

Application Descriptions

HVAC General Functional Blocks

HVAC HMI Functional Blocks

Summary

This Approved Standard is a part of the HVAC Application Interworking Standard for HVAC applications. This Chapter describes the HMI (Human Machine Interface) Functional Blocks.

Version 02.05.02 is WGI approved.

This document is part of the KNX Specifications v2.1.

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Document updates

Version	Date	Modifications
v2.3 AS	2006.07.31	Publication of the Approved Standard.
v2.4 AS	2008.09.09	AN106 "Phasing out TP0" integrated.
		AN107 "Phasing out LT-R" integrated.
		AN108 "Phasing out LT-S" integrated.
		AN109 "Phasing out PL132" integrated.
		AN110 "Phasing out A-Mode" integrated.
V2.4 AS	2009.05.06	Editorial update in view of publication in the KNX Specifications v2.0.
V2.5 Draft	2013.10.07	 Parameters TempRoomSetpUserOffsetMin, TempRoomSetpUserOffsetMax, TempRoomSetpUserAbsMin and TempRoomSetpUserAbsMax added to FB UHRS. Parameters AQSetpUserMax and AQSetpUserMin added to FB UAQSS. Parameters HumRelSetpUserMax and HumRelSetpUserMin added to FB URHSS. TempRoomSetpUserOffsetEff, TempRoomSetpAbsEff, ComfortProlongEff added to FB UHD Editorial
V.2.5.01 Draft	2013.10.14	 Integration of feedback from WGI meeting FB UFS: table "Interworking of devices with different number of steps" updated Editorial
02.05.02	2013.10.29	Editorial updates for the publication of KNX Specifications 2.1.

Copies with the same version number but a newer save date contain small corrections without impact on the content.

References

Chapter 7/10/1	"HVAC Sensor Functional Blocks"
Chapter 7/10/2	"HVAC HMI Functional Blocks"
Chapter 7/10/3	"HVAC Actuator Functional Blocks"
Chapter 7/10/4	"HVAC Common Functional Blocks"
Chapter 7/10/5	"HVAC Scheduler Functional Blocks"
Chapter 7/10/9	"Property Identifiers"
Part 7/11	"Hot Water Heating - Introduction"
Part 7/12	"Direct Electric Heating"
Part 7/13	"Terminal Unit Functional Blocks"
Part 7/14	"Ventilation & Air Conditioning and Cold Water"
Part 10/1	"Logical Tag Extended"
Chapter 3/7/2	"Datapoint Types"
Chapter 7/10/10	HVAC Interface Object Type Identifier"
	Chapter 7/10/2 Chapter 7/10/3 Chapter 7/10/4 Chapter 7/10/5 Chapter 7/10/9 Part 7/11 Part 7/12 Part 7/13 Part 7/14 Part 10/1 Chapter 3/7/2

Filename: 07_10_02 HVAC FB HMI v02.05.02 WGI.docx

Version: 02.05.02
Status: WGI approved
Savedate: 2013.10.29
Number of pages: 133

Contents

1	Inti	roducti	on	5
	1.1		<u> </u>	
	1.2	_	ctives	
	1.3		ndence on Configuration Modes	
		1.3.1	Runtime Interworking	
		1.3.2	Parameters and Diagnostic Data	
	1.4	Gloss	sary	
	1.5		eviations	
2	For	mal M	atters	11
4	2.1		duction to Functional Block.	
	2.2		ription of Functional Block	
	2.2	2.2.1	Aims and objectives	
		2.2.2	Functional specifications	
		2.2.3	Constraints	
		2.2.4	Functional Block diagram	
		2.2.5	Datapoint Description	
•			•	
3		II Func	tional Blocks	15
	3.1		duction to HMI Functional Blocks	
	3.2		HVAC Room Settings (UHRS)	
		3.2.1	Aims and objectives	
		3.2.2	Functional specifications	
		3.2.3 3.2.4	Constraints	
		3.2.4	Functional Block diagram	
		3.2.5	Datapoint Description Detailed Specification of the Datapoints	
	2 2		HVAC Display (UHD)	
	3.3	3.3.1	Aims and objectives	
		3.3.1	Functional specifications	
		3.3.3	Constraints	
		3.3.4	Functional Block diagram	
		3.3.5	Datapoint Description	
		3.3.5	Detailed Specification of the Datapoints	
	3 4	3.3.0	Presence Switch (UPS)	
	5.1	3.4.1	Aims and objectives	
		3.4.2	Functional specification.	
		3.4.3	Constraints	
		3.4.4	Functional Block diagram	
		3.4.5	Datapoints description	
		3.4.6	Detailed Specification of the Datapoints	
	3.5	User	Fan Speed Setting (UFS)	
		3.5.1	Aims and objectives	
		3.5.2	Functional specifications	
		3.5.3	Constraints	
		3.5.4	Functional Block diagram	
		3.5.5	Datapoints description	
		3.5.6	Detailed Specification of the Datapoints	
	3.6	User	Air Quality Setpoint Setting (UAQSS)	
		3.6.1	Aims and objectives	83

	3.6.2	Functional specification	83
	3.6.3	Constraints	
	3.6.4	Functional Block diagram	84
	3.6.5	Datapoints description	
	3.6.6	Detailed Specification of the Datapoints	
3.7	User F	Relative Humidity Setpoint Setting (URHSS)	
	3.7.1	Aims and objectives	
	3.7.2	Functional specification	
	3.7.3	Constraints	
	3.7.4	Functional Block diagram	100
	3.7.5	Datapoints description	100
	3.7.6	Detailed Specification of the Datapoints	102
3.8	User E	Enable Alternative Room Temperature Setpoint (UEARTS)	114
	3.8.1	Aims and objectives	114
	3.8.2	Functional specification	114
	3.8.3	Constraints	114
	3.8.4	Functional Block diagram	114
	3.8.5	Datapoints description	115
	3.8.6	Detailed Specification of the Datapoints	116
3.9	Room	Temperature Setpoint Absolute Setting (RTSA)	122
	3.9.1	Aims and objectives	122
	3.9.2	Functional specification	122
	3.9.3	Constraints	122
	3.9.4	Functional Block diagram	122
	3.9.5	Datapoints description	123
	3.9.6	Detailed Specification of the Datapoints	124
3.10	0 User C	Change Over Setting (UCOS)	
	3.10.1	Aims and objectives	128
	3.10.2	Functional specifications	128
	3.10.3	Constraints	
	3.10.4	Functional Block diagram	
	3.10.5	Datapoint Description	
	3.10.6	Detailed Specification of the Datapoints	130

1 Introduction

1.1 Scope

This document is part of the KNX HVAC Application Interworking Standard. It contains the Specification of the Sensor Functional Blocks used for HVAC applications.

Other general purpose Functional Blocks used for HVAC applications such as 'HVAC HMI' [02], 'HVAC Actuators' [03], 'HVAC Common Functions' [04] and 'HVAC Schedulers' [05] are described in separate documents.

Functional Block specification for the applications 'Hot Water Heating' (HWH) [07], 'Direct Electric Heating' (DEH) [08], 'Terminal Units' (TU) [09] and 'Ventilation & Air Conditioning' (VAC) [10] are described in separate documents.

1.2 Objectives

This document includes the information necessary to build interoperable HVAC Sensor products using the KNX Bus. Runtime process interworking between HVAC control devices at the application level is the focus. Also data-interfaces for parameter setting, visualisation etc. are specified where appropriate (only state of the art datapoints generally used in all companies).

In addition, this document specifies the specific mechanisms for zoning and runtime process data distribution used in HVAC for an 'easy installation' system (LTE-HEE Mode [11]).

This is a technical specification with informative material provided as needed to convey key concepts. The approach taken here is a top-down view of interoperability. The HVAC system model is based on the decomposition of the distributed HVAC application by means of functional blocks, i.e. black-box description of functional blocks including data-interface and relationship to other functional blocks.

Every functional block may be part of a complex device (e.g. a heating controller) containing more than one functional block. Because of this modular approach, there is no attempt in this specification to describe or dictate the internal construction of a functional block or to describe specific device types.

This document only includes details of the transport protocol as needed to specify interoperability and easy installation mechanisms. The document does not specifically cover implementation aspects, but guidelines are included where appropriate.

This part of the KNX HVAC specification is mainly but not completely independent of the underlying protocol since specific mechanisms for "easy configuration" and runtime data distribution must be available on the network.

Completely protocol dependent parts of the HVAC Sensor Specification such as data encoding and Datapoint Types, object address tables, group address tables etc. are not part of this document.

1.3 Dependence on Configuration Modes

The main focus of this document is the specification of the **Basic Functional Blocks** and the **LTE specific parts**.

The document provides all necessary information needed:

- for a complete implementation of the Functional Blocks in LTE mode
- for the implementation of mandatory objects used for runtime interworking in standard mode (Basic Functional Block)

1.3.1 Runtime Interworking

Configuration Mode dependent (S-Mode, Ctrl-Mode, PB-Mode implementation of optional runtime interworking objects is not specified in this document, e.g. "easy channel" definitions.

The following table (example) shows the mode dependencies concerning runtime interworking

			STANDARD MODE	Extended MOde	
		Basic FB	S-Mode	Standard Mode Interface	HEE
Inputs	Inp1	NA	NA	NA	M
	Inp2	NA	NA	NA	0
	Inp3	(GO _b)			0
Outputs	Outp1	NA	NA	NA	M
	- Outp1-1	GO _b	GO	GO	NA
	- Outp1-2	GO _b	GO	GO	NA
	Outp 2	GO_b	GO	GO	M

Inp1: is mandatory M in LTE Mode but the information is not available NA in the Basic FB and all other modes because the datapoint type (DPT) is <u>today</u> not available in standard mode and there are no products on the market with this functionality.

Inp2: is optional O in LTE Mode but the information is not available NA in the Basic FB and all other modes because the DPT is <u>today</u> not available in standard mode and there are no products on the market with this functionality.

Inp3: is optional O in LTE Mode and an optional Group Object in the Basic FB (GO_b). The datapoint is optionally supported as Group Object in the LTE Standard Mode Interface (GO). For all other modes the implementation is not defined. This is indicated by an empty field.

Outp1: is mandatory M in LTE Mode and has a structured DPT or a DPT with extended features which is today not available in standard mode. In the Basic FB the information of Outp1 is split up into Outp1-1 and Outp1-2 (separate datapoints with standard DPT).

Outp1-1 and Outp1-2 are mandatory Group Objects GO in the Basic FB and are therefore mandatory in all modes.

Outp2: is mandatory in all modes.

1.3.2 Parameters and Diagnostic Data

LTE implementation:

- Parameters and Diagnostic Data of a Functional Block shall be implemented as Properties of the corresponding Interface Object which are accessed using individual addressing.
- These Properties are addressed via the standard Interface Object Type (IO Type) for this Functional Block. This IO Type is also used for datapoint addressing in the LTE runtime interworking model
- Standard DPT or HVAC specific DPT with extended features are used where appropriate.

Other modes:

- Parameters and Diagnostic Data can in principle be implemented as memory mapped datapoints or Group Objects or Properties of an Interface Object using individual addressing. This document does not lay down how to implement Parameters and Diagnostic Data in S-Mode, Ctrl-Mode and PB-Mode.
- In case of **Memory Mapped** datapoints the DPT may be manufacturer specific
- In case of **Group Objects** standard DPT shall be used instead of HVAC specific (extended) DPT. The description of these Group Objects shall be part of the mode-dependent specification (e.g. Channel definition).
- In case of **Properties**, the implementation of HVAC specific DPT with extended features may be a problem (depending on the available microcontroller ressources). The manufacturer has the choice:
 - ⇒ to use the LTE style Property implementation as specified in this document (with the DPT and IO Type for LTE implementations) **IO Type**^{used} = **IO Type**^{HVAC-LTE}
 - ⇒ to implement these Properties using standard DPT only.
 In this case, the same Property ID but a different IO Type shall be used since the DPT of a Property shall be unambiguous for each IO Type.
 Simple IOT mapping rule: IO Type^{used} = IO Type^{standardDPT} = IO Type^{HVAC-LTE} + 10000d
 (e.g. BUCHVAC-LTE = 128 => BUCstandardDPT = 10128)
 - ⇒ It is allowed to implement in a device both Interface Object Types IO Type^{HVAC-LTE} and IO Type^{standardDPT}. The implementation of parameters and diagnostic data of one given Functional Block shall however be complete. It is thus not allowed to implement part of the datapoints of a Functional Block in IO Type^{standardDPT} and the remaining in IO Type^{HVAC-LTE}.

	Implementation of Parameter and Diagnostic Data				
	Proper	ty based	Group Object	Memory mapped	
	LTE style	Standard DPT			
IO Type	IO Type ^{HVAC-LTE} e.g. BUC=128	$ \begin{aligned} \text{IO Type}^{\text{HVAC-LTE}} + 10000 \\ \text{e.g. BUC=} 10128 \end{aligned} $			
Property ID	Property ID x	Property ID x			
	if standard DPT	=> same standard DPT	=> same standard DPT	company specific	
DPT	if HVAC-LTE specific*) e.g. 205.100	=> mapped standard DPT, e.g. 9.001	=> mapped standard DPT, e.g. 9.001		

In this document only the **HVAC-LTE style** of Parameters and Diagnostic Data is specified for IO Type HVAC-LTE.

In the FB datapoint overview those Parameters and Diagnostic Data with HVAC-LTE specific (extended) DPT are marked "*)"

The mapping of HVAC specific DPT to standard DPT is generic and described in the document [12].

1.4 Glossary

This glossary only contains a few positions, which might be misunderstood.

Term	Description
Supervisor	Supervisor stands for building management station, programme unit or similar installations, which normally are computer based.

1.5 Abbreviations

Functional Blocks:

Sensors [01], HMI [02], Actuators [03], Common Controller Functions [04]

Abbreviation	[Doc]	Description
FSA	3	Fan Speed Actuator
OAQS	1	Outside Air Quality Sensor
ORHS	1	Outside Relative Humidity Sensor
OTS	1	Outside Temperature Sensor
RAQS	1	Room Air Quality Sensor
RRHS	1	Room Relative Humidity Sensor
RSMHD	4	Room Setpoint Manager HVAC Mode Driven
RSMTD	4	Room Setpoint Manager Temperature Driven
RTS	1	Room Temperature Sensor
RTSA	2	Room Temperature Setpoint Absolute Setting
UAQSS	2	User Air Quality Setpoint Setting
UCOS	2	User Change Over Setting
UEARTS	2	User Enable Alternative Room Temperature Setpoint
UFS	2	User Fan Speed Setting
UHD	2	User HVAC Display
UHRS	2	User HVAC Room Settings
UPS	2	User Presence Switch
URHSS	2	User Relative Humidity Setpoint Setting

Terminal Units (TU) [09]

as far as relevant in this document

Abbreviation Description

General

Abbreviation	Description
cs	Company Specific
GO	Group Object mandatory
(GO)	Group Object optional
M	Mandatory
NA	Not Allowed / Not Applicable
O	Optional
S	Has to be implemented in Standard Mode, if implemented in LTE-HEE Mode

HEE HVAC Easy Extension

HVAC Heating Ventilation Air Conditioning

LTE Logical Tag Extended

IR LTE-Service InfoReport W LTE-Service Write

DEH LTE-Service InfoReport
DHW LTE-Service Write
TU Terminal Unit

VAC Ventilation and Air Conditioning

2 Formal Matters

2.1 Introduction to Functional Block

The functional blocks are described in a standard way as described below.

Every functional block may be part of a complex device (e.g. a controller) containing more than one functional block.

A functional block never can be split. Although not all inputs, outputs etc. are mandatory. The optional inputs, outputs do not have to be realised.

2.2 Description of Functional Block

2.2.1 Aims and objectives

This chapter shall give a overview of the functionality of the functional block, as well as eventually information about interworking with other functional blocks.

2.2.2 Functional specifications

This chapter gives detailed information about the Inputs, the Outputs, the Parameters, the Diagnostic Data, the Alarms and the Hardwired I/O's.

2.2.3 Constraints

Constraints for the use of the functional block as well as for the use of Inputs, Outputs, Parameters, Diagnostic Data, Alarms etc. are described here.

2.2.4 Functional Block diagram

On top of the functional block the name and it's abbreviation is marked.

Then the Inputs / Outputs are following.

The Inputs / Outputs are grouped in Binding Groups, according to LTE (Logical Tag Extended).

Mandatory Inputs / Outputs have a grey arrow with the letter M.

They also have to be available in the System Mode.

Optional Inputs / Outputs have a white arrow.

Some of these Inputs / Outputs, in case of being implemented, also have to be available in the System Mode. These Inputs / Outputs have a white arrow with the letter S.

Some of the Inputs / Outputs only make sense in combination, others may be used either / or.

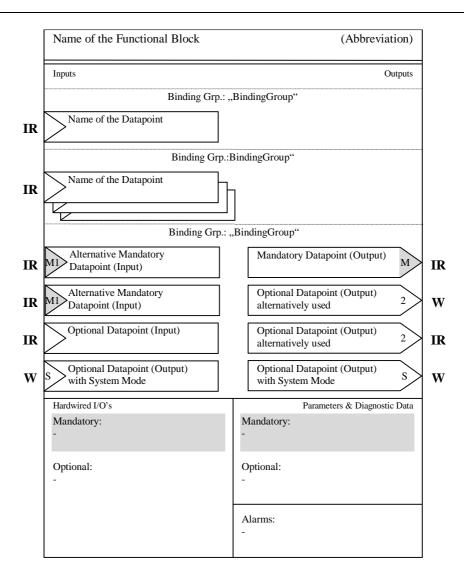
Such Inputs / Outputs are grouped with numbers.

At the bottom there are three fields:

On the left-hand side we find the Hardwired Inputs / Outputs, the mandatory ones in a grey field, the optional ones in a white field.

On the right-hand side there is a field for the Parameters and the Diagnostic Data used in the functional block (mandatory in grey, optional in white).

On the right-hand side at the bottom there is the field for the Alarms, generated in the functional block (for use in the functional block Alarm Source).



2.2.5 Datapoint Description

2.2.5.1 Overview

ID	Datapoints	Description / Remarks	Data Point Type	Additional Information
	Inputs			
	Name of the Data- Point	Descriptions, remarks if necessary	Name of the Datapoint Type and/or coding	
			LTE: DPT_TempHVACAbs_Z $V_{16}Z_8$	
			S: DPT_Value_Temp F ₁₆	
				M = mandatory, with system mode M1/M2 = alternative mandatory
				O = optional, system mode optional
				S = optional, but if implemented, then with system mode
				1,2 the numbers represent alternative packages
				Unit of the Datapoint Value Default Value
				Range indications
	Outputs			
	Name of the Data- Point	see above	see above	see above
	Parameters			
	Name of the Parameter	see above	see above	see above
	Diagnostic Data			
	Name of the Diagnostic Data	see above	see above	see above

ID	Alarm	Description / Remarks	Er	ror	Additional Information
			Code	Prio	
	Name of the Alarm	Descriptions, remarks if necessary	Code of the Alarm	Priority of the Alarm	Additional Information

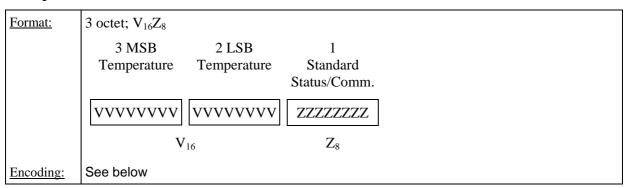
Detailed Specification of the Datapoints

Detailed description of the Datapoints is given in a separate document [12].

Notations:

Symbol	Field
A	Character
$A_{[n]}$	Character String with Length n
В	Boolean / Bit set
C	Control
Е	Exponent
F	Float (with ME)
M	Mantisse
N	eNumeration
S	Sign
U	Unsigned value
V	2's Complement signed value
\mathbb{Z}_8	Standardised Status/Command B ₍₈₎

Example:



Octets are transmitted from left to right, i.e. octet 1 is transmitted last.

Standard Status/Command Information

Some of the Datapoints are combined with Standard Status/Command Information. For further information see [12].

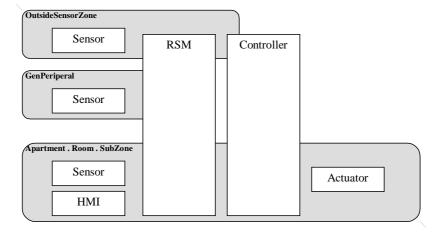
3 HMI Functional Blocks

3.1 Introduction to HMI Functional Blocks

This document contains the HMI functional blocks.

The blocks are deliberately kept small in order to keep transparency.

It is possible to combine more than one functional block in a device.



3.2 User HVAC Room Settings (UHRS)

3.2.1 Aims and objectives

The functional block 'User HVAC Room Settings' provides the system with the following settings:

- absolute user temperature setpoint (°C)
- relative user temperature setpoint (K)
- comfort prolongation
- comfort pushbutton
- HVAC mode

The selection out of these functions is company specific (cs).

This functional block is used e.g. in a 'Room Device' or in a more complex device which has one or some of these functions. It may be combined with the functional block 'User HVAC Display' which indicates the corresponding information.

3.2.2 Functional specifications

The distribution of the setpoint information in the system is event-driven (COV-condition, change of value) and in addition repeated periodically.

The 'User HVAC Room Settings' supports the LTE zoning "Apartment . Room . SubZone".

Outputs

• TempRoomSetpUserAbs This is the absolute room temperature setpoint [°C]

given by the HMI.

TempRoomSetpUserOffset
 This is the room temperature setpoint offset [K]

given by the HMI.

Normally only one of the two user setpoint functions

is realised in a device.

• ComfortProlongUser This trigger information creates an additional period

of comfort in the room setpoint manager

(see Functional specification of the room setpoint

manager [04])

• ComfortPushbutton This trigger information changes the HVAC mode in

the room setpoint manager

(see Functional specification of the room setpoint

manager [04])

• HVACModeUser This information defines the HVAC mode selected by

the user

AUTO, Comfort, Standby, Economy, Build. Protection.

AUTO stands for no mode required, this means the mode of the setpoint manager is valid.

(see Functional specification of the room setpoint

manager [04])

Binding Group (LTE)

• Apartment . Room . SubZone no special features

Parameters

• TempCOVCondition This parameter defines at what change of the setpoint

value the information is transmitted due to COV.

This COV condition is valid for TempRoomSetpUserAbs

and for TempRoomSetpUserOffset.

• RelativeSetpointRange This parameter is used in connection with the offset function to

define the range within which the setpoint may be adapted.

The parameter pair TempRoomSetpUserOffsetMin /

TempRoomSetpUserOffsetMax may alternatively (exclusive)

be used instead of parameter RelativeSetpointRange.

• TempRoomSetpUserOffsetMin This parameter is used in connection with the offset function to

define the negative range the relative setpoint may be adapted

within.

• TempRoomSetpUserOffsetMax This parameter is used in connection with the offset function to

define the positive range the relative setpoint may be adapted

within.

• TempRoomSetpUserAbsMin This parameter is used in connection with the absolute function

to define the lower limit of the range the absolute setpoint may

be adapted within.

• TempRoomSetpUserAbsMax This parameter is used in connection with the absolute function

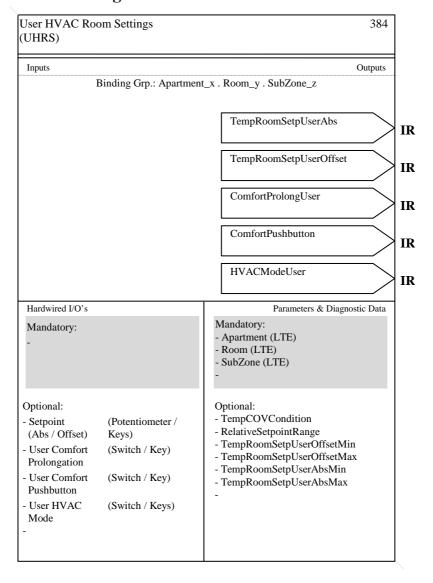
to define the upper limit of the range the absolute setpoint may

be adapted within.

3.2.3 Constraints

None.

3.2.4 Functional Block diagram



3.2.5 Datapoint Description

Overview

Datapoints	Description / Remarks	Data Point Type	Additional Info			
Outputs						
Temp Room Setp User Abs	One temperature value, normally for comfort with: - COV and RepPer - Z ₈ not supported to FB Room Setpoint Manager	$ \begin{array}{ll} \text{LTE: } 205.100 \\ \text{DPT_TempHVACAbs_Z} \\ V_{16}Z_8 \\ \text{S: } 9.001 \\ \text{DPT_Value_Temp} \\ F_{16} \end{array} $	LTE: O 1) S: (GO) °C			
Temp Room Setp User Offset	One temperature shift value, normally for comfort with: - COV and RepPer - Z ₈ not supported to FB Room Setpoint Manager	$ \begin{array}{ll} \text{LTE: } 205.101 \\ \text{DPT_TempHVACRel_Z} \\ V_{16}Z_8 \\ \text{S: } 9.002 \\ \text{DPT_Value_Tempd} \\ F_{16} \end{array} $	LTE: O 1) S: (GO) K			
Comfort Prolong User	Comfort prolongation trigger with: - COV and NO RepPer to FB Room Setpoint Manager see Functional specifications in room setpoint manager	LTE: 1.017 DPT_Trigger B ₁ S: 1.017 DPT_Trigger B ₁	LTE: O 1) S: (GO) 1 = Trigger (0 not used)			
Comfort Pushbutton	Comfort pushbutton trigger with: - COV and NO RepPer to FB Room Setpoint Manager see Functional specifications in room setpoint manager	LTE: 1.017 DPT_Trigger B ₁ S: 1.017 DPT_Trigger B ₁	LTE: O 1) S: (GO) 1 = Trigger (0 not used)			
HVAC Mode User	User HVAC Mode with: - COV and RepPer - Z ₈ not supported to FB Room Setpoint Manager	$ \begin{array}{ll} \text{LTE: } 201.100 \\ \text{DPT_HVACMode_Z} \\ N_8Z_8 \\ \text{S: } 20.102 \\ \text{DPT_HVACMode} \\ N_8 \end{array} $	LTE: O 1) S: (GO) $0 = AUTO$ $1 = Comfort$ $2 = Standby$ $3 = Economy$ $4 = Building.Prot.$			
Parameters						
Apartment	LTE zoning number for Apartment	202.002 DPT_UcountValue8_Z U ₈ Z ₈	M 1			
Room	LTE zoning number for Room	$\begin{array}{c} 202.002 \\ \text{DPT_UcountValue8_Z} \\ U_8Z_8 \end{array}$	M 1			
SubZone	LTE zoning number for SubZone	$\begin{array}{c} 202.002 \\ DPT_UcountValue8_Z \\ U_8Z_8 \end{array}$	M 1			
Temp COV Condition	Value for COV condition - Z ₈ not supported	$\begin{array}{c} 205.101 & ^{2)} \\ DPT_TempHVACRel_Z & \\ V_{16}Z_8 & \end{array}$	O 0.2 K			
Relative Setpoint Range	Value for the range in which the offset may be used (e.g. +/-3K)	$\begin{array}{c} 205.101 & ^{2)} \\ \text{DPT_TempHVACRel_Z} \\ V_{16}Z_{8} \end{array}$	O cs			

Datapoints	Description / Remarks	Data Point Type	Additional Info
TempRoom SetpUser OffsetMin	Value for the negative range the relative setpoint may be adapted within. (e.g3K)	$ \begin{array}{c} 205.101 \\ DPT_TempHVACRel_Z \\ V_{16}Z_8 \end{array} $	O cs
TempRoom SetpUser OffsetMax	Value for the positive range the relative setpoint may be adapted within. (e.g. +3K)	$\begin{array}{c} 205.101 & ^{2)} \\ DPT_TempHVACRel_Z & \\ V_{16}Z_8 & \end{array}$	O cs
TempRoom SetpUser AbsMin	Value for the lower limit of he range the absolute setpoint may be adapted within. (e.g. 18°C)	$\begin{array}{c} 205.100 \\ DPT_TempHVACAbs_Z \\ V_{16}Z_8 \end{array}$	O cs
TempRoom SetpUser AbsMin	Value for the upper limit of the range the absolute setpoint may be adapted within. (e.g. 24°C)	$\begin{array}{c} 205.100 \\ DPT_TempHVACAbs_Z \\ V_{16}Z_8 \end{array}$	O cs

at least one of these functions has to be implemented (cs)

UHRS Runtime Interworking - Dependence on Configuration Modes

			STANDARD MODE		NDED ODE
		Basic FB	S-Mode	Standard Mode Interface	HEE
Inputs					
Outputs	TempRoomSetpUserAbs	(GO) _b		(GO)	0
	TempRoomSetpUserOffset	(GO) _b		(GO)	0
	ComfortProlongUser	(GO) _b		(GO)	0
	ComfortPushbutton	(GO) _b		(GO)	0
	HVACModeUser	(GO) _b		(GO)	0

UHRS LTE specific Properties

		Support
Parameter	Apartment	M
	Room	M
	SubZone	M

²⁾ Implementation of Properties using standard DPT see chapter 1.3.2

UHRS Standard Properties of Interface Objects (or memory mapped DP)

		Support
Parameter	TempCOVCondition	0
	RelativeSetpointRange	0
	TempRoomSetpUserOffsetMin	0
	TempRoomSetpUserOffsetMax	0
	TempRoomSetpUserAbsMin	0
	TempRoomSetpUserAbsMax	0

3.2.6 Detailed Specification of the Datapoints

3.2.6.1 Output TempRoomSetpUserAbs

Standard Mode:

DP Name:	Ten	npRoon	nSetpl	UserAbs		Abbı	r.:		Manda	tory	
FB Name:	UHF	RS							Can be	interna	al 🗌
Description											
This informat	ion is	sent to	the ro	oom setpoint	manage	er.					
Datapoint Ty	/ре										
DPT_Name:	DI	PT_Val	ue_Te	mp							
DPT Format:	F_1	6						DPT_ID:	9.001		
Field	De	escription	on					Supp.	Range	Unit	Default
									Full	°C	CS
Access Type)										
♦ Output											
this \rightarrow M	\triangleright		tl	his \rightarrow 1							
Spontane	ous		COV:		Delta-	-Value:	0.2	MinRepTin	ne:	0 s 1)	
			Cyclic	; 2)	Perio	d:	2)	•	'		
Request					•	'					
Communica	tion ⁻	Туре									
♦ Group Ol	oject	Datapo	int						Mandatory	<i>'</i> : 🛛	
Default G									•		
Dynamics											
Power do	wn:	Save:									
Power up:		Value	:	No initialisat	ion:		Defa	ault value:			
				Saved value	e: [Actu	al value:			
		Trans	mit on	bus:							
Exception H	andli	ng					,				
Special Feat	ures										
1) The signa	ıl mav	y be se	nt imm	nediately if th	e COV i	s the res	sult of a	a user intera	action enab	ling fas	st
feedback.		•		•						J	
2) Heartbear	t allov	wed (re	comm	ended value	15 min)	; not rec	ommei	nded, if mo	re than 1 U	HRS is	linked to
				a heartbeat c							
togaling o	f the	TempE	2nnmS	Setal IserAhs	at the co	onsumer	٠)		-		

LTE-HEE Mode:

FB:	UHRS	LTE Se	rve	er Output Name:	r Output Name: TempRoomSetpUserAbs Mandate Optio								
Desc	ription:	-			·					-			
This i	nformation	is sent to	th	e room setpoint i	manager.								
DPT:	Name	DPT_Te	mp	HVACAbs_Z	DPT ID		205.10	0	Dat	atype	format \	/ ₁₆ Z ₈	
Field			De	escription			Sup.	Ra	nge		Unit	COV	Default
	erature		Ac	tual temperature		Full Range			°C	0.2	cs		
STAT													
- all b			No	ot supported			NA						
	munication												
	ding Group):											
Clas				Туре						Defau	lt		
	eographical	-	<u> </u>	Apartment . Roor	m . SubZor	e.				1.1.1			
	plication S	pecific L	<u> </u>										
	eripheral		_	Broadcast	Config								
	Address:			IO Type(ID):	384 (UH			41		rty ID			- ²⁾ min
	LTE-Services (event):			COV 🛛	MinRepT		e. u	S	sec		Heartbea		- !!!!!!
ını	foReport	\boxtimes		Output per defau		<u>ca</u>	ting	В			up Wildca		_
/I ·	TE Read-R	ocnonco	H	Tx Prio:	High [NO	rmal 🏻	<u> </u>	Low	Ш
	olling of the												
	all always b			Transm after Pov	ver-up: Sto	rec	d Value		Α	ct Val	ue 🛛 🏻 D	efault Va	alue 🗌
	pported)	,,											
	perty-Serv	ice	1.		_								
	lividual acc		ŀ	Read only [Read/\	/Vrit	е	\boxtimes			
Exce	ption Hand	lling:									Save a	Powerd	lown 🗌
	ial Feature												
		ay be se	nt ir	mmediately if the	COV is the	e r	esult of	aι	ıser	intera	ction enal	oling fast	İ
٥١ -	edback.												
				nmended value 1									
				tbeat causes pro		ese	e UHRS	ar	e no	t sync	hronized	(→ toggl	ing of
th	e TempRod	mSetpU	ser	rAbs at the consu	ımer).								

