is ignored. An update of this input at runtime by a remote Controller triggers movement to the target position.

Special Features:

This input can be overruled by high priority inputs MoveUpDownForced or LockDevice. See priority handling in clause 1.2.3.3

[1)] If the SAB is directly connected to sensor FB SSSB, AbsHeightPositionSetp input is disabled. The behaviour is controlled by configuration parameter ActuatorMode

1.5.21 Input AbsSlatsPositionSetp

FB: SAB	**LTE-Mode Server Input Name:** AbsSlatsPositionSetp					Mandatory ☐ Optional ☒ [1)]	
Description:							
The input AbsHeightPositionSetp is written by a Controller or to control the angle position (%) of the slats. See Figure 5. The behaviour of the SAB on the reception of data on the input AbsSlatsPositionSetp is the same as for input SetAbsPosSlatsPercentage and shall comply with the actuator state machine description as specified in [03].							
DPT:	Name	DPT_Scaling	DPT ID	5.001	Datatype format	U_8	
Field	Description				Sup.	Unit	Default
Unsigned value	Target angle position of the slats in percentage				M	%	none
Communication:							
Binding Group:							
Class	Type			Default			
Geographical ☒	BuildingZone.Room.Subzone			cs (see parameter BlindsGroup)			
Application Specific ☐							
Unassigned ☐	Broadcast ☐	Configurable ☐					
DP Address:	IO Type(ID):	800 (SAB)		Property ID:	67		
LTE-Mode-Service (event): Write ☒	Timeout:	--		Min			
Property-Service (individual access):	Read only ☐		Read/Write ☒				
Value after Power-up:	Default Value ☐			Stored Value ☐			
Exception Handling:				Save at Power-down ☐			
After power-return or a restart of the application program the local initial value of this property is ignored. An update of this input at runtime by a remote Controller triggers movement of the slats to the target position.							
Special Features:							
This input can be overruled by high priority inputs MoveUpDownForced or LockDevice. See priority handling in clause 1.2.3.3 [1)] If the SAB is directly connected to sensor FB SSSB, AbsSlatsPositionSetp input is disabled. The behaviour is controlled by configuration parameter ActuatorMode							

1.5.22 Input AbsPositionSetp

FB: SAB	**LTE-Mode Server Input Name:** AbsPositionSetp	Mandatory ☐ Optional ☒ [1)]

Description:

The input AbsPositionSetp is written by a Controller to start moving the blinds towards the position specified by the combined command fields HeightPosition(%) and SlatsPosition(%). See Figure 5.
Validity of the command fields is indicated by 2 additional attributes. The behaviour of the SAB on the reception of data on the input AbsPositionSetp is the same as for input GotoAbsPosition and shall comply with the actuator state machine description as specified in [03].
Field SlatsPosition shall be ignored if the actuator is only able to control the height position (e.g. in case of shutter control).
Field HeightPosition shall be ignored if the actuator is only able to control the angle position of the slats (e.g. control of vertical sunblinds).

DPT:	Name	DPT_CombinedPosition	DPT ID	240.800	Datatype format	$U_8U_8B_8$

Field	Description		Sup.	Unit	Default
HeightPosition	Target height position of the blinds in percentage		M	%	none
SlatsPosition	Target slats-angle position in percentage		M	%	none
Attributes	Bit #				
- ValidHeightPos	0	Validity of field HeightPosition: - false: value of HeightPosition is void - true: value of HeightPosition is valid	M	--	none
- ValidSlatsPos	1	Validity of field SlatsPosition: - false: value of SlatsPosition is void - true: value of SlatsPosition is valid	M	--	none
- reserved	2-7	reserved bits shall be ignored			

Communication:

Binding Group:

Class	Type	Default
Geographical ☒	BuildingZone.Room.Subzone	cs (see parameter BlindsGroup)
Application Specific ☐		
Unassigned ☐	Broadcast ☐ Configurable ☐	

DP Address:	IO Type(ID):	800 (SAB)	Property ID:	68
LTE-Mode-Service (event): Write ☒	Timeout:	--	Min	
Property-Service (individual access):	Read only ☐		Read/Write ☒	

Value after Power-up: Default Value ☐ Stored Value ☐

Exception Handling: Save at Power-down ☐

After power-return or a restart of the application program the local initial value of this property is ignored. An update of this input at runtime by a remote Controller triggers movement of the sunblind to the target position.

Special Features:

This input can be overruled by high priority inputs MoveUpDownForced or LockDevice. See priority handling in clause 1.2.3.3

[1)] If the SAB is directly connected to sensor FB SSSB, AbsPositionSetp input is disabled. The behaviour is controlled by configuration parameter ActuatorMode

1.5.23 Parameter-set BlindsGroup

BlindsGroup is implemented using the LTE-Mode Geographical zone concept. It consists of 3 properties belonging together.

1.5.23.1 Parameter BuildingZone

FB: SAB	**Property Name (Server):** BlindsGroup.BuildingZone	Mandatory ☒ Optional ☐

Description:

Part of BlindsGroup parameter set mapped to LTE-Mode Geographical zone:
-> BuildingEntity (Floor, Apartment, Building section etc.)

