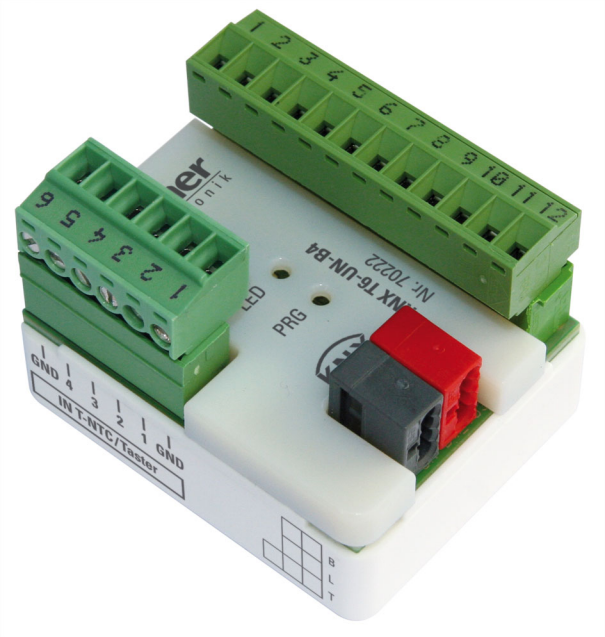
KNX T6-UN-B4

Temperature Evaluation Unit

Item number 70222



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Installation and Adjustment

This manual is amended periodically and will be brought into line with new software releases. The change status (software version and date) can be found in the contents footer. If you have a device with a later software version, please check **www.elsner-elektronik.de** in the menu area "Service" to find out whether a more up-to-date version of the manual is available.

Clarification of signs used in this manual

Safety advice.

Safety advice for working on electrical connections, components, etc.

DANGER! ... indicates an immediately hazardous situation which will lead to death or severe injuries if it is not avoided.

WARNING! ... indicates a potentially hazardous situation which may lead to death or severe injuries if it is not avoided.

CAUTION! ... indicates a potentially hazardous situation which may lead to trivial or minor injuries if it is not avoided.

ATTENTION! ... indicates a situation which may lead to damage to property if it is not avoided.

ETS In the ETS tables, the parameter default settings are marked by underlining.

1. Description

The **Temperature evaluation unit KNX T6-UN-B4** has six inputs for T-100 or T-130 temperature sensors and four analogue/digital inputs, which can for example be used for buttons or T-NTC temperature sensors. The temperature measurement values for all inputs can be processed with external measurement values to provide a combined value (total temperature, average temperature).

All measured values can be used for the control of threshold value-dependent switching outputs. Six PI controllers control the heating and cooling (one- or two-stage). Logic gates can be used to set up additional operations.

Functions:

- **6 temperature inputs for T-100 or T-130 sensors**
- **4 analogue/binary inputs**, for example for buttons or T-NTC temperature sensors
- **Combined value calculation** for all connected temperature sensors (proportion of internal measurement value and external value can be set as a percentage)
- **Threshold values** can be adjusted per parameter or via communication objects
- **6 PI controllers for heating** and **cooling** (one- or two-stage).
- **4 AND and 4 OR logic gates** with 4 for each input. 16 logic inputs (in the form of communication objects) can be used as inputs for the logic gates. The output of each gate can be configured optionally as 1-bit or 2 x 8-bit

Configuration is made using the KNX software ETS. The **product file** can be downloaded from the Elsner Elektronik website on **www.elsner-elektronik.de** in the "Service" menu.

1.1. Deliverables

- Temperature evaluation unit

Optional accessories:

(not included in the deliverables):

- T-100 (no. 30517) or T-130 (no. 30518) temperature sensors for temperature inputs
- T-NTC temperature sensor (no. 30516) for analogue/binary inputs

1.2. Technical data

Housing	Plastic
Colour	white
Assembly	Installation
Degree of protection	IP 20
Dimensions of evaluation electronics	approx. 38 × 47 × 32 (W × H × D, mm)

Weight	approx. 40 g
Ambient temperature	Operation -30…+70°C, storage -55…+125°C
Ambient humidity	max. 95% RH, avoid condensation
Operating voltage	KNX bus voltage
Bus current	max. 8 mA
Data output	KNX +/- bus connector terminal
Group addresses	max. 1024
Assignments	max. 1024
Communication objects	333
Inputs	6× temperature sensor 4× analogue/binary

The product conforms with the provisions of EU directives.

2. Installation and start-up

Installation, testing, operational start-up and troubleshooting should only be performed by an authorised electrician.

CAUTION!
Live voltage!
There are unprotected live components inside the device.

- Inspect the device for damage before installation. Only put undamaged devices into operation.
- Comply with the locally applicable directives, regulations and provisions for electrical installation.
- Immediately take the device or system out of service and secure it against unintentional switch-on if risk-free operation is no longer guaranteed.

Use the device exclusively for building automation and observe the operating instructions. Improper use, modifications to the device or failure to observe the operating instructions will invalidate any warranty or guarantee claims.
Operate the device only as a fixed-site installation, i.e. only in assembled condition and after conclusion of all installation and operational start-up tasks, and only in the surroundings designated for it.
Elsner Elektronik is not liable for any changes in norms and standards which may occur after publication of these operating instructions.