${\bf 3.2.6.2} \quad Output \ TempRoomSetpUserOffset$

Standard Mode:

DP Name:	Temp	RoomSetpl	JserOffset		Ab	br.:			Manda	tory	
FB Name:	UHRS	3							Can be	interna	al 🔲
Description											
This information	on is s	ent to the ro	oom setpoint	manag	er.						
Datapoint Ty	ре										
DPT_Name:	DPT	_Value_Te	mpd								
DPT Format:	F ₁₆							DPT_ID:	9.002		
Field	Des	cription						Supp.	Range	Unit	Default
									Full	K	CS
Access Type	!										
♦ Output											
this $\rightarrow M$		th	his \rightarrow 1								
Spontaneo	ous			Delta-	√alue:	0.2		MinRepTir	ne:	0 s 1)	
		Cyclic	;	Period	:	2	2)				
Request		\boxtimes									
Communicat	ion Ty	ре									
♦ Group Ob	ject Da	atapoint							Mandatory	/: X	
Default Gro	oup Ac	ddress:									
Dynamics											
Power dow	vn: S	Save:									
Power up:	\	/alue:	No initialisat	tion:]	Defau	ılt value:			
			Saved value	e:		1	Actua	ıl value:		\boxtimes	
	Т	ransmit on	bus:								
Exception Ha	andling	g									
Special Featu											
1) The signal	l may b	oe sent imm	nediately if th	e COV	is the r	esult	of a	user inter	action enab	ling fas	st
feedback.											
			ended value								
			a heartbeat c					UHRS ar	e not synch	ironized	J (→
toggling of	f the To	empRoomS	SetpUserOffs	et at the	e consu	ımer)).				

LTE-HEE Mode:

FB:	UHRS	LTE Se	rv	er Output Name:	TempRoor et	nSetpU	Jser	Offs	Mandatory ☐ Optional ⊠			
Desc	ription:			-				-				
This i	nformation	is sent to) th	ne room setpoint m	anager.							
DPT:	Name	DPT_Te	m	oHVACRel_Z	DPT ID	205.101 Datat			ype format V ₁₆ Z ₈			
Field			D	escription		Sup.		nge	Unit	COV	Default	
	erature		A	Actual temperature offset value Full Range						0.2	cs	
STAT												
- all b			N	ot supported		NA						
	nunicatior											
	ding Grou	p:										
Clas				Туре				Defau	ılt			
	eographical	- -	₫.	Apartment . Toom	. SubZone			1.1.1				
	plication S	pecific]			<u></u> -						
	ripheral		_	Broadcast	Configur							
	Address:			IO Type(ID):	384 (UHR			roperty ID		2	2)	
	-Services	` <u>~</u>	ļ		MinRepTim			sec	Heartbea		- ²⁾ min	
Inf	oReport	\bowtie	ļ		Output per default communicating Binding Group Wildcard allowed							
/ı -	FF D 1 D		ļ	Tx Prio:	High 🗌			Normal	X	Low		
po sh	TE Read-R Iling of the all always t pported)	output		Transm after Powe	Transm after Power-up: Stored Value ☐ Act Value ☑ Default Value ☐							
	perty-Serv ividual acc			Read only]	Read/\	Nrit	e 🗵				
Exce	otion Hand	dling:							Save at	Powerd	lown 🗌	
	ial Feature											
		ay be se	nt	immediately if the (COV is the r	esult of	aι	ıser intera	ction enal	oling fast	•	
0)	edback.											
				mmended value 15								
				rtbeat causes probl		e UHRS	ar	e not synd	chronized	(→ toggl	ing of	
th	e TempRod	omSetpU	lse	erOffset at the cons	umer).							

3.2.6.3 Output ComfortProlongUser

Standard Mode:

DP Nam	ne: (Com	fortPr	olong	User			Α	bbr.:		•	Manda	Mandatory		
FB Nam	ne: l	JHR	S									Can b	e interna		
Descrip	tion														
			s the	trigge	r for com	ort p	prolong	ation.							
Datapo															
DPT_Na	ame:	DP	T_Triç	gger											
DPT Fo	rmat:	B ₁									DPT_ID:	1.017			
Field		Description Supp. Range Unit Def										Default			
													Bit	cs	
Access	Туре														
♦ Out	put														
this -	$\rightarrow M$	\square			this \rightarrow 1										
Spor	ntaneou	IS	\boxtimes	COV	:	<	Delta-	-Value:			MinRepTir	ne:	10 s		
				Cycli	с [Perio	d:	NO)					
Requ	uest														
Commu	ınicatio	on T	ype												
	up Obje											Mandator	'n: ⊠		
	ult Gro	up A	ddres	ss:											
Dynami															
	er dowr	า: 🤃	Save:												
Powe	er up:	ľ	Value	:	No initia						ult value:				
					Saved v	/alue	e:			Actua	al value:				
			Trans	mit o	n bus:										
Excepti															
This out			hear	tbeat.											
Special	Featu	res													

LTE-HEE Mode:

FB:	UHRS	LTE Se	erver Output N	ver Output Name: ComfortProlongUser						Mandatory ☐ Optional ⊠		
Desci	iption:	•			-				_			
This c	utput conta	ains the t	trigger for comf	ort pro	olongat	ion.						
DPT:	Name	DPT_Tr	igger		DPT	ID	1.017		atatype	format	B ₁	
Field			Description				Sup.	Range		Unit	COV	Default
										Bit		CS
Comr	nunication):	_				-	=	-		-	-
Bind	ding Group) :										
Clas	S		Туре						Defau	lt		
Ge	ographical		Apartment. I	Room	. SubZ	one.			1.1.1			
	plication S	<u>-</u> -										
	ripheral		Broadcast		Cor	nfigura	able 🔲					
	Address:		IO Type(ID):		384 (Pro	perty ID:		53	
LTE	-Services	(event):			MinRe	pTime	e:	10	sec	Hear	tbeat: I	NO min
Inf	oReport		Output per d	efault	commi	unicat	ing 🔲	Bin	ding Gro	up Wilde	card allow	/ed ⊠
			Tx Prio:		High	<u> </u>		N	Iormal 🛭		Low	
po sha	TE Read-Relling of the all always becomes	output	Transm after	Powe	er-up: S	Stored	l Value		Act Valu	ıe 🛛 🏻 🖸	Default Va	ılue 🗌
	perty-Serv ividual acc		Read only]		Read/V	Vrite	\boxtimes			
Excep	otion Hand	lling:								Save	at Powerd	down
This o	utput has N	NO hear	tbeat.									
Speci	al Feature	s:								<u> </u>		

3.2.6.4 Output ComfortPushbutton

Standard Mode:

DF	P Name:	ame: ComfortPushbutton										Mano	Mandatory		
FB	Name:	UH	RS									Can I	be interna		
De	escription														
ħ	is output co	ntai	ns the	trigg	er for co	mfort	demand	d.							
Da	tapoint Ty	ре													
DF	PT_Name:	D	PT_Tri	gger											
DPT Format: B ₁ DPT_ID: 1.017															
Fie	eld	D	escript	ion							Supp.	Range	Unit	Default	
													bool	CS	
Ac	cess Type														
•	Output														
	this \rightarrow M				this \rightarrow	1									
	Spontaneo	us		CO	V:	\boxtimes	Delta-	Value:		1	MinRepTir	ne:	10 s		
				Cyc	clic		Period	d:	NO						
	Request		\boxtimes												
ŭ	mmunicati	ion '	Туре												
•	Group Ob	ject	Datap	oint								Mandato	ory: 🛛		
	Default Gro	oup	Addres	ss:											
Ď	/namics														
	Power dow	n:	Save	:											
	Power up:		Value) :	No in	itialisa	ition:			Defau	ılt value:				
					Save	d valu	e:		P	Actua	al value:				
			Trans	smit o	on bus:			$ \Sigma $							
	ception Ha														
	is output ha			tbea	t.								·		
Sp	ecial Featu	ıres													

LTE-HEE Mode:

FB:	UHRS	LTE Se	rver Output Name:	ComfortP	ushbutt	ton		N	landator Optiona	
Desci	ription:			•			Ū			
This c	utput conta	ains the t	rigger for comfort de	emand.						
DPT:	Name	DPT_Tri	gger	DPT ID	1.017	Data	atype	format E	3 ₁	
Field			Description		Sup.	Range		Unit	COV	Default
						_		bool		CS
Comr	nunication):			-	-	•		=	
Bind	ding Group) :								
Clas			Туре				Defaul	t		
Ge	ographical		Apartment. Roon	n . SubZone		1	1.1.1			
Ap	plication S	pecific [
Pe	ripheral	Ī	☐ Broadcast ☐	Configu	rable 🗌					
DP /	Address:		IO Type(ID):	384 (UHR	.S)	Proper	ty ID:	5	4	
LTE	-Services	(event):	COV 🛛	MinRepTim	ne:	10 se	С	Hearth	oeat: N	NO min
Inf	oReport		Output per defaul	t communica	ating 🔲	Bindin	g Gro	up Wildca	ard allow	red 🛚
			Tx Prio:	High 🗌		Norr	nal 🛚		Low	
po sha	ΓE Read-Re Iling of the all always b pported)	output	Transm after Pow	er-up: Store	d Value	☐ Ac	t Valu	e⊠ De	efault Va	lue 🗌
	oerty-Serv ividual acc		Read only		Read/V	Vrite				
	otion Hand							Save a	t Powerd	lown 🗌
This o	utput has N	NO heart	beat.		_					
Speci	al Feature	s:								

3.2.6.5 Output HVACModeUser

Standard Mode:

DP Name:	HVA	ACModeUser		Abbr.:			Mandat	tory				
FB Name:	Name: UHRS Can be internal											
Description												
This Output	contai	ns value of th	ne user defined HVAC n	node.								
Datapoint T	уре											
DPT_Name:	DF	PT_HVACMo	de									
DPT Format	: N ₈	1			DPT_I	D:	20.102					
Field	De	escription			Supp	. F	Range	Unit	Default			
							0 4	enum	CS			
Access Typ	е											
♦ Output												
this \rightarrow M	this \rightarrow M \square this \rightarrow 1 \square											
Spontane	eous	⊠ COV:	□ Delta-Valu		MinRep	Time:		0 s 1)				
		Cyclic	Period:	2)								
Request		\square										
Communica	ation ⁻	Гуре										
♦ Group C	bject	Datapoint				Ma	andatory	/: 				
Default G	Froup A	Address:	- -									
Dynamics												
Power do	wn:	Save:										
Power up):	Value:	No initialisation:	De	efault value	:						
			Saved value:		tual value:							
		Transmit on	bus:									
Exception H	l andli	ng										
	Special Features											
	The signal may be sent infinediately if the COV is the result of a user interaction enabling last											
feedback	••											
пеание			d, since a heartbeat cau									
		er and if these	e UHRS are not synchro	onized (→	toggling of	the F	IVACMo	deUser	at the			
consume	er).											

LTE-HEE Mode:

FB:	UHRS	LTE Se	rv	er Output Name: HVACModeUser Mandatory Optional								
	ription:	-			_			<u>-</u>				
				of the user defined		de as we	ell a	as a STAT	US inform	ation. Th	ne output	
				ns of the COMMAN		1		<u> </u>				
DPT:	Name	DPT_H\		CMode_Z	DPT ID	201.10			format N			
Field				escription		Sup.	Ra	ange	Unit	COV	Default	
	ModeUser		Ų	ser HVAC Mode (0)4)		ļ	0 4	enum	yes	cs	
STAT												
- all b			N	ot supported		NA						
	nunication											
	ding Group):										
Clas			_	Туре				Defau	<u>ılt</u>			
	ographical		\times	Apartment. Room	. SubZone			1.1.1				
	plication Sp	pecific <u>L</u>	╛	- <u>-</u>								
	ripheral			Broadcast	Configu							
	Address:			IO Type(ID):	384 (UHR			roperty ID			2)	
	-Services	·		COV 🛛	MinRepTin		0	1) sec	Heartbea		- ²⁾ min	
Inf	oReport	\boxtimes		Output per default		ating] B	Binding Gro		ard allow	red 🛛	
				Tx Prio:	High 🗌			Normal	\times	Low		
po sh	ΓE Read-Re Iling of the e all always b pported)	output		Transm after Powe	er-up: Store	ed Value	: 🗆	Act Val	ue 🛛 D	efault Va	alue 🗌	
Pro	perty-Servi			Read only		Read/	Wri	te 🗵	1			
Exce	otion Hand	lling:							Save at	Powerd	lown 🗌	
	al Feature											
		ay be se	nt	immediately if the	COV is the	result of	faı	user intera	ction enab	oling fast		
~ \	edback.											
				nded, since a hear UHRS are not syn								
CC	nsumer).											

3.2.6.6 Parameter Apartment

FB:	UHRS	Proper	ty I	Name (<u>Server</u>):	Α	partment					Mandator Optiona	· =
Desci	iption:	-									<u> </u>	
Numb	er of the a	partment	t zo	ne.								
DPT:	Name	DPT_U	cou	ntValue8_Z		DPT ID	202.002		Data	type format	U_8Z_8	
Field			De	escription				S	up.	Range	Unit	Default
Zone			Nι	umber of the apa	rtm	nent zone				(0) 1126		1
STAT	US										Bitset	
	ofService 1		zo	ne active / inactive	ve			(0	true/false	Bit 0	false
- all other bits not supported, fixed to '0'									NA			false
COMI	MAND									enum		CS
- Norr	nalWrite							- 1	M	0		
- SetC	SV & Res	setOSV	Se	et zone inactive /	ac	tive		(0	3 / 4		
- all of	ther comm	ands	no	t supported				١	١A			
Comr	nunicatio	n:					•				-	
DP A	Address:		l l	O Type(ID):		384 (UHR	S)			ty ID:	101	
(in t	he server)	9	Start-Index:		1		N'	° of e	lements	1	
Pro	perty acce	ess:	F	Read only			Read/W	rite)	\boxtimes		
Prot	ection		F	Read level		-		W	rite le	evel	-	
Exce	otion Han	dling:	Va	lue after Power-	up	: Stored	Value 🛚	Α	ct Va	lue 🔲 Def	ault Value	
Speci	al Feature	es:										
Zone	= 0 (wildca	ard): Sen	ds t	to all listeners								
Temp	RoomSetp	UserAbs	is	not LTE commur	nic	ating in thi	s zone if	it is	s 'Out	OfService'		
If Apa	mpRoomSetpUserAbs is not LTE communicating in this Apartment is 'OutOfService' Room and SubZone automa								'OutC	OfService'		

3.2.6.7 Parameter Room

FB:	UHRS	Proper	ty	Name (<u>Server</u>):	R	Room				Mandator	
	Description:									Optiona	al 💹
Desc	ription:										
Numb	per of the ro	om zone	Э.								
DPT:	Name	DPT_U	co	untValue8_Z		DPT ID	202.002	Data	type format	U_8Z_8	
Field				escription				Sup.	Range	Unit	Default
Zone			Ν	lumber of the roor	n :	zone			(0) 163		1
STAT	US									Bitset	
- Outo	- OutofService zone active / inactive							0	true/false	Bit 0	false
- all other bits not supported, fixed to '0'							NA			false	
COM	COMMAND								enum		CS
- Nori	malWrite							М	0		
- Set0	DSV & Res	etOSV	S	et zone inactive /	ac	ctive		0	3 / 4		
- all o	ther comma	ands	n	ot supported			NA				
Com	<u>munication</u>	ւ									
DP	Address:			IO Type(ID):		384 (UHRS	S)	Propert	y ID:	102	
(in t	he server)			Start-Index:		1		N° of el	ements	1	
Pro	perty acce	ss:		Read only			Read/W	rite	\boxtimes		
Pro	tection			Read level		-		Write le	evel	-	
Exce	ption Hand	lling:	٧	alue after Power-	up	: Stored V	′alue 🛚	Act Val	ue 🔲 Def	fault Value	
Spec	Special Features:										
Zone	Zone = 0 (wildcard): Sends to all listeners										
Temp	TempRoomSetpUserAbs is not LTE communicating in this zo						zone if	it is 'Out	OfService'		
'OutC	OutOfService' is taken over from Apartment										

3.2.6.8 Parameter SubZone

FB:	UHRS	Proper	ty	Name (<u>Server</u>):	S	ubZone					Mandator Optiona	
Desc	ription:				-						Орионе	<u> </u>
	er of the s	ub zone.										
DPT:	Name	DPT_U	co	untValue8_Z		DPT ID	202.002)	Data	atype format	U_8Z_8	
Field			Г	Description				S	up.	Range	Unit	Default
Zone			١	Number of the Sub	Σc	one				(0) 115		1
STAT	US										Bitset	
- OutofService zone active / inactive							O true/false Bit 0				false	
- all other bits not supported, fixed to '0'							1	۱A			false	
	MAND									enum		CS
	malWrite								M	0		
	DSV & Res		_	Set zone inactive /	ac	ctive			0	3 / 4		
	ther comm		n	ot supported				1	۱A		_	
	nunicatior	า:										
	Address:			IO Type(ID):		384 (UHR	(S)			ty ID:	103	
_ `	he server)	<u> </u>		Start-Index:		1				lements	1	
	perty acce	ess:		Read only			Read/W			\boxtimes		
	tection			Read level		-			/rite le		-	
Exce	ption Hand	dling:	٧	/alue after Power-	·up	: Stored	Value 🛚	Α	ct Va	lue 🗌 Def	ault Value	: <u> </u>
	-											
	pecial Features:											
	Zone = 0 (wildcard): Sends to all listeners											
	mpRoomSetpUserAbs is not LTE communicating in this z							it is	s 'Ou	tOfService'		
'OutO	outOfService' is taken over from Apartment											

3.2.6.9 Parameter TempCOVCondition

FB:	UHRS	Proper	ty Name (<u>Server</u>):	T	empCOVC	ondition	n		Mandator Optiona	
Desc	ription:	<u> </u>		-				<u>\</u>		
		e value	for COV condition							
DPT:	Name	DPT_Te	mpHVACRel_Z		DPT ID	205.101	Data	atype format	$V_{16}Z_{8}$	
Field			Description				Sup.	Range	Unit	Default
Temp	erature		Temperature COV	va	alue			Full Range	K	0.2
STAT	US								Bitset	
- all b	its		not supported, fixe	d t	to '0'		NA			false
COM	MAND							enum		CS
- Norr	malWrite						М	0		
	ther comma		not supported				NA			
Comr	munication) :								
DP.	Address:		IO Type(ID):		384 (UHRS	S)	Proper		111	
(in t	he server)		Start-Index:		1		N° of e	elements	1	
Pro	perty acce	ss:	Read only [Read/W	/rite	\boxtimes		
Pro	tection		Read level		-		Write I	evel	-	
Exce	ption Hand	lling:	Value after Power-	up	: Stored \	/alue 🖂	Act Va	alue 🔲 🛮 Dei	fault Value	
Spec	ial Feature	s:								

3.2.6.10 Parameter RelativeSetpointRange

FB:	UHRS	Proper	erty Name (<u>Server</u>): RelativeSetpoir					je		Mandatory ☐ Optional ⊠	
Desc	ription:									<u> </u>	
Rang	e for the of	fset.									
DPT:	Name	DPT_Te	mpHVACRel_Z		DPT ID	205.10°	1	Data	type format	$V_{16}Z_{8}$	
Field			Description				9	Sup.	Range	Unit	Default
Temp	Temperature Temperature offset range value								Full Range	K	3
STATUS										Bitset	
- all bits not supported, fixed to '0'							ļ	NA			false
	MAND								enum		cs
	malWrite							M	0		
- all o	ther comma	ands	not supported					NA			
Comi	municatior	າ:	-								
DP.	Address:		IO Type(ID):		384 (UHR	S)		roper	-	112	
(in t	he server)		Start-Index:		1		١	√of e	lements	1	
Pro	perty acce	ss:	Read only			Read/V	Vrit	e	\boxtimes		
Pro	tection		Read level		-		٧	Vrite le	evel	-	
Exce	Exception Handling: Value after Power-up: Stored Value] /	Act Va	lue 🗌 Dei	ault Value	e 🗌
									·	·	
Spec	cial Features:										

3.2.6.11 Parameter TempRoomSetpUserOffsetMin

FB: UHRS Property N	Jama (Sarvar):	Tomr	PoomSo	nHearO	ffcotMin		Mandator	ъ. П
FB. Office Property is	vallie (<u>Sel vel</u>).	ı emp	Koomse	posero	1126fillill	•	Option	
Description:							Ориона	ai 🔼
•	(C)							
Negative range for the o			-				1	
DPT : Name DPT_T	empHVACRel_Z		DPT ID	205.10		atype format	$V_{16}Z_{8}$	
Field	Description				Sup.	Range	Unit	Default
Temperature	Negative offset	range)			[¹⁾ 0]	K	-3.0
STATUS							Bitset	
- all bits	not supported, t	fixed t	:o '0'		NA			false
COMMAND						enum		cs
- NormalWrite					М	0		
- all other commands	not supported				NA			
Communication:					•		÷	-
DP Address:	IO Type(ID):		384 (UHF	RS)	Proper	rty ID:	113	
(in the server)	Start-Index:		1	,	N° of e	elements	1	
Property access:	Read only			Read/W	/rite	\boxtimes		
Protection	Read level		-		Write I	evel	-	
Exception Handling:	Value after Pow	ver-up	: Stored	Value 🛚	Act Va	lue 🔲 De	fault Value	e 🗌
Special Features:				·				
1) Only negative values	are meamingful:	; the r	ange is im	plementa	ation-spe	ecific.		

3.2.6.12 Parameter TempRoomSetpUserOffsetMax

FB: UHRS	Property N	lame (<u>Server</u>):	Temp	RoomSet	pUserOf	fsetMax	(Mandator		
								Optiona	al 🛛	
Description	n:		-				•			
Positive ran	ge for the off	set.								
DPT : Na	me DPT_T	empHVACRel_Z	-	DPT ID	205.101	Data	atype format	$V_{16}Z_{8}$		
Field		Description				Sup.	Range	Unit	Default	
Temperatur	e	Positive offset	range				[0 ¹⁾]	K	3.0	
STATUS								Bitset		
- all bits		not supported,	fixed t	o '0'		NA			false	
COMMAND)						enum		cs	
- NormalWri	ite					M	0			
- all other co	ommands	not supported				NA				
Communic	ation:									
DP Addre	ess:	IO Type(ID):		384 (UHR	(S)	Proper	ty ID:	114		
(in the se	rver)	Start-Index:		1		N° of e	lements	1		
Property a	access:	Read only			Read/W	'rite	\boxtimes			
Protection	n	Read level		-		Write le	evel	-		
Exception	xception Handling: Value after Power-up: Stored Value Act Value Default Value									
	-									
Special Fea	atures:									
1) Only pos	sitve values a	are meamingful;	the rar	nge is impl	ementati	on-spec	ific.			

3.2.6.13 Parameter TempRoomSetpUserAbsMin

FB:	UHRS	Property N	ame (<u>Server</u>):	Temp	RoomSet	pUserAb	sMin		Mandator Optiona	
Desc	ription									
Lowe	er limit o	f the range f	or the absolute	setpoi	nt.					
DPT	: Nan	ne DPT_Te	mpHVACAbs_2	<u> </u>	DPT ID	205.100	Data	atype format	$V_{16}Z_{8}$	
Field			Description				Sup.	Range	Unit	Default
Tem	perature)	Lower limit of t	he set	point range	Э		Full	°C	cs
STATUS									Bitset	
- all bits not supported, fixed to '0'							NA			false
COM	1MAND							enum		cs
- Nor	malWrit	e					M	0		
- all d	other co	mmands	not supported				NA			
Com	munica	ition:								
DP	Addres	ss:	IO Type(ID):		384 (UHR	RS)	Proper	ty ID:	115	
(in	the ser	ver)	Start-Index:		1		N° of e	lements	1	
Pro	perty a	ccess:	Read only			Read/W	rite/	\boxtimes		
Pro	tection	1	Read level		-		Write le	evel	-	
Exception Handling: Value after Power-up: Stored Value							Act Va	lue 🔲 Def	ault Value	
		·	<u>-</u>					·	<u>'</u>	
Spec	ecial Features:									

3.2.6.14 Parameter TempRoomSetpUserAbsMax

	B: UHRS Property Name (Server): TempRoomSetpUserAbsMax Mandatory										
FB:	UHRS	Property N	ame (<u>Server</u>):	Temp	oRoomSe	tpUserAl	bsMa	X		Mandator	
										Optiona	<u>کا</u> الا
Desc	cription:										
Uppe	er limit o	f the range f	or the absolute:	setpoi	nt.						
DPT	: Nan	ne DPT_Te	mpHVACAbs_Z	7	DPT ID	205.100) C	Data	type format	$V_{16}Z_{8}$	
Field			Description				Su	p.	Range	Unit	Default
Temperature Upper limit of the setpoint range									Full	ç	cs
STATUS										Bitset	
- all l	- all bits not supported, fixed to '0'										false
COM	MAND						enum		cs		
- Noi	rmalWrit	е					M	l	0		
- all	other co	mmands	not supported				N/	4			
Com	nmunica	tion:					-	-			
DP	Addres	ss:	IO Type(ID):		384 (UHF	RS)	Pro	pert	y ID:	115	
(in	the serv	ver)	Start-Index:		1		N°	of el	ements	1	
Pro	operty a	ccess:	Read only			Read/W	/rite		\boxtimes		
Pro	otection		Read level		-		Wri	ite le	evel	-	
Exception Handling: Value after Power-up: Stored Value							Act	: Val	ue 🔲 Def	ault Value	-
Spec	cial Feat	tures:									
						•					

3.3 User HVAC Display (UHD)

3.3.1 Aims and objectives

The functional block 'User HVAC Display' is used to indicate the following information:

- room temperature
- effective setpoints from room setpoint manager
- active setpoint from controller
- effective HVAC mode from room setpoint manager
- effective user HVAC mode from room setpoint manager
- active HVAC mode from controller
- heat/cool mode from controller
- outside temperatures

The selection out of these functions is company specific (cs) and even may be extended. This is possible without any company specific definitions as there are only inputs which are described at their source.