DPT:	Name	DPT_UcountValue8_Z	DPT ID	202.002	Datatype format	U_8Z_8

Field	Description	Sup.	Range	Unit	Default
CounterValue	Number of the BuildingZone	M	1 to 126	--	cs
Status				bitset	
- OutOfService	zone active /inactive	O	true/false		cs
- all other flags	not supported, fixed to '0'	NA			
Command				enum	
- NormalWrite		M			
- SetOSV & ResetOSV	set zone inactive / active	O			
- all other commands	not supported	NA			

Communication:

DP Address:	IO Type(ID):	800 (SAB)	Property ID:	101
(in the server)	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

SAB runtime Datapoints (except NumberedSceneControl) are not LTE-Mode communicating if zone is 'OutOfService'. If parameter BuildingZone is 'OutOfService' also the corresponding Room and Subzone parameters are 'OutOfService' (common flag)

1.5.23.2 Parameter Room

FB: SAB	**Property Name (Server):** BlindsGroup.Room	Mandatory ☒ Optional ☐

Description:

Part of BlindsGroup parameter set mapped to LTE-Mode Geographical zone:
-> Room within BuildingZone

DPT:	Name	DPT_UcountValue8_Z	DPT ID	202.002	Datatype format	U_8Z_8

Field	Description	Sup.	Range	Unit	Default
CounterValue	Room number	M	1 to 63	--	cs
Status - OutOfService - all other flags	 zone active /inactive not supported, fixed to '0'	 O NA	 true/false	bitset	 cs
Command - NormalWrite - SetOSV & ResetOSV - all other commands	 set zone inactive / active not supported	 M O NA		enum	

Communication:

DP Address:	IO Type(ID):	800 (SAB)	Property ID:	102
(in the server)	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

SAB runtime Datapoints (except NumberedSceneControl) are not LTE-Mode communicating if zone is 'OutOfService'. If parameter BuildingZone is 'OutOfService' also the corresponding Room and Subzone parameters are 'OutOfService' (common flag)

1.5.23.3 Parameter Subzone

FB: SAB	**Property Name (Server):** BlindsGroup.Subzone	Mandatory ☒ Optional ☐

Description:

Part of BlindsGroup parameter set mapped to LTE-Mode Geographical zone:
-> Subzone within BuildingZone.Room

DPT:	Name	DPT_UcountValue8_Z	DPT ID	202.002	Datatype format	U_8Z_8

Field	Description	Sup.	Range	Unit	Default
CounterValue	Subzone number	M	1 to 15	--	cs
Status - OutOfService - all other flags	 zone active /inactive not supported, fixed to '0'	 O NA	 true/false	bitset	 cs
Command - NormalWrite - SetOSV & ResetOSV - all other commands	 set zone inactive / active not supported	 M O NA		enum	

Communication:

DP Address:	IO Type(ID):	800 (SAB)	Property ID:	103
(in the server)	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

SAB runtime Datapoints (except NumberedSceneControl) are not LTE-Mode communicating if zone is 'OutOfService'. If parameter BuildingZone is 'OutOfService' also the corresponding Room and Subzone parameters are 'OutOfService' (common flag)

1.5.24 Parameter-set SceneGroup

SceneGroup is implemented using the LTE-Mode Geographical zone concept. It consists of 3 properties belonging together.

1.5.24.1 Parameter BuildingZone

FB: SAB	**Property Name (Server):** SceneGroup.BuildingZone	Mandatory ☐ Optional ☒

Description:

Part of SceneGroup parameter set mapped to LTE-Mode Geographical zone:
-> BuildingEntity (Floor, Apartment, Building section etc.)

DPT:	Name	DPT_UcountValue8_Z	DPT ID	202.002	Datatype format	U_8Z_8

Field	Description	Sup.	Range	Unit	Default
CounterValue	Number of the BuildingZone	M	1 to 126	--	cs
Status - OutOfService - all other flags	 zone active /inactive not supported, fixed to '0'	 O NA	 true/false	bitset	 cs
Command - NormalWrite - SetOSV & ResetOSV - all other commands	 set zone inactive / active not supported	 M O NA		enum	

Communication:

DP Address:	IO Type(ID):	800 (SAB)	Property ID:	104
(in the server)	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

SAB runtime Datapoint NumberedSceneControl is not LTE-Mode communicating if zone is 'OutOfService'. If parameter BuildingZone is 'OutOfService' also the corresponding Room and Subzone parameters are 'OutOfService' (common flag)

1.5.24.2 Parameter Room

FB: SAB	**Property Name (Server):** SceneGroup.Room	Mandatory ☐ Optional ☒

Description:

Part of SceneGroup parameter set mapped to LTE-Mode Geographical zone: -> Room within BuildingZone

DPT:	Name	DPT_UcountValue8_Z	DPT ID	202.002	Datatype format	U_8Z_8

Field	Description	Sup.	Range	Unit	Default
CounterValue	Room number	M	1 to 63	--	cs
Status - OutOfService - all other flags	 zone active /inactive not supported, fixed to '0'	 O NA	 true/false	bitset	cs
Command - NormalWrite - SetOSV & ResetOSV - all other commands	 set zone inactive / active not supported	 M O NA		enum	

Communication:

DP Address:	IO Type(ID):	800 (SAB)	Property ID:	105
(in the server)	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

SAB runtime Datapoint NumberedSceneControl is not LTE-Mode communicating if zone is 'OutOfService'. If parameter BuildingZone is 'OutOfService' also the corresponding Room and Subzone parameters are 'OutOfService' (common flag)

1.5.24.3 Parameter Subzone

FB: SAB	**Property Name (Server):** SceneGroup.Subzone	Mandatory ☐ Optional ☒

Description:

Part of SceneGroup parameter set mapped to LTE-Mode Geographical zone:
-> Subzone within BuildingZone.Room