2.1. Installation position

The evaluation electronics of the sensor is installed in a socket. When selecting an installation location for the measuring sensor, please ensure that the measurement

results are affected as little as possible by external influences. Possible sources of interference include:

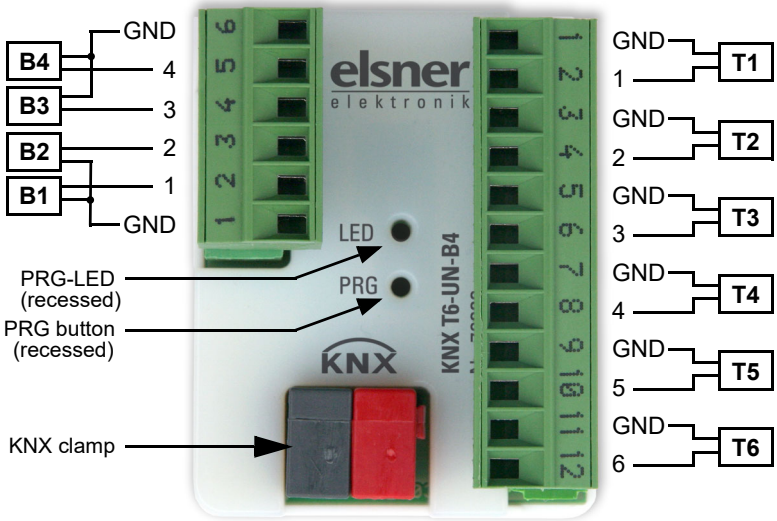
- Direct sunlight
- Drafts from windows and doors
- Warming or cooling of the building structure on which the sensor is mounted, e.g. due to sunlight, heating or cold water pipes
- Connection lines which lead from warmer or colder areas to the sensor

Temperature variations from such sources of interference must be corrected in the ETS in order to ensure the specified accuracy of the sensor (temperature offset).

2.2. Connection

B: Analogue/binary inputs
(Buttons, T-NTC sensors)

T: Temperature inputs
(T-100, T-130 sensors)



The cables of the T-100, T-130 and T-NTC temperature sensors can be extended to a maximum of 10 m.

3. Commissioning

Never expose the device to water (e.g. rain) or dust. This can damage the electronics. You must not exceed a relative humidity of 95%. Avoid condensation.

After the bus voltage has been applied, the device will enter an initialisation phase lasting a few seconds. During this phase no information can be received or sent via the bus.

4. Addressing of the device at the bus

The device is supplied with the bus address 15.15.255. You can program another address into the ETS by overwriting the 15.15.255 address or by teaching via the programming button.

5. Disposal

After use, the device must be disposed of in accordance with the legal regulations. Do not dispose of it with the household waste!

6. Transfer protocol

Units:

Temperatures in degrees Celsius

6.1. List of all communications objects

Abbreviation flags:

C Communication
R Read
W Write
T Transfer
U Update

No.	Text	Function	Flags	DPT type	Size
1	Software version	Output	R-CT	[217.1] DPT_Version	2 bytes
11	Temperature sensor 1 measured value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
12	Temperature sensor 1 external measured value	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
13	Temperature sensor 1 overall measured value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
14	Temperature sensor 1 fault	Output	R-CT	[1.1] DPT_Switch	1 bit
21	Temperature sensor 2 measured value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
22	Temperature sensor 2 external measured value	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
23	Temperature sensor 2 overall measured value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
24	Temperature sensor 2 fault	Output	R-CT	[1.1] DPT_Switch	1 bit
31	Temperature sensor 3 measured value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
32	Temperature sensor 3 external measured value	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
33	Temperature sensor 3 overall measured value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
34	Temperature sensor 3 fault	Output	R-CT	[1.1] DPT_Switch	1 bit
41	Temperature sensor 4 measured value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
42	Temperature sensor 4 external measured value	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
43	Temperature sensor 4 overall measured value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
44	Temperature sensor 4 fault	Output	R-CT	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
51	Temperature sensor 5 measured value	Output	R-CT	[9.1] DPT_Val-ue_Temp	2 bytes
52	Temperature sensor 5 external measured value	Input	-WCT	[9.1] DPT_Val-ue_Temp	2 bytes
53	Temperature sensor 5 overall measured value	Output	R-CT	[9.1] DPT_Val-ue_Temp	2 bytes
54	Temperature sensor 5 fault	Output	R-CT	[1.1] DPT_Switch	1 bit
61	Temperature sensor 6 measured value	Output	R-CT	[9.1] DPT_Val-ue_Temp	2 bytes
62	Temperature sensor 6 external measured value	Input	-WCT	[9.1] DPT_Val-ue_Temp	2 bytes
63	Temperature sensor 6 overall measured value	Output	R-CT	[9.1] DPT_Val-ue_Temp	2 bytes
64	Temperature sensor 6 fault	Output	R-CT	[1.1] DPT_Switch	1 bit
81	Threshold value 1: Measured value	Input	-WC-	[9.1] DPT_Val-ue_Temp	2 bytes
82	Threshold value 1: Absolute value	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
83	Threshold value 1: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
84	Threshold value 1: Switching delay from 0 to 1	Input	-WC-	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes
85	Threshold value 1: Switching delay from 1 to 0	Input	-WC-	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes
86	Threshold value 1: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
87	Threshold value 1: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
101	Threshold value 2: Measured value	Input	-WC-	[9.1] DPT_Val-ue_Temp	2 bytes
102	Threshold value 2: Absolute value	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
103	Threshold value 2: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
104	Threshold value 2: Switching delay from 0 to 1	Input	-WC-	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes
105	Threshold value 2: Switching delay from 1 to 0	Input	-WC-	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes
106	Threshold value 2: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
107	Threshold value 2: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
121	Threshold value 3: Measured value	Input	-WC-	[9.1] DPT_Val-ue_Temp	2 bytes