This functional block is used e.g. in a 'Room Device' or in a more complex device which has one ore some of these functions. It may be combined with the functional block 'User HVAC Room Settings' which is used for the setting of the corresponding information.

3.3.2 Functional specifications

The 'User HVAC Mode Setting' supports the following LTE zoning:

Inputs

 TempOutside 	One ore more outside temperatures from outside sensor
---------------------------------	---

zones.

• TempRoom Room temperature.

• TempRoomSetpHeatEff Effective room temperature setpoint for heating evaluated

by the room setpoint manager.

(see FB room setpoint manager [04])

• TempRoomSetpCoolEff Effective room temperature setpoint for cooling evaluated

by the room setpoint manager.

(see FB room setpoint manager [04])

TempRoomSetpAct This is the setpoint which is active in the controller.

HVACModeEff
 The HVAC mode demanded by the room setpoint

manager (see FB room setpoint manager [04]).

• HVACModeUserEff The effective HVAC mode user

internal and Bus information

(see FB room setpoint manager [04]).

• HVACModeAct The HVAC mode, the controller is working in

(see controllers [09]).

• HeatCoolMode This information indicates whether the controller is in

the heating or in the cooling mode (see controllers [09]).

Binding Group (LTE)

OutsideSensorZone no special features
 Apartment . Room . SubZone no special features

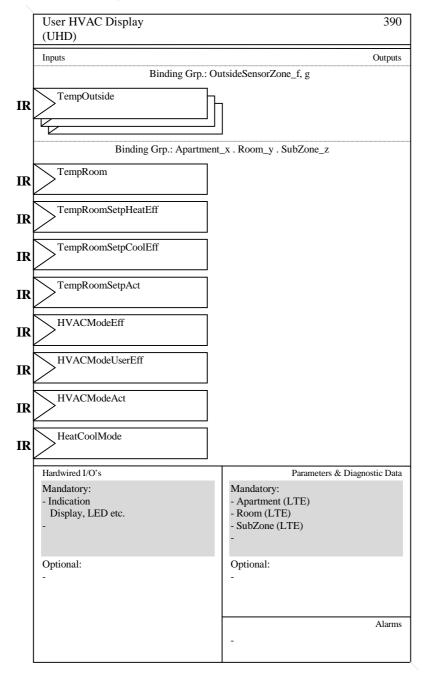
[&]quot;Apartment . Room . SubZone"

[&]quot;OutsideSensorZone"

3.3.3 Constraints

None.

3.3.4 Functional Block diagram



3.3.5 Datapoint Description

Overview

Datapoints	Description / Remarks	Data Point Type	Additional Info					
Inputs								
Temp Outside	Outside temperature actual value with: - COV and RepPer - Z ₈ not supported from FB 'Outside Temperature Sensor'	$ \begin{array}{ll} \text{LTE:} & 205.100 \\ \text{DPT_TempHVACAbs_Z} \\ V_{16}Z_8 \\ \text{S:} & 9.001 \\ \text{DPT_Value_Temp} \\ F_{16} \end{array} $	LTE: O 1) S: (GO) °C					
Temp Room	$\label{eq:Room temperature actual value with:} \begin{tabular}{ll} Room temperature actual value with: \\ - COV and RepPer \\ - Z_8 not supported \\ from FB \\ 'Room Temperature Sensor' \end{tabular}$	$ \begin{array}{ccc} LTE: & 205.100 \\ DPT_TempHVACAbs_Z \\ V_{16}Z_8 \\ S: & 9.001 \\ DPT_Value_Temp \\ F_{16} \end{array} $	LTE: O 1) S: (GO) °C					
Temp Room Setp Heat Eff	1 temperature value for heating for simple heating only applications with: - COV and RepPer - Z ₈ not supported from FB 'Room Setpoint Manager HVAC Mode Driven' or 'Room Setpoint Manager Temperature Driven'	$ \begin{array}{ll} \text{LTE:} & 205.100 \\ \text{DPT_TempHVACAbs_Z} \\ V_{16}Z_8 \\ \text{S:} & 9.001 \\ \text{DPT_Value_Temp} \\ F_{16} \end{array} $	LTE: O 1) S: (GO) °C					
Temp Room Setp Cool Eff	1 temperature value for cooling for simple cooling only applications with: - COV and RepPer - Z ₈ not supported from FB 'Room Setpoint Manager HVAC Mode Driven' or 'Room Setpoint Manager Temperature Driven'	$ \begin{array}{cccc} \text{LTE:} & 205.100 \\ \text{DPT_TempHVACAbs_Z} \\ V_{16}Z_8 \\ \text{S:} & 9.001 \\ \text{DPT_Value_Temp} \\ F_{16} \end{array} $	LTE: O 1) S: (GO) °C					
Temp Room Setp Act	Active room temperature setpoint with: - COV and RepPer - Z ₈ not supported from FB various controllers	$ \begin{array}{ll} \text{LTE:} & 205.100 \\ \text{DPT_TempHVACAbs_Z} \\ V_{16}Z_8 \\ \text{S:} & 9.001 \\ \text{DPT_Value_Temp} \\ F_{16} \end{array} $	LTE: O 1) S: (GO) °C					
HVAC Mode Eff	Effective HVAC Mode with: - COV and RepPer - Z ₈ not supported from FB Room Setpoint Manager HVAC Mode Driven	LTE: 201.100 DPT_HVACMode_Z N_8Z_8 S: 20.102 DPT_HVACMode N_8	LTE: O S: (GO) 0 = NA 1 = Comfort 2 = Standby 3 = Economy 4 = Building Protection					
HVAC Mode User Eff	Effective user HVAC Mode with: - COV and RepPer - Z ₈ not supported from FB Room Setpoint Manager HVAC Mode Driven	LTE: 201.100 DPT_HVACMode_Z N ₈ Z ₈ S: 20.102 DPT_HVACMode	LTE: O S: (GO) 0 = Auto 1 = Comfort 2 = Standby 3 = Economy					

Datapoints	Description / Remarks	Data Point Type	Additional Info
		N ₈	4 = Building Protection
HVAC Mode Act	Active HVAC Mode with: - COV and RepPer - Z ₈ not supported from FB various TU controllers	$\begin{tabular}{llll} LTE: & 201.100 \\ DPT_HVACMode_Z \\ N_8Z_8 \\ S: & 20.102 \\ DPT_HVACMode \\ N_8 \\ \end{tabular}$	LTE: O S: (GO) 0 = NA 1 = Comfort 2 = Standby 3 = Economy 4 = Building Protection
Heat Cool Mode	Status heating or cooling with: - Standard COV and RepPer from FB: various TU controllers	LTE: 1.100 DPT_Heat/Cool B ₁ S: 1.100 DPT_Heat/Cool B ₁	LTE: O 1) S: (GO) 0 = cooling 1 = heating
Parameters			
Outside Sensor Zone	LTE zoning number for Outside Sensor Zone	$\begin{array}{c} 202.002 \\ \text{DPT_UcountValue8_Z} \\ U_8Z_8 \end{array}$	O 1
Apartment	LTE zoning number for Apartment	$\begin{array}{c} 202.002 \\ \text{DPT_UcountValue8_Z} \\ U_8Z_8 \end{array}$	M 1
Room	LTE zoning number for Room	$\begin{array}{c} 202.002 \\ \text{DPT_UcountValue8_Z} \\ U_8Z_8 \end{array}$	M 1
SubZone	LTE zoning number for SubZone	$\begin{array}{c} 202.002 \\ \text{DPT_UcountValue8_Z} \\ U_8Z_8 \end{array}$	M 1

¹⁾ at least one of these functions has to be implemented (cs)

UHD Runtime Interworking - Dependence on Configuration Modes

			STANDARD MODE	Extended MOde			
		Basic FB	S-Mode	Standard Mode Interface	нее		
Inputs	TempOutside	(GO) _b		(GO)	0		
	TempRoom	(GO) _b		(GO)	0		
	TempRoomSetpHeatEff	(GO) _b		(GO)	0		
	TempRoomSetpCoolEff	(GO) _b		(GO)	0		
	TempRoomSetpAct	(GO) _b		(GO)	0		
	HVACModeEff	(GO) _b		(GO)	0		
	HVACModeUserEff	(GO) _b		(GO)	0		
	HVACModeAct	(GO) _b		(GO)	0		
	HeatCoolMode	(GO) _b		(GO)	0		

UHD LTE specific Properties

		Support
Parameter	OutsideSensorZone	О
	Apartment	M
	Room	M
	SubZone	M

UHD Standard Properties of Interface Objects (or memory mapped DP)

	Support
Parameter	

3.3.6 Detailed Specification of the Datapoints

3.3.6.1 Input TempOutside

DP Name:	Те	mpOutside			Abbr.:			Manda	atory	
FB Name:	UH	HD						Can be	e internal	
Description										
This informat	ion	is provided I	by the fu	nctional block 'C	Outside T	emper	rature Sei	nsor'.		
Datapoint Ty										
DPT_Name:										
DPT Format:		16					DPT_ID			
Field		Description					Supp.	Range	Unit	Default
								full	°C	CS
Access Type	е									
♦ Input										
$N \rightarrow this$			$1 \rightarrow th$	is 🛛						
Spontane	ous	\square		Cyclically:			Time	e-out:	31 min	(rec.)
Request				Polling:			Perio	od:		
Communica	tion	Туре								
♦ Group O	bjec	t Datapoint						Mandator	y: 🛛	
	roup	Address:								
Dynamics										
Power do	wn:	Save:								
Power up	:	Value:	No in	nitialisation:		Defau	ult value:			
			Save	ed value:	<u> </u>					
						Read	from bus	S:		
Exception H	and	lling								
Special Feat	ure	S								

FB:	UHD	LTE Cli	-	TempOut	side			Mandatory			
		Input N	ame:							Option	al 🖂
	ription:										
	nformation is				lock 'Outsi	de Temp	erature S	ensor'	'.		
STAT	US and CON				_						
DPT:	Name D	PT_Tem	pHVACA	_	DPT ID	205.100	Datat	ype fo	rmat	$V_{16}Z_{8}$	
Field			Descripti	on					Sup.	Unit	Default
	erature		Outside t	emperature	e value					°C.	cs
STAT			Bitset								
	 OutOfServ 	vice .	Sensor o	ut of servic		M	t/f	false			
	- Fault			alue is corr		M	t/f	false			
	 Overridder 	n	Sensor is Sensor is	temporari		0	t/f	false			
	- InAlarm		0	t/f	false						
	 AlarmUnA 	ck		edgement o		0	t/f	false			
all oth	er bits		reserved						NA		
Comr	nunication:										
Bind	ding Group:										
Clas			Туре				Default				
	eographical										
	plication Spe	ecific 🛚		SensorZon	<u>e</u>		1				
	ripheral		Broadca		Configura						
DP A	Address:		IO Type		320 (OTS		Property	y ID:		51	
LTE	-Service (ev	/ent):	InfoRepo	ort Sniffer	on Bindin	g Group:					
	oReport		Timeout			31	Min				
	-Service (po		Pood Wi	ldcard / Re	oen Sniffer	on Rindi	na Groun				
Re	ad – Respor	nse 🗌	iteau vvi	iucaiu / ixe	sop onliner	OH BIHUI	ng Group	,			
Value	after Powe	r-up:		Default V	alue 🛚			-	9	Stored Va	lue 🗌
Exce	otion Handli	ing:						Save	at Po	werdown	
Speci	ial Features	:									

3.3.6.2 Input TempRoom

DF	P Name:	Tem	pRoom				Abbr.:					Mandatory				
FB	Name:	UHD)									C	an be	internal		
De	scription															
	is information		provided	by the fu	ınctio	nal block	'Ro	om Te	mpera	ture	Senso	or'.				
	tapoint Ty															
	PT_Name:		T_Value	_Temp												
	PT Format:	F ₁₆									T_ID:		.001			
Fie	eld	De	scription							S	upp.	Ra	nge	Unit	Defa	ault
												fu	الد	°C	CS	3
Ac	cess Type															
•	Input															
	$N \rightarrow this$]	$1 \rightarrow tr$	nis											
	Spontaneo	us			Сус	lically:		Time-				-out:	out: 3		(rec.)	
	Request				Poll	ing:					Perio	d:				
Co	mmunicati	ion T	уре													
•	Group Ob	ject [Datapoin [®]	t								Man	datory:			
	Default Gro	oup A	Address:													
Dy	namics															
	Power dow	n:	Save:													
	Power up:		Value:	No ir	nitialis	sation:			Defa	ult va	alue:					
				Save	ed val	lue:										_
									Read	d fror	n bus:	:				
Ex	ception Ha	ndli	ng													
Sp	ecial Featu	ıres														

FB:	UHD	LTE CI	-	TempRo	om			Mandatory ☐ Optional ⊠			
	•	Input N	iame:						Option	aı 🔼	
	ription:					_					
	nformation				lock 'Roor	n Lempei	rature Sen	isor'.			
	US and CC				T	T			T		
DPT:	Name	DPT_Ten	•		DPT ID	205.100	Dataty	pe format	V ₁₆ Z ₈		
Field			Descripti			Sup.	Unit	Default			
	erature			mperature	value		°C.	cs			
STAT		_	Bitset								
	 OutOfSe 	rvice		ut of servi		M	t/f	false			
	- Fault			alue is cor		M	t/f	false			
	 Overridd 	en		s temporar	ily overrido	0	t/f	false			
	- InAlarm			s in alarm		0	t/f	false			
I	- AlarmUn	Ack		edgement	of alarm			0	t/f	false	
	er bits		reserved					NA			
	nunication										
	ding Group	o:	T								
Clas			Туре				Default				
	eographical		Apartme	nt . Room	. SubZone)	1.1.1				
	plication S	pecific		<u></u>		<u></u>					
Pe	ripheral		Broadca		Configura						
	Address:		IO Type		321 (RTS		Property	ID:	51		
	-Service (e	event <u>):</u>		ort Sniffer	on Bindin						
	oReport	\boxtimes	Timeout	:		31	Min				
	-Service (p		Read W	ildcard / R	acn Sniffai	on Rindi	ina Graun:				
Re	ead – Resp	onse	iteau vv	ilucalu / IX	esp offilie						
Value	after Pow	er-up:		Default \	/alue 🛚		Stored Va	lue 🗌			
Exce	ption Hand	lling:						Save at Po	owerdown		
Spec	ial Feature	s:									

${\bf 3.3.6.3} \quad Input\ TempRoomSetpHeatEff$

DP	Name:	Tem	pRoomSet	pHeatE	ff		Abbr.:				Man	date	ory			
FΒ	Name:	UHD										Can	be	internal		Γ
De	scription															
Thi	is information	on is	provided b	y the fu	nctiona	al block	'Rc	om Se	tpoint	Man	ager'.					
	tapoint Ty _l															
	T_Name:		T_Value_	Гетр												
	T Format:	F ₁₆								_	T_ID:	9.00				
Fie	eld	De	scription							S	upp.	Range	е	Unit	Default	t
												full		°C	CS	
Ac	cess Type															
♦	Input															
	$N \rightarrow this$			$1 \rightarrow th$		\boxtimes										
	Spontaneo	us			Cyclically:			\boxtimes			Time-	-out:	out: 31 mir		(rec.)	
	Request				Polling	g :					Perio	d:				
Co	mmunicati															
♦	Group Ob											Mandat	ory:			
_	Default Gro	oup A	ddress:													
	namics															
	Power dow	n:	Save:						•							
	Power up:		Value:	No in	itialisa	tion:			Defa	ult va	alue:					
		_		Save	d value	e:	Ш									
									Read	fror	n bus:					
Ex	ception Ha	ndlir	ng													
Sp	ecial Featu	ires														

FB:	UHD	LTE Cli	-	TempRod	omSetpHe			Mandatory				
		Input N	ame:							Optiona	al 🖂	
	ription:											
	nformation is				lock 'Roor	n Setpoin	t Manag	jer'.				
STAT	US and CON	/MAND	can be igr	ored.								
DPT:	Name D	PT_Tem	pHVACA	_	DPT ID	205.100	Data	type	format	$V_{16}Z_{8}$		
Field			Description						Sup.	Unit	Default	
Temp	erature		Heating to	emperatur	e setpoint			°C.	cs			
STAT	US		Bitset									
Bit 0	 OutOfServ 	rice	Sensor of	ut of servic	ce		M	t/f	false			
Bit 1	- Fault		Sensor va	alue is cori	rupted		M	t/f	false			
Bit 2	 Overridder 	ı		temporari	ly overrido		0	t/f	false			
Bit 3	- InAlarm		Sensor is	in alarm					0	t/f	false	
Bit 4	 AlarmUnA 	ck	Acknowle	edgement o	of alarm				0	t/f	false	
all oth	er bits		reserved						NA			
Comr	nunication:	_								-		
Bind	ding Group:											
Clas	ss		Туре									
Ge	ographical		Apartme	nt . Room	. SubZone	9	1.1.1					
	plication Spe	ecific 🗌										
	ripheral		Broadca	st 🗌	Configura							
DP /	Address:		IO Type(יוט).	100 (RSN	,	Proper	tv ID:		55		
			, ,	,	101 (RSN		1 Topei	ty ID.		51		
	-Service (ev				on Bindin				•			
	oReport	\boxtimes	Timeout:			31	Min					
	-Service (po		Read Wi	Idcard / Re	esn Sniffe	r on Bindi	na Grou	n·				
Read – Response Read Wildcard / Resp Sniffer on Binding Group:												
Value	after Powe	r-up:		Default V	′alue 🛚					Stored Val	ue 🗌	
Excep	otion Handli	ng:						Sa	ve at Po	werdown		
Speci	al Features:											

3.3.6.4 Input TempRoomSetpCoolEff

DP	Name:	Tem	oRoomSe	tpCoolE	ff			Abbr.:				Man	date	ory		
FΒ	Name:	UHD										Can	be	internal		
De	scription															
Thi	s information	n is p	provided b	by the fu	nctiona	l block	'Rc	om Se	tpoint	Man	ager'.					
	tapoint Typ															
	T_Name:		T_Value_	Temp												
	T Format:	F ₁₆								_	T_ID:					
Fie	ld	Des	scription							S	upp.	Range	Э	Unit	Defau	lt
												full		°C	CS	
Ac	cess Type															
♦	Input															
	$N \rightarrow this$			$1 \rightarrow th$		\boxtimes										
-	Spontaneo	us			Cyclically:			\boxtimes			Time	-out:	ut: 31 min		(rec.)	
	Request				Polling	:					Perio	d:				
Co	mmunicati															
♦	Group Ob											Mandat	ory:			
	Default Gro	oup A	ddress:													
	namics															
-	Power dow	n:	Save:													
	Power up:		Value:	No in	itialisati	on:	Ш		Defa	ult va	alue:					
				Save	d value	:	Ш									
									Read	fror	n bus:					
Ex	ception Ha	ndlir	ıg													
Sp	ecial Featu	res														

FB:	UHD	LTE CI	-	TempRod	omSetpCod	olEff				Mandator		
		Input N	ame:							Optiona	<u>al ⊠</u>	
	ription:											
					lock 'Room	Setpoin	t Manage	er'.				
STAT	US and CC											
DPT:	Name	DPT_Tem			DPT ID	205.100	Datat	type	format	$V_{16}Z_{8}$		
Field			Description						Sup.	Unit	Default	
	erature		Cooling t	emperatur	e setpoint v	alue				°C.	cs	
STAT			Bitset									
Bit 0	 OutOfSet 	rvice		ut of service					M	t/f	false	
Bit 0	- Fault			alue is cor					M	t/f	false	
Bit 0	 Overridde 	en			ily overridde	en			0	t/f	false	
	- InAlarm		Sensor is	in alarm					0	t/f	false	
Bit 0	- AlarmUnAck											
all oth	er bits		reserved						NA			
Comr	nunication	1:										
Bine	ding Group):										
Clas	ss		Туре				Default					
Ge	eographical	\square	Apartme	nt . Room	. SubZone		1.1.1					
Ap	plication Sp	oecific 🔲										
Pe	ripheral		Broadca	st 🗌	Configurat							
DP .	Address:		IO Type	(ID):	100 (RSMI 101 (RSMI		Property	y ID:		56 53		
LTE	-Service (e	event):	InfoRepo	ort Sniffer	on Binding	Group:			•			
	oReport	\boxtimes	Timeout			31	Min					
	LTE-Service (polling): Read – Response Read Wildcard / Resp Sniffer on Binding Group:											
	after Pow		<u>_</u>	Default V	/alue 🖂				(Stored Val	lue 🗍	
	otion Hand							Sa	ve at Po	werdown		
Speci	ial Feature	s:										

3.3.6.5 Input TempRoomSetpAct

DF	Name:	Te	mpRoomSet	pAct		Abbr.:	Mar	ndatory					
FB	Name:	UH	ID						Can	be inte	rnal		
De	scription												
Th	is information	on i	s provided by	y variou	us controller fu	nctional b	locks.						
	tapoint Ty												
	PT_Name:	_	PT_Value_T	emp									
	PT Format:		16					DPT_II					
Fie	eld		escription					Supp.			nit	Defa	ult
									full	°(<u> </u>	CS	
Ac	cess Type												
♦	Input				1								
	$N \rightarrow this$			$1 \rightarrow th$									
	Spontaneo	us			Cyclically:			Tim	e-out:	31	min	(rec.)	
	Request				Polling:			Per	iod:				
Co	mmunicati												
♦			Datapoint						Mandat	tory:			
	Default Gro	oup	Address:										
Dy	namics		,										
	Power dow	n:	Save:	Ш									
	Power up:		Value:		itialisation:		Defau	ult value	<u>:</u>				
				Save	d value:						Ш		
							Read	from bu	IS:				
Ex	ception Ha	nd	ling										
Sp	ecial Featu	ires	3										

FB:	UHD	LTE Cli Input N		TempRoo	omSetpAc	:t			Mandatory ☐ Optional ⊠			
Desc	ription:	1 1		_				<u> </u>		- 1		
This i	nformation is US and CO				er function	al blocks	5.					
DPT:		OPT_Tem			DPT ID	205.100) C	Datatype	e format	V ₁₆ Z ₈		
Field			Descripti			1=====		1 1 1 1	Sup.	Unit	Default	
	erature			ture setpoi	nt value					°C.	cs	
_	- OutOfSer	vice		ut of service	` ^				М	t/f	false	
	- Fault	VIOC		alue is corr					M	t/f	false	
	- Overridde	n		temporari	•	len			Ö	t/f	false	
	- InAlarm	""	Sensor is		iy overnac	1011			Ö	t/f	false	
	- AlarmUnA	\ck		edgement o	of alarm				ő	t/f	false	
all other bits reserved										"	laido	
	nunication:				<u> </u>							
Bine	ding Group	:										
Clas			Туре				Defa	ault				
Ge	eographical	\boxtimes	Apartme	nt . Room	. SubZone)	1.1.	1				
Ap	plication Sp	ecific 🗌										
Pe	ripheral		Broadca	st 🗌	Configura	ıble 🗌						
DP	Address:		IO Type		258 (FCC 259 (WHF 260 (SPU 257 (RCC 256 (RRC 261 (VAV	PC) C) RC) TU)	Pro	perty ID	153			
			ТОТУРС	(12).	160 (HZC 167 (HIR)		porty in		53		
					240 (AHU	C)				55		
LTE	-Service (e	vent):		ort Sniffer	on Bindin	g Group:						
	oReport	\boxtimes	Timeout			31	Min					
	: -Service (p ead – Respo		Read Wi	ildcard / Re	esp Sniffer	on Bindi	ing G	roup:				
Value	after Powe	er-up:	-	Default V	alue 🛚				;	Stored Va	lue 🗌	
Exce	ption Handl	ling:						S	ave at Po	owerdown		
Spec	ial Features	s :										

3.3.6.6 Input HVACModeEff

DP Name:	H	IVACModeEff			Abbr.:			Mand	atory	
FB Name:	L	IHD						Can b	e internal	
Description	n									
This inform	natior	is provided b	y the fu	nctional block	'Room Se	tpoint l	Manager	HVAC Mo	de Driven	
Datapoint										
DPT_Name		DPT_HVACM	lode							
DPT Forma	at:	N ₈					DPT_ID:	_		
Field		Description					Supp.	Range	Unit	Default
HVAC Mod	de							14	enum.	CS
		0 = Auto					NA			
		1 = Comfort					М			
		2 = Standby					М			
		3 = Economy					M			
		4 = Building F	rotection	on			М			
		all other enum	neration	ns			NA			
Access Ty	/pe									
♦ Input										
$N \rightarrow thi$	S		$1 \rightarrow th$	is 🛛						
Spontai	neou	s 🛛		Cyclically:			Time	-out:	31 min	(rec.)
Reques	st			Polling:			Perio	od:		
Communic	catio	n Type								
♦ Group	Obje	ct Datapoint						Mandato	ry: 🛛	
Default	Grou	ıp Address:								
Dynamics										
Power of	down	: Save:								
Power u	up:	Value:	No in	nitialisation:		Defau	ılt value:			
			Save	ed value:						
						Read	from bus	:		
Exception	Han	dling								
Special Fe	atur	es								
		·								

FB:	UHD	LTE Cli					Mandator Option					
Desc	ription:	-		-						-		
	nformation is				block 'Roo	m Setpoir	nt Manage	er H	VAC Mo	de Driver	ı'.	
STAT	US and CON	MAND	can be igr	nored.								
DPT:	Name D	PT_HVA	CMode_2	7	DPT ID	201.100	0 Datat	ype	format	N_8Z_8		
Field			Description	on					Sup.	Unit	Default	
HVAC	CMode									14	cs	
			0 = Auto						NA			
			1 = Comf	ort					M			
			2 = Stand	dby					M			
			3 = Econ	omy					M			
4 = Building Protection all other enumeration												
			NA									
STAT	US		Bitset					1				
Bit 0	- OutOfServ	ice	Sensor o	ut of serv	/ice				М	t/f	false	
Bit 0	- Fault		Sensor v	alue is co	orrupted				M	t/f	false	
Bit 0	- Overridder	1			arily overrid	den			0	t/f	false	
Bit 0	- InAlarm		Sensor is						Ō	t/f	false	
	- AlarmUnA	ck			t of alarm				Ö	t/f	false	
	ner bits		reserved						NA			
	nunication:									L	L	
	ding Group:											
Clas	SS		Туре				Default					
Ge	eographical		Apartmer	nt . Room	n . SubZone)	1.1.1					
Ap	plication Spe	ecific										
Pe	eripheral		Broadcas	st 🗌	Configura	able 🗌						
DP.	Address:		IO Type(ID):	100 (RSI	MHD)	Property	y ID:		51		
LTE	-Service (ev	ent):			r on Bindin	g Group:		-	-			
InfoReport Timeout: 31 Min												
	- Service (po ead – Respor		Read Wildcard / Resp Sniffer on Binding Group:									
Value	after Powe	r-up:	Default Value ⊠						Stored Value			
Exce	ption Handli	ng:							Save at Powerdown			
Spec	ial Features:											

3.3.6.7 Input HVACModeUserEff

DP Name:	HV	'ACModeUse	rEff		Abbr.:				Mand	atory	
FB Name:	UH	ID							Can b	e internal	
Description											
		s provided by	the fu	nctional block 'R	oom Set	tpoint I	Mana	ager F	IVAC Mod	de Driven'	
Datapoint T											
DPT_Name:		PT_HVACMo	ode								
DPT Format:		0						T_ID:	20.10		
Field		escription					Sι	лрр.	Range	Unit	Default
HVAC Mode	0	= Auto = Comfort					1	M M	14	enum.	CS
		= Standby						M			
		= Economy					1	M			
		= Building Pr	otectio	on				M			
		ll other enum					١	NA			
Access Type	е										
♦ Input											
$N \rightarrow this$			$1 \rightarrow th$	is 🛛							
Spontane	ous	\square		Cyclically:				Time-	out:	31 min	(rec.)
Request				Polling:				Perio	d:		
Communica											
		Datapoint							Mandato	ry: 🛛	
Default G	roup	Address:									
Dynamics		1 -									
Power do		Save:				I					
Power up	:	Value:	_	nitialisation:		Defau	ılt va	alue:			
			Save	ed value:							
						Read	fron	n bus:			
Exception H	land	ling									
Chariel Fact	11100										
Special Feat	ures	>									

FB: UHD LTE C		HVACMo	odeUserE		Mandatory ☐ Optional ⊠			
Description:		·			-			
This information is provide			block 'Roc	m Setpoi	nt Manage	er HVAC M	lode Drive	en'.
STATUS and COMMAND								
DPT : Name DPT_HV	ACMode_	Z	DPT ID	201.100	Dataty	pe format		
Field	Descript	ion				Sup.	Unit	Default
HVACMode							14	CS
	0 = Auto					M		
	1 = Com	-				M		
	2 = Stan					M		
	3 = Ecor					M		
		ling Protec				M		
		enumerati	on			NA		
STATUS	Bitset							
Bit 0 - OutOfService		out of servi				M	t/f	false
Bit 0 - Fault		/alue is co	•			M	t/f	false
Bit 0 - Overridden			rily overrid	den		0	t/f	false
Bit 0 - InAlarm		s in alarm				0	t/f	false
Bit 0 - AlarmUnAck		edgement	of alarm			0	t/f	false
all other bits	reserved					NA		
Communication:								
Binding Group:								
Class	Туре				Default			
Geographical 🖂	Apartme	nt . Room	. SubZone	9	1.1.1			
Application Specific	1							
Peripheral	Broadca	st 🗌	Configura					
DP Address:	IO Type		100 (RSN		Property	ID:	57	
LTE-Service (event):			on Bindir					
InfoReport 🖂	Timeout			31	Min			
LTE-Service (polling): Read – Response	Read Wi	ldcard / R	esp Sniffe	r on Bindi	ng Group:			
Value after Power-up:		Default	Value 🛚				Stored V	′alue 🗌
Exception Handling:						Save at Po	owerdown	
					·			
Special Features:								