DPT:	Name	DPT_UcountValue8_Z	DPT ID	202.002	Datatype format	U_8Z_8

Field	Description	Sup.	Range	Unit	Default
CounterValue	Subzone number	M	1 to 15	--	cs
Status - OutOfService - all other flags	 zone active /inactive not supported, fixed to '0'	 O NA	 true/false	bitset	cs
Command - NormalWrite - SetOSV & ResetOSV - all other commands	 set zone inactive / active not supported	 M O NA		enum	

Communication:

DP Address:	IO Type(ID):	800 (SAB)	Property ID:	106
(in the server)	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

SAB runtime Datapoint NumberedSceneControl is not LTE-Mode communicating if zone is 'OutOfService'. If parameter BuildingZone is 'OutOfService' also the corresponding Room and Subzone parameters are 'OutOfService' (common flag)

1.5.25 Parameter OutsideSensorZone

FB: SAB	**Property Name (Server):** OutsideSensorZone	Mandatory ☐ Optional ☒

Description:

Number of the Outside Sensor Zone to be used for the binding of sensors providing WindAlarm, FrostAlarm and RainAlarm information in the LTE-Mode runtime system.

DPT:	Name	DPT_UcountValue8_Z	DPT ID	202.002	Datatype format	U_8Z_8

Field	Description	Sup.	Range	Unit	Default
SensorZone	Number of the sensor zone	M	1 to 31	--	cs
Status - OutOfService - all other flags	 zone active /inactive not supported, fixed to '0'	 O NA	 true/false	bitset	cs
Command - NormalWrite - SetOSV & ResetOSV - all other commands	 set zone inactive / active not supported	 M O NA		enum	

Communication:

DP Address:	IO Type(ID):	800 (SAB)	Property ID:	107
(in the server)	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

SAB runtime input Datapoints WindAlarm, FrostAlarm and RainAlarm are not LTE-Mode communicating if zone is 'OutOfService'.

1.5.26 Parameter ActuatorMode

FB: SAB	**Property Name (Server):** ActuatorMode	Mandatory ☒ Optional ☐

Description:

This parameter is only used in the LTE-Mode runtime system to define whether the SAB is connected to a SSSB Sensor or to a Controller.

DPT:	Name	DPT_ActuatorConnectType	DPT ID	20.020	Datatype format	N_8

Field	Description	Sup.	Range	Unit	Default
	1: SensorConnection 2: ControllerConnection		[1, 2]		cs

Communication:

DP Address:	IO Type(ID):	800(SAB)	Property ID:	110
(in the server)	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

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1.5.27 Parameter EnableInfoMoveUpDown

FB: SAB	**Property Name (Server):**	EnableInfoMoveUpDown	Mandatory ☐ Optional ☒

Description:

This parameter is only used in the LTE-Mode runtime system to enable or disable transmission of actuator state InfoMoveUpDown

DPT:	Name	DPT_Enable	DPT ID	1.003	Datatype format	B_1

Field	Description	Sup.	Range	Unit	Default
	0: disable 1: enable				disable

Communication:

DP Address: **(in the server)**	IO Type(ID): Start-Index:	800(SAB) 1	Property ID: N° of elements	111 1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

This parameter shall be implemented if LTE-Mode output InfoMoveUpDown is implemented.

1.5.28 Parameter EnableStatusSAB

FB: SAB	**Property Name (Server):**	EnableStatusSAB	Mandatory ☒ Optional ☐

Description:

This parameter is only used in the LTE-Mode runtime system to enable or disable transmission of actuator state StatusSAB

DPT:	Name	DPT_Enable	DPT ID	1.003	Datatype format	B_1

Field	Description	Sup.	Range	Unit	Default
	0: disable 1: enable				disable

Communication:

DP Address: **(in the server)**	IO Type(ID): Start-Index:	800(SAB) 1	Property ID: N° of elements	112 1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

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1.5.29 Parameter MoveDownTime

FB: SAB	**Property Name (Server):** MoveDownTime				Mandatory ☐ Optional ☒
Description:					
This parameter defines the time in the drive model of the SAB to move the sunblind from the final upper to the final lower position.					
DPT: Name	DPT_TimePeriodSec	DPT ID	7.005	Datatype format	U_{16}

Field	Description	Sup.	Range	Unit	Default
TimePeriodSec	See above	M	cs	s	cs

Communication:				
DP Address: (in the server)	IO Type(ID):	800(SAB)	Property ID:	113
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐
--
Special Features:
If a sensor (hardwired) is implemented that detects that the upper or lower position is reached, this parameter may not be needed.

1.5.30 Parameter MoveUpTime

FB: SAB	**Property Name (Server):** MoveUpTime				Mandatory ☐ Optional ☒
Description:					
This parameter defines the time in the drive model of the SAB to move the sunblind from the final lower to the final upper position.					
DPT: Name	DPT_TimePeriodSec	DPT ID	7.005	Datatype format	U_{16}

Field	Description	Sup.	Range	Unit	Default
TimePeriodSec	See above	M	cs	s	cs

Communication:				
DP Address: (in the server)	IO Type(ID):	800(SAB)	Property ID:	114
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐
--
Special Features:
If a sensor (hardwired) is implemented that detects that the upper or lower position is reached, this parameter may not be needed.