No.	Text	Function	Flags	DPT type	Size
122	Threshold value 3: Absolute value	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
123	Threshold value 3: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
124	Threshold value 3: Switching delay from 0 to 1	Input	-WC-	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes
125	Threshold value 3: Switching delay from 1 to 0	Input	-WC-	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes
126	Threshold value 3: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
127	Threshold value 3: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
141	Threshold value 4: Measured value	Input	-WC-	[9.1] DPT_Val-ue_Temp	2 bytes
142	Threshold value 4: Absolute value	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
143	Threshold value 4: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
144	Threshold value 4: Switching delay from 0 to 1	Input	-WC-	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes
145	Threshold value 4: Switching delay from 1 to 0	Input	-WC-	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes
146	Threshold value 4: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
147	Threshold value 4: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
161	Threshold value 5: Measured value	Input	-WC-	[9.1] DPT_Val-ue_Temp	2 bytes
162	Threshold value 5: Absolute value	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
163	Threshold value 5: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
164	Threshold value 5: Switching delay from 0 to 1	Input	-WC-	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes
165	Threshold value 5: Switching delay from 1 to 0	Input	-WC-	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes
166	Threshold value 5: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
167	Threshold value 5: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
181	Threshold value 6: Measured value	Input	-WC-	[9.1] DPT_Val-ue_Temp	2 bytes
182	Threshold value 6: Absolute value	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
183	Threshold value 6: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
184	Threshold value 6: Switching delay from 0 to 1	Input	-WC-	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes

No.	Text	Function	Flags	DPT type	Size
185	Threshold value 6: Switching delay from 1 to 0	Input	-WC-	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes
186	Threshold value 6: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
187	Threshold value 6: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
201	Temp. contr.1: Measured value	Input	-WCT	[9.1] DPT_Val-ue_Temp	2 bytes
202	Temp. contr.1: HVAC mode (priority 1)	Input	-WC-	[20.102] DPT_HVAC-Mode	1 byte
203	Temp. contr.1: HVAC mode (priority 2)	Input	-WC-	[20.102] DPT_HVAC-Mode	1 byte
205	Temp. contr.1: Mode frost/ heat protection activation	Input	-WC-	[1.1] DPT_Switch	1 bit
206	Temp. contr.1: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
207	Temp. contr.1: Current setpoint	Output	R-CT	[9.1] DPT_Val-ue_Temp	2 bytes
208	Temp. contr.1: Switching object (heating / cooling)	Input	-WC-	[1.1] DPT_Switch	1 bit
209	Temp. contr.1: Setpoint comfort heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
210	Temp. contr.1: Setpoint comfort heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
211	Temp. contr.1: Setpoint comfort cooling	Input output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
212	Temp. contr.1: Setpoint comfort cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
213	Temp. contr.1: Setpoint standby heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
214	Temp. contr.1: Setpoint standby heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
215	Temp. contr.1: Setpoint standby cooling	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
216	Temp. contr.1: Setpoint standby cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
217	Temp. contr.1: Setpoint eco heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
218	Temp. contr.1: Setpoint, eco heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
219	Temp. contr.1: Setpoint eco cooling	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
220	Temp. contr.1: Setpoint, eco cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
221	Temp. contr.1: Control variable stage 1	Output	R-CT	[5.1] DPT_Scaling	1 byte
222	Temp. contr.1: Control variable stage 2	Output	R-CT	[5.1] DPT_Scaling	1 byte
223	Temp. contr.1: Control variable cooling level 1	Output	R-CT	[5.1] DPT_Scaling	1 byte
224	Temp. contr.1: Control variable cooling level 2	Output	R-CT	[5.1] DPT_Scaling	1 byte
225	Temp. contr.1: Status heating level 1 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
226	Temp. contr.1: Status heating level 2 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
227	Temp. contr.1: Status cooling level 1 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
228	Temp. contr.1: Status cooling level 2 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
229	Temp. contr.1: Comfort extension time	Input	RWCT	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes
230	Temp. contr.1: Comfort extension status	Input/ Output	RWCT	[1.1] DPT_Switch	1 bit
241	Temp. contr.2: Measured value	Input	-WCT	[9.1] DPT_Val-ue_Temp	2 bytes
242	Temp. contr.2: HVAC mode (priority 1)	Input	-WC-	[20.102] DPT_HVAC-Mode	1 byte
243	Temp. contr.2: HVAC mode (priority 2)	Input	-WC-	[20.102] DPT_HVAC-Mode	1 byte
245	Temp. contr.2: Mode frost/ heat protection activation	Input	-WC-	[1.1] DPT_Switch	1 bit
246	Temp. contr.2: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
247	Temp. contr.2: Current setpoint	Output	R-CT	[9.1] DPT_Val-ue_Temp	2 bytes
248	Temp. contr.2: Switching object (heating / cooling)	Input	-WC-	[1.1] DPT_Switch	1 bit
249	Temp. contr.2: Setpoint comfort heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
250	Temp. contr.2: Setpoint comfort heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
251	Temp. contr.2: Setpoint comfort cooling	Input output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
252	Temp. contr.2: Setpoint comfort cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
253	Temp. contr.2: Setpoint standby heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
254	Temp. contr.2: Setpoint standby heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
255	Temp. contr.2: Setpoint standby cooling	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
256	Temp. contr.2: Setpoint standby cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
257	Temp. contr.2: Setpoint eco heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
258	Temp. contr.2: Setpoint, eco heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
259	Temp. contr.2: Setpoint eco cooling	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
260	Temp. contr.2: Setpoint, eco cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
261	Temp. contr.2: Control variable stage 1	Output	R-CT	[5.1] DPT_Scaling	1 byte
262	Temp. contr.2: Control variable stage 2	Output	R-CT	[5.1] DPT_Scaling	1 byte
263	Temp. contr.2: Control variable cooling level 1	Output	R-CT	[5.1] DPT_Scaling	1 byte
264	Temp. contr.2: Control variable cooling level 2	Output	R-CT	[5.1] DPT_Scaling	1 byte
265	Temp. contr.2: Status heating level 1 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
266	Temp. contr.2: Status heating level 2 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
267	Temp. contr.2: Status cooling level 1 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
268	Temp. contr.2: Status cooling level 2 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
269	Temp. contr.2: Comfort extension time	Input	RWCT	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes
270	Temp. contr.2: Comfort extension status	Input/ Output	RWCT	[1.1] DPT_Switch	1 bit
281	Temp. contr.3: Measured value	Input	-WCT	[9.1] DPT_Val-ue_Temp	2 bytes
282	Temp. contr.3: HVAC mode (priority 1)	Input	-WC-	[20.102] DPT_HVAC-Mode	1 byte