3.3.6.8 Input HVACModeAct

DP Name	: H	HVACModeAct Abbr.: Mandatory									
FB Name) ::	IHD	Can b	e internal							
Descripti											
			/ varioι	ıs controller fur	ctional bl	ocks.					
Datapoin											
DPT_Nan		DPT_HVACM	ode								
DPT Form	nat:	N ₈					DPT_ID				
Field		Description					Supp.	Range	Unit	Default	
Access T ◆ Input N → th Sponta Reque	iype nis	0 = Auto 1 = Comfort 2 = Standby 3 = Economy 4 = Building P all other enum	rotection eration 1 → th	S			NA M M M NA	a-out:	enum.	cs (rec.)	
Commun		n Type									
♦ Group	Obje	ct Datapoint						Mandato	ry: 🛛		
Defaul	t Grou	ıp Address:									
Dynamics											
Power				T -		1					
Power	up:	Value:		itialisation:	_	Defau	ılt value:				
			Save	d value:		<u> </u>					
						Read	from bus	Ċ.			
Exception	n Han	dling									
 Cii	'4· ···										
Special F	eatur	es									

FB:	UHD	LTE Cli		HVACMo	deAct				Mandator Option		
Desc	ription:	-		-				- -		-	
This i	nformation is	provide	d by vario	us controll	er function	al blocks					
STAT	US and COI										
DPT:	Name [PT_HVA	\CMode_2	<u>Z</u>	DPT ID	201.100) Da	tatype	format	N_8Z_8	
Field			Descripti	on					Sup.	Unit	Default
HVAC	CMode									14	cs
			0 = Auto						NA		
			1 = Comf						M		
			2 = Stand						M		
			3 = Econ						M		
				ing Protect					M		
				enumeratio	on				NA		
STAT			Bitset								
	- OutOfSer	/ice		ut of service					M	t/f	false
	- Fault			alue is cor		_			M	t/f	false
	- Overridde	n		temporari	ily overrido	den			0	t/f	false
	- InAlarm			in alarm					0	t/f	false
	- AlarmUnA	ck		edgement (of alarm				0	t/f	false
	ner bits		reserved						NA		
	munication:										
	ding Group:		1								
Clas			Туре				Defau	lt			
	eographical	<u>_</u>	Apartme	nt . Room	. SubZone)	1.1.1				
	plication Sp	ecific 📙		<u></u>							
	eripheral		Broadca		Configura						
DP.	Address:				258 (FCC						
					259 (WHF						
					260 (SPU					152	
					257 (RCC					.02	
			10 T	.D.\	256 (RRC		_				
			IO Type(ID):	261 (VAV	CDA)	Prope	erty ID:			
					160 (HZC	;)	_			52	
					167 (HIR						
					224 (CZC	:)				54	
					240 (AHU		:				
	-Service (e	vent <u>):</u>		rt Sniffer	on Binding						
	oReport	\boxtimes	Timeout:			31	Min				
	E-Service (po ead – Respo		Read Wi	dcard / Re	sp Sniffer	on Bindir	ng Gro	up:			
	after Powe			Default V	′alue 🛚			-	,	Stored Va	lue 🗌
	ption Handl							Sa		werdown	
Spec	ial Features	:									

3.3.6.9 Input HeatCoolMode

DF	Name:	Heat	CoolMode				Abbr.:				Manda	atory		
FΒ	Name:	UHD	1								Can b	e internal		
De	scription													
Th	is information	on is	provided by	y varioι	ıs contro	ller fun	ctional bl	locks.						
Da	tapoint Ty	ре												
	PT_Name:		DPT_Hhe	at/Cool										
	PT Format:		B ₁						DPT_IC		1.100			
Fie	eld		Descriptio	n					Supp.	Ra	ange	Unit	Defa	ault
He	at/Cool Mo	de								0	/ 1	Bit	CS	3
0 = cooling M														
_			1 = heatin	g					M					
Ac	cess Type													
♦	Input													
	$N \rightarrow this$			$1 \rightarrow th$		_						_		
	Spontaneo	us			Cyclical		\square			e-out:		31 min	(rec.)	
	Request				Polling:				Peri	od:				
Co	mmunicat													
♦	Group Ob									Ma	ndator	ry: 🛛		
	Default Gro	oup A	ddress:											
Dy	namics													
	Power dow	n:	Save:				_	•						
	Power up:		Value:		itialisatic	n:		Defau	ılt value:					
				Save	d value:									_
								Read	from bu	s:				
Ex	ception Ha	ındlir	ng											
Sp	ecial Featu	ıres												

FB:	UHD	LTE CI Input N	-	HeatCoo	lMode			Mandatory ☐ Optional ☑				
Desc	ription:									<u> </u>		
This is	nformation is	s provide	d by vario	us control	ler function	al blocks						
DPT:	Name [OPT_Hea	t/Cool		DPT ID	1.100	Data	type	format	B ₁		
Field			Descripti	on					Sup.	Unit	Default	
HeatC	CoolMode									Bit	CS	
			0 = coolir	ng					М			
			1 = heati	ng					М			
Comr	nunication:		-					_		•	-	
Bine	ding Group	:										
Clas	SS		Туре				Default					
Ge	eographical	\boxtimes	Apartmer	nt . Room	. SubZone		1.1.1					
Ap	plication Sp	ecific										
Pe	ripheral		Broadcas	st 🗌	Configural	ole 🗌						
Peripheral DP Address:			258 (FCC) 259 (WHPC) 10 Type(ID): 260 (SPUC) 257 (RCCRC) 261 (VAVCDA)				Property ID: 151					
LTE	-Service (e	vent):	InfoRepo	rt Sniffer	on Binding							
Inf	oReport	\boxtimes	Timeout:		•	31	Min					
	- Service (p ead – Respo		Read Wil	dcard / Re	esp Sniffer	on Bindir	ng Group):				
Value	after Powe	er-up:		Default \	/alue ⊠				;	Stored Va	lue 🗌	
Exce	ption Handl	ling:						Sav	e at Po	owerdown		
			·						·			
Speci	ial Features	s:										

3.3.6.10 Parameter Apartment

FB:	UHD	Proper	rty Name (<u>Server</u>):	A	partment					Mandator		
Desc	ription:			-						Optiona	<u> </u>	
	er of the a	partment	t zone.									
DPT:			countValue8 Z		DPT ID	202.002		Data	type format	U ₈ Z ₈		
Field		_	Description		I.		Su		Range	Unit	Default	
Zone			Number of the apar	rtm	nent zone				(0) 1126		1	
STAT	US									Bitset		
- Outo	ofService		zone active / inactive	ve			C)	true/false	Bit 0	false	
- all o	ther bits		not supported, fixed	d to	0 '0'		N.	A			false	
	MAND						enum		CS			
- Norr	malWrite				N	1	0					
	OSV & Res		Set zone inactive /	tive		C		3 / 4				
- all o	ther comm	ands	not supported				N.	A				
Comr	nunication	ո։										
DP.	Address:		IO Type(ID):		390 (UHD)			y ID:	101		
(in t	he server)		Start-Index:		1		N°	of el	ements	1		
	perty acce	ess:	Read only			Read/W	rite		\boxtimes			
Pro	tection		Read level		-		Wr	ite le	vel	-		
Exception Handling: Value after Power-up: Stored Value ☐ Act Value ☐ Default Value ☐												
	•											
Spec	ial Feature	es:										
Zone	one = 0 (wildcard): Sends to all listeners											
Temp	RoomSetp	UserAbs	s is not LTE commur	nic	ating in thi	s zone if	it is	'Out	OfService'			
If Ana	rtment is '(OutOfSer	rvice' Room and Sub	$0Z_0$	one autom	atically a	re '(OutO	fService'			

3.3.6.11 Parameter Room

FB:	UHD	Proper (Serve	ty Name r):	Room				Mandatory ⊠ Optional □					
Desc	ription:		<u></u>					<u> </u>					
Numl	per of the re	oom zon	e.										
DPT:	Name	DPT_U	countValue8_Z	DPT ID	202.002	Data	atype format	U_8Z_8					
Field			Description		Sup.	Range	Unit	Default					
Zone			Number of the roo	m zone			(0) 163		1				
STAT								Bitset					
- Out	ofService		zone active / inacti			0	true/false	Bit 0	false				
- all o	ther bits		not supported, fixe	ed to '0'		NA			false				
	MAND						enum		cs				
	malWrite					M	0						
	OSV & Res		Set zone inactive /	active		0	3/4						
- all o	ther comm	ands	not supported			NA							
Com	municatio	n:	T										
	Address:		IO Type(ID):	390 (UHD		Propei		102					
(in t	the server)	Start-Index:	1			elements	1					
_	perty acce	ess:	Read only		Read/Wr	rite	\boxtimes						
Pro	tection		Read level	-	'	Write I	evel	-					
Exce	ption Han	dling:	Value after Power	-up: Stored	Value 🛚	Act V	′alue 🔲 🛮 De	efault Valu	ie 🗌				
Special Features:													
Zone	Zone = 0 (wildcard): Sends to all listeners												
Temp	TempRoomSetpUserAbs is not LTE communicating in this zone if it is 'OutOfService'												
'OutC	OfService' is	s taken d	ver from Apartment	t									

3.3.6.12 Parameter SubZone

FB:	UHD	Proper	perty Name (<u>Server</u>): SubZone						Mandator Optiona	•		
Desc	ription:	<u> </u>								<u></u>		
Numb	er of the s	ub zone.										
					202.002	<u> </u>	Data	atype format	U_8Z_8			
Field			D	escription				S	up.	Range	Unit	Default
Zone			Ν	umber of the Sub	Zc	ne				(0) 115		1
STAT	US										Bitset	
- Outo	ofService		zc	one active / inactive	ve			(0	true/false	Bit 0	false
- all o	ther bits		no	ot supported, fixed	d t	0 '0'			١A			false
COM	MAND									enum		CS
- Norr	nalWrite								M	0		
- SetC	OSV & Res	setOSV	Set zone inactive / active				(0	3 / 4			
- all o	ther comm	ands	no	ot supported				<u> </u>	۱A			
Comr	nunicatio	n:	=				-					
DP .	Address:			IO Type(ID):		390 (UHD)	Property ID: 103				
(in t	he server)		Start-Index:		1		N'	° of e	lements	1	
Pro	perty acce	ess:		Read only			Read/W	rite)	\boxtimes		
Pro	tection			Read level		-		W	rite le	evel	-	
Exce	otion Han	dling:	V	alue after Power-	up	: Stored	Value 🛚	Α	ct Va	lue 🗌 De	ault Value	
Spec	ial Feature	es:										
Zone	= 0 (wildca	ard): Sen	ds	to all listeners								
Temp	TempRoomSetpUserAbs is not LTE communicating in this zone if it is 'OutOfService'											
'OutO	OutOfService' is taken over from Apartment											

3.3.6.13 Parameter OutsideSensorZone

FB:	UHD	Prope	rty Name (<u>Server</u>):	Outside	SensorZ	Mandatory ☐ Optional ⊠				
Desci	ription:	<u>-</u>		<u>-</u>				<u>.</u>		
Numb	er of the out	side se	nsor zone.							
DPT:	Name D	PT_Uc	2	Data	atype format	U_8Z_8				
Field			Description			S	up.	Range	Unit	Default
Zone			Number of the Outsic	le Sensor 2	Zone			(0) 131		1
STAT	US								Bitset	
- Outo	ofService		zone active / inactive			(0	true/false	Bit 0	false
- all of	ther bits		not supported, fixed t	o '0'		١	١A			false
COM	MAND							enum		CS
- Norr	nalWrite					ı	M	0		
- SetC	OSV & Reset	OSV	Set zone inactive / ac	tive		(0	3 / 4		
- all of	ther comman	ıds	not supported			١	١A			
Comr	nunication:					=		-	-	-
DP A	Address:		IO Type(ID):	390 (UHD)	Pr	oper	ty ID:	104	
(in t	he server)		Start-Index:	1		N	of e	elements	1	
Pro	perty access	s:	Read only		Read/W	/rite)	\boxtimes		
Prot	Protection Read level - Write level -									
Exce	Exception Handling: Value after Power-up: Stored Value ☐ Act Value ☐ Default Value ☐									
Speci	Special Features:									
The d	The device is not LTE communicating in this zone if zone is 'OutOfService'.									

3.4 User Presence Switch (UPS)

3.4.1 Aims and objectives

The functional block 'User Presence Switch' provides the system with the presence information manually entered at a HMI device.

(see also 'Presence Detector' (PRD) [01])

This functional block is used e.g. in a 'HMI Device' or in a more complex device which has the corresponding setting functionality.

3.4.2 Functional specification

The information is transmitted spontaneously at each change.

Outputs

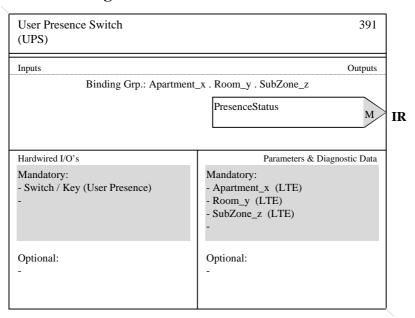
PresenceStatus

This output provides a manually set presence status to the system.

3.4.3 Constraints

None.

3.4.4 Functional Block diagram



3.4.5 Datapoints description

Overview

Datapoints	Description / Remarks	Data Point Type	Additional Info
Outputs			
Presence Status	Presence status with: - COV and RepPer to FB Room Setpoint Manager and various controllers	LTE: 1.018 DPT_Occupancy B ₁ S: 1.018 DPT_Occupancy B ₁	LTE: M S: GO 0 = not occupied 1 = occupied
Parameters			
Apartment	LTE zoning number for Apartment	$\begin{array}{c} 202.002 \\ \text{DPT_UcountValue8_Z} \\ U_8Z_8 \end{array}$	M 1
Room	LTE zoning number for Room	202.002 DPT_UcountValue8_Z U ₈ Z ₈	M 1
SubZone	LTE zoning number for SubZone	202.002 DPT_UcountValue8_Z U ₈ Z ₈	M 1

UPS Runtime Interworking - Dependence on Configuration Modes

			STANDARD MODE		NDED ODE
		Basic FB	S-Mode	Standard Mode Interface	HEE
Inputs					
Outputs	PresenceStatus	GO_b	GO	GO	M

UPS LTE specific Properties

		Support
Parameter	Apartment_x	M
	Room_y	M
	SubZone_z	M

UPS Standard Properties of Interface Objects (or memory mapped DP)

	Support
Parameter	

3.4.6 Detailed Specification of the Datapoints

3.4.6.1 Output PresenceStatus

DP Name:	PresenceStatus Abbr.: Mandatory										
FB Name:	UPS	PS Can be internal [
Description											
This output is	delivered to the room setpoint manager.										
Datapoint Ty											
DPT_Name:	DPT_Occupancy										
DPT Format:											
Field	Description		Supp.	Range	Unit	Default					
	bool cs										
Access Type											
♦ Output											
this \rightarrow M											
Spontaneo			/linRepTim		0 s 1)						
	Cyclic Period:	15 min (r	ecommen	ded value)							
Request											
Communicat											
	ject Datapoint			Mandatory	': 						
	oup Address:										
Dynamics											
Power dov											
Power up:	Value: No initialisation:		ılt value:								
	Saved value:		l value:		\boxtimes						
	Transmit on bus:										
Exception Ha	andling										
Special Feat											
The signa feedback.	I may be sent immediately if the COV is t	he result of a	user intera	action enab	ling fast						

FB:	UPS	LTE Se	rver Output Name:	PresenceS	Status			ſ	Mandatoı Optiona		
Desc	ription:								Ориот	<u>и </u>	
	•	livered to	the room setpoint m	nanager.							
DPT:	Name	DPT_O	cupancy	DPT ID	1.018	Da	tatype	rpe format B₁			
Field			Description	Description Sup. Range					COV	Default	
						bo		yes	CS		
Comr	nunication	1:			- 	-		-		-	
Bine	ding Group) :									
Clas	SS		Туре				Defau	ılt			
Ge	eographical		Apartment. Room	. SubZone			1.1.1				
Ap	plication Sp	oecific [<u> </u>								
Pe	ripheral		☐ Broadcast ☐	Configura							
DP.	Address:		IO Type(ID):	391 (UPS)			erty ID		51		
	-Services		COV 🛛	MinRepTime	э:	0 ¹⁾ s	ec	Heart	tbeat:	15 min	
Inf	oReport	\boxtimes	Output per default	communicat	ting 🗌	Bindi	ng Gro	oup Wildo	card allow	/ed ⊠	
			Tx Prio:	High 🗌		No	rmal 🛭	<u> </u>	Low		
po sh	TE Read-Realling of the all always be poorted)	output	Transm after Powe	er-up: Stored	l Value	□ A	.ct Valı	ue 🛛 D	efault Va	alue 🗌	
	perty-Servi ividual acc		Read only]	Read/V	Vrite	\boxtimes				
Exce	ption Hand	lling:						Save a	at Powerd	down	
	ial Feature										
	ne signal ma edback.	ay be se	nt immediately if the	COV is the r	esult of	f a user	intera	ction ena	abling fas	t	

3.4.6.2 Parameter Apartment

FB:	UPS	Prop	erty Name (<u>Server</u>):	Apartmer	nt			Mandatory ⊠ Optional □		
Desc	ription:			-			<u>.</u>	Ориона	<u>ال ال</u>	
	er of the a	nartmen	t zone							
DPT:			countValue8 Z	DPT ID	202.002	Data	atype format	U ₈ Z ₈		
Field	1.10	1	Description	12	1=0=:00=	Sup.	Range	Unit	Default	
Zone			Number of the aparti	ment zone			(0) 1126		1	
STAT	US							Bitset		
- Outo	ofService		zone active / inactive	e		0	true/false	Bit 0	false	
- all o	ther bits		not supported, fixed	to '0'		NA			false	
	MAND						enum		CS	
- Norr	nalWrite			M	0					
	DSV & Res		Set zone inactive / active				3 / 4			
- all o	ther comm	ands	not supported	NA						
Comr	nunicatio	n:								
	Address:		IO Type(ID):	O Type(ID): 391 (UPS)			Property ID: 101			
•	he server	,	Start-Index:	1			lements	1		
	perty acc	ess:	Read only		Read/W	rite	\boxtimes			
Prof	tection		Read level	-		Write le	evel	-		
Exception Handling: Value after Power-up: Stored Value ☐ Act Value ☐ Default \							fault Value	: 🗌		
Speci	Special Features:									
			ds to all listeners							
	The device is not LTE communicating in this zone if it is 'OutOfService'									
If Ana	f Apartment is 'OutOfService' Room and SubZone automatically are 'OutOfService'									

3.4.6.3 Parameter Room

FB:	UPS	Prop	erty Name (<u>Server</u>):	Name (<u>Server</u>): Room					ry 🛭 al 🗌	
Desc	ription:	<u> </u>	-				<u> </u>	<u> </u>		
Numb	er of the r	oom zon	e.							
DPT:	Name	DPT_U	JcountValue8_Z DPT ID 202.002				atype format	U_8Z_8		
Field			Description	Sup.	Range	Unit	Default			
Zone			Number of the room:	zone			(0) 163		1	
STAT								Bitset		
I	ofService		zone active / inactive			O NA	true/false	Bit 0	false	
- all other bits			not supported, fixed to '0'						false	
I	MAND						enum		CS	
	malWrite	+001	Set zene inactive / cetive			M	0			
	DSV & Res		Set zone inactive / active			O	3 / 4			
	ther comm		not supported			NA			-	
	<u>nunicatio</u>	n:	IO T (ID):	204 (LIDO	`	D	+. ID.	400		
	Address:	۸.	IO Type(ID):	391 (UPS)	Proper	3			
	he server	•	Start-Index:	1	DaadAA		elements	1		
	perty acc tection	ess:	Read only		Read/W	Write I	2) (2)			
		allina.	Read level	- Ctorod	Value M			-		
Exception Handling: Value after Power-up: Stored					Value 🛚	Act Va		fault Value	; 🗌	
C	'al Faatuu									
	Special Features: Zone = 0 (wildcard): Sends to all listeners									
				ano if it io !	OutOfS a	nuioo!				
	The device is not LTE communicating in this zone if it is 'OutOfService' 'OutOfService' is taken over from Apartment									
OutO	126LAICE, I	s taken o	ver irom Apartment							

3.4.6.4 Parameter SubZone

FB:	UPS	Prop	er	ty Name (<u>Server</u>):	SubZone						Mandatory ☐ Optional ⊠		
Desc	ription:	<u> </u>									Ориона		
	er of the s	ub zone.											
DPT:	Name	DPT_U	JcountValue8_Z DPT ID 202.002)	Data	type format	U_8Z_8				
Field				Description				S	up.	Range	Unit	Default	
Zone			١	lumber of the SubZo	on	е				(0) 115		1	
STATUS											Bitset		
- OutofService			z	one active / inactive)				0	true/false	Bit 0	false	
- all other bits			n	ot supported, fixed t	to	'0'			۱A			false	
COMMAND										enum		cs	
- NormalWrite									M	0			
	OSV & Res		Set zone inactive / active					0	3 / 4				
	ther comm		not supported NA				۱A						
Comr	nunicatio	n:											
	Address:			IO Type(ID):	3	91 (UPS))	Property ID:			103		
(in t	he server)		Start-Index:	1			N'	° of e	lements	ements 1		
	perty acce	ess:		Read only			Read/W			\square			
Prof	tection			Read level	-			W	rite le	evel	-		
Exception Handling: Value after Power-up:					Stored \	∕alue ⊠	Α	ct Va	lue 🔲 De	fault Value	e 🗌		
Speci	Special Features:												
	,	,		to all listeners									
	The device is not LTE communicating in this zone if it is 'OutOfService'												
'OutO	'OutOfService' is taken over from Apartment												

3.5 **User Fan Speed Setting (UFS)**

3.5.1 Aims and objectives

The functional block 'User Fan Speed Setting' acquires the user fan speed and provides it to the system.

This functional block is used e.g. in a 'HMI Device' or in a more complex device which has the user fan speed setting functionality.

This functional block enables the user to modify the fan speed e.g. to improve the acoustic comfort (reducing speed).

Setting is possible e.g. by means of a rotary switch or keys.

E.g. the choice is 'AUTOMATIC', 0, 1, 2, 3.

For feedback purposes an indication is possible. It is also possible to realise an only indication device.

In the Easy Mode it supports the following Binding Groups:

3.5.2 **Functional specifications**

The speed is given in %. For step switching, the 100% are divided by the number of steps. 100 steps means continuous fan speed. 0% is OFF, +100% is full speed.

The information is transmitted spontaneously at each change.

Optional features in LTE Mode:

- Faults in the functional block may be detected and reported.
- The value may temporary be overridden by means of a tool for service purposes. The 'Overridden' condition must be reported.
- The HMI may be set / reset out of service by means of a tool for service purposes.

Inputs

•	FanSpeed	This percent value originates from the actuator and can	
		be converted to the step or directly be indicated.	

This input is used if an actuators directly sends the FanStep step information.

Outputs

FanSpeedUser This value is delivered to the controller in order to

manually override the fan speed, or to release the control of the fan to the controller (AUTOMATIC).

In S-Mode the information Automatic / Manually is

transmitted separately.

FanManual S-Mode information for Automatic / Manually.

Binding Groups (LTE)

Apartment . Room . SubZone GenPeripheral

This HMI can be used in different applications.

For this reason different binding possibilities are offered. It is even possible to have more than one binding group active. The binding groups that shall not be active have

to be set to out of service.

Not all possibilities have to be realised.

See Detailed Specification of the Datapoints 3.5.6.

[&]quot;Apartment; Room; SubZone"

[&]quot;General Peripheral Tag"

Parameters

• NumberOfSteps This parameter defines the number of steps of the HMI.

100% is divided by the number of steps. e.g. for 3 steps:

Step 0 = 0% (with DPT_Scaling: 00h)

Step 1 = 33% (with DPT_Scaling: 85h = 33.33%) Step 2 = 67% (with DPT_Scaling: AAh = 66.67%)¹

Step 3 = 100% (with DPT_Scaling: FFh)

This parameter is optional. This means that the number

of steps may be fix defined for a device.

FanSpeedMin Minimum fan speed limit for variable speed fan.

FanSpeedMax Maximum fan speed limit for variable speed fan.

3.5.3 Constraints

None.

_

^{67%} is rounded for DPTs encoding percent values with 1% resolution, e.g. DPT_Percent_U8 or DPT_RelValue_Z. For DPT_Scaling, nearest encoding of 67% would be 67.06% (=ABh), resulting in interpretation, by a 3-speed-receiver, as speed 3 instead of speed 2, see next page.

Interworking of devices with different number of steps

DPT_Scaling (5.001)

%

0.00

100.00

decimal

0

255

With the encoding as shown below, interworking of devices with different number of steps is possible ². Fan off is defined by value 0. A sender shall send a value near the higher limit of the step range, in order to stimulate highest speed according step ranges on receiver's side. Steps in between shall be interpreted to the best.

Sender (e.g. HMI) Receiver (Controller)

Single-Speed

%-value ³

0

100

Speed
Off
-

%-value	DPT_Scaling (5.001)		
	decimal	%	
0	0	0.00	
1 - 100	1 - 255	0.39 - 100.00	

Single-Speed

2-Speed

3-Speed

4-Speed

5-Speed

2-Speed

%-value	DPT_Scaling	
	decimal	%
0	0	0.00
50	128	50.20
100	255	100.00

Speed	
Off	
I	
II	

%-value	DPT_Scaling	
	decimal	%
0	0	0.00
1 - 50	1 - 128	0.39 - 50.20
51 -100	129 - 255	50.59 - 100.00

3-Speed

%-value	DPT_Scaling	
	decimal	%
0	0	0.00
33	85	33.33
67 ⁴	170	66.67
100	255	100.00

	Speed
	Off
	I
	II
I	Ш

%-value	DPT_Scaling	
	decimal	%
0	0	0.00
1 - 33	1 - 85	0.39 - 33.33
34 - 67	86 - 170	33.73- 66.67
68 -100	171 - 255	67.06 - 100.00

4-Speed

%-value	DPT_Scaling	
	decimal	%
0	0	0.00
25	64	25.10
50	128	50.20
75	192	75.29
100	255	100.00

Speed
Off
I
II
III
IV

%-value	DPT_Scaling	
	decimal	%
0	0	0.00
1-25	1 - 64	0.39 - 25.10
26 - 50	65 - 128	25.49 - 50.20
51 -75	129 - 192	50.59 - 75.29
76 -100	193 - 255	75.69 - 100.00

5-Speed

%-value	DPT_Scaling				
	decimal	%			
0	0	0.00			
20	51	20.00			
40	102	40.00			
60	153	60.00			
80	204	80.00			
100	255	100.00			
100	255	100.00			

Speed	
Off	
I	
II	
III	
IV	
V	

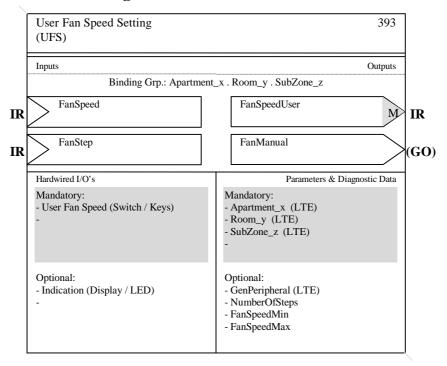
%-value	DPT_Scaling				
	decimal	%			
0	0	0.00			
1 - 20	1 - 51	0.39 - 20.00			
21 - 40	52 - 102	20.39 - 40.00			
41 - 60	103 - 153	40.39 - 60.00			
61 - 80	154 - 204	60.39 - 80.00			
81 -100	205 - 255	80.39 - 100.00			

² not recommended, due to user-unfriendliness

³ representation without any position after decimal point, as %-values may be used with DPTs 202.001 or 5.004

⁴ needs attention (special handling) when tranformed to DPT_Scaling, see footnote on previous page

3.5.4 Functional Block diagram



3.5.5 Datapoints description

Overview

Datapoints	Description / Remarks	Data Point Type	Additional Info
Inputs			
Fan Speed	Active fan speed with: - COV and RepPer - Z ₈ not supported from FB 'Fan Speed Actuator'	LTE: 202.001 DPT_RelValue_Z U_8Z_8 S: 5.001 DPT_Scaling U_8	LTE: O S: (GO)
Fan Step	Active fan step with: - COV and RepPer - Z ₈ not supported from FB 'Fan Speed Actuator'	$ \begin{array}{llllllllllllllllllllllllllllllllllll$	LTE: O S: (GO) count
Outputs			
Fan Speed User	User fan speed with: - COV and RepPer - Z ₈ STATUS and - Z ₈ COMMAND supported to FB various controller	LTE: 202.001 DPT_RelValue_Z U_8Z_8 S: 5.001 DPT_Scaling U_8	LTE: M S: GO %
Fan Manual	HMI enable information with: - COV and RepPer to S-Mode	LTE: NA S: 1.003 DPT_Enable B ₁	LTE: NA S: (GO) 0 = HMI disabled => Auto 1 = HMI enabled => Manual
Datapoints	Description / Remarks	Data Point Type	Additional Info
Parameters			
Apartment	LTE zoning number for Apartment	$\begin{array}{c} 202.002\\ DPT_UcountValue8_Z\\ U_8Z_8 \end{array}$	M 1
Room	LTE zoning number for Room	202.002 DPT_UcountValue8_Z U ₈ Z ₈	M 1
SubZone	LTE zoning number for SubZone	$\begin{array}{c} 202.002\\ \text{DPT_UcountValue8_Z}\\ U_8Z_8 \end{array}$	M 1
Gen Peripheral	LTE zoning number for general peripheral	$\begin{array}{c} 203.012\\ \text{DPT_UcountValue16_Z}\\ U_{16}Z_{8} \end{array}$	O 1
Number Of Steps	Number of steps of the HMI	5.010 DPT_Value_1_Ucount U ₈	O cs
Fan Speed Min	Min value for variable fan speed	$\begin{array}{c} 202.001 \\ \text{DPT_RelValue_Z} \\ U_8Z_8 \end{array}$	O cs %
Fan Speed Max	Max value for variable fan speed	$\begin{array}{c} 202.001 \\ DPT_RelValue_Z \\ U_8Z_8 \end{array}$	O cs %