1.5.31 Parameter AdditionalMoveTime

FB: SAB	**Property Name (Server):** AdditionalMoveTime	Mandatory ☐ Optional ☒

Description:

This parameter defines the additional time in the drive model of the SAB to move the sunblind from the upper/lower position to the end- switch position

DPT:	Name	DPT_TimePeriodSec	DPT ID	7.005	Datatype format	U_{16}

Field	Description	Sup.	Range	Unit	Default
TimePeriodSec	See above	M	cs	s	cs

Communication:

DP Address:	IO Type(ID):	800(SAB)	Property ID:	115
(in the server)	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

This parameter is only useful if end-switch sensor (hardwired) is implemented

1.5.32 Parameter ReversionPauseTime

FB: SAB	**Property Name (Server):** ReversionPauseTime	Mandatory ☐ Optional ☒

Description:

This parameter defines the wait time in the drive model of the SAB to avoid destruction of the drive as a result of too fast change of moving direction. Although this parameter is optional, the functionality shall always be ensured via appropriate hardware.

DPT:	Name	DPT_TimePeriodMsec	DPT ID	7.002	Datatype format	U_{16}

Field	Description	Sup.	Range	Unit	Default
TimePeriodMSec	See above	M	cs	ms	cs

Communication:

DP Address:	IO Type(ID):	800(SAB)	Property ID:	116
(in the server)	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

--

1.5.33 Parameter SlatStepTime

FB: SAB	**Property Name (Server):** SlatStepTime	Mandatory ☐ Optional ☒

Description:

This parameter defines the time in the drive model of the SAB to execute a slat step.
The value of this parameter could also be calculated from the parameters MaximumSlatMoveTime and NumberOfSlatSteps

DPT:	Name	DPT_TimePeriodMsec	DPT ID	7.002	Datatype format	U_{16}

Field	Description	Sup.	Range	Unit	Default
TimePeriodMSec	Time needed for the blinds mechanics to move the slats for one step	M	cs	ms	cs

Communication:

DP Address: (in the server)	IO Type(ID):	800(SAB)	Property ID:	117
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

This parameter is only useful if the sunblind can be operated in steps (see also StopStepUpDown and StopStepUpDownCmd).

1.5.34 Parameter NumberOfSlatSteps

FB: SAB	**Property Name (Server):** NumberOfSlatSteps	Mandatory ☐ Optional ☒

Description:

This parameter defines the number of steps to move the slats from the final upper 0 % to the final lower 100 % position
The value of this parameter could also be calculated from the parameters MaximumSlatMoveTime and SlatStepTime if MaximumSlatMoveTime is a multiple of SlatStepTime.

DPT:	Name	DPT_Value_1_Ucount	DPT ID	5.010	Datatype format	U_8

Field	Description	Sup.	Range	Unit	Default
Counter value	Number of slats steps	M	cs	--	cs

Communication:

DP Address: (in the server)	IO Type(ID):	800(SAB)	Property ID:	118
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

This parameter is only useful if the sunblind can be operated in steps (see also StopStepUpDown and StopStepUpDownCmd).

1.5.35 Parameter MaximumSlatMoveTime

FB: SAB	Property Name (Server): SlatStepTime	Mandatory ☐ Optional ☒

Description:

This parameter defines the total time in the drive model of the SAB to move the slats from the final upper 0 % to the final lower 100 % position.
The value of this parameter could also be calculated from the parameters SlatStepTime and NumberOfSlatSteps

DPT:	Name	DPT_TimePeriodMsec	DPT ID	7.002	Datatype format	U_{16}

Field	Description	Sup.	Range	Unit	Default
TimePeriodMSec	Time needed for the blinds mechanics to move the slats from 0 % to 100 %	M	cs	ms	cs

Communication:

DP Address: (in the server)	IO Type(ID):	800(SAB)	Property ID:	119
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

This parameter is only useful if the sunblind can be operated in steps (see also StopStepUpDown and StopStepUpDownCmd).

1.5.36 Parameter PowerReturnMode

FB: SAB	Property Name (Server): PowerReturnMode	Mandatory ☐ Optional ☒

Description:

Parameter to define the behaviour of the actuator after return of the supply power or after a restart of the application.

DPT:	Name	DPT_SABExceptBehaviour	DPT ID	20.801	Datatype format	N_8

Field	Description	Sup.	Range	Unit	Default
Mode	- 0 = Up - 1 = Down - 2 = no change - 3 = value according additional parameter PowerReturnValue - 4 = stop	M	[0 to 4]	--	cs

Communication:

DP Address: (in the server)	IO Type(ID):	800 (SAB)	Property ID:	120
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

It is allowed to restrict the range of values of this parameter

1.5.37 Parameter PowerReturnValue

FB: SAB	**Property Name (Server):** PowerReturnValue	Mandatory ☐ Optional ☒

Description:

Parameter in addition to parameter PowerReturnMode = 3; to define the behaviour after power return.
Field SlatsPosition shall be ignored if the actuator is only able to control the height position (e.g. in case of shutter control).
Field HeightPosition shall be ignored if the actuator is only able to control the angle position of the slats (e.g. control of vertical sunblinds).