No.	Text	Function	Flags	DPT type	Size
283	Temp. contr.3: HVAC mode (priority 2)	Input	-WC-	[20.102] DPT_HVAC-Mode	1 byte
285	Temp. contr.3: Mode frost/ heat protection activation	Input	-WC-	[1.1] DPT_Switch	1 bit
286	Temp. contr.3: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
287	Temp. contr.3: Current setpoint	Output	R-CT	[9.1] DPT_Val-ue_Temp	2 bytes
288	Temp. contr.3: Switching object (heating / cooling)	Input	-WC-	[1.1] DPT_Switch	1 bit
289	Temp. contr.3: Setpoint comfort heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
290	Temp. contr.3: Setpoint comfort heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
291	Temp. contr.3: Setpoint comfort cooling	Input output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
292	Temp. contr.3: Setpoint comfort cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
293	Temp. contr.3: Setpoint standby heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
294	Temp. contr.3: Setpoint standby heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
295	Temp. contr.3: Setpoint standby cooling	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
296	Temp. contr.3: Setpoint standby cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
297	Temp. contr.3: Setpoint eco heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
298	Temp. contr.3: Setpoint, eco heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
299	Temp. contr.3: Setpoint eco cooling	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
300	Temp. contr.3: Setpoint, eco cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
301	Temp. contr.3: Control variable stage 1	Output	R-CT	[5.1] DPT_Scaling	1 byte
302	Temp. contr.3: Control variable stage 2	Output	R-CT	[5.1] DPT_Scaling	1 byte
303	Temp. contr.3: Control variable cooling level 1	Output	R-CT	[5.1] DPT_Scaling	1 byte
304	Temp. contr.3: Control variable cooling level 2	Output	R-CT	[5.1] DPT_Scaling	1 byte
305	Temp. contr.3: Status heating level 1 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
306	Temp. contr.3: Status heating level 2 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
307	Temp. contr.3: Status cooling level 1 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
308	Temp. contr.3: Status cooling level 2 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
309	Temp. contr.3: Comfort extension time	Input	RWCT	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes
310	Temp. contr.3: Comfort extension status	Input/ Output	RWCT	[1.1] DPT_Switch	1 bit
321	Temp. contr.4: Measured value	Input	-WCT	[9.1] DPT_Val-ue_Temp	2 bytes
322	Temp. contr.4: HVAC mode (priority 1)	Input	-WC-	[20.102] DPT_HVAC-Mode	1 byte
323	Temp. contr.4: HVAC mode (priority 2)	Input	-WC-	[20.102] DPT_HVAC-Mode	1 byte
325	Temp. contr.4: Mode frost/ heat protection activation	Input	-WC-	[1.1] DPT_Switch	1 bit
326	Temp. contr.4: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
327	Temp. contr.4: Current setpoint	Output	R-CT	[9.1] DPT_Val-ue_Temp	2 bytes
328	Temp. contr.4: Switching object (heating / cooling)	Input	-WC-	[1.1] DPT_Switch	1 bit
329	Temp. contr.4: Setpoint comfort heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
330	Temp. contr.4: Setpoint comfort heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
331	Temp. contr.4: Setpoint comfort cooling	Input output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
332	Temp. contr.4: Setpoint comfort cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
333	Temp. contr.4: Setpoint standby heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
334	Temp. contr.4: Setpoint standby heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
335	Temp. contr.4: Setpoint standby cooling	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
336	Temp. contr.4: Setpoint standby cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
337	Temp. contr.4: Setpoint eco heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes

No.	Text	Function	Flags	DPT type	Size
338	Temp. contr.4: Setpoint, eco heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
339	Temp. contr.4: Setpoint eco cooling	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
340	Temp. contr.4: Setpoint, eco cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
341	Temp. contr.4: Control variable stage 1	Output	R-CT	[5.1] DPT_Scaling	1 byte
342	Temp. contr.4: Control variable stage 2	Output	R-CT	[5.1] DPT_Scaling	1 byte
343	Temp. contr.4: Control variable cooling level 1	Output	R-CT	[5.1] DPT_Scaling	1 byte
344	Temp. contr.4: Control variable cooling level 2	Output	R-CT	[5.1] DPT_Scaling	1 byte
345	Temp. contr.4: Status heating level 1 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
346	Temp. contr.4: Status heating level 2 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
347	Temp. contr.4: Status cooling level 1 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
348	Temp. contr.4: Status cooling level 2 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
349	Temp. contr.4: Comfort extension time	Input	RWCT	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes
350	Temp. contr.4: Comfort extension status	Input/ Output	RWCT	[1.1] DPT_Switch	1 bit
361	Temp. contr.5: Measured value	Input	-WCT	[9.1] DPT_Val-ue_Temp	2 bytes
362	Temp. contr.5: HVAC mode (priority 1)	Input	-WC-	[20.102] DPT_HVAC-Mode	1 byte
363	Temp. contr.5: HVAC mode (priority 2)	Input	-WC-	[20.102] DPT_HVAC-Mode	1 byte
365	Temp. contr.5: Mode frost/ heat protection activation	Input	-WC-	[1.1] DPT_Switch	1 bit
366	Temp. contr.5: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
367	Temp. contr.5: Current setpoint	Output	R-CT	[9.1] DPT_Val-ue_Temp	2 bytes
368	Temp. contr.5: Switching object (heating / cooling)	Input	-WC-	[1.1] DPT_Switch	1 bit
369	Temp. contr.5: Setpoint comfort heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes

No.	Text	Function	Flags	DPT type	Size
370	Temp. contr.5: Setpoint comfort heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
371	Temp. contr.5: Setpoint comfort cooling	Input output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
372	Temp. contr.5: Setpoint comfort cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
373	Temp. contr.5: Setpoint standby heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
374	Temp. contr.5: Setpoint standby heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
375	Temp. contr.5: Setpoint standby cooling	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
376	Temp. contr.5: Setpoint standby cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
377	Temp. contr.5: Setpoint eco heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
378	Temp. contr.5: Setpoint, eco heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
379	Temp. contr.5: Setpoint eco cooling	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
380	Temp. contr.5: Setpoint, eco cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
381	Temp. contr.5: Control variable stage 1	Output	R-CT	[5.1] DPT_Scaling	1 byte
382	Temp. contr.5: Control variable stage 2	Output	R-CT	[5.1] DPT_Scaling	1 byte
383	Temp. contr.5: Control variable cooling level 1	Output	R-CT	[5.1] DPT_Scaling	1 byte
384	Temp. contr.5: Control variable cooling level 2	Output	R-CT	[5.1] DPT_Scaling	1 byte
385	Temp. contr.5: Status heating level 1 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
386	Temp. contr.5: Status heating level 2 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
387	Temp. contr.5: Status cooling level 1 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
388	Temp. contr.5: Status cooling level 2 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
389	Temp. contr.5: Comfort extension time	Input	RWCT	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes

No.	Text	Function	Flags	DPT type	Size
390	Temp. contr.5: Comfort extension status	Input/ Output	RWCT	[1.1] DPT_Switch	1 bit
401	Temp. contr.6: Measured value	Input	-WCT	[9.1] DPT_Val-ue_Temp	2 bytes
402	Temp. contr.6: HVAC mode (priority 1)	Input	-WC-	[20.102] DPT_HVAC-Mode	1 byte
403	Temp. contr.6: HVAC mode (priority 2)	Input	-WC-	[20.102] DPT_HVAC-Mode	1 byte
405	Temp. contr.6: Mode frost/ heat protection activation	Input	-WC-	[1.1] DPT_Switch	1 bit
406	Temp. contr.6: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
407	Temp. contr.6: Current setpoint	Output	R-CT	[9.1] DPT_Val-ue_Temp	2 bytes
408	Temp. contr.6: Switching object (heating / cooling)	Input	-WC-	[1.1] DPT_Switch	1 bit
409	Temp. contr.6: Setpoint comfort heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
410	Temp. contr.6: Setpoint comfort heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
411	Temp. contr.6: Setpoint comfort cooling	Input output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
412	Temp. contr.6: Setpoint comfort cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
413	Temp. contr.6: Setpoint standby heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
414	Temp. contr.6: Setpoint standby heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
415	Temp. contr.6: Setpoint standby cooling	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
416	Temp. contr.6: Setpoint standby cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
417	Temp. contr.6: Setpoint eco heating	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
418	Temp. contr.6: Setpoint, eco heating (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
419	Temp. contr.6: Setpoint eco cooling	Input/ Output	RWCT	[9.1] DPT_Val-ue_Temp	2 bytes
420	Temp. contr.6: Setpoint, eco cooling (1:+ | 0: -)	Input	-WC-	[1.1] DPT_Switch	1 bit
421	Temp. contr.6: Control variable stage 1	Output	R-CT	[5.1] DPT_Scaling	1 byte
422	Temp. contr.6: Control variable stage 2	Output	R-CT	[5.1] DPT_Scaling	1 byte