Implementation of Properties using standard DPT see chapter 1.3.2

UFS Runtime Interworking - Dependence on Configuration Modes

			STANDARD MODE	Extended Mode	
		Basic FB	S-Mode	Standard Mode Interface	HEE
Inputs	FanSpeed	(GO _b)		(GO)	0
	FanStep	(GO _b)		(GO)	0
Outputs	Dutputs FanSpeedUser		GO	GO	M
	FanManual	(GO _b)		(GO)	NA

UFS LTE specific Properties

		Support
Parameter	Apartment	M
	Room	M
	SubZone	M
	GenPeripheral	0

UFS Standard Properties of Interface Objects (or memory mapped DP)

		Support
Parameter	NumberOfSteps	0
	FanSpeedMin	0
	FanSpeedMax	0

3.5.6 Detailed Specification of the Datapoints

3.5.6.1 Input: FanSpeed

DF	Name:					Abbr.:		Manda			•		
FΒ	Name:	UFS								Can be internal			
De	scription												
Th	is input is p	rovid	led by the	fan spee	ed actuator a	nd indicate	s the	fan spee	d.				
Da	tapoint Ty	ре											
DF	PT_Name:	DF	T_Scaling)									
DF	PT Format:	U ₈						DPT_ID: 5.001					
Fie	eld	De	scription					Supp. Range			Unit	Defa	ult
									0	100 *)	%	CS	5
Ac	cess Type												
♦	Input												
	$N \rightarrow this$]	$1 \rightarrow th$	is 🛛								
	Spontaneo	eous 🛛 Cyclically:					∑ Time-ou			ut: 31 min (re		(rec.)	ec.)
	Request	Polling:						Period:					
Co	mmunicati	ion 1	уре										
•	Group Ob	ject I	Datapoint						Ma	andato	ry: 🛛		
	Default Gro	Group Address:											
Dy	namics												
	Power dow	n:	Save:										
	Power up:		Value:	No in	nitialisation:		Def	ault value	e:				
				Save	ed value:								
							Rea	ad from b	us:				
Ex	ception Ha	ındli	ng										
	ecial Featu												
^{")} T	The coding of the actuator setpoint value is: 0% → 0 100% → 255												

FB:	UFS	LTE CI	-	FanSpeed	t					Mandator	
		Input N	lame:							Optiona	al 🖂
	•										
This i	nput is prov	ided by th	e fan spe	ed actuatoı	r and indic	ates the	fan spee	ed.			
DPT:	Name	DPT_Rel\	/alue_Z		DPT ID	202.001	1 Data	atype	format	U_8Z_8	
Field			Descripti	on					Sup.	Unit	Default
Value	!		Fan spec	d value				-		%.	cs
STAT	US										
- all b	its		Not supp	orted					NA		
Com	nunication	:	-						=	=	=
Bine	ding Group):									
Clas	SS		Туре				Default				
Ge	Input Name: escription: is input is provided by the fan speed actuator and indicates the fan speed. PT: Name DPT_RelValue_Z DPT ID 202.001 Datatype format U ₈ Z ₈ eld Description Sup. Unit Default alue Fan speed value %. cs TATUS all bits Not supported NA ommunication: Binding Group:										
Ap	plication Sp	ecific 🗌									
Pe	eripheral		Broadca	st 🗌	Configura	ıble 🛚	1 1)				
DP	Address:		IO Type(D):	372 (FSA))	Proper	ty ID	:	55	
LTE	-Service (e	vent):	InfoRepo	rt Sniffer	on Binding	Group:		-	_		
Inf	oReport		Timeout:			31	Min				
			Read Wil	dcard / Re	sp Sniffer	on Bindir	ng Group	o: -	-		
Value	after Pow	er-up:	3	Default V	alue 🛚			•	(Stored Val	lue 🗌
Exce	ption Hand	ling:						Sa	ve at Po	werdown	
¹⁾ Th	is binding fe	eature is c	ptional								
	ial Features	s:									
¹⁾ Th	is HMI-Inpu	ıt can be ι	used in dif	ferent appl	ications. T	he bindir	ng group	s tha	t shall n	ot be activ	e have
to	be set to ou	it of service	ce. Not all	possibilitie	s have to	be realis	ed.				

3.5.6.2 Input: FanStep

DF	Name:	Fa	nStep					Abbr.:	-			Ma	andat	tory		
FΒ	Name:	UF	S									Ca	ın be	internal		
De	scription															
Th	is input is p	rov	ided by the fa	an spec	ed ac	tuator ar	nd ir	ndicates	the t	fan ste	ер.					
	tapoint Ty															
	PT_Name:	_	PT_Value_1	_Ucou	nt					ı						
	T Format:	U	•							DPT)10			
Fie	eld	D	escription							Sup	p.	Range	е	Unit	Def	ault
												full		count	С	S
Ac	cess Type															
♦	Input															
	$N \rightarrow this$			$1 \rightarrow th$												
	Spontaneo	us				lically:					Time	-out:		31 min	(rec.))
	Request				Polli	ing:					Perio	od:				
Co	mmunicati															
♦			Datapoint									Manda	atory	<i>ı</i> : ⊠		
	Default Gro	oup	Address:													
Dy	namics															
	Power dow	'n:	Save:													
	Power up:		Value:	No in	itialis	sation:	Щ		Defa	ault va	alue:					
				Save	d val	ue:	Ш									
									Rea	d fror	n bus	:				
Ex	ception Ha	nd	ling													
Sp	ecial Featu	ıres	3													
-																

FB:	UFS	LTE Cli		FanStep						Mandator Optiona	
Desci	ription:	mpacre	<u> </u>							Орионе	<u> 🖂</u>
	nput is provid	ded by th	e fan spe	ed actuator	r and indic	ates the	fan step.				
DPT:	Name D	PT_Uco	untValue8	3_Z	DPT ID	202.002	2 Datat	type	format	U ₈ Z ₈	
Field			Description	on					Sup.	Unit	Default
Value			Fan step						М	Count	cs
STAT	US]			
- all bi	ts		Not supp	orted					NA		
Comr	nunication:	,						_			
Bind	ding Group:										
Clas	ss		Type				Default				
Ge	ographical		Apartmer	nt . Room .	SubZone		1.1.1 ¹⁾				
Ap	plication Spe	ecific									
Pe	ripheral	\boxtimes	Broadcas	st 🗌 💢	Configural	ole 🛛	1 1)				
DP /	Address:		IO Type(I		372 (FSA)		Propert	y ID:		56	
	-Service (ev	ent):	InfoRepo	rt Sniffer o	on Binding						
Inf	oReport	\boxtimes	Timeout:			31	Min				
	- Service (po ead – Respor		Read Wil	dcard / Res	sp Sniffer	on Bindir	ng Group	:			
Value	after Power	r-up:		Default Va	alue 🛚				9	Stored Val	ue 🗌
Excep	otion Handli				Sa	ve at Po	werdown				
1) Th	This binding feature is optional										
Speci	al Features:										
	is HMI-Input							tha	t shall n	ot be activ	e have
to	be set to out	of service	e. Not all	possibilitie	s have to	be realis	ed.				

3.5.6.3 Output: FanSpeedUser

DP Name:	FanSpeedUser	A	Abbr.:	-	Mandat	ory	
FB Name:	UFS				Can be	interna	
Description							
This Output co	ntains the value for the	fan speed.					
Datapoint Typ	е						
DPT_Name:	DPT_Scaling						
DPT Format:	U_8			DPT_ID:	5.001		
Field	Description			Supp.	Range	Unit	Default
					0100 *)	%	CS
Access Type							
◆ Output							
this \rightarrow M	\boxtimes this \rightarrow 1						
Spontaneou	ıs 🛛 COV:	Delta-Value:		MinRepTim	ie:	0 s ¹⁾	
	Cyclic	Period:	2)	-			
Request							
Communication	on Type						
♦ Group Obj	ect Datapoint				Mandatory	: 🛛	
Default Gro	up Address:						
Dynamics	·						
Power dow	n: Save:						
Power up:	Value: No init	ialisation:	Defa	ult value:			
	Saved	value:	Actu	al value:			
	Transmit on bus:		$ \leq $				
Exception Ha	ndling						
Special Featu							
	f the actuator setpoint v				·		·
1) The signal	may be sent immediatel	y if the COV is the	result of a	user intera	ction enab	ling fas	t
feedback.							
2) See contro	ller FB, no Heartbeat du	e to compatibility w	vith existin	g EIB produ	ıcts.		

FB:	UFS	LTE Serv	er Output Name:	FanSpeedU	ser			Mandator Optiona	
Desc	ription:			-		-		-	
This (Output cor	tains the	value for the fan sp	eed.					
DPT:	Name	DPT_Re	lValue_Z	DPT ID	202.00	1 Dataty	/pe format	U_8Z_8	
Field			Description		Sup.	Range	Unit	COV	Default
Value	,		Fan speed value			Full Rang	ge %	1	CS
STAT	US		For LTE-Service Ir	nfoReport			Bitset		
			and Property-Serv	ice .					
			Response only						
Bit 0	- OutOfSe	ervice	HMI value is out of	f service	0	true/fals	е	Υ	false
			=> AUTOMATIC						
Bit 1	- Fault		HMI value is corru	pted	0	true/fals	е	Υ	false
Bit 2	- Overrido	len	HMI is temporarily	overridden	0	true/fals	е	Υ	false
Bit 3	- InAlarm		HMI is in alarm		0	true/fals	е	Υ	false
Bit 4	- AlarmUr	nAck	Acknowledgement	of alarm	0	true/fals	е	Y	false
all oth	er bits		reserved		NA				
Comr	nunicatio	n:				-		-	-
Bine	ding Grou	ıp:							
Clas	SS		Туре			De	fault		
Ge	eographica	al 🛛	Apartment. Roon	n . SubZone		1.1	.1 ³⁾		
Ap	plication S	Specific							
	ripheral		Broadcast	Configura	able 🖂	13	5		
DP .	Address:		IO Type(ID):	393 (UFS)		Property	ID:	51	
LTE	-Services	(event):	COV 🗵	MinRepTime	э:	0 ²⁾ sec	Hear	tbeat:	15 min
Inf	oReport		Output per defau	Ilt communicat	ting 🔲	Binding	Group Wilde	card allow	red ⊠
			Tx Prio:	High 🗌		Norma	al 🛛	Low	
	TE Read-l								
	lling of the		Transm after Pov	war up: Starag	l Valua	□ ∧ot \	/alue 🛛 🏻 🖸	Default Va	ا میا
	all always	be	Transmaner For	wei-up. Storet	value	☐ ACL	raiue 🖂 L	Jeiauli Va	iiue 🗀
	pported)								
	perty-Ser		Read only		Read/V	Vrite	\boxtimes		
	ividual ad		Troud or my						
	ption Han						Save	at Powerd	lown
	s binding		optional						
	ial Featur								
	•	nay be ser	nt immediately if the	e COV is the r	esult of	a user inte	eraction ena	abling fast	
۵۱	edback.								
111			e used in different				s that shall i	not be act	ive have
+^		DIE OF OOM	UGG NIGH OIL DOGGINI	UTIOO DOWO to b	o roolic	200			

3.5.6.4 Output FanManual

LTE-HEE Mode: NA

DP Name:	FanManua	al		Α	bbr.:			Manda	tory		
FB Name:	UFS							Can be	interna		
Description											
This Output c	ontains the	'AUTOMA'	TC' infor	mation for the	user	fan	speed.				
Datapoint Ty	ре										
DPT_Name:	DPT_En	able									
DPT Format:	B ₁						DPT_ID:	1.003			
Field	Descripti	on					Supp.	Range	Unit	Default	
Bit								0/1	Bit	CS	
		oled → AU									
		<u>led → ma</u>	nual = F	IMI value is v	alid						
Access Type											
♦ Output											
this \rightarrow M		this -									
Spontaneo	ous 🛛	COV:		Delta-Value:	2	N	MinRepTin	ne:	0 s 1)		
		Cyclic		Period:	2)					
Request	\square										
Communicat	ion Type										
♦ Group Ob	ject Datapo	oint						Mandatory	<i>ı</i> : ⊠		
Default Gr	oup Addres	ss:									
Dynamics											
Power dov	vn: Save:										
Power up:	Value		nitialisati		D	efau	ılt value:				
		Sav	ed value			ctua	ıl value:				
		mit on bus:									
Exception Ha	andling										
Special Feat											
	The signal may be sent immediately if the COV is the result of a user interaction enabling fast										
feedback.											
2) See contro	oller FB, no	Heartbeat	due to co	ompatibility w	ith exi	sting	g EIB prod	ucts.			

3.5.6.5 Parameter: Apartment

FB:	UFS	Property	Name (<u>Server</u>):	Α	partment					Mandator Optiona	
Desc	ription:			-						Ориона	<u> </u>
	•	apartment	t zone.								
DPT:	Name	DPT_U	countValue8_Z		DPT ID	202.002	2	Datat	type format	U ₈ Z ₈	
Field			Description				Sı	ıρ. Π	Range	Unit	Default
Zone			Number of the apa	rtm	nent zone				(0) 1126		1
STAT	US									Bitset	
- Outo	ofService		zone active / inacti	ve			()	true/false	Bit 0	false
- all o	ther bits		not supported, fixe	ed to '0'			N	Α			false
COMI	MAND								enum		CS
- Norr	malWrite			M M							
			Set zone inactive / active O)	3 / 4		
- all o	SetOSV & ResetOSV all other commands		not supported				Ν	Α			
Comr	nunicatio	n:									
DP A	Address:		IO Type(ID):		393 (UFS)			opert		101	
(in t	he serve	r)	Start-Index:		1		N°	of el	ements	1	
Pro	perty acc	ess:	Read only			Read/W	rite		\boxtimes		
Pro	tection		Read level		-		W	rite le	vel	-	
Exce	ption Har	ndling:	Value after Power-	up	: Stored \	√alue 🛚	Ac	t Val	ue 🔲 🛮 Def	ault Value	
Speci	ial Featur	es:									
Zone	e = 0 (wildcard): Sends to all listeners										
The d	evice is n	ot LTE co	mmunicating in this	ZO	ne if it is 'C	OutOfSer	vice	e'			
If Ana	rtment is	'OutOfSei	rvice' Room and Sul	h7	one autom	atically a	re '	OutO	fService'		

3.5.6.6 Parameter: Room

FB:	UFS	Property	y Name (<u>Server</u>):	R	oom				Mandator	
									Optiona	
Desc	ription:									
Numb	per of the	room zone	e.							
DPT:	Name	DPT_U	countValue8_Z		DPT ID	202.002	Data	type format	U_8Z_8	
Field			Description				Sup.	Range	Unit	Default
Zone			Number of the rooi	m z	zone			(0) 163		1
STAT	US								Bitset	
- Out	OutofService zone active / in all other bits not supported,						0	true/false	Bit 0	false
- all o	all other bits not supported				o '0'		NA			false
COM	COMMAND							enum		CS
l l	NormalWrite						M	0		
- Set					ctive		0	3 / 4		
- all o	SetOSV & ResetOSV all other commands Set zone inaction not supported						NA			
Com	municatio	n:								
DP	Address:		IO Type(ID):		393 (UFS))	Proper	ty ID:	102	
(in t	the serve	r)	Start-Index:		1		N° of e	lements	1	
Pro	perty acc	ess:	Read only			Read/W	'rite	\boxtimes		
Pro	tection		Read level		-		Write le	evel	-	
Exce	ption Har	ndling:	Value after Power-	·up	: Stored '	√alue 🛚	Act Va	lue 🔲 Def	ault Value	
Spec	ial Featui	es:								
Zone	= 0 (wildo	ard): Sen	ds to all listeners							
The c	device is n	ot LTE co	mmunicating in this	ZC	one if it is 'C	OutOfSer	vice'			
'OutC)fService'	is taken o	ver from Apartment							

3.5.6.7 Parameter SubZone

FB:	UFS	Property	/ N	lame (<u>Server</u>):	S	ubZone					Mandator Optiona	
Desc	ription:				-						Ориона	<u> </u>
		sub zone.										
DPT:	Name	DPT_U	CO	untValue8_Z		DPT ID	202.002	2	Data	type format	U ₈ Z ₈	
Field			D	escription				S	up.	Range	Unit	Default
Zone			Ν	lumber of the Sub	Zo	ne				(0) 115		1
STAT	US										Bitset	
- Outo	ofService		1	one active / inacti					0	true/false	Bit 0	false
- all o					ed to '0' NA					false		
	COMMAND NormalWrite									enum		CS
_	NormalWrite								M	0		
	SetOSV & ResetOSV S			Set zone inactive / active O				_	3 / 4			
- all o	SetOSV & ResetOSV Set zone in all other commands not support								NΑ			
Comr	nunicatio	n:										
	Address:			IO Type(ID):		393 (UFS)			ty ID:	103	
(in t	he serve	r)		Start-Index:		1				lements	1	
	perty acc	ess:		Read only			Read/W	/rite)	\boxtimes		
Pro	tection			Read level		-		W	rite le	evel	-	
Exce	Exception Handling: Value after Power-up:				: Stored	Value 🛚	Α	ct Va	lue 🗌 Def	fault Value		
Spec	ial Featur	es:										
Zone	e = 0 (wildcard): Sends to all listeners											
				municating in this		ne if it is '0	OutOfSer	vic	e'			
'OutO	fService'	is taken o	ve	r from Apartment								

3.5.6.8 GenPeripheral (Parameter)

FB: U									Mandatory ☐ Optional ⊠			
Descrip	tion:			-				Ė				
Number	of the	general p	eripheral tag.									
DPT:	Name	DPT_U	countValue16_Z	D	PT ID	203.012	2 Dat	atype format	$U_{16}Z_{8}$			
Field			Description				Sup.	Range	Unit	Default		
Zone			Number of genera	l perip	oheral t	ag		full		1]		
STATUS	S								Bitset			
- OutofS	Service		zone active / inact	ive			0	true/false	Bit 0	false		
- all other	er bits		not supported, fixe	ced to '0' NA						false		
COMMAND enum cs												
- Norma							M	0				
- SetOS	V & Re	setOSV	Set zone inactive /	/ activ	'e		0	3/4				
- all other	er comr	nands	not supported				NA					
Commu	ınicatio	n:	-			-		•	-	=		
DP Ad	ldress:		IO Type(ID):	39	3 (UFS)	Prope	rty ID:	104			
(in the	serve	r)	Start-Index:	1			N° of	elements	1			
Prope	rty acc	ess:	Read only			Read/V	Vrite	\boxtimes				
Protec	ction		Read level	-			Write	level	-			
Excepti	Exception Handling: Value after Power-up: Stored Value Act Value Default Value											
Special	Special Features:											
The dev	rice is n	ot LTE co	mmunicating in this	s zone	e if it is	'OutOfSe	ervice [']					

3.5.6.9 Parameter NumberOfSteps

FB:	UFS	Property	Name (<u>Server</u>):	NumberOfSteps					Mandatory ☐ Optional ⊠		
Desci	ription:										
Settin	g of the n	umber of	steps used.								
DPT:	Name	DPT_Va	lue_1_Ucount		DPT ID	5.010	Data	type format	U ₈		
Field			Description				Sup.	Range	Unit	Default	
Numb	Number Communication:		Number of steps	teps				Full	count	CS	
Comr	mmunication:										
DP A	Address:		IO Type(ID):	3	393 (UFS))	Proper	ty ID:	111		
(in t	he serve	r)	Start-Index:	1 N° of el			lements	1			
Pro	perty acc	ess:	Read only			Read/W	/rite	\boxtimes			
Prot	tection		Read level	-	•		Write le	evel	-		
Exce	otion Har	dling:	Value after Power-	up:	Stored	Value 🛚	Act Va	lue 🔲 Def	ault Value		
Speci	ial Featur	es:			_		-	·	-	-	

${\bf 3.5.6.10~Parameter~Fan Speed Min}$

FB:	UFS	Property	Name (<u>Server</u>):	Fa	anSpeed!	/lin				Mandator Optiona	
Desci	ription:			-					-	<u> </u>	<u></u>
Minim	um fan sp	peed value	e for variable fans s	ре	ed						
DPT:	Name	DPT_Re	elValue_Z		DPT ID	202.00	1	Data	atype format	U ₈ Z ₈	
Field			Description				S	up.	Range	Unit	Default
Value			Fan speed in perce	ent]		Full	%	CS
STAT										Bitset	
- all bi	its		not supported, fixe	d t	d to '0' NA					false	
	MAND								enum		cs
- Norr	nalWrite			M			0				
<u> </u>	ther comn		not supported				١	1A			
	nunicatio										
	Address:		IO Type(ID):		393 (UFS)	Pı	opei	ty ID:	112	
(in t	he serve	r)	Start-Index:		1		N'	° of e	elements	1	
Pro	perty acc	ess:	Read only			Read/V	Vrite)	\boxtimes		
Prot	tection		Read level		-		W	rite I	evel	-	
Excep	otion Har	ndling:	Value after Power-	-up	: Stored	Value 🗵] A	ct Va	llue 🗌 Def	ault Value	
			<u>-</u>								
Speci	ial Featur	es:									

3.5.6.11 Parameter FanSpeedMax

FB:	UFS	Property	Name (<u>Server</u>):	anSpeedN		Mandatory ☐ Optional ⊠						
Desc	ription:								<u> </u>			
Maxin	num fan s	peed valu	e for variable fans	spe	eed							
DPT:	Name	DPT_Re	elValue_Z		DPT ID	202.001		Data	type format	U ₈ Z ₈		
Field Description								p.	Range	Unit	Default	
Value	:		Fan speed in perce]	Full	%	cs		
STAT	US								Bitset			
- all b	its		not supported, fixe	d t	o '0'		N/	4			false	
COMI	MAND								enum		CS	
- Norr	malWrite							l	0			
- all o	ther comr	nands	not supported				N/	4				
Comr	nunicatio	n:										
DP A	Address:		IO Type(ID):		393 (UFS))	Pro	per	ty ID:	113		
(in t	he serve	r)	Start-Index:		1		N°	of e	lements	1		
Pro	perty acc	ess:	Read only [Read/W	/rite		\boxtimes			
Prof	tection		Read level		-		Wri	te le	evel	-		
Exce	ption Har	ndling:	Value after Power-	up	: Stored	Value 🛚	Act	Va	lue 🔲 Def	ault Value		
Speci	Special Features:											

3.6 User Air Quality Setpoint Setting (UAQSS)

3.6.1 Aims and objectives

The functional block 'User Air Quality Setpoint Setting' provides the system with the air quality setpoint information manually entered at a HMI device.

This functional block is used e.g. in a 'HMI Device' or in a more complex device which has the corresponding setting functionality.

For feedback purposes an indication is possible. It is also possible to realise an only indication device.

3.6.2 Functional specification

The distribution of the user air quality setpoint in the system is event-driven (COV-condition, change of value) and in addition repeated periodically.

In the LTE-Mode the functional block 'User Air Quality Setpoint Setting' supports the following LTE zoning:

and Outside Sensor Zone (if outside AQ is used)

Inputs

• AQOutside This value is for indication and is delivered by the

'Outside AQ Sensor'.

• AQRoom This value is for indication and is delivered by the

'Room AQ Sensor'.

• AQReturnAir This value is for indication and is delivered by the

'Return AO Sensor'.

Outputs

• AQSetpUser This output delivers the user AQ setpoint to the system.

Binding Group (LTE)

• Apartment . Room . SubZone

GenPeripheral

This HMI can be used in different applications.

For this reason different binding possibilities are offered. It is even possible to have more than one binding group active. The binding groups that shall not be active have

to be set out of service.

Not all possibilities have to be realised.

• OutsideSensorZone no special features

Parameters

• AQSetpUserMax This parameter defines the lower limit of the range the setpoint

may be adapted within.

• AQSetpUserMin This parameter defines the upper lower limit of the range the

setpoint may be adapted within.

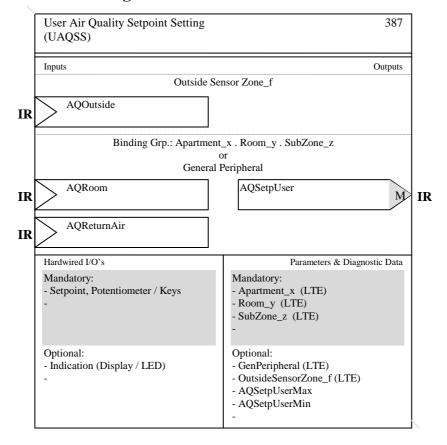
3.6.3 Constraints

None.

[&]quot;Apartment . Room . SubZone",

[&]quot;General Peripheral Tag"

3.6.4 Functional Block diagram



3.6.5 Datapoints description

Overview

Datapoints	Description / Remarks	Data Point Type	Additional Info		
Inputs					
AQ Outside	Outside air quality actual value with: - COV and RepPer - Z ₈ STATUS supported from FB 'Outside Air Quality Sensor'	$ \begin{array}{ll} \text{LTE:} & 203.100 \\ \text{DPT_HVACAirQual_Z} \\ U_{16}Z_{8} \\ \text{S:} & 9.008 \\ \text{DPT_Value_AirQuality} \\ F_{16} \end{array} $	LTE: O S: (GO) ppm		
AQ Room	Room air quality actual value with: - COV and RepPer - Z ₈ STATUS supported from FB 'Room Air Quality Sensor'	$ \begin{array}{ll} LTE: & 203.100 \\ DPT_HVACAirQual_Z \\ U_{16}Z_8 \\ S: & 9.008 \\ DPT_Value_AirQuality \\ F_{16} \end{array} $	LTE: O S: (GO) ppm		
AQ Return Air	Return air quality actual value with: - COV and RepPer - Z ₈ STATUS supported from FB 'Retrun Air Quality Sensor'	$ \begin{array}{ll} LTE: & 203.100 \\ DPT_HVACAirQual_Z \\ U_{16}Z_8 \\ S: & 9.008 \\ DPT_Value_AirQuality \\ F_{16} \end{array} $	LTE: O S: (GO) ppm		
Outputs					
AQ Setp User	User air quality setpoint with: - COV and RepPer - Z ₈ not supported to FB Setpoint Manager AQ	$ \begin{array}{ll} LTE: & 203.100 \\ DPT_HVACAirQual_Z \\ U_{16}Z_8 \\ S: & 9.008 \\ DPT_Value_AirQuality \\ F_{16} \end{array} $	LTE: M S: GO ppm		
Parameters					
Apartment	LTE zoning number for Apartment	$\begin{array}{c} 202.002 \\ \text{DPT_UcountValue8_Z} \\ U_8Z_8 \end{array}$	M 1		
Room	LTE zoning number for Room	$\begin{array}{c} 202.002 \\ \text{DPT_UcountValue8_Z} \\ U_8Z_8 \end{array}$	M 1		
SubZone	LTE zoning number for SubZone	$\begin{array}{c} 202.002 \\ \text{DPT_UcountValue8_Z} \\ U_8Z_8 \end{array}$	M 1		
Gen Peripheral	LTE zoning number for general peripheral	$\begin{array}{c} 203.012 \\ \text{DPT_UcountValue16_Z} \\ U_{16}Z_{8} \end{array}$	O 1		
Outside Sensor Zone	LTE zoning number for outside sensor zone	$\begin{array}{c} 202.002 \\ DPT_UcountValue8_Z \\ U_{16}Z_8 \end{array}$	O 1		
AQSetpUserMax	Value for the upper limit of he range the absolute setpoint may be adapted within.	$\begin{array}{c} 203.100 \\ \text{DPT_HVACAirQual_Z} \\ U_{16}Z_{8} \end{array}$	O cs		
AQSetpUserMax	Value for the lower limit of he range the absolute setpoint may be adapted within.	$\begin{array}{c} 203.100 \\ \text{DPT_HVACAirQual_Z} \\ U_{16}Z_{8} \end{array}$	O cs		

UAQSS Runtime Interworking - Dependence on Configuration Modes

			STANDARD MODE		NDED DDE
		Basic FB	S-Mode	Standard Mode Interface	HEE
Inputs	AQOutside	(GO _b)		(GO)	0
	AQRoom	(GO _b)		(GO)	0
	AQReturnAir	(GO _b)		(GO)	0
Outputs	AQSetpUser	GO_b	GO	GO	M

UAQSS LTE specific Properties

		Support
Parameter	Apartment_x	M
	Room_y	M
	SubZone_z	M
	GenPeripheral	0
	OutsideSensorZone	0

UAQSS Standard Properties of Interface Objects (or memory mapped DP)