DPT:	Name	DPT_CombinedPosition	DPT ID	240.800	Datatype format	$U_8U_8B_8$

Field	Description	Sup.	Range	Unit	Default
HeightPosition	Target height position of the blinds in percentage	M	cs	%	cs
SlatsPosition	Target slats-angle position in percentage	M	cs	%	cs
Attributes	Bit #				
- ValidHeightPos	0 Validity of field HeightPosition	M	{0, 1}	--	cs
- ValidSlatsPos	1 Validity of field SlatsPosition	M	{0, 1}	--	cs
- reserved	2-7 reserved bits shall be ignored	--	0	--	0

Communication:

DP Address: (in the server)	IO Type(ID):	800 (SAB)	Property ID:	121
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

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1.5.38 Parameter BusFailureMode

FB: SAB	**Property Name (Server):** BusFailureMode	Mandatory ☐ Optional ☒

Description:

Parameter to define the behaviour of the actuator in case of a bus failure

DPT:	Name	DPT_SABExceptBehaviour	DPT ID	20.801	Datatype format	N_8

Field	Description	Sup.	Range	Unit	Default
Mode	- 0 = Up - 1 = Down - 2 = no change - 3 = value according additional parameter BusFailureValue - 4 = stop	M	[0 to 4]	--	cs

Communication:

DP Address: (in the server)	IO Type(ID):	800 (SAB)	Property ID:	122
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

It is allowed to restrict the range of values of this parameter

1.5.39 Parameter BusFailureValue

FB: SAB	**Property Name (Server):** BusFailureValue	Mandatory ☐ Optional ☒

Description:

Parameter in addition to parameter BusFailureMode = 3; to define the behaviour in case of a bus failure
Field SlatsPosition shall be ignored if the actuator is only able to control the height position (e.g. in case of shutter control).
Field HeightPosition shall be ignored if the actuator is only able to control the angle position of the slats (e.g. control of vertical sunblinds).

DPT:	Name	DPT_CombinedPosition	DPT ID	240.800	Datatype format	$U_8U_8B_8$

Field	Description	Sup.	Range	Unit	Default
HeightPosition	Target height position of the blinds in percentage	M	cs	%	cs
SlatsPosition	Target slats-angle position in percentage	M	cs	%	cs
Attributes	Bit #				
- ValidHeightPos	0 Validity of field HeightPosition	M	{0, 1}		cs
- ValidSlatsPos	1 Validity of field SlatsPosition	M	{0, 1}		cs
- reserved	2-7 reserved bits shall be ignored	--	0	--	0

Communication:

DP Address: (in the server)	IO Type(ID):	800 (SAB)	Property ID:	123
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

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1.5.40 Parameter BusReturnMode

FB: SAB	**Property Name (Server):** BusReturnMode	Mandatory ☐ Optional ☒

Description:

Parameter to define the behaviour of the actuator in case of a recovery of the bus.

DPT:	Name	DPT_SABExceptBehaviour	DPT ID	20.801	Datatype format	N_8

Field	Description	Sup.	Range	Unit	Default
Mode	- 0 = Up - 1 = Down - 2 = no change - 3 = value according additional parameter BusReturnValue - 4 = stop	M	[0 to 4]	--	cs

Communication:

DP Address: (in the server)	IO Type(ID):	800 (SAB)	Property ID:	124
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

It is allowed to restrict the range of values of this parameter

1.5.41 Parameter BusReturnValue

FB: SAB	Property Name (Server):	BusReturnValue	Mandatory ☐ Optional ☒

Description:

Parameter in addition to parameter BusReturnMod = 3 to define the behaviour after a recovery of the bus.
Field SlatsPosition shall be ignored if the actuator is only able to control the height position (e.g. in case of shutter control).
Field HeightPosition shall be ignored if the actuator is only able to control the angle position of the slats (e.g. control of vertical sunblinds).

DPT:	Name	DPT_CombinedPosition	DPT ID	240.800	Datatype format	$U_8U_8B_8$

Field	Description	Sup.	Range	Unit	Default
HeightPosition	Target height position of the blinds in percentage	M	cs	%	cs
SlatsPosition	Target slats-angle position in percentage	M	cs	%	cs
Attributes	Bit #				
- ValidHeightPos	0 Validity of field HeightPosition	M	{0, 1}		cs
- ValidSlatsPos	1 Validity of field SlatsPosition	M	{0, 1}		cs
- reserved	2-7 reserved bits shall be ignored	--	0	--	0

Communication:

DP Address: (in the server)	IO Type(ID):	800 (SAB)	Property ID:	125
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

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1.5.42 Parameter PowerFailureMode

FB: SAB	Property Name (Server):	PowerFailureMode	Mandatory ☐ Optional ☒

Description:

Parameter to define the behaviour of the actuator in case of the supply power failure, to switch e.g. a bistable relay before power down of the device

DPT:	Name	DPT_SABExceptBehaviour	DPT ID	20.801	Datatype format	N_8

Field	Description	Sup.	Range	Unit	Default
Mode	- 0 = Up - 1 = Down - 2 = no change - 4 = stop	M	[0 ; 1; 2; 4]	--	cs

Communication:

DP Address: (in the server)	IO Type(ID):	800 (SAB)	Property ID:	126
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

It is allowed to restrict the range of values of this parameter

1.5.43 Parameter BehaviourAtLocking

FB: SAB	Property Name (Server): BehaviourAtLocking	Mandatory ☐ Optional ☒

Description:

Parameter to define the behaviour of the actuator in case of input LockDevice changing from false -> true

DPT:	Name	DPT_SABBehaviour_Lock_Unlock	DPT ID	20.802	Datatype format	N_8

Field	Description	Sup.	Range	Unit	Default
Mode	- 0 = up - 1 = down - 2 = no change - 3 = value according to parameter LockSetvalue - 4 = stop	M	[0 to 4]	--	cs

Communication:

DP Address: (in the server)	IO Type(ID):	800 (SAB)	Property ID:	127
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

It is allowed to restrict the range of values of this parameter

1.5.44 Parameter LockSetvalue

FB: SAB	Property Name (Server): LockSetvalue	Mandatory ☐ Optional ☒

Description:

Parameter in addition to parameter BehaviourAtLocking = 3; to define the behaviour at the beginning of the lock state
Field SlatsPosition shall be ignored if the actuator is only able to control the height position (e.g. in case of shutter control).
Field HeightPosition shall be ignored if the actuator is only able to control the angle position of the slats (e.g. control of vertical sunblinds).