No.	Text	Function	Flags	DPT type	Size
423	Temp. contr.6: Control variable cooling level 1	Output	R-CT	[5.1] DPT_Scaling	1 byte
424	Temp. contr.6: Control variable cooling level 2	Output	R-CT	[5.1] DPT_Scaling	1 byte
425	Temp. contr.6: Status heating level 1 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
426	Temp. contr.6: Status heating level 2 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
427	Temp. contr.6: Status cooling level 1 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
428	Temp. contr.6: Status cooling level 2 (1=ON | 0=OFF)	Output	R-CT	[1.1] DPT_Switch	1 bit
429	Temp. contr.6: Comfort extension time	Input	RWCT	[7] 7.xxx[7.5] DPT_-TimePeriodSec	2 bytes
430	Temp. contr.6: Comfort extension status	Input/ Output	RWCT	[1.1] DPT_Switch	1 bit
451	Push-button 1 long-term	Output	R-CT	[1.8] DPT_UpDown	1 bit
452	Push-button 1 short-term	Output	R-CT	[1.10] DPT_Start	1 bit
453	Push-button 1 switching	Output	R-CT	[1.1] DPT_Switch	1 bit
454	Push button 1 dimming	Input/ Output	RWCT	[3.7] DPT_Con-trol_Dimming	4 bit
455	Push-button 1 encoder 8 bit	Output	R-CT	[5] 5.xxx	1 byte
456	Push-button 1 encoder 16 bit	Output	R-CT	[9] 9.xxx	2 bytes
457	Button 1 scenario activation	Output	R-CT	[5] 5.xxx	1 byte
461	Push-button 2 long-term	Output	R-CT	[1.8] DPT_UpDown	1 bit
462	Push-button 2 short-term	Output	R-CT	[1.10] DPT_Start	1 bit
463	Push-button 2 switching	Output	R-CT	[1.1] DPT_Switch	1 bit
464	Push button 2 dimming	Input/ Output	RWCT	[3.7] DPT_Con-trol_Dimming	4 bit
465	Push-button 2 encoder 8 bit	Output	R-CT	[5] 5.xxx	1 byte
466	Push-button 2 encoder 16 bit	Output	R-CT	[9] 9.xxx	2 bytes
467	Button 2 scenario activation	Output	R-CT	[5] 5.xxx	1 byte
471	Push-button 3 long-term	Output	R-CT	[1.8] DPT_UpDown	1 bit

No.	Text	Function	Flags	DPT type	Size
472	Push-button 3 short-term	Output	R-CT	[1.10] DPT_Start	1 bit
473	Push-button 3 switching	Output	R-CT	[1.1] DPT_Switch	1 bit
474	Push button 3 dimming	Input/ Output	RWCT	[3.7] DPT_Control_Dimming	4 bit
475	Push-button 3 encoder 8 bit	Output	R-CT	[5] 5.xxx	1 byte
476	Push-button 3 encoder 16 bit	Output	R-CT	[9] 9.xxx	2 bytes
477	Button 3 scenario activation	Output	R-CT	[5] 5.xxx	1 byte
481	Push-button 4 long-term	Output	R-CT	[1.8] DPT_UpDown	1 bit
482	Push-button 4 short-term	Output	R-CT	[1.10] DPT_Start	1 bit
483	Push-button 4 switching	Output	R-CT	[1.1] DPT_Switch	1 bit
484	Push button 4 dimming	Input/ Output	RWCT	[3.7] DPT_Control_Dimming	4 bit
485	Push-button 4 encoder 8 bit	Output	R-CT	[5] 5.xxx	1 byte
486	Push-button 4 encoder 16 bit	Output	R-CT	[9] 9.xxx	2 bytes
487	Button 4 scenario activation	Output	R-CT	[5] 5.xxx	1 byte
501	NTC temperature sensor 1 measured value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
502	NTC temperature sensor 1 external measured value	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
503	NTC temperature sensor 1 overall measured value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
504	NTC Temperature sensor 1 fault	Output	R-CT	[1.1] DPT_Switch	1 bit
505	NTC temperature sensor 2 measured value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
506	NTC temperature sensor 2 external measured value	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
507	NTC temperature sensor 2 overall measured value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
508	NTC Temperature sensor 2 fault	Output	R-CT	[1.1] DPT_Switch	1 bit
509	NTC temperature sensor 3 measured value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
510	NTC temperature sensor 3 external measured value	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
511	NTC temperature sensor 3 overall measured value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes

No.	Text	Function	Flags	DPT type	Size
512	NTC Temperature sensor 3 fault	Output	R-CT	[1.1] DPT_Switch	1 bit
513	NTC temperature sensor 4 measured value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
514	NTC temperature sensor 4 external measured value	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
515	NTC temperature sensor 4 overall measured value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
516	NTC Temperature sensor 4 fault	Output	R-CT	[1.1] DPT_Switch	1 bit
531	Logic input 1	Input	-WC-	[1.2] DPT_Bool	1 bit
532	Logic input 2	Input	-WC-	[1.2] DPT_Bool	1 bit
533	Logic input 3	Input	-WC-	[1.2] DPT_Bool	1 bit
534	Logic input 4	Input	-WC-	[1.2] DPT_Bool	1 bit
535	Logic input 5	Input	-WC-	[1.2] DPT_Bool	1 bit
536	Logic input 6	Input	-WC-	[1.2] DPT_Bool	1 bit
537	Logic input 7	Input	-WC-	[1.2] DPT_Bool	1 bit
538	Logic input 8	Input	-WC-	[1.2] DPT_Bool	1 bit
539	Logic input 9	Input	-WC-	[1.2] DPT_Bool	1 bit
540	Logic input 10	Input	-WC-	[1.2] DPT_Bool	1 bit
541	Logic input 11	Input	-WC-	[1.2] DPT_Bool	1 bit
542	Logic input 12	Input	-WC-	[1.2] DPT_Bool	1 bit
543	Logic input 13	Input	-WC-	[1.2] DPT_Bool	1 bit
544	Logic input 14	Input	-WC-	[1.2] DPT_Bool	1 bit
545	Logic input 15	Input	-WC-	[1.2] DPT_Bool	1 bit
546	Logic input 16	Input	-WC-	[1.2] DPT_Bool	1 bit
561	AND logic 1: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
562	AND logic 1: 8-bit output A	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
563	AND logic 1: 8-bit output B	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
564	AND logic 1: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
565	AND logic 2: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
566	AND logic 2: 8-bit output A	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
567	AND logic 2: 8-bit output B	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
568	AND logic 2: Block	Input	-WC-	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
569	AND logic 3: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
570	AND logic 3: 8-bit output A	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
571	AND logic 3: 8-bit output B	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
572	AND logic 3: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
573	AND logic 4: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
574	AND logic 4: 8-bit output A	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
575	AND logic 4: 8-bit output B	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
576	AND logic 4: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
577	OR logic 1: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
578	OR logic 1: 8-bit output A	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
579	OR logic 1: 8-bit output B	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
580	OR logic 1: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
581	OR logic 2: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
582	OR logic 2: 8-bit output A	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
583	OR logic 2: 8-bit output B	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
584	OR logic 2: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
585	OR logic 3: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
586	OR logic 3: 8-bit output A	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
587	OR logic 3: 8-bit output B	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
588	OR logic 3: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
589	OR logic 4: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
590	OR logic 4: 8-bit output A	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
591	OR logic 4: 8-bit output B	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
592	OR logic 4: Block	Input	-WC-	[1.1] DPT_Switch	1 bit

7. Parameter setting

7.1. Behaviour on power failure/ restoration of power

Behaviour following a failure of the bus power supply:

The device sends nothing.

Behaviour on bus restoration of power and following programming or reset:

The device sends all outputs according to their send behaviour set in the parameters with the delays established in the "General settings" parameter block. The "Software version" communications object is sent once after 5 seconds.

7.2. General settings

Set basic characteristics of data transfer.

Send delay after reset and programming for:	
Measured values, threshold values, switching output	5 s • ... • 2 h
Temperature controller outputs	5 s • 10 s • ... • 2 h
Switch interfaces and logic	5 s • 10 s • ... • 2 h
Maximum telegram rate	• 1 message per second • ... • 10 messages per second • ... • 20 messages per second

7.3. Temperature measured values

Activate the measured values that you want to use here. The **Temperature evaluation unit KNX T6-UN-B4** provides six measured values for temperature.

Use measured values 1/2/3/4/5/6	Yes • No

7.3.1. Measured value 1...6

Choose whether a **Malfunction object** should be transmitted.

Use malfunction object	Yes • No

Use **Offsets** to adjust the readings to be sent.

Offset in 0.1°C	-50…50; 0

The unit can calculate a **mixed value** from its own reading and an external value. Set the mixed value calculation if desired.

Use external measured value	Yes • No
Ext. Reading proportion of the total reading	5% • 10% • ... • 50% • ... • 100%
Send behaviour	• periodically • on change • on change and periodically
On change of *(if sent on change)*	0.1°C • ... • 0.5°C • ... • 5.0°C
Send cycle *(if sent periodically)*	5 s • ... • 2 h

Note: If an external portion is used, all of the following settings are related to the overall reading!

7.4. Threshold value

Activate the threshold values that you want to use here. The **Temperature evaluation unit KNX T6-UN-B4** provides six threshold values for temperature.

Use threshold values 1/2/3/4/5/6	Yes • No

7.4.1. Threshold values 1...6

Threshold value

Set the threshold values directly in the application program using parameters, or define them via the bus using a communications object.

Threshold value setpoint using parameter:

Set the threshold values and hysteresis directly.

Threshold value setpoint using	**Parameter** • Communications objects
Threshold value in 0.1°C	-300 ... 800; 200
Hysteresis of the threshold value in %	0 ... 50; 20

Threshold value setpoint using a communications object:

Beforehand, enter how the threshold value will be received from the bus. Basically, a new value can be received, or simply a command to increase or decrease.

During initial commissioning, a threshold value must be defined which will be valid until the 1st communication of a new threshold value. For units which have already been taken into service, the last communicated threshold value can be used. Basically, a temperature range is given in which the threshold value can be changed (object value limit).

A set threshold value will be retained until a new value or a change is transferred. The current value is saved in EEPROM, so that this is retained in the event of a power supply failure and will be available once the power supply is restored.

Threshold value setpoint using	Parameter • **Communications objects**
The last communicated value should be retained	• never • after restoration of power • after restoration of power and Programming
Start threshold value in 0.1°C valid till 1st communication	-300 ... 800; 200
Object value limit (min) in 0.1°C	-300...800
Object value limit (max) in 0.1°C	-300...800
Type of threshold change	Absolute value • Increase/decrease
Increment in 0.1 *(upon increase/decrease change)*	1...10000; 10
Hysteresis of the threshold value in %	0 ... 50; 20

Switching output

Set the behaviour of the switching output when a threshold value is exceeded/undercut. The output switching delay can be set using objects or directly as a parameter.