		Support
Parameter	AQSetpUserMax	0
	AQSetpUserMin	0

3.6.6 Detailed Specification of the Datapoints

3.6.6.1 Input AQOutside

DF	P Name:	AQ(Outside			Α	bbr.:				Manda	tory	
FB	Name:	UAC	QSS								Can be	internal	
De	scription												
Th	is informati	on is	provided b	y the fu	nctional blo	ck 'Outs	side A0	Q Sen	sor'.				
Da	tapoint Ty	ре											
DF	PT_Name:	DI	PT_Value_	AirQuali	ty								
DF	PT Format:	F ₁	6						DPT_II	D:	9.008		
Fie	eld	De	escription						Supp.		Range	Unit	Default
											full	ppm	CS
Ac	cess Type												
♦	Input												
	$N \rightarrow this$			$1 \rightarrow th$	is 🛛								
	Spontaneo	us	\boxtimes		Cyclically:		\leq		Tim	e-ou	ıt:	31 min	(rec.)
	Request				Polling:				Per	iod:			
Co	mmunicat	ion ⁻	Гуре										
•	Group Ob	ject	Datapoint							М	andatory	<i>r</i> : ⊠	
	Default Gro	oup /	Address:										
Dy	namics												
	Power dow	n:	Save:										
	Power up:		Value:		nitialisation:			Defau	ılt value				
				Save	ed value:								
								Read	from bu	IS:			
Ex	ception Ha	ndli	ng										
Sp	ecial Featu	ıres											

FB:	UAQSS	LTE Cli Input N		AQOutsio	de			Mandatory ☐ Optional ⊠			
Descr	iption:	Input N	aille.							Ориона	ai 🔼
	•	is provide	d by the fu	unctional bl	lock 'Outsi	de AQ S	ensor'.				
		DNAMMC									
DPT:	Name	DPT_HVA	CAirQual	<u>_</u> Z	DPT ID	203.100	Datat	type	format	$U_{16}Z_8$	
Field			Description	on					Sup.	Unit	Default
AirQu	ality		Outside A	AQ value				-	ppm	cs	
STAT	US		Bitset								
- OutOfService Sensor out of service										t/f	false
- Fau	lt		Sensor v	alue is corr	rupted				M	t/f	false
	rridden		Sensor is	s temporari	ly overridd	en			0	t/f	false
- InAl	arm		Sensor is	in alarm					0	t/f	false
- Alar	mUnAck		Acknowle	edgement o	of alarm				0	t/f	false
Comn	nunicatio	n:								-	
Bind	ling Grou	p:									
Clas	S		Туре				Default				
Ge	ographica	ı 🗆									
Ap	plication S	pecific 🖂	Outside	SensorZon	e		1				
Pe	ripheral		Broadca	st 🗌	Configura	ble 🗌					
DP A	Address:		IO Type(ID):	330 (OAQ	(S)	Property	y ID:		51	
LTE	-Service (event):	InfoRepo	rt Sniffer	on Binding	Group:			-		
Info	oReport	\boxtimes	Timeout:			31	Min				
	-Service (ad – Resp		Read Wil	ldcard / Re	sp Sniffer	on Bindir	ng Group	:	-		
Value	after Pov	ver-up:	-	Default V	alue 🛚			-	;	Stored Val	ue 🗌
Excep	tion Han	dling:						Sa	ve at Po	werdown	
							<u>-</u>			·	<u>-</u>
Speci	al Feature	es:									

3.6.6.2 Input AQRoom

DF	Name:	AC	(Room					Abbr.:	-				Manda	tory		
FB	Name:	UA	QSS										Can be	interna		
De	scription															
Th	is information	on i	s provided l	by the fu	ınctic	onal bloc	k 'R	oom AC	Q Sen	nsor'.						
	tapoint Ty															
	PT_Name:		PT_Value_	AirQuali	ty											
	PT Format:		16							D	PT_ID:		9.008			
Fie	eld		escription							3	Supp.	R	Range	Unit	Defaul	t
													full	ppm	CS	
Ac	cess Type															
♦	Input															
	$N \rightarrow this$			$1 \rightarrow th$	iis											
	Spontaneo	us			Cyc	clically:					Time	-out	:	31 min	(rec.)	
	Request				Pol	ling:					Perio	d:				
Ö	mmunicat	ion	Туре													
♦	Group Ob	jec	t Datapoint									Ма	ındatory	<i>ı</i> : ⊠		
	Default Gro	oup	Address:													
Dy	namics															
	Power dow	vn:	Save:													
	Power up:		Value:	No ir	nitiali	sation:			Def	ault '	value:					
				Save	ed va	ılue:										
									Rea	ad fro	m bus	:				
Ex	ception Ha	and	ling													
Sp	ecial Featu	ıres	S													

FB:	UAQSS	LTE Cli		AQRoom					Mandatory			
		Input N	ame:							Optiona	al 🖂	
	ription:											
		is provided			ock 'Roon	n AQ Ser	nsor	'-				
STAT		OMMAND (
DPT:	Name	DPT_HVA	CAirQual	I_Z	DPT ID	203.100	0	Datatyp	oe format	$U_{16}Z_8$		
Field			Descripti	on					Sup.	Unit	Default	
Air Qı			Room AC	Q value						ppm	cs	
STATUS Bitset												
- OutOfService Sensor out of service M t/f false											false	
- Fau	ılt		Sensor v	alue is corr	upted				M	t/f	false	
- Ove	erridden		Sensor is	s temporaril	ly overridd	en			0	t/f	false	
- InA	larm		Sensor is						0	t/f	false	
- Alaı	rmUnAck		Acknowle	edgement c	of alarm				0	t/f	false	
Com	municatio	n:							_			
Bine	ding Grou	p:										
Clas	SS		Туре					fault				
Ge	eographica	ı 🖂	Apartme	nt . Room	. SubZone		1.1	.1 ¹⁾				
Ap	plication S	Specific 🔲										
Pe	eripheral	\boxtimes	Broadca	st 🗌	Configura	ble 🛚	1 1					
DP.	Address:		IO Type	(ID):	331 (RAQ	S)	Pr	operty I	D:	51		
LTE	-Service (event):	InfoRepo	ort Sniffer	on Bindin	g Group:						
Inf	oReport	\boxtimes	Timeout			31	Mir	1				
LTE	-Service (polling):	Bood W	ildcard / Re	on Cniffor	on Dindi	ina (Croup:				
Re	ead - Resp	onse	Reau W	ilucalu / Ke	sp Sillier	OH BIHUI	ing v	Jioup.				
Value	after Pov	ver-up:	_	Default V	alue 🛚				•	Stored Val	lue 🗌	
Exce	ption Han	dling:						5	Save at Po	werdown		
Spec	ial Feature	es:										
¹⁾ Th	is HMI inp	ut can be u	sed in dif	ferent appli	ications Th	ne bindin	g gr	oup tha	t shall not	be active	have to	
be	set to out	of service.	Not all po	ssibilities h	nave to be	realised						

3.6.6.3 Input AQReturnAir

DF	P Name:	AQ	ReturnAir					Abbr.:		-		M	andat	ory	
FB	Name:	UA	QSS									C	an be	internal	
De	escription														
	is information		provided	by the fu	nctio	nal bloc	k 'R	eturn A	Q Sen	sor'.					
	tapoint Ty														
	PT_Name:	D	PT_Value_	AirQuali	ty										
	PT Format:	F ₁								_	PT_ID:		800		
Fie	eld	D	escription							S	upp.	Rar	nge	Unit	Default
												fu	ıll	ppm	CS
Ac	cess Type														
♦	Input														
	$N \rightarrow this$			$1 \rightarrow th$	is										
	Spontaneo	us			Cyc	lically:		$ \boxtimes $			Time-	-out:		31 min	(rec.)
	Request				Poll	ing:					Perio	d:			
C	mmunicati	ion '	Туре												
♦	Group Ob	ject	Datapoint									Mand	datory	: 🛛	
	Default Gro	oup	Address:												
Dy	namics														
	Power dow	n:	Save:												
	Power up:		Value:	No ir	nitialis	sation:			Defa	ult v	alue:				
				Save	ed va	lue:		<u> </u>							
									Read	d fro	m bus:	:			
Ex	ception Ha	ındl	ing												
Sp	ecial Featu	ıres													

FB:	UAQSS	LTE CI		AQReturr	nAir				Mandatory 🔲			
		Input N	lame:							Optiona	al 🛛	
	ription:											
				ınctional bl	ock 'Retu	rn AQ Se	ensor'.					
STAT	US and Co	DMMAND	can be igr	nored.								
DPT:	Name	DPT_HVA	ACAirQual	_Z	DPT ID	203.100	0 Data	atype	format	$U_{16}Z_{8}$		
Field			Description	on					Sup.	Unit	Default	
Air Qı	uality		Return A	Q value				.		ppm	cs	
STAT			Bitset									
- OutOfService Sensor out of service M t/f false											false	
- Fau	ılt			alue is corr	•				М	t/f	false	
	erridden			temporaril	ly overrido	den			0	t/f	false	
	larm		Sensor is	in alarm					0	t/f	false	
- Alaı	rmUnAck		Acknowle	edgement o	of alarm				0	t/f	false	
Com	municatio	า:							_			
Bine	ding Grou	p:										
Clas	SS		Туре				Default					
Ge	eographica	I 🔲	Apartme	nt . Room	. SubZone	9	1.1.1 ¹⁾					
Ap	plication S	pecific 🗌									.	
Pe	eripheral		Broadca	st 🗌	Configura	able 🛚	1 1					
	Address:		IO Type		333 (RNA		Proper	rty ID	:	51		
	-Service (event):		ort Sniffer	on Bindin	g Group:		-	-			
	oReport	\boxtimes	Timeout			31	Min					
	E -Service (ead – Resp		Read Wi	ldcard / Re	esp Sniffer	on Bind	ing Grou	ıp: -	-			
Value	/alue after Power-up: Default Value ⊠ Stored Value □											
Exce	ption Hand	dling:						Sa	ve at Po	werdown		
Spec	ial Feature	es:										
¹⁾ Th	is HMI inp	ut can be ι	sed in dif	ferent appli	ications T	he bindin	g group	that	shall not	be active	have to	
be	This HMI input can be used in different applications The binding group that shall not be active have to be set to out of service. Not all possibilities have to be realised.											

3.6.6.4 Output AQSetpUser

DF	P Name:	AQS	AQSetpUser Abbr.: Mandatory											
FB	Name:	UAC	QSS							Can be	e interna			
De	scription													
Th	is information	on is	sent t	o the	setpoint mana	ager air qu	ality.							
Da	tapoint Ty	ре												
DF	PT_Name:	DF	PT_Va	lue_A	irQuality									
	PT Format:	F ₁							DPT_ID:	9.008				
Fi€	eld	De	escripti	ion					Supp.	Range	Unit	Default		
										Full	ppm	CS		
Ac	cess Type													
♦	Output													
	$this \to M$		3		this \rightarrow 1									
	Spontaneo	us		COV	′: ⊠	Delta-Val	ue: 0).2	MinRepTin	ne:	0 s 1)			
				Cycli	ic 🛛	Period:	1	5min	(recommen	ded value)				
	Request													
Co	mmunicati	on T	Гуре											
♦	Group Ob									Mandatory	y: 🛛			
	Default Gro	oup /	Addres	SS:										
Dy	namics													
	Power dow	'n:	Save:	:										
	Power up:		Value	: :	No initialisa				ault value:					
					Saved value	e:		Actu	ıal value:					
				smit or	n bus:		\boxtimes							
Ex	ception Ha	ndli	ng											
	ecial Featu													
1)		may	y be se	ent imi	mediately if th	ne COV is t	he res	sult of a	a user intera	action enab	oling fas	st		
	feedback.													

FB:	UAQSS	LTE Se	rv	er Output Name:	AQSetpUs	er			N	landator Optiona	
Desci	ription:	<u> </u>								Орион	<u> </u>
This in	nformation	is sent t	o tl	he setpoint manage	r air quality	·.					
DPT:				CAirQual_Z	DPT ID	203.10	0	Datatype	format l	$J_{16}Z_{8}$	
Field			D	escription		Sup.	Ran		Unit	COV	Default
Air Qu	uality		Α	ctual AQ value			Ful	l Range	ppm	10	CS
STAT	US]					
- all bi	its		Ν	ot supported		NA					
Comr	nunicatior	1:				-			-	-	
Bind	ding Group	p:									
Clas				Type				Defau			
	eographical		\boxtimes	Apartment . Room	. SubZone			1.1.1	2)		
	plication S					<u></u>					
	ripheral		X	Broadcast	Configur			1 2)			
	Address:			IO Type(ID):	387 (UAQ			operty ID			
	-Services	` —			MinRepTim		0 1)	260	Hearth		15 min
Inf	oReport	\boxtimes		Output per default		ating			oup Wildca		
<i>(</i> 1 -				Tx Prio:	High 🗌			Normal	\boxtimes	Low	
•	ΓΕ Read-R	•)								
	lling of the			Transm after Powe	er-up: Store	d Value		Act Va	lue 🖂 D	efault Va	alue 🗌
	all always b pported)	be			•		_		_		_
	pported) perty-Serv	ico									
	ividual ac			Read only		Read/\	Write				
Exce	otion Hand	lling:							Save a	t Powerd	lown 🗌
Speci	al Feature	s:									
1) Th	ne signal m	ay be se	nt	immediately if the C	COV is the	result of	a us	ser intera	ction enal	oling fast	<u> </u>
۵۱ -	edback.										
				used in different ap				group tha	t shall not	be activ	e have
to	be set to o	ut of ser	vic	 e. Not all possibilitie 	es have to b	oe realis	sed.				

3.6.6.5 Parameter Apartment

FB:	UAQSS	Proper	ty	Name (<u>Server</u>):	Α	partment					Mandator Optiona	• =
Desc	ription:				-						Орион	<u> </u>
Numb	er of the	apartmen	t z	one.								
DPT:	Name	DPT_U	СО	untValue8_Z		DPT ID	202.002)	Data	type format	U ₈ Z ₈	
Field				Description				S	up.	Range	Unit	Default
Zone			١	Number of the apa	rtn	nent zone				(0) 1126		1
STAT	US]								Bitset	
- Outo	ofService		z	one active / inactive	ve				0	true/false		false
- all o	ther bits		r	ot supported, fixed	d t	o '0'		١	١A		bool	false
COM	MAND									enum		CS
- Norr	malWrite								M			
- SetC	DSV & Re	esetOSV	Set zone inactive / active					0				
- all o	ther com	mands	r	ot supported				١	۱A			
Comi	municati	on:					-				=	=
DP	Address			IO Type(ID):		387 (UAQ	SS)	Pi	roper	ty ID:	101	
(in t	he serve	r)		Start-Index:		1		N'	° of e	lements	1	
Pro	perty ac	cess:		Read only			Read/W	rite)	\boxtimes		
Pro	tection			Read level		=		W	rite le	evel	-	
Exce	ption Ha	ndling:	\	alue after Power-	up	: Stored \	√alue ⊠	Α	ct Va	lue 🗌 Def	ault Value	
Spec	ial Featu	res:										
Zone	= 0 (wild	card): Sen	ds	to all listeners								
Temp	RoomSe	tpUserAbs	s is	s not LTE commur	nic	ating in this	s zone if	it is	s 'Out	:OfService'		
If Apa	rtment is	'OutOfSe	rvi	ice' Room and Sul	bΖ	one autom	atically a	re	'OutC)fService'		

3.6.6.6 Parameter Room

FB:	UAQSS		Proper (Server	_	Name	R	oom					Mandator Optiona	
Desc	ription:		(00:10:	<u>./·</u>								Орион	<u>د، د.</u>
	er of the	ro	om zone	e.									
DPT:	Name	e [OPT_U	co	untValue8_Z		DPT ID	202.002	<u> </u>	Data	type format	U_8Z_8	
Field				Δ	escription				S	up.	Range	Unit	Default
Zone				N	umber of the roor	m :	zone				(0) 163		1
STAT	US											Bitset	
	ofService				one active / inacti	_				0	true/false		false
	ther bits			n	ot supported, fixe	<u>d</u> t	to '0'		1	NA		bool	false
	MAND										enum		CS
	nalWrite									M			
	DSV & R			_	et zone inactive /	ac	ctive			0			
	ther con			n	ot supported				1	NA			
	nunicat		<u>: </u>										
	Address			- 1	IO Type(ID):		387 (UAQ	SS)		•	ty ID:	102	
	he serv			_	Start-Index:		1				lements	1	
	perty ac	ces	SS:		Read only			Read/W	∕rit	е	\boxtimes		
	tection			_	Read level		-		_	/rite le		-	
Exce	otion Ha	and	ling:	٧	alue after Power	-up	o: Stored	Value ∑		Act V	alue 🔲 🛮 De	efault Valu	ıe 🗌
Speci	ial Feati	ıres	s:										
					to all listeners								
		•			s not LTE commu		cating in th	is zone i	f it	is 'Ou	utOfService'		
'OutO	fService	' is	taken o	ve	er from Apartment	t							

3.6.6.7 Parameter SubZone

FB:	UAQS	S	Proper	ty	Name (<u>Server</u>):	S	ubZone					Mandator Optiona	• =
Desc	ription:		<u> </u>			_					<u>_</u>		
Numb	er of th	e s	ub zone.										
DPT:	Nam	ne	DPT_U	Ю	untValue8_Z		DPT ID	202.002	2	Data	atype format	U_8Z_8	
Field				ш	Description				S	up.	Range	Unit	Default
Zone				^	lumber of the Sub	Σc	one				(0) 115		1
STAT	US											Bitset	
- Outo	ofServic	е		z	one active / inacti	ve				0	true/false		false
	ther bits	S		n	ot supported, fixe	d t	:0 '0'		1	NA		bool	false
	MAND										enum		CS
- Norr	malWrite	Э								M			
- SetC	OSV & F	Res	etOSV	_	Set zone inactive /	ac	ctive			0			
- all o	ther cor	nm	ands	n	ot supported				1	NA			
Comi	municat	tior	ո։										
DP	Addres	s:			IO Type(ID):		387 (UAC	(SS)	Р	roper	ty ID:	103	
(in t	he serv	/er)			Start-Index:		1		Ν	° of e	lements	1	
Pro	perty a	ссе	ess:		Read only			Read/W	/rite	9	\boxtimes		
Pro	tection				Read level		-		W	/rite l	evel	-	
Exce	ption H	and	dling:	٧	alue after Power-	·up	: Stored	Value 🛚	Α	ct Va	lue 🗌 De	fault Value	
Spec	ial Feat	ure	es:										
Zone	= 0 (wile	dca	ırd): Sen	ds	to all listeners								
Temp	RoomS	etp	UserAbs	is	s not LTE commu	nic	ating in th	is zone if	it is	s 'Ou	tOfService'		
'OutO	fService	e' is	taken o	ve	er from Apartment								

3.6.6.8 Parameter GenPeripheral

FB:	UAQS	3	Proper	ty	Name (<u>Server</u>):	G	enPeriphe	eral				Mandator Optiona	
Desc	ription:		-			=							
Numb	er of the	ge	eneral pe	eri	pheral tag.								
DPT:	Nam	е	DPT_U	Ю	untValue16_Z		DPT ID	203.012	2	Data	type format	$U_{16}Z_{8}$	
Field				ш	escription				S	up.	Range	Unit	Default
Zone				١	lumber of the Sub	Zc	one				full		1
STAT	US											Bitset	
- Outo	ofService	9		Z	one active / inacti	ve				0	true/false		false
	ther bits			n	ot supported, fixe	d t	:o '0'		1	NΑ		bool	false
	MAND										enum		CS
	malWrite									M			
- SetC	DSV & R	ese	etOSV	_	Set zone inactive /	ac	ctive			0			
- all o	ther con	nma	ands	n	ot supported				1	NA			
Comi	<u>municat</u>	ion	1:										
DP	Address	S :			IO Type(ID):		387 (UAQ	SS)	Р	roper	ty ID:	104	
(in t	he serv	er)			Start-Index:		1		Ν	° of e	lements	1	
Pro	perty ac	се	ss:		Read only [Read/W	′rit∈)	\boxtimes		
Pro	tection				Read level		-		W	/rite le	evel	-	
Exce	ption Ha	ınd	lling:	٧	alue after Power-	up	: Stored	Value 🛚	Α	ct Va	lue 🔲 Def	ault Value	
Spec	ial Featu	ıre	s:										
Zone	$= \overline{0}$ (wild	lca	rd): Sen	ds	to all listeners								
The d	levice is	no	t LTE co	m	municating in this	ZC	one if it is 'O	OutOfSer	vic	e'			

3.6.6.9 Parameter OutsideSensorZone

FB:	UAQSS	Prop	erty Name (<u>Server</u>):	Outside	SensorZ	one		Mandator	
								Optiona	al 🖂
Desci	ription:						_		
Numb	er of the ou	ıtside se	ensor zone.						
DPT:	Name	DPT_U	countValue8_Z	DPT ID	202.002	Data	type format	U_8Z_8	
Field			Description			Sup.	Range	Unit	Default
Zone			Number of the Outsic	de Sensor 2	Zone		(0) 131		1
STAT	US							Bitset	
- Outo	ofService		zone active / inactive			0	true/false		false
- all of	ther bits		not supported, fixed t	o '0'		NA		bool	false
COM	MAND						enum		CS
- Norr	nalWrite					M			
- SetC	SV & Rese	etOSV	Set zone inactive / ac	ctive		0			
- all of	ther comma	ınds	not supported			NA			
Comr	nunication	:			-	-		_	
DP /	Address:		IO Type(ID):	387 (UAQ	SS)	Propert	y ID:	105	
(in t	he server)		Start-Index:	1		N° of el	lements	1	
Pro	perty acces	ss:	Read only		Read/W	rite	\boxtimes		
Prot	ection		Read level	-		Write le	evel	-	
Excep	otion Hand	ling:	Value after Power-up	: Stored	Value 🛚	Act Val	ue 🗌 Def	ault Value	; 🔲
		•							
Speci	al Features	s:							
The d	evice is not	LTE co	mmunicating in this zo	one if zone	is 'OutOf	Service'	_	•	

3.6.6.10 Parameter AQSetpUserMax

FB:	UAQSS	Prope	erty Name (<u>Server</u>):	AQSetpl	JserMax	(Mandator Optiona	
Desci	ription:			-					
Uppei	r limit of the	range f	or the setpoint.						
DPT:	Name [PT_H	/ACAirQual_Z	DPT ID	203.100	Data	type format	$U_{16}Z_{8}$	
Field			Description			Sup.	Range	Unit	Default
Temp	erature		Upper limit of the sets	point range)		Full	ppm	cs
STAT	US							Bitset	
- all b	its		not supported, fixed t	o '0'		NA			false
COMI	MAND						enum		CS
- Norr	malWrite					М	0		
- all of	ther comma	nds	not supported			NA			
Comr	nunication:								
DP A	Address:		IO Type(ID):	387 (UAQ	SS)	Proper	ty ID:	111	
(in t	he server)		Start-Index:	1		N° of e	lements	1	
Pro	perty acces	s:	Read only		Read/W	/rite	\boxtimes		
Prot	tection		Read level	-		Write le	evel	-	
Exce	otion Hand	ing:	Value after Power-up	: Stored \	√alue 🛚	Act Va	lue 🗌 Def	ault Value	:
Speci	ial Features	s:							
		•	_		•	•			

3.6.6.11 Parameter AQSetpUserMin

FB:	UAQSS	Prop	erty Nai	me (<u>Serv</u>	<u>/er</u>):	AQSetp	UserMin			Mandator Optiona	
Desci	ription:	•				-				·	
Lowe	r limit of the	range	for the s	etpoint.							
DPT:	Name	DPT_F	IVACAir(Qual_Z		DPT ID	203.100	Data	atype format	U ₁₆ Z ₈	
Field			Descri	otion				Sup.	Range	Unit	Default
Temp	erature		Lower	limit of th	ne set	point rang	е		Full	ppm	cs
STAT	US									Bitset	
- all b	its		not sup	oported, f	fixed t	o '0'		NA			false
	MAND								enum		CS
	nalWrite							М	0		
- all o	ther comma	ands	not sup	oported				NA			
Comr	nunication) :									
DP A	Address:		IO Ty	/pe(ID):		387 (UAC	QSS)	Prope	-	112	
(in t	he server)		Start-	-Index:		1		N° of e	elements	1	
Pro	perty acce	ss:	Read	l only			Read/W	/rite	\boxtimes		
Prot	ection		Read	l level		-		Write	evel	-	
Exce	otion Hand	lling:	Value a	after Pow	ver-up	: Stored	Value 🖂	Act Va	alue 🗌 🛮 Def	fault Value	: 🗌
Speci	al Feature	s:									

3.7 User Relative Humidity Setpoint Setting (URHSS)

3.7.1 Aims and objectives

The functional block 'User Relative Humidity Setpoint Setting' provides the system with the relative humidity setpoint information manually entered at a HMI device.

This functional block is used e.g. in a 'HMI Device' or in a more complex device which has the corresponding setting functionality.

For feedback purposes an indication is possible. It is also possible to realise an only indication device.

3.7.2 Functional specification

The distribution of the user relative humidity setpoint in the system is event-driven (COV-condition, change of value) and in addition repeated periodically.

In the LTE-Mode the functional block 'User Relative Humidity Setpoint Setting' supports the following LTE zoning:

and Outside Sensor Zone (if outside relative humidity is used)

Inputs

• HumRelOutside This value is for indication and is delivered by the

'Outside Relative Humidity Sensor'.

HumRelRoom
 This value is for indication and is delivered by the

'Room Relative Humidity Sensor'.

• HumRelReturnAir This value is for indication and is delivered by the

'Return Air Relative Humidity Sensor'.

Outputs

• HumRelSetpUser This output delivers the user relative humidity setpoint to

the system.

Binding Group (LTE)

• Apartment . Room . SubZone

GenPeripheral

This HMI can be used in different applications.

For this reason different binding possibilities are offered. It is even possible to have more than one binding group active. The binding groups that shall not be active have

to be set out of service.

Not all possibilities have to be realised.

• OutsideSensorZone no special features

Parameters

• HumRelSetpUserMax This parameter defines the lower limit of the range the setpoint

may be adapted within.

• HumRelSetpUserMin This parameter defines the upper lower limit of the range the

setpoint may be adapted within.

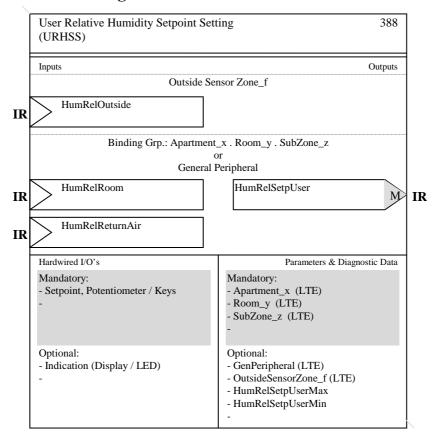
3.7.3 Constraints

None.