DPT:	Name	DPT_CombinedPosition	DPT ID	240.800	Datatype format	$U_8U_8B_8$

Field	Description	Sup.	Range	Unit	Default
HeightPosition	Target height position of the blinds in percentage	M	cs	%	cs
SlatsPosition	Target slats-angle position in percentage	M	cs	%	cs
Attributes	Bit #				
- ValidHeightPos	0	Validity of field HeightPosition	M	{0, 1}	--	cs
- ValidSlatsPos	1	Validity of field SlatsPosition	M	{0, 1}	--	cs
- reserved	2-7	reserved bits shall be ignored	--	0	--	0

DPT:	Name	DPT_CombinedPosition	DPT ID	240.800	Datatype format	U_8

Field	Description	Sup.	Range	Unit	Default
Setvalue	Dimming value in percent		0 % to 100 %	%	cs

Communication:

DP Address: (in the server)	IO Type(ID):	800 (SAB)	Property ID:	128
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

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1.5.45 Parameter BehaviourAtUnlocking

FB: SAB	Property Name (Server):	BehaviourAtUnlocking	Mandatory ☐ Optional ☒

Description:

Parameter to define the behaviour of the actuator in case of input LockDevice changing from true -> false

DPT:	Name	DPT_SABBehaviour_Lock_Unlock	DPT ID	20.802	Datatype format	N_8

Field	Description	Sup.	Range	Unit	Default
Mode	- 0 = up - 1 = down - 2 = no change - 3 = value according to parameter UnlockSetvalue - 5 = updated value - 6 = value before locking	M	[0 to 3; 5 6]	--	cs

Communication:

DP Address: (in the server)	IO Type(ID):	800 (SAB)	Property ID:	129
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

It is allowed to restrict the range of values of this parameter

1.5.46 Parameter UnlockSetvalue

FB: SAB	Property Name (Server):	UnlockSetvalue	Mandatory ☐ Optional ☒

Description:

Parameter in addition to parameter BehaviourAtUnlocking = 3; to define the behaviour at the end of the lock state
Field SlatsPosition shall be ignored if the actuator is only able to control the height position (e.g. in case of shutter control).
Field HeightPosition shall be ignored if the actuator is only able to control the angle position of the slats (e.g. control of vertical sunblinds).

DPT:	Name	DPT_CombinedPosition	DPT ID	240.800	Datatype format	$U_8U_8B_8$

Field	Description	Sup.	Range	Unit	Default
HeightPosition	Target height position of the blinds in percentage	M	cs	%	cs
SlatsPosition	Target slats-angle position in percentage	M	cs	%	cs
Attributes	Bit #				
- ValidHeightPos	0	Validity of field HeightPosition	M	{0, 1}	--	cs
- ValidSlatsPos	1	Validity of field SlatsPosition	M	{0, 1}	--	cs
- reserved	2-7	reserved bits shall be ignored	--	0	--	0

DPT:	Name	DPT_Scaling	DPT ID	5.001	Datatype format	U_8

Field	Description	Sup.	Range	Unit	Default
Setvalue	Dimming value in percentage		0 % to 100 %	%	cs

Communication:

DP Address: (in the server)	IO Type(ID):	800 (SAB)	Property ID:	130
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

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1.5.47 Parameter SceneLearningModeEnable

FB: SAB	**Property Name (Server):** SceneLearningModeEnable	Mandatory ☐ Optional ☒

Description:

This parameter is used to enable or disable globally for all scene numbers the learning of new scenes (e.g. to prevent unauthorized modification of scenes), regardless of the value of the field StorageFunction of the Scene Index in the Parameter SceneNumberList

DPT:	Name	DPT_Enable	DPT ID	1.003	Datatype format	B_1

Field	Description	Sup.	Range	Unit	Default
	0: disable scene learning 1: enable scene learning				disable

Communication:

DP Address:	IO Type(ID):	800 (SAB)	Property ID:	131
(in the server)	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

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1.5.48 Parameter SceneNumberList[n]

FB: SAB	**Property Name (Server):** SceneNumberList[n]	Mandatory ☐ Optional ☒

Description:

This parameter contains the list of Scene Numbers that are supported by FB SAB. The list is implemented as an array property with.
- current_nr_of_elem: shall equal the number of scenes that is currently configured in this FB
- max_nr_of_elem: shall equal the maximal number of scenes that is supported by this FB
- current_nr_of_elem ≤ max_nr_of_elem ≤ 64

Array elements beyond the current_nr_of_elem are void and shall not be evaluated by the FB at runtime. These array elements have not been configured yet and are invalid.