[&]quot;Apartment . Room . SubZone",

[&]quot;General Peripheral Tag"

3.7.4 Functional Block diagram



3.7.5 Datapoints description

Overview

Datapoints	Description / Remarks	Data Point Type	Additional Info
Inputs			
Hum Rel Outside	Outside relative humidity actual value with: - COV and RepPer - Z ₈ STATUS supported from FB 'Outside Relative Humidity Sensor'	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	LTE: O S: (GO) %
Hum Rel Room	Room relative humidity actual value with: - COV and RepPer - Z ₈ STATUS supported from FB 'Room Relative Humidity Sensor'	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	LTE: O S: (GO)
Hum Rel Return Air	Return air relative humidity actual value with: - COV and RepPer - Z ₈ STATUS supported from FB 'Return Air Relative Humidity Sensor'	$ \begin{array}{ll} LTE: & 202.001 \\ DPT_RelValue_Z \\ U_8Z_8 \\ S: & 9.007 \\ DPT_Value_Humidity \\ F_{16} \end{array} $	LTE: O S: (GO) %

Datapoints	Description / Remarks	Data Point Type	Additional Info
Outputs			
Hum Rel Setp User	$ \begin{tabular}{lll} User relative humidity setpoint with: \\ - COV and RepPer \\ - Z_8 & not supported \\ to FB \\ Setpoint Manager Relative Humidity \\ \end{tabular} $	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	LTE: M S: GO %
Parameters			
Apartment	LTE zoning number for Apartment	$\begin{array}{c} 202.002 \\ \text{DPT_UcountValue8_Z} \\ U_8Z_8 \end{array}$	M 1
Room	LTE zoning number for Room	$\begin{array}{c} 202.002 \\ \text{DPT_UcountValue8_Z} \\ U_8Z_8 \end{array}$	M 1
SubZone	LTE zoning number for SubZone	$\begin{array}{c} 202.002 \\ DPT_UcountValue8_Z \\ U_8Z_8 \end{array}$	M 1
Gen Peripheral	LTE zoning number for general peripheral	$\begin{array}{c} 203.012 \\ \text{DPT_UcountValue16_Z} \\ U_{16}Z_{8} \end{array}$	O 1
Outside Sensor Zone	LTE zoning number for outside sensor zone	$\begin{array}{c} 202.002\\ \text{DPT_UcountValue8_Z}\\ U_{16}Z_{8} \end{array}$	O 1
HumRel SetpUserMax	Value for the upper limit of he range the absolute setpoint may be adapted within.	$\begin{array}{c} 202.001 \\ \text{DPT_RelValue_Z} \\ U_8Z_8 \end{array}$	O cs
HumRel SetpUserMax	Value for the lower limit of he range the absolute setpoint may be adapted within.	$\begin{array}{c} 202.001 \\ \text{DPT_RelValue_Z} \\ U_8Z_8 \end{array}$	O cs

URHSS Runtime Interworking - Dependence on Configuration Modes

			STANDARD MODE		NDED DDE
		Basic FB	S-Mode	Standard Mode Interface	нее
Inputs	HumRelOutside	(GO _b)		(GO)	0
	HumRelRoom	(GO _b)		(GO)	0
	HumRelReturnAir	(GO _b)		(GO)	0
					_
Outputs	HumRelSetpUser	GO_b	GO	GO	M

URHSS LTE specific Properties

		Support
Parameter	Apartment_x	M
	Room_y	M
	SubZone_z	M
	GenPeripheral	0
	OutsideSensorZone	0

URHSS Standard Properties of Interface Objects (or memory mapped DP)

		Support
Parameter	HumRelSetpUserMax	0
	HumRelSetpUserMin	0

3.7.6 Detailed Specification of the Datapoints

3.7.6.1 Input HumRelOutside

DP Name:	HumRelO	utside		Abbr.:			Manda	tory			
FB Name:	URHSS						Can be	internal			
Description											
This information is provided by the functional block 'Outside Relative Humidity Sensor'.											
Datapoint Type											
DPT_Name:											
DPT Format:	F ₁₆	-			DPT_ID:	9.007					
Field	Descripti	on				Supp.	Range	Unit	Default		
							full	%	CS		
Access Type	<u> </u>										
♦ Input											
$N \rightarrow this$		$1 \rightarrow \text{this}$									
Spontaneo	ous 🖂	Су		Time-	out:	31 min	(rec.)				
Request		Po	olling:			Period:					
Communicat	ion Type										
♦ Group Ob	ject Datapo	oint					Mandatory	′ : ⊠			
Default Gr	oup Addres	ss:				•		•			
Dynamics											
Power dov	vn: Save:										
Power up:	Value	: No initia	lisation:		Defau	ılt value:					
		Saved v	alue:								
		·	<u> </u>		Read	from bus:					
Exception Ha	andling										
Special Feat	ures										
			·								

FB:	URHSS	LTE CI	-	HumRelO	utside			Mandatory			
		Input N	lame:						Option	al ⊠	
	ription:										
				unctional bl	ock 'Outsid	de Relati	ve Humid	ity Senso	r'.		
STAT		<u>OMMAND</u>		nored.							
DPT:	Name	DPT_Rel\	/alue_Z		DPT ID	202.001	Dataty	/pe forma	$t U_8Z_8$		
Field			Description	on				Sup.	Unit	Default	
Relati	ve Humidi	ty	Outside r	elative hun	nidity value	9			%	cs	
STAT	US		Bitset								
- Out	OfService		Sensor o	ut of servic	е			M	t/f	false	
- Fau	ılt		Sensor v	alue is corr	upted			M	t/f	false	
- Ove	erridden		Sensor is	s temporaril	y overridd	en		0	t/f	false	
- InA	larm		Sensor is	s in alarm				0	t/f	false	
- AlarmUnAck Acknowledgement of alarm								0	t/f	false	
Comi	nunicatio	n:	-					<u>-</u>		-	
Bin	ding Grou	p:									
Clas	SS		Type				Default				
Ge	eographica	ı 📗									
Ap	plication S	Specific 🖂	Outside 9	SensorZone	Э		1				
Pe	ripheral		Broadca	st 🗌	Configura	ble 🗌					
DP	Address:		IO Type(ID):	336 (ORH	S)	Property	ID:	51		
LTE	-Service (event):	InfoRepo	rt Sniffer	on Binding	Group:					
Inf	oReport	\boxtimes	Timeout:			31	Min				
	-Service (Poad Wil	ldcard / Res	en Sniffer	on Rindir	oa Group:	1			
Re	ead – Resp	onse	Neau Wii	iucaiu / Ne:	sp Stiller	JII BIIIUII	ig Group.	J			
Value after Power-up: Default Value ⊠								Stored Va	alue 🗌		
Exception Handling:							Save at Powerdown				
Spec	ial Feature	es:									

3.7.6.2 Input HumRelRoom

DF	Name:	Hu	mRelRoom			Abbr.:			Manda	Mandatory			
FB	Name:	UR	RHSS						Can b	e internal			
	Description												
			s provided by	y the fu	nctional block	Room Re	elative I	Humidity	Sensor'.				
	tapoint Ty												
	PT_Name:	_	PT_Value_F	Humidity	/			ı	9.007				
	PT Format:	10 —									1		
Fie	eld	D	escription					Supp.	Range	Unit	Default		
									full	%	CS		
Ac	Access Type												
♦	Input				T								
	$N \rightarrow this$		<u> </u>	$1 \rightarrow th$									
	Spontaneo	us			, , _			e-out:	31 min	(rec.)			
	Request				Polling:			Peri	od:				
Co	mmunicat	ion	Туре										
♦		_	t Datapoint						Mandator	y: 🖂			
	Default Gro	oup	Address:										
Dy	namics												
	Power dow	n:	Save:	$\perp \!\!\! \perp \!\!\! \perp$									
	Power up:		Value:		itialisation:		Defau	ult value:					
				Save	d value:								
							Read from bus:						
Ex	ception Ha	ınd	ling										
Sp	ecial Featu	ıres	S										

FB:	URHSS	LTE CI	-	HumRelR	loom				Mandatory ☐ Optional ⊠			
		Input N	lame:	_						Option	iai 🔀	
	ription:											
	nformation				lock 'Room	n Relative	e Humi	idity	Sensor'.			
	US and CC			nored.	т					1		
DPT:	Name	DPT_Rel\			DPT ID	202.00	l Da	atatyp	pe format		_	
Field			Description						Sup.	Unit	Default	
Relati	ve Humidit	У	Room rel	ative humi	dity value					%	cs	
STATUS Bitset												
- OutOfService Sensor out of service								M	t/f	false		
- Fau	ılt			alue is corr					M	t/f	false	
- Ove	erridden		Sensor is	temporari	ly overridd	en			0	t/f	false	
	larm			in alarm		0	t/f	false				
- Alaı	rmUnAck		Acknowle	edgement o	0	t/f	false					
Comr	<u>munication</u>) :							-			
Bine	ding Grou	o:										
Clas	SS		Туре				Defau					
Ge	eographical	\square	Apartme	nt . Room	. SubZone		1.1.1	1)				
Ap	plication S	pecific 🗌										
	ripheral	\boxtimes	Broadca	st 🗌	Configura	ble 🛚	1 1)					
	Address:		IO Type(337 (RRH		Prop	erty	ID:	51		
	-Service (e	event):	InfoRepo	rt Sniffer	on Binding							
	oReport		Timeout:			31	Min					
LTE Re	: -Service (_I ead – Resp	oolling): onse	Read Wil	dcard / Re	sp Sniffer	on Bindiı	ng Gro	up:				
Value after Power-up: Default Value ⊠								-	Stored Va	alue 🗌		
Exception Handling: S							Save at Powerdown					
	ial Feature											
1) Th	is HMI inpu	ıt can be ι	ısed in dif	ferent appl	ications Th	ne bindin	g grou	p tha	at shall not	be active	e have to	
be	set to out	of service.	Not all po	ssibilities h	nave to be	realised						

3.7.6.3 Input HumRelReturnAir

DP	Name:	Hu	mRelReturnA	\ir		Abbr.:			Manda	Mandatory		
FΒ	Name:	UR	HSS						Can be	internal		
	Description											
			s provided by	the fu	nctional block '	Return Ai	ir Relat	ive Humid	dity Sensor'			
	tapoint Ty											
	PT_Name:	_	PT_Value_H	umidity	/			1	9.007			
_	T Format:	10 —										
Fie	eld	D	escription					Supp.	Range	Unit	Default	
									full	%	CS	
Ac	Access Type											
♦	Input											
	$N \rightarrow this$			$1 \rightarrow th$						1		
	Spontaneo	us			Cyclically:	∑ Time-o			-out:	31 min	(rec.)	
	Request				Polling:			Perio	od:			
Co	mmunicati	ion	Туре									
♦			Datapoint						Mandatory	/: 		
	Default Gro	oup	Address:									
Dy	namics		_									
	Power dow	n:	Save:	Ш		_						
	Power up:		Value:		itialisation:		Defau	ılt value:				
				Save	d value:							
							Read from bus:					
Ex	ception Ha	nd	ling									
Sp	ecial Featu	ires	8									

FB:	URHSS	LTE Cli	ent	HumRelR	eturnAir					Mandato		
		Input N	ame:							Option	al 🛚	
	Description: This information is provided by the functional block 'Return Air Relative Humidity Sensor'.											
					ock 'Retur	n Air Rel	ative Hun	nidity	Senso	r'.		
STAT	US and Co	DMAMMC	can be igr	nored.								
DPT:	Name	DPT_Rel\	/alue_Z		DPT ID	202.001	Datat	ype f	ormat	U_8Z_8		
Field			Descripti	on					Sup.	Unit	Default	
Relati	ve Humidi	ty	Return ai	ir relative h	umidity va	lue				%	cs	
STAT	US		Bitset									
- Out	OfService		Sensor o	ut of servic	е				M	t/f	false	
- Fau	ılt		Sensor v	alue is corr	upted				M	t/f	false	
- Ove	erridden		Sensor is	s temporaril	y overridd	en			0	t/f	false	
- InAl	larm		Sensor is		0	t/f	false					
- Alaı	rmUnAck		Acknowle	edgement c	of alarm		0	t/f	false			
Comr	Communication:											
Bine	ding Grou	p:										
Clas	SS		Туре				Default					
Ge	eographica	I 🖂	Apartme	nt . Room .	SubZone		1.1.1 ¹⁾					
Ap	plication S	pecific 🗌	l									
Pe	ripheral	\boxtimes	Broadca	st 🗌	Configura	ble 🛚	1 1					
DP A	Address:		IO Type	(ID):	339 (RNA	RHS)	Property	y ID:		51		
LTE	-Service (event):	InfoRepo	ort Sniffer	on Binding	g Group:						
Inf	oReport	\boxtimes	Timeout	:		31	Min					
	-Service (Poad Wi	ildcard / Re	en Sniffer	on Rindi	na Groun					
Re	ead – Resp	onse	Reau W	ilucalu / Ne	sp Silliei	on bindi	ng Group	,.				
Value after Power-up: Default Value ⊠								Ç	Stored Va	lue 🗌		
Exce	ption Hand	dling:						Sav	e at Po	werdown		
Speci	Special Features:											
			sed in dif	ferent appli	cations Th	ne bindin	g group th	nat sl	nall not	be active	have to	
				ossibilities b								

3.7.6.4 Output RelHumSetpUser

DP Name:	F	RelHumSe	etpUse	r		Abb	r.:	Mandatory			
FB Name:	L	JRHSS							Can be	interna	<u> </u>
Description	Description										
This information is sent to the setpoint manager relative humidity.											
Datapoint Type											
DPT_Nam		DPT_Val	lue_Hu	ımidity							
DPT Form	at:	F ₁₆						DPT_ID:	9.007		
Field		Descripti	on					Supp.	Range	Unit	Default
									Full	%	CS
Access Type											
♦ Output	t										
this \rightarrow	M			his \rightarrow 1							
Spontaneous COV: Delta-Value: 0.2 MinRepTime: 0 s 1)											
			Cyclic		Period:	1	5min (recommen	ided value)		
Request											
Communi											
		ect Datapo							Mandatory	/:	
Default	Grou	up Addres	ss: -								
Dynamics											
Power						_					
Power	up:	Value):	No initialisa				ult value:			
				Saved value	e:		Actua	al value:			
			mit on	bus:							
Exception	ı Han	dling									
Special Fo											
		nay be se	ent imm	nediately if th	ne COV is	the res	sult of a	user inter	action enab	oling fas	st
feedba	ck.										

FB:	URHSS	LTE Se	erver Output Name:	HumRelSe	tpUser	•		Mandato Option	
Desc	ription:	-					-		
This i	nformation	is sent to	the setpoint manage	er relative h	umidity.				
DPT:	Name	DPT_Re	elValue_Z	DPT ID	202.00	1 Datat	ype forma	t U_8Z_8	
Field			Description		Sup.	Range	Unit	COV	Default
Relati	ve Humidit	y	Actual relative humic	lity value		Full Ran	ge %	1	cs
STAT	US								
- all b	its		Not supported		NA				
	nunication								
	ding Grou	p:							
Clas			Туре				efault		
	eographica		Apartment . Room	. SubZone		1.1	1.1 ²⁾		
	plication S]_		<u></u> .	,	,,		
	ripheral	\boxtimes	Broadcast	Configura		12			
	Address:		IO Type(ID):	388 (URH		Property		51	
	-Services			MinRepTime		0 ¹⁾ sec		artbeat:	15 min
Inf	oReport	\boxtimes	Output per default		ting 💹			ldcard allow	
41 -	TE D D		Tx Prio:	High 🗌		Norma	al 🔀	Low	
po sh	TE Read-R Iling of the all always l pported)	output	Transm after Powe	r-up: Stored	d Value	☐ Act \	∕alue ⊠	Default Va	alue 🗌
	perty-Serv ividual ac		Read only		Read/V	Vrite	\boxtimes		
Exce	ption Hand	dling:	-				Sav	e at Power	down
Spec	Special Features:								
¹⁾ Th	ne signal m	ay be se	nt immediately if the	COV is the i	result of	a user int	eraction e	nabling fas	t
۵۱	edback.								
²⁾ Th	is HMI out	put can b	e used in different ap	plications T	he bind	ling group	that shall	not be activ	/e have
to	be set to o	ut of serv	ice Not all possibilition	es have to h	e realis	sed			

3.7.6.5 Parameter Apartment

FB:	URHSS	Proper	rty Name (<u>Server</u>):	A	partment					Mandator	
Desc	ription:			-						Optiona	ii
	per of the a	partment	t zone								
DPT:			countValue8 Z		DPT ID	202.002		Data	type format	U ₈ Z ₈	
Field	1.100	1	Description						Range	Unit	Default
Zone			Number of the apar	rtm	nent zone		(0) 1				1
STAT	US									Bitset	
- OutofService			zone active / inactive	ve		O true/false				false	
- all other bits			not supported, fixed	d to	o '0'		N	IA		bool	false
	MAND								enum		CS
_	malWrite						ľ	M			
	OSV & Re		Set zone inactive /	ac	tive			O			
- all o	ther comn	nands	not supported				<u> </u>	IA			
Com	nunicatio	n:									
	Address:		IO Type(ID):		388 (URH	SS)		•	ty ID:	101	
•	he server		Start-Index:		1				<u>lements</u>	1	
	perty acc	ess:	Read only			Read/W					
Protection			Read level		-		W	rite le	evel	-	
Exce	xception Handling: Value after Power-up: Stored Value 🗌 Act Value 🗌 Default Value 🗌										
Special Features:											
	Zone = 0 (wildcard): Sends to all listeners										
	empRoomSetpUserAbs is not LTE communicating in this zone if it is 'OutOfService'										
If Ana	rtment is '	OutOfSei	rvice' Room and Sub	20	one autom	atically a	re '	OutC)fService'		

3.7.6.6 Parameter Room

FB:	UI	RHSS	Pro (Se	•	ty Name	R	oom				Mandator Optiona	, =
Desci	rip	tion:	1.							<u>- L</u>	<u> </u>	
Numb	er	of the re	oom 2	zone	Э.							
DPT:		Name	DPT	_Uc	countValue8_Z		DPT ID	202.002	2 Data	atype format	U_8Z_8	
Field				Description				Sup.	Range	Unit	Default	
Zone			Number of the roo	m :	zone			(0) 163		1		
STATUS										Bitset		
- OutofService				zone active / inacti			O true/false				false	
- all other bits				not supported, fixe	d t	to '0'		NA		bool	false	
COMMAND									enum		cs	
- NormalWrite								M				
- SetOSV & ResetOSV				Set zone inactive /	ac	ctive		0				
- all o	the	r comm	ands		not supported				NA			
		nicatio	n:		_							
		dress:			IO Type(ID):		388 (URH	SS)	Proper		102	
(in t	he	server)		Start-Index:		1			lements	1	
		rty acce	ess:		Read only			Read/V	Vrite			
Protection Read lev			Read level		-		Write I	evel	-			
Exception Handling: Value after Pov					Value after Power	-up	o: Stored	Value 🛭	Act V	alue 🔲 🛮 De	efault Valu	ıe 🗌
Speci	pecial Features:											
					ds to all listeners			•				·
Temp	empRoomSetpUserAbs is not LTE communicating in this zone if it is 'OutOfService'											
'OutO	utOfService' is taken over from Apartment											

3.7.6.7 Parameter SubZone

FB:	URHS	SS	Proper	ty	Name (<u>Server</u>):	S	ubZone					Mandator Optiona	•
Desc	ription	:	<u> </u>								<u>.</u>		
Numb	er of th	าe sı	ub zone.										
DPT:	Nar	me	DPT_U	0	untValue8_Z		DPT ID	202.002	2	Data	atype format	U_8Z_8	
Field				D	escription		Sup. F			Range	Unit	Default	
Zone			Ν	lumber of the Sub	Zc	one				(0) 115		1	
STATUS											Bitset		
- OutofService			Z	one active / inacti	ve			O true/false				false	
- all o	ther bit	S		n	ot supported, fixed	d t	o '0'			NA		bool	false
COM	MAND										enum		cs
- NormalWrite							M						
- SetC	OSV &	Res	etOSV	_	Set zone inactive /	ac	ctive			O			
- all o	ther co	mma	ands	n	ot supported					NA			
Comr	munica	ation	า :										
DP.	Addres	ss:			IO Type(ID):		388 (URF	ISS)	Р	roper	ty ID:	103	
(in t	he ser	ver))		Start-Index:		1		Ν	° of e	elements	1	
Pro	perty a	acce	ss:		Read only			Read/W	/rite)	\boxtimes		
Pro	tection	1			Read level		-		W	rite l	evel	-	
Exce	ption F	lanc	dling:	٧	alue after Power-	up	: Stored	Value 🛚	Α	ct Va	lue 🗌 De	fault Value	
Special Features:													
Zone = 0 (wildcard): Sends to all listeners													
Temp	FempRoomSetpUserAbs is not LTE communicating in this zone if it is 'OutOfService'												
'OutO	OutOfService' is taken over from Apartment												

3.7.6.8 Parameter GenPeripheral

FB:	URHSS	Proper	ty Name (<u>Server</u>):	G	GenPeripheral Peripheral			Mandatory ☐ Optional ⊠			
	• ••	L		_						Optiona	al 🔼
	ription:										
		eneral p	eripheral tag.								
DPT:	Name	DPT_U	countValue16_Z		DPT ID	203.012	2	Data	type format	$U_{16}Z_8$	
Field			Description				Sι	ıp.	Range	Unit	Default
Zone			Number of the Sub	Zc	one		full				1
STAT	US									Bitset	
- Outo	ofService		zone active / inacti	ve	O true/false					false	
- all o	ther bits		not supported, fixe	d t	to '0'		Ν	Α		bool	false
COM	MAND								enum		CS
- Nori	malWrite						Λ	Λ			
- Set0	OSV & Res	etOSV	Set zone inactive /	ac	ctive		C)			
- all o	ther comm	ands	not supported			NA NA					
Comi	municatio	n:	-			•		-		-	
DP	Address:		IO Type(ID):		388 (URH	SS)	Pro	opert	y ID:	104	
(in t	the server))	Start-Index:		1		N°	of el	lements	1	
Pro	perty acce	ess:	Read only			Read/W	rite/		\boxtimes		
Pro	tection		Read level		-		Wr	ite le	evel	-	
Exce	xception Handling: Value after Power-up: Stored Value Act Value Default Value										
Spec	Special Features:										
Zone	Zone = 0 (wildcard): Sends to all listeners										
The c	The device is not LTE communicating in this zone if it is 'OutOfService'										

3.7.6.9 Parameter OutsideSensorZone

FB:	URHSS	Prop	erty Name (<u>Server</u>):	OutsideSensorZone			Mandator Optiona		
Desc	ription:			-				Орионе	
		utside se	ensor zone.						
DPT:	Name	DPT_U	countValue8_Z	DPT ID	202.002	Data	type format	U ₈ Z ₈	
Field			Description			Sup.	Range	Unit	Default
Zone			Number of the Outsic	de Sensor 2	Zone	-	(0) 131		1
STAT	US							Bitset	
- OutofService			zone active / inactive			0	true/false		false
- all other bits			not supported, fixed t	:o '0'		NA		bool	false
COMMAND							enum		CS
- Norr	nalWrite					M			
- SetC	DSV & Rese	etOSV	Set zone inactive / ac	ctive		0			
- all o	ther comma	ands	not supported			NA			
Comr	nunication	n:	-			,		-	
DP .	Address:		IO Type(ID):	388 (URH	SS)	Proper	ty ID:	105	
(in t	he server)		Start-Index:	1		N° of e	lements	1	
Property access: Read only Read/Write 🖂									
Protection R			Read level	-		Write le	evel	-	
Exce	xception Handling: Value after Power-up: Stored Value 🗌 Act Value 🗌 Default Value 🗌								
Spec	Special Features:								
The d	The device is not LTE communicating in this zone if zone is 'OutOfService'.								

3.7.6.10 Parameter HumRelSetpUserMax

FB:	URHSS	Prope	rty Name (<u>Server</u>):	HumRe	HumRelSetpUserMax			Mandatory ☐ Optional ⊠	
Desc	ription:	_		<u>-</u>					
Uppe	r limit of the r	ange f	or the setpoint.						
DPT:	Name D	PT_Re	IValue_Z	DPT ID	202.001	1 Data	atype format	U ₈ Z ₈	
Field			Description			Sup.	Range	Unit	Default
Temp	erature		Upper limit of the set	point rang	е		[0100]	%	cs
STAT	US							Bitset	
- all b	its		not supported, fixed t	:0 '0'		NA			false
COMMAND							enum		CS
- Norr	malWrite					М	0		
- all o	ther comman	ıds	not supported			NA			
Com	munication:					_	-		
DP .	Address:		IO Type(ID):	388 (URH	HSS)	Proper	ty ID:	111	
(in t	he server)		Start-Index:	1		N° of e	elements	1	
Pro	perty access	S :	Read only		Read/W	/rite	\boxtimes		
Pro	tection		Read level	-		Write I	evel	-	
Exce	Exception Handling: Value after Power-up: Stored Value Act Value Default Value								
Spec	Special Features:								

3.7.6.11 Parameter HumRelSetpUserMin

FB:	FB: URHSS Property Name (Server): HumRelSetpUserMin Mandatory								
FD.	ОКПОО	Prope	erty Name (<u>Server</u>):	numkei	Setpuse	#FIVITI			
								Option	ai 🔼
Desc	ription:								
Lowe	r limit of the	range f	or the setpoint.						
DPT:	Name [DPT_Re	elValue_Z	DPT ID	202.00	1 Data	type format	U ₈ Z ₈	
Field	<u> </u>		Description			Sup.	Range	Unit	Default
Temp	erature		Lower limit of the so	etpoint range	9		[0100]	%	CS
STAT	US							Bitset	
- all b	its		not supported, fixed	d to '0'		NA			false
COM	MAND						enum		cs
- Nori	malWrite					M	0		
- all o	ther comma	nds	not supported			NA			
Com	munication:							_	
DP	Address:		IO Type(ID):	388 (URH	ISS)	Propert	ty ID:	112	
(in t	he server)		Start-Index:	1		N° of e	lements	1	
Pro	perty acces	s:	Read only		Read/W	√rite	\boxtimes		
Pro	tection		Read level	-		Write le	evel	-	
Exce	Exception Handling: Value after Power-up: Stored Value ☐ Act Value ☐ Default Value ☐								
Spec	Special Features:								

3.8 User Enable Alternative Room Temperature Setpoint (UEARTS)

3.8.1 Aims and objectives

The functional block 'User Enable Alternative Room Temperature Setpoint' provides the system with the 'EnableTempRoomSetpAlt' information manually entered at a HMI device.

This functional block is used e.g. in a 'HMI Device' or in a more complex device which has the corresponding setting functionality.

For feedback purposes an indication is possible.

It is also possible to realise an only indication device.

see also functional block 'Room Setpoint Manager Temperature Driven' (RSMTD) [04]

3.8.2 Functional specification

The information is transmitted spontaneously at each change.

Inputs

• StatusTempRoomSetpEff The status of the room temperature setpoint in temperature

driven room setpoint manager.

Outputs

• EnableTempRoomSetpAlt This output enables the alternative room setpoint

temperature in a room setpoint manager temperature driven..

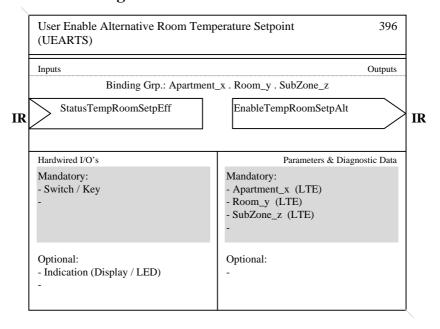
Binding Group (LTE)

• Apartment . Room . SubZone no special features

3.8.3 Constraints

None.

3.8.4 Functional Block diagram



3.8.5 Datapoints description

Overview

Datapoints	Description / Remarks	Data Point Type	Additional Info
Inputs			
Status Temp Room Setp Eff	Status information for room temperature setpoint with - COV and RepPer from FB Room Setpoint Manager Temperature Driven	$\begin{tabular}{llll} LTE: & 20.113 \\ DPT_StatusRoomSetp \\ N_8 \\ S: & 20.113 \\ DPT_StatusRoomSetp \\ N_8 \\ \end{tabular}$	LTE: O S: (GO) 0 = normal setpoint 1 = alternative setpoint 2 = Building.Prot. setpoint
Outputs			
Enable Temp Room Setp Alt	Enable / disable of alternative room temperature setpoint to FB Room Setpoint Manager Temperature Driven	LTE: 1.003 DPT_Enable B ₁ S: 1.003 DPT_Enable B ₁	LTE: O S: (GO) 0 = disable 1 = enable
Parameters			
Apartment	LTE zoning number for Apartment	202.002 DPT_UcountValue8_Z U ₈ Z ₈	M 1
Room	LTE zoning number for Room	$\begin{array}{c} 202.002 \\ \text{DPT_UcountValue8_Z} \\ U_8Z_8 \end{array}$	M 1
SubZone	LTE zoning number for SubZone	202.002 DPT_UcountValue8_Z U ₈ Z ₈	M 1

UEARTS Runtime Interworking - Dependence on Configuration Modes

			STANDARD MODE	EXTE Mo	NDED DDE
		Basic FB	S-Mode	Standard Mode Interface	нее
Inputs	StatusTempRoomSetpEff	(GO _b)		(GO)	$\mathbf{O}^{1)}$
Outputs	EnableTempRoomSetpAlt	(GO _b)		(GO)	$\mathbf{O}^{1)}$

The device may be a setting only, a indication only or a combined device.