Each array element represents scene configuration information for one Scene Index.
This list shall allow linking a Scene Number to a Scene Index within the FB.
Values at an index n in this array Property shall relate to the same Scene Number as the array elements in the following array Properties:
- SceneTaughtIn[]
- AbsPositionScene[]

Each array element defines the following configuration information for one dedicated Scene Index:
- SceneNumber (0 to 63)
- activation/inactivation
- storage function enable/disable

DPT:	Name	DPT_SceneConfig	DPT ID	238.001	Datatype format	B_2U_6

Field	Description	Sup.	Range	Unit	Default
StorageFunction	This field shall indicate whether it shall be possible or not to change the set value for this Scene Number at runtime over the bus from FB SCS through input NumberedSceneControl. - 0: teach-in function enabled - 1: teach-in function disabled	O [1])	{0, 1}	none	cs
SceneActive	This field shall indicate whether or not the scene is active. If this field has the value *inactive* then this Scene Index is inactive and the contained Scene Number shall be regarded as void and not supported by the FB. 0 = scene is active 1 = scene is inactive	M	{0, 1}	none	cs
SceneNumber	This field shall contain the Scene Number that is assigned to this Scene Index. In case less Scene Numbers are configured than supported by this FB, then the field SceneActive shall be set to “Inactive” for this index and the value of the field SceneNumber shall be don’t care.	M	0 to 63	none	cs

Communication:

DP Address: (in the server)	IO Type(ID):	800 (SAB)	Property ID:	132
	Start-Index:	1	N° of elements	see above
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:
This list does not need to be sorted. Active and inactive Scene Numbers can be at any Index position. Any Scene Number shall appear at maximum once in this list, and this list shall not have duplicate entries. This is the responsibility of the Management Client that sets this Property Value. [1]) Support of this control field is optional. Teach-in may be enabled/disabled globally via SceneLearningModeEnable parameter. Behaviour of the property server if this field is not supported: the receiver (server) shall ignore the written value of this bit and respond with the actual (default) value.

1.5.49 Parameter SceneTaughtIn[n]

FB: SAB	**Property Name (Server):** SceneTaughtIn[n]	Mandatory ☐ Optional ☒

Description:

For each Scene Index this Property shall contain a Boolean indication whether or not the corresponding scene has been taught in already via input NumberedSceneControl.
This Datapoint shall be an array Property which contains one entry for each Scene Index that is supported by the FB SAB, with:
- current_nr_of_elem: shall equal the number of scenes that is currently configured in this FB
- max_nr_of_elem: shall equal the maximal number of scenes that is supported by this FB
- current_nr_of_elem ≤ max_nr_of_elem ≤ 64

Array elements beyond the current_nr_of_elem are void and shall not be evaluated by the FB at runtime. These array elements have not been configured yet and are invalid.
SceneTaughtIn information is interlinked with Scene Number via the Scene Index. Values at an index n in this array Property shall relate to the same Scene Number as the array elements in the following array Properties:
- SceneNumberList[]
- AbsPositionScene[]

DPT:	Name	DPT_Bool	DPT ID	1.002	Datatype format	B_1

Field	Description	Sup.	Range	Unit	Default
b [n]	- false: the Scene with Scene Index n is not (yet) taught in. - true: the Scene with Scene Index n is taught in.	M	{0, 1}	none	false

Communication:

DP Address: (in the server)	IO Type(ID):	800 (SAB)	Property ID:	133
	Start-Index:	1	N° of elements	see above [1)]
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

[1)] The number of array elements shall be the same as for Property SceneNumberList.

1.5.50 Parameter AbsPositionScene[n]

FB: SAB	**Property Name (Server):** AbsPositionScene[n]	Mandatory ☐ Optional ☒

Description:

For each Scene Index this Property shall define the target position (height and slats-angle) after recalling a dedicated Scene Number.
This Datapoint shall be an array Property which contains one entry for each Scene Index that is supported by the FB SAB, with:
- current_nr_of_elem: shall equal the number of scenes that is currently configured in this FB
- max_nr_of_elem: shall equal the maximal number of scenes that is supported by this FB
- current_nr_of_elem ≤ max_nr_of_elem ≤ 64

Array elements beyond the current_nr_of_elem are void and shall not be evaluated by the FB at runtime. These array elements have not been configured yet and are invalid.

AbsPositionScene information is interlinked with Scene Number via the Scene Index. Values at an index n in this array Property shall relate to the same Scene Number as the array elements in the following array Properties:
- SceneNumberList[]
- SceneTaughtIn[]

AbsPositionScene may be solely defined by configuration or may be changed at runtime via input NumberedSceneControl if the storage function is enabled for that Scene Index.
Field SlatsPosition shall be ignored if the actuator is only able to control the height position (e.g. in case of shutter control).
Field HeightPosition shall be ignored if the actuator is only able to control the angle position of the slats (e.g. control of vertical sunblinds).

DPT:	Name	DPT_CombinedPosition	DPT ID	240.800	Datatype format	$U_8U_8B_8$

Field	Description		Sup.	Range	Unit	Default
HeightPosition	Target height position of the blinds in percentage		M	cs	%	cs
SlatsPosition	Target slats-angle position in percentage		M	cs	%	cs
Attributes	Bit #					
- ValidHeightPos	0	Validity of field HeightPosition	M	{0, 1}	--	cs
- ValidSlatsPos	1	Validity of field SlatsPosition	M	{0, 1}	--	cs
- reserved	2-7	reserved bits shall be ignored	--	0	--	0

Communication:

DP Address: (in the server)	IO Type(ID):	800 (SAB)	Property ID:	134
	Start-Index:	1	N° of elements	see above [1]
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling: Value after Powerup: Stored Value ☒ Act Value ☐ Default Value ☐

--

Special Features:

[1] The number of array elements shall be the same as for Property SceneNumberList.