UEARTS LTE specific Properties

		Support
Parameter	Apartment_x	M
	Room_y	M
	SubZone_z	M

UEARTS Standard Properties of Interface Objects (or memory mapped DP)

	Support
Parameter	

3.8.6 Detailed Specification of the Datapoints

3.8.6.1 Input StatusTempRoomSetpEff

Standard Mode:

DP Name:	StatusTempl	RoomSetpEff		Abbr.:			Mand	atory	
FB Name:	UEARTS						Can b	e interna	
Description									
		e room temperature	setpoii	nt mana	ager an	d indicate	s the which	ch setpoir	ıt is valid.
Datapoint Ty									
DPT_Name:		sRoomSetp							
DPT Format:						DPT_ID:			
Field	Description					Supp.	Range	Unit	Default
Status							0-2	enum.	CS
	0 = normal					М	0		
		ive setpoint				М	1		
		Protection setpoint				М	2		
Access Type	•								
♦ Input									
$N \rightarrow this$		$1 \rightarrow \text{this}$							
Spontane	ous 🛚	Cyclically	/ :			Time	-out:	31 min	(rec.)
Request		Polling:				Perio	d:		
Communica	tion Type								
♦ Group O	oject Datapoin	t					Mandato	ry: 🛛	
Default G	roup Address:								
Dynamics									
Power do	wn: Save:								
Power up	: Value:	No initialisation	า: 🔲		Defau	ılt value:		\boxtimes	
		Saved value:							
					Read	from bus:	1		
Exception H	andling								
Special Feat	ures								
	·	·							

FB:	UEARTS	LTE CI		StatusTer	mpRoom(SetpEff			Mandatory ☐ Optional 🖂				
Desc	ription:	-						-					
This is	nput is pro	vided by th	e room te	mperature	setpoint n	nanager	and indica	ites 1	the whi	ch setpoir	ıt is valid.		
DPT:	Name	DPT_Stat	usRoomS	etp	DPT ID	20.113	Dataty	ype f	ormat	N_8			
Field			Description	on					Sup.	Unit	Default		
Status	Status Actual HVAC Mode									enum.	cs		
			0 = norr	nal setpoin	t				M				
			1 = alte	rnative setp	oint		M						
			2 = Buil	dingProtec	tion setpo	int			M				
Comr	nunication	ո։	3										
Bine	ding Grou	p:											
Clas	SS		Type				Default						
Ge	eographica	l 🛛	Apartme	nt . Room .	. SubZone)	1.1.1						
Ap	plication S	pecific 🗌											
	ripheral		Broadca	st 🗌	Configura	able 🗌							
DP /	Address:		IO Type(101 (RSM		Property	/ ID:		55			
	-Service (event):	InfoRepo	rt Sniffer	on Binding	g Group:							
Inf	oReport		Timeout:			31	Min						
	- Service (ead – Resp		Read Wil	dcard / Re	sp Sniffer	on Bindir	ng Group:						
Value	after Pow	/er-up:		Default V	alue 🛚				Ç	Stored Va	lue 🗌		
Exce	xception Handling: Save at Powerdown												
						•		•					
Speci	ial Feature	es:											

3.8.6.2 Output EnableTempRoomSetpAlt

Standard Mode:

DF	P Name:	Ena	nableTempRoomSetpAlt					Abbr	:	•	Manda	Mandatory		
FB	Name:	UE/	ARTS								Can be	internal		
De	scription													
ħ	is output en	able	s / disa	ables tl	he alternat	ive set	point ii	n the r	oom se	etpoint ma	nager.			
	tapoint Ty	_												
DF	PT_Name:	DF	PT_En	able										
	PT Format:	B ₁								DPT_ID:	1.003			
Fie	eld	Description								Supp.	Range	Unit	Default	
		0 = disabled									0/1	Bit	cs	
		1 = enabled												
Ac	cess Type													
♦	Output													
	$this \to M$		3		nis \rightarrow 1									
	Spontaneous 🛛 COV: 🔻 Delta-Value: MinRepTime: 10 s													
				Cyclic		Peri	od:	15	īmin (recommer	nded value)			
	Request		\square											
Co	mmunicati	ion 1	Гуре											
•	Group Ob	ject	Datapo	oint							Mandatory	/:		
	Default Gro	oup /	Addres	ss:	-									
Dy	namics													
	Power dow	'n:	Save:											
	Power up:		Value):	No initialis	sation:			Defa	ult value:				
					Saved val	ue:			Actua	al value:				
				mit on	bus:									
Ex	ception Ha	ndli	ng											
Sp	ecial Featu	ıres												

FB:	UEARTS	LTE S Name	erver Output :	EnableTempR	RoomS	etpAlt	Mandatory ☐ Optional ⊠			
Desc	ription:	-		-			-			
This c	output enable	es / disa	bles the alternativ	ve setpoint in th	e room	setpoint n	nanager.			
DPT:	Name [PT_En	able	DPT ID	1.003		ype forma	at B ₁		
Field			Description		Sup.	Range	Unit	COV	Default	
			0 = disabled			0/1	enu	m yes	cs	
			1 = enabled							
Comr	munication:									
	ding Group:									
Clas	SS		Туре			De	efault			
	eographical		Apartment. Ro	om . SubZone		1.1	1.1			
	plication Sp	ecific []							
Pe	ripheral		Broadcast	Configura						
	Address:		IO Type(ID):	396 (UEAF		Property		51		
	-Services (e		COV 🖂	MinRepTime		10 sec		eartbeat:	15 <u>min</u>	
Inf	oReport	\boxtimes		ult communicat	ing 🗌			ildcard allov	wed 🛚	
<i>,</i> , _			Tx Prio:	High 🗌		Norma	al 🖂	Low		
po sh	TE Read-Re Iling of the o all always be pported)	utput		ower-up: Stored	l Value	☐ Act \	√alue ⊠	Default V	alue 🗌	
	perty-Servio ividual acce		Read only		Read/V	Vrite				
Exce	otion Handl	ing:					Sav	e at Power	down	
Speci	ial Features	:								
			<u> </u>							

3.8.6.3 Parameter Apartment

FB:	UEARTS		erty Name	4	Apartment					Mandatory 🖂			
		(Serv	<u>'er</u>):							Option	al 🔝		
Desc	ription:												
Numl	per of the a	partmen	t zone.										
DPT:	Name	DPT_U	countValue8_Z		DPT ID	202.002	2	Data	type format	U ₈ Z ₈			
Field			Description				Sı	лр.	Range	Unit	Default		
Zone			Number of the apa	rtn	nent zone				(0) 1126		1		
STAT	rus									Bitset			
- Out	ofService		zone active / inactive	ve			(C	true/false		false		
- all other bits not supported, fixe					o '0'		١	IΑ		bool	false		
COMMAND									enum		CS		
- Nor	malWrite						ľ	M					
- Set	OSV & Res	setOSV	Set zone inactive /	ive / active O									
- all c	ther comm	nands	not supported				N	IA					
Com	municatio	n:						_					
DP	Address:		IO Type(ID):		396 (UEA	RTS)	Pr	oper	ty ID:	101			
(in	the server)	Start-Index:		1		N	of e	lements	1			
Pro	perty acco	ess:	Read only			Read/V	Vrite)	\boxtimes				
Pro	tection		Read level		-		W	rite le	evel	-			
Exce	ption Han	dling:	Value after Power-	·up	: Stored	Value ∑	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	ct Va	alue 🔲 De	efault Valu	ıe 🗌		
Spec	ial Featur	es:											
Zone	= 0 (wildca	ard): Sen	ds to all listeners			•							
The o	The device is not LTE communicating in this zone if it is 'OutOfService'												
If Ana	artment is '	OutOfSe	rvice' Room and Su	h7	one auton	natically	are	'Out	OfService'				

3.8.6.4 Parameter Room

FB:	UEARTS	Prop	er	ty Name (<u>Server</u>):	lame (<u>Server</u>): Room						Mandatory ⊠ Optional □			
Desci	ription:	•		-						<u>.</u>				
Numb	er of the r	oom zor	e.											
DPT:	Name	DPT_L	CC	untValue8_Z	DP	PT ID	202.002	2	Data	itype forma	ıt	U_8Z_8		
				Description				,	Sup.	Range		Unit	Default	
Zone				Number of the room	zone	Э		L.,	J	(0) 163	3		1	
STATUS												Bitset		
- OutofService				one active / inactive					0	true/false	į		false	
- all of	ther bits		r	ot supported, fixed t	to '0'	'			NA			bool	false	
COMMAND										enum			CS	
- NormalWrite				M										
	SV & Res		Set zone inactive / active						0					
	ther comm		r	not supported					NA					
	<u>nunicatio</u>	n:												
	Address:			IO Type(ID):	396 (UEARTS)			Property ID:				102		
_ `	he server	•		Start-Index:	1					<u>lements</u>		1		
	perty acce	ess:		Read only			Read/W	/rit	te					
Prot	ection			Read level	-			V	Vrite le	evel		-		
Excep	otion Han	dling:	١	/alue after Power-up): S	Stored	Value 🛚] /	Act Va	lue 🔲 D	efa	ault Value		
Speci	al Feature	es:												
				s to all listeners										
	The device is not LTE communicating in this zone if it is 'OutOfService'													
'OutO	fService' is	s taken (ΟVE	er from Apartment										

3.8.6.5 Parameter SubZone

FB:	UEARTS	Prop	ert	ty Name (<u>Server</u>):	SubZone						Mandatory ⊠ Optional □			
Desc	ription:	<u> </u>								<u>.</u>				
	er of the s	ub zone.												
DPT:	Name	DPT_U	co	untValue8_Z	[DPT ID	202.002		Data	type format	U ₈ Z ₈			
Field			Description Sup.				ıp.	Range	Unit	Default				
Zone			Ν	lumber of the SubZo	on	ne				(0) 115		1		
STAT	US								Bitset					
- Outo	ofService		z	one active / inactive)			()	true/false		false		
- all o	ther bits		n	ot supported, fixed	to	'0'		N	<u> </u>		bool	false		
COMMAND										enum		CS		
- Norr	malWrite		M											
- SetOSV & ResetOSV				Set zone inactive / active O)					
- all o	ther comm	nands	n	ot supported				N	Α					
Comr	nunicatio	n:					_							
DP.	Address:			IO Type(ID):	3	896 (UEAF	RTS)	Pro	opert	y ID:	103			
(in t	he server)		Start-Index:	1			N°	of el	ements	1			
Pro	perty acc	ess:		Read only			Read/W	rite		\boxtimes				
Pro	tection			Read level	-			W	ite le	evel	-			
Exce	ption Han	dling:	٧	alue after Power-up	o:	Stored \	/alue ⊠	Ac	t Val	ue 🗌 Def	ault Value			
Spec	ial Featur	es:												
Zone	Zone = 0 (wildcard): Sends to all listeners													
The d	The device is not LTE communicating in this zone if it is 'OutOfService'													
'OutO	fService' i	s taken o	ve	er from Apartment										

3.9 Room Temperature Setpoint Absolute Setting (RTSA)

3.9.1 Aims and objectives

The functional block 'Room Temperature Setpoint Absolute Setting' provides the system with the 'TempRoomSetpAbs' information manually entered at a HMI device.

This functional block is used together with the 'Room Setpoint Manager Temperature Driven' (RSMTD) [04].

This functional block is used e.g. in a 'HMI Device' or in a more complex device which has the corresponding setting functionality.

3.9.2 Functional specification

The distribution of the setpoint in the system is event-driven (COV-condition, change of value) and in addition repeated periodically.

Outputs

• TempRoomSetpAbs This output delivers the room temperature setpoint to

the room setpoint manager temperature driven..

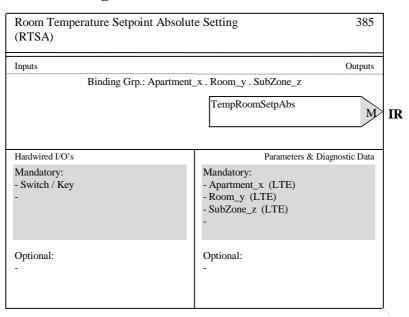
Binding Group (LTE)

• Apartment . Room . SubZone no special features

3.9.3 Constraints

None.

3.9.4 Functional Block diagram



3.9.5 Datapoints description

Overview

Datapoints	Description / Remarks	Data Point Type	Additional Info			
Outputs						
Temp Room Setp Abs	Present temperature setpoint with: - COV and RepPer - Z ₈ not supported to FB 'Room Setpoint Manager Temperature Driven'	$\begin{array}{ll} \text{LTE:} & 205.100 \\ \text{DPT_TempHVACAbs_Z} \\ V_{16}Z_8 \\ \text{S:} & 9.001 \\ \text{DPT_Value_Temp} \\ F_{16} \end{array}$	LTE: M S: GO °C			
Parameters						
Apartment	LTE zoning number for Apartment	$\begin{array}{c} 202.002 \\ DPT_UcountValue8_Z \\ U_8Z_8 \end{array}$	M 1			
Room	LTE zoning number for Room	$\begin{array}{c} 202.002 \\ DPT_UcountValue8_Z \\ U_8Z_8 \end{array}$	M 1			
SubZone	LTE zoning number for SubZone	202.002 DPT_UcountValue8_Z U ₈ Z ₈	M 1			

RTSA Runtime Interworking - Dependence on Configuration Modes

			STANDARD MODE		ENDED ODE
		Basic FB	S-Mode	Standard Mode Interface	HEE
Inputs					
Outputs	TempRoomSetpAbs	GO_b		GO	M

RTSA LTE specific Properties

		Support
Parameter	Apartment_x	M
	Room_y	M
	SubZone_z	M

RTSA Standard Properties of Interface Objects (or memory mapped DP)

	Support
Parameter	

3.9.6 Detailed Specification of the Datapoints

3.9.6.1 Output TempRoomSetpAbs

Standard Mode:

DP Name:	Tem	npRoor	mSetp/	Abs		Α	bbr.:			Manda	Mandatory		
FB Name:	RTS	SA								Can be	e interna	al 🗌	
Description													
This information	on is	sent to	o the ro	oom setpoin	t mana	iger tem	nperatu	re d	lriven.				
Datapoint Ty													
DPT_Name:			lue_Te	mp									
DPT Format:	F ₁₆								DPT_ID:	9.001			
Field	De	escripti	on						Supp.	Range	Unit	Default	
	Full °C cs											CS	
Access Type													
♦ Output													
$this \to M$		<u> </u>		nis \rightarrow 1									
Spontaneo	us		COV:	\boxtimes	Delta	-Value:	0.2	١	MinRepTin	ne:	0 s 1)		
			Cyclic	igstyle igytyle igstyle igytyle igstyle igytyle	Perio	od:	15mir	ገ (r	ecommen	ded value)		
Request													
Communicat	ion 1	Гуре											
♦ Group Ob										Mandator	y: 🛛		
Default Gro	oup A	Addres	ss:										
Dynamics													
Power dow	vn:	Save:											
Power up:		Value):	No initialisa					ılt value:				
				Saved valu	e:			tua	ıl value:				
			mit on	bus:									
Exception Ha	andli	ng											
Special Featu													
-	l may	/ be se	ent imm	nediately if tl	ne CO\	√ is the	result o	of a	user intera	action ena	bling fas	st	
feedback.													

FB:	RTSA	LTE Se	rver Output Name:	TempRooi	mSetp <i>A</i>	Abs		Mandatory ⊠ Optional □			
	ription:			_			<u>-</u>				
This in	nformation	is sent to	the room setpoint m								
DPT:	Name	DPT_Te	mpHVACAbs_Z	npHVACAbs_Z DPT ID 205.100 Datatyp							
Field			Description	Description Sup. R					COV	Default	
	erature		Actual temperature v	/alue		Full	Range	°C	0.2	cs	
STAT	US		not supported		NA						
- all b			Not supported		NA						
Comr	nunication) :									
Bine	ding Group	o :									
Clas	ss		Туре				Defa	ult			
Ge	eographical		Apartment . Room	. SubZone			1.1.1				
Ap	plication Sp	pecific [][
Pe	ripheral		☐ Broadcast ☐	Configur	able 🗌						
DP	Address:		IO Type(ID):								
LTE	-Services	(event):	COV 🖂	MinRepTim	e:	0 1)	sec	Hearth	peat:	15 min	
Inf	oReport	\boxtimes	Output per default	communica	ting 🔲	Bine	ding Gr	oup Wildca	ard allow	/ed ⊠	
			Tx Prio:	High 🗌		N	ormal [\boxtimes	Low		
po sh	ΓE Read-R Iling of the all always t pported)	output	Transm after Powe	er-up: Stored	d Value		Act Val	ue 🛛 De	efault Va	ılue 🗌	
	perty-Serv ividual acc		Read only		Read/V	Vrite	\boxtimes				
Exce	otion Hand	lling:						Save a	t Powerd	down 🗌	
	ial Feature										
¹⁾ Th	The signal may be sent immediately if the COV is the result of a user interaction enabling fast										
fee	edback.										

3.9.6.2 Parameter Apartment

FB:	RTSA	Pro	er	rty Name (<u>Server</u>):	Apartment						Mandatory ⊠ Optional □			
Dosc	ription:				-						Optiona	al [
	er of the													
DPT:				ountValue8 Z	T	DPT ID	202.002)	Data	atype format	U ₈ Z ₈			
Field	IName	ו יוםן	_	Description		טר ו וט	202.002		up.	Range	Unit	Default		
Zone				Number of the apartr	m	ont zono			up.	(0) 1126	Offic	1		
STAT	110		-+-	Number of the aparti						(0) 1120	Bitset			
	ofService		1_	zone active / inactive					0	true/false	Ditset	false		
	ther bits		_ _	not supported, fixed		\ 'O'			NA	liue/iaise	bool	false		
	MAND			ioi supporteu, fixeu	ı				NA.		DOOI			
	nalWrite								М	enum		CS		
	DSV & Re	00tOS\/		Set zone inactive / active					O					
	ther comr			not supported	Cl	live			NA					
			<u> </u>	lot supported					NA.					
	nunicatio			IO T (ID)	_	005 (DTO	۸ \	_			101			
	Address:			IO Type(ID):	3	385 (RTS/	4)			ty ID:	101			
•	he serve	•		Start-Index:	_1	1				lements	1			
	perty acc	ess:		Read only			Read/W	_						
Prof	tection			Read level	_	•		M	/rite le	evel	-			
Exception Handling: Value after Power-up: Stored Value ☐ Act Value ☐ Default Value ☐									: 🗌					
Speci	Special Features:													
Zone	= 0 (wildo	ard): Se	nd	s to all listeners			•				•	•		
The d	The device is not LTE communicating in this zone if it is 'OutOfService'													
If Ana	If Apartment is 'OutOfService' Room and SubZone automatically are 'OutOfService'													

3.9.6.3 Parameter Room

FB:	RTSA	Р	rope	rty Name (<u>Server</u>):	Room				Mandatory ⊠ Optional □			
Desci	ription:	<u>.</u>						<u> </u>				
Numb	er of the I	room	zone									
DPT: Name DPT_Uco				countValue8_Z DPT ID 202.002				atype format	U ₈ Z ₈			
Field				Description			Sup.	Range	Unit	Default		
Zone				Number of the room	zone	,		(0) 163		1		
STAT	US								Bitset			
	ofService			zone active / inactive			0	true/false		false		
- all of	ther bits			not supported, fixed	to '0'		NA		bool	false		
	MAND					enum		CS				
	nalWrite	_					M					
	SV & Re			Set zone inactive / ad	ctive		0					
	ther comn		s	not supported			NA					
	nunicatio	n:		1								
	Address:			IO Type(ID): 385 (RTSA)			Proper	•	102			
_ `	he servei			Start-Index:	1			elements	1			
	perty acc	ess:		Read only		Read/W	rite					
	ection			Read level	-		Write I		-			
Excep	otion Han	dling	g:	Value after Power-up	: Stored	Value 🖂	Act Va	lue 🗌 Det	fault Value	: 🗌		
Speci	Special Features:											
				ds to all listeners								
				mmunicating in this zo	one if it is '	OutOfSer	vice'					
'OutO	fService' i	s tak	en ov	er from Apartment								

3.9.6.4 Parameter SubZone

FB:	RTSA	Prop	erty Name (<u>Server</u>):	Name (<u>Server</u>): SubZone					Mandatory ⊠ Optional □			
Desc	ription:	L		-				<u> </u>	<u></u>			
Numb	er of the s	ub zone.										
DPT:	Name	DPT_U	countValue8_Z	3_Z DPT ID 202.002 Data				U ₈ Z ₈				
Field			Description			Sup.	Range	Unit	Default			
Zone			Number of the SubZ	one			(0) 115		1			
STAT	US							Bitset				
- Outo	ofService		zone active / inactive	€		0	true/false		false			
- all o	ther bits		not supported, fixed	to '0'		NA		bool	false			
COMI	MAND				enum		CS					
- Norr	nalWrite											
- SetC	OSV & Res	etOSV	Set zone inactive / a	ctive	0							
- all o	ther comm	ands	not supported	NA								
Comr	nunicatio	n:	-		-		-	-	-			
DP A	Address:		IO Type(ID):	385 (RTS	A)	Proper	ty ID:	103				
(in t	he server)	Start-Index:	1		N° of e	elements	1				
Pro	perty acce	ess:	Read only		Read/W	'rite	\boxtimes					
Prof	tection		Read level	-		Write I	evel	-				
Exce	otion Han	dling:	Value after Power-up	o: Stored	Value 🛚	Act Va	lue 🗌 Det	fault Value				
Speci	Special Features:											
Zone	= 0 (wildca	ard): Sen	nds to all listeners									
The d	The device is not LTE communicating in this zone if it is 'OutOfService'											
'OutO	fService' is	s taken o	over from Apartment									

3.10 User Change Over Setting (UCOS)

3.10.1 Aims and objectives

The functional block 'User Change Over Settings' provides the system with the manually defined 'UserChangeOverMode'.

This functional block is used e.g. in a 'Operating Device' or in a more complex device which has this function.

3.10.2 Functional specifications

The distribution of the change over information in the system is event-driven (COV-condition, change of value) and in addition repeated periodically.

The functional block 'User Change Over Settings' supports the following LTE zoning:

Outputs

• UserChangeOverMode This is the manually entered change over setting which

is provided to the 'Water Change Over Status Sensor' or

to the 'Air Change Over Status Sensor'

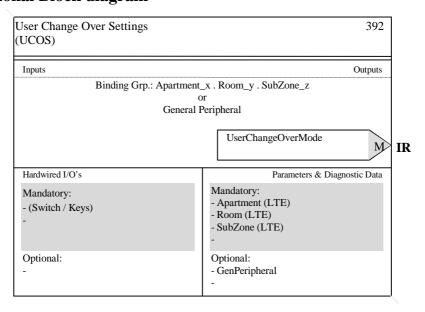
Binding Group (LTE)

Apartment . Room . SubZone no special features
 GenPeripheral no special features

3.10.3 Constraints

None.

3.10.4 Functional Block diagram



[&]quot;Apartment . Room . SubZone"

[&]quot;GenPeripheral"

3.10.5 Datapoint Description

Overview

Datapoints	Description / Remarks	Data Point Type	Additional Info
Outputs			
User Change Over Mode	One temperature value, normally for comfort with: - COV and RepPer to FB Room Setpoint Manager	$\begin{tabular}{llll} LTE: & 20.107 \\ DPT_ChangeOverMode \\ N_8 \\ S: & 20.107 \\ DPT_ChangeOverMode \\ N_8 \\ \end{tabular}$	LTE: M S: GO 0 = AUTO 1 = cooling 2 = heating
Parameters			
Apartment	LTE zoning number for Apartment	$\begin{array}{c} 202.002 \\ DPT_UcountValue8_Z \\ U_8Z_8 \end{array}$	M 1
Room	LTE zoning number for Room	202.002 DPT_UcountValue8_Z U ₈ Z ₈	M 1
SubZone	LTE zoning number for SubZone	$\begin{array}{c} 202.002 \\ DPT_UcountValue8_Z \\ U_8Z_8 \end{array}$	M 1
Gen Peripheral	LTE zoning number for general peripheral	$\begin{array}{c} 203.012 \\ DPT_UcountValue16_Z \\ U_{16}Z_8 \end{array}$	O 1

UCOS Runtime Interworking - Dependence on Configuration Modes

			STANDARD MODE		ENDED ODE
		Basic FB	S-Mode	Standard Mode Interface	HEE
Inputs					
Outputs	UserChangeOverMode	GO_b	GO	GO	M

UCOS LTE specific Properties

		Support
Parameter	Apartment	M
	Room	M
	SubZone	M
	GenPeripheral	O

UCOS Standard Properties of Interface Objects (or memory mapped DP)

	Support
Parameter	

3.10.6 Detailed Specification of the Datapoints

3.10.6.1 Output UserChangeOverMode

Standard Mode:

erChangeOverMode Abbr.: Mandatory 🖸												
Can be internal												
nge over mode.												
PPT Format: N ₈ DPT_ID: 20.107												
Field Description Supp. Range Unit Defau												
O 2 enum cs												
Delta-Value: MinRepTime: 0 s 1)												
Period: 15min (recommended value)												
Mandatory: 🗵												
The signal may be sent immediately if the COV is the result of a user interaction enabling fast feedback.												
Period: 15min (recommended value) Mandatory:												

FB:	UCOS	LTE Se	rver	Output Name	e:	UserChang	geOver	Мс	ode		Mandatory ☐ Optional ⊠			
Desc	ription:	-				-				_				
This o	output conta	ains the ι	ıser	defined chang	ge (over mode.								
DPT:	Name	DPT_Ch	ang	jeOverMode		DPT ID	20.107 Dataty			tatype	ype format N ₈			
Field			Des	scription			Sup.	Ra	ange		Unit	COV	Default	
Chan	geOverMod	de	Use	er change over	m	ode			0	. 2	enum	yes	CS	
Com	nunicatior	1:					-			•		-	-	
Bine	ding Grou	o:												
Clas	SS		Ty	уре						Defau				
Ge	eographical		$\exists \ A$	partment. Roo	m	. SubZone				1.1.1	2)			
Ap	plication S	pecific [
Pe	ripheral		₫В	Broadcast		Configura	able 🛚			1 25				
DP.	Address:		IC	Type(ID):		392 (UCOS	S)	F		erty ID:	: 5	1		
LTE	-Services	(event):	C	ov 🛛		MinRepTime	e:	0	1) S	ec	Heartl	peat:	15 min	
Inf	oReport	\boxtimes	0	utput per defau	ult	communicat	ing 🗌	E	3indii	ng Gro	up Wildc	ard allow	/ed ⊠	
				x Prio:		High 🗌			No	rmal 🛭		Low		
po sh	TE Read-R Iling of the all always t pported)	output		ransm after Po	we	er-up: Stored	l Value		A	ct Valu	ue⊠ Do	efault Va	ılue 🗌	
	perty-Serv ividual acc		R	ead only			Read/V	Vrit	te	\boxtimes				
Exce	otion Hand	lling:									Save a	t Powerd	down	
Spec	ial Feature	s:												
		ay be ser	nt im	nmediately if th	e (COV is the re	esult of	aι	user	interac	ction enab	oling fast		
۵۱ -	edback.													
				e used in different applications. The binding groups that shall not be active have										
to	be set to o	ut of serv	ice.	Not all possibi	iliti	es have to b	e realis	sed						

3.10.6.2 Parameter Apartment

FB:	UCOS	Proper	ty Name (<u>Serve</u>	<u>r</u>): A	partment				Mandator	
Desc	ription:								Optiona	<u> </u>
	er of the a	partment	t zone.							
DPT:			countValue8 Z		DPT ID	202.002	Data	atype format	U ₈ Z ₈	
Field	1	1	Description				Sup.	Range	Unit	Default
Zone			Number of the a	partr	nent zone		•	(0) 1126		1
STAT	US]	Bitset	
- Outo	ofService		zone active / ina	active	!		0	true/false		false
- all o	ther bits		not supported, f	ixed t	to '0'		NA		bool	false
	MAND							enum		CS
_	malWrite						M			
	OSV & Res		Set zone inactive / active				0			
- all o	ther comm	ands	not supported				NA	<u> </u>		
Com	nunicatio	n:								
	Address:		IO Type(ID):		392 (UCC	S)	Prope	•	101	
•	he server		Start-Index:		1			elements	1	
	perty acce	ess:	Read only			Read/W		\boxtimes		
Pro	tection		Read level		-		Write	evel	-	
Exce	Exception Handling: Value after Power-up: Stored Value ☐ Act Value ☐ Default Value ☐									
Spec	Special Features:									
	,	,	ds to all listeners							
Temp	RoomSetp	UserAbs	s is not LTE comr	nunic	cating in thi	s zone if	it is 'Ou	tOfService'		
If Apartment is 'OutOfService' Room and SubZone automatically are 'OutOfService'										

3.10.6.3 Parameter Room

FB:	ucos	Proper	rty Name (<u>Server</u>): Room							Mandatory ⊠ Optional □		
Desci	ription:	<u> </u>				<u> </u>	<u> </u>	·· <u> </u>				
Numb	er of the ro	oom zone	Э.									
DPT: Name DPT_U				countValue8_Z DPT ID 202.002			2	Data	type format	U_8Z_8		
Field				escription				S	Sup.	Range	Unit	Default
Zone			N	lumber of the roor	n z	zone	,]	(0) 163		1
STAT	US										Bitset	
- Outo	ofService		z	one active / inactive	ve				0	true/false		false
- all o	ther bits		n	ot supported, fixed	d t	o '0'			NA		bool	false
	MAND								enum		CS	
	nalWrite		Out and insulfaction						M			
	SV & Res		Set zone inactive / active						0			
	ther comm		n	ot supported					NA			
	nunicatio	n:										
	Address:		IO Type(ID): 392 (UCOS))S)	Property ID:			102		
_ `	he server			Start-Index:		1				lements	1	
	perty acce	ess:		Read only			Read/W	rit	e	\boxtimes		
Prot	ection			Read level		-		٧	Vrite le	evel	-	
Exception Handling: Value after Power-up: Stored Value							Value 🛚	Α	ct Va	lue 🗌 Det	fault Value	
Speci	Special Features:											
				to all listeners								
	TempRoomSetpUserAbs is not LTE communicating in this zone							it i	is 'Out	:OfService		
'OutO	fService' is	s taken o	ve	er from Apartment								

3.10.6.4 Parameter SubZone

FB:	ucos	Proper	operty Name (<u>Server</u>): SubZone					Mandatory ⊠ Optional □				
Desc	Description:										41 <u> </u>	
Number of the sub zone.												
DPT:	_			untValue8_Z	DPT ID	202.002	002 Datat		type format	U_8Z_8		
Field				Description				Sup. R		Range	Unit	Default
Zone				Number of the SubZone						(0) 115		1
STATUS											Bitset	
- OutofService				zone active / inactive					0	true/false		false
- all other bits				not supported, fixed to '0'					IA.		bool	false
COMMAND										enum		CS
- NormalWrite									M			
- SetOSV & ResetOSV				Set zone inactive / active					0			
- all other commands				not supported					1A			
Communication:												
DP Address:			IO Type(ID):			392 (UCOS)				ty ID:	103	
(in the server)			Start-Index: 1							lements	1	
Property access:			<u>, </u>				Read/W	rite)	\boxtimes		
Protection			Read level -					Write level			-	
Exception Handling: Value after Power-up: Stored Value ⊠ Act Value							lue 🗌 Det	fault Value	: 🗌			
Special Features:												
Zone = 0 (wildcard): Sends to all listeners												
TempRoomSetpUserAbs is not LTE communicating in this zone if it is 'OutOfService'												
'OutOfService' is taken over from Apartment												

3.10.6.5 Parameter GenPeripheral

FB:	UCOS	Proper	ty Name (<u>Server</u>):	G	GenPeripheral					Mandatory ☐ Optional ⊠		
		_		_						Optiona	al 🔼	
Description:												
Number of the general peripheral tag.												
DPT:	Name	DPT_U	countValue16_Z DPT ID 203.012			2 Datatype format			$U_{16}Z_8$			
Field			Description					Jр.	Range	Unit	Default	
Zone			Number of the SubZone						full		1	
STAT	US									Bitset		
- Outo	ofService		zone active / inactive				(C	true/false		false	
- all o	ther bits		not supported, fixed to '0'					IΑ		bool	false	
COM	MAND								enum		CS	
- Nori	malWrite						ľ	M				
- Set0	OSV & Res	etOSV	Set zone inactive / active					C				
- all o	ther comm	ands	not supported					IΑ				
Comi	Communication:											
DP Address:			IO Type(ID): 392 (UCOS)				Property ID:			104		
(in t	he server))	Start-Index: 1					of e	lements	1		
Pro	perty acce	ss:	Read only Read/Write						\boxtimes			
Pro	tection		Read level -					Write level -				
Exception Handling: Value after Power-up: Stored Value ☐ Act Value ☐ Default Value ☐												
Special Features:												
Zone = 0 (wildcard): Sends to all listeners												
The device is not LTE communicating in this zone if it is 'OutOfService'												