1.5.51 Parameter EnableBlindsMode

FB: SAB	**Property Name (Server):** EnableBlindsMode				Mandatory ☐ Optional ☒
Description:					
This parameter defines whether the actuator functions as a blinds actuator (with slats) or only as a shutter actuator (no slats –> step command is interpreted as stop)					
DPT: Name	DPT_Enable	DPT ID	1.003	Datatype format	B_1

Field	Description	Sup.	Range	Unit	Default
	0: disable ⇒ shutter mode 1: enable ⇒ blinds mode				cs

Communication:				
DP Address: (in the server)	IO Type(ID):	800(SAB)	Property ID:	135
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--
Exception Handling:	Value after Powerup:	Stored Value ☒	Act Value ☐	Default Value ☐
--				
Special Features:				
--				

1.5.52 Parameter ReactionWindAlarm

FB: SAB	**Property Name (Server):** ReactionWindAlarm				Mandatory ☐ Optional ☒
Description:					
Parameter to define the behaviour of the actuator in case of a wind alarm.					
DPT: Name	DPT_Alarm_Reaction	DPT ID	23.002	Datatype format	N_2

Field	Description	Sup.	Range	Unit	Default
Mode	- 0 = no reaction, alarm is not used - 1 = up - 2 = down	M	[0 to 2]	--	cs

Communication:				
DP Address: (in the server)	IO Type(ID):	800 (SAB)	Property ID:	140
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--
Exception Handling:	Value after Powerup:	Stored Value ☒	Act Value ☐	Default Value ☐
--				
Special Features:				
--				

1.5.53 Parameter ReactionRainAlarm

FB: SAB	**Property Name (Server):** ReactionRainAlarm				Mandatory ☐ Optional ☒
Description:					
Parameter to define the behaviour of the actuator in case of a rain alarm.					
DPT: Name	DPT_Alarm_Reaction	DPT ID	23.002	Datatype format	N_2

Field	Description	Sup.	Range	Unit	Default
Mode	- 0 = no reaction, alarm is not used - 1 = up - 2 = down	M	[0 to 2]	--	cs

Communication:				
DP Address: (in the server)	IO Type(ID):	800 (SAB)	Property ID:	141
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling:	Value after Powerup:	Stored Value ☒	Act Value ☐	Default Value ☐
--				
Special Features:				
--				

1.5.54 Parameter ReactionFrostAlarm

FB: SAB	**Property Name (Server):** ReactionFrostAlarm				Mandatory ☐ Optional ☒
Description:					
Parameter to define the behaviour of the actuator in case of a frost alarm.					
DPT: Name	DPT_Alarm_Reaction	DPT ID	23.002	Datatype format	N_2

Field	Description	Sup.	Range	Unit	Default
Mode	- 0 = no reaction, alarm is not used - 1 = up - 2 = down	M	[0 to 2]	--	cs

Communication:				
DP Address: (in the server)	IO Type(ID):	800 (SAB)	Property ID:	142
	Start-Index:	1	N° of elements	1
Property access:	Read only ☐		Read/Write ☒	
Protection	Read level	--	Write level	--

Exception Handling:	Value after Powerup:	Stored Value ☒	Act Value ☐	Default Value ☐
--				
Special Features:				
--				

1.5.55 Parameter TimeoutWindAlarm

FB: SAB	**Property Name (Server):** TimeoutWindAlarm				Mandatory ☐ Optional ☒
Description:					
This parameter defines the timeout period for receiving a message on input WindAlarm					
DPT: Name	DPT_TimePeriodMin	DPT ID	7.006	Datatype format	U_{16}

Field	Description	Sup.	Range	Unit	Default
TimePeriodMin	Timeout on WindAlarm input	M	cs	min	cs

Communication:				
DP Address: (in the server)	IO Type(ID): 800(SAB)	Property ID: 143		
	Start-Index: 1	N° of elements 1		
Property access:	Read only ☐	Read/Write ☒		
Protection	Read level --	Write level --		
Exception Handling:	Value after Powerup:	Stored Value ☒	Act Value ☐	Default Value ☐
--				
Special Features:				
--				

1.5.56 Parameter TimeoutRainAlarm

FB: SAB	**Property Name (Server):** TimeoutRainAlarm				Mandatory ☐ Optional ☒
Description:					
This parameter defines the timeout period for receiving a message on input RainAlarm					
DPT: Name	DPT_TimePeriodMin	DPT ID	7.006	Datatype format	U_{16}

Field	Description	Sup.	Range	Unit	Default
TimePeriodMin	Timeout on RainAlarm input	M	cs	min	cs

Communication:				
DP Address: (in the server)	IO Type(ID): 800(SAB)	Property ID: 144		
	Start-Index: 1	N° of elements 1		
Property access:	Read only ☐	Read/Write ☒		
Protection	Read level --	Write level --		
Exception Handling:	Value after Powerup:	Stored Value ☒	Act Value ☐	Default Value ☐
--				
Special Features:				
--				

1.5.57 Parameter TimeoutFrostAlarm

FB: SAB	**Property Name (Server):** TimeoutFrostAlarm				Mandatory ☐ Optional ☒
Description:					
This parameter defines the timeout period for receiving a message on input FrostAlarm					
DPT: Name	DPT_TimePeriodMin	DPT ID	7.006	Datatype format	U_{16}

Field	Description	Sup.	Range	Unit	Default
TimePeriodMin	Timeout on FrostAlarm input	M	cs	min	cs

Communication:				
DP Address: (in the server)	IO Type(ID): 800(SAB)	Property ID: 145		
	Start-Index: 1	N° of elements 1		
Property access:	Read only ☐	Read/Write ☒		
Protection	Read level --	Write level --		
Exception Handling:	Value after Powerup:	Stored Value ☒	Act Value ☐	Default Value ☐
--				
Special Features:				
--				