When the following conditions apply, the output is (TV = Threshold value)	• TV above = 1 | TV - Hyst. below = 0 • TV above = 0 | TV - Hyst. below = 1 • TV below = 1 |TV + hysteresis above = 0 • TV below = 0 |TV + hysteresis above = 1
Delays can be set via objects (in seconds)	No • Yes
Switching delay from 0 to 1 *(If delay is set via objects: valid until 1st communication)*	None • 1 s • 2 s • 5 s • 10 s • ... • 2 h
Switching delay from 1 to 0 *(If delay is set via objects: valid until 1st communication)*	None • 1 s • 2 s • 5 s • 10 s • ... • 2 h
Switching output sends	• on change • on change to 1 • on change to 0 • on change and periodically • on change to 1 and periodically • on change to 0 and periodically
Cycle *(is only sent if periodically is selected)*	5 s • 10 s • 30 s... • 2 h

Block

The switching output can be blocked using an object. Define specifications here for the behaviour of the output when blocked.

Use switching output block	No • Yes
Analysis of the blocking object	• At value 1: block | At value 0: release • At value 0: block | At value 1: release
Blocking object value before 1st communication	0 • 1
Behaviour of the switching output	
On block	• Do not send message • send 0 • send 1
On release (with 2 seconds release delay)	[Dependent on the "Switching output sends" setting]

The behaviour of the switching output on release is dependent on the value of the parameter "Switching output sends" (see "Switching output")

Switching output sends on change	• Do not send message • Send switching output status
Switching output sends on change to 1	• Do not send message if switching output = 1 ➔ send 1
Switching output sends on change to 0	• Do not send message if switching output = 0 ➔ send 0
Switching output sends on change and periodically	Send switching output status
Switching output sends on change to 1 and periodically	if switching output = 1 ➔ send 1
Switching output sends on change to 0 and periodically	if switching output = 0 ➔ send 0

7.5. Temperature control

Activate the regulators that you want to use here. The **Temperature evaluation unit KNX T6-UN-B4** provides six PI regulators for temperature.

Use regulator values 1/2/3/4/5/6	Yes • No

7.5.1. Control 1...6

For an adequate regulation of the indoor temperature, comfort, standby, eco and building protection modes may be used.
Comfort when present,
Standby during short absences,
Eco as a night-time mode and
Frost/heat protection (building protection) during longer absences.

The settings for the temperature control include the set point temperatures for the individual modes. Objects are used to determine which mode is to be selected. A change of mode may be triggered manually or automatically (e.g. by a timer, window contact).

The **mode** may be switched with two 8 bit objects of different priority. Objects
"... HVAC mode (Prio 2)" for switching in everyday operation and
"... HVAC mode (Prio 1)" for central switching with higher priority.
The objects are coded as follows:

ID	Name	Encoding	Range	Use
20,102	DPT_HVACMode	field1 = HVACMode 0 = Auto 1 = Comfort 2 = Standby 3 = Economy 4 = Building Protection	[0 ... 4]	HVAC

Alternatively, you can use three objects, with one object switching between eco and standby mode and the two others are used to activate comfort mode or frost/heat protection mode. The comfort object then blocks the eco/standby object, and frost/heat protection objects have the highest priority. Objects
"... Mode (1: Eco, 0: Standby)",
"... comfort activation mode" and
"... frost/heat protection activation mode"

Switch mode via	• two 8-bit objects (HVAC modes) • three 1-bit objects

Select the mode to be activated after reset (e.g. power failure, reset of the line via the bus). (Default).
Then configure a block of the temperature control by the blocking object.

Mode after reset	• Comfort • Standby • Eco • Building protection
Behaviour of the blocking object at value	• 1 = block | 0 = release • 0 = block | 1 = release
Blocking object value before 1st communication	0 • 1

Determine when the current settings of the controls are to be transmitted to the bus. Periodic transmission is safer if a message does not reach a recipient. You may also set up periodical monitoring by the actuator with this setting.

Send actuating variables	• on change • on change and periodically
cycle *for periodical transmission only*	5 s • ... • 5 min • ... • 2 h

The status object shows the current status of the output variable (0 = OFF, >0 = ON) and may, for example, be used for visualisations or to switch off the heating pump as soon as the heating is off.

Send status objects	• on change • on change to 1 • on change to 0 • on change and periodically • on change to 1 and periodically • on change to 0 and periodically
cycle *for periodical transmission only*	5 s • ... • 5 min • ... • 2 h

Then define the type of setting. Heating and/or cooling may be controlled in two levels.

Type of control	• One-stage heating • Dual-speed heating • Single-speed cooling • Single-speed heating + Single-speed cooling • Dual-speed heating + Single-speed cooling • Dual-speed heating + Dual-speed cooling

7.5.2. General set point values

You may enter separate set point values for each mode or use the comfort set point as a basic value.
If you are using the controls for both heating *and* cooling, you may also select the setting "separately with switching object". Systems used for cooling in the summer and for heating in the winter can thus be switched from one to the other.
If you are using the basic value, only the deviation from the comfort set point value is listed for the other modes (e. g., 2°C less for standby mode).

Setting the nominal values	• separate with switching object • separate without switching object • with comfort set point as a basis
Behaviour of the switching object at value *only if switching object is used*	• 0 = Heating | 1 = Cooling • 1 = Heating | 0 = Cooling
Switching object value before 1st communication *only if switching object is used*	0 • 1

The grades for the set point changes is predefined. Modifications may only remain active temporarily (do not save) or remain saved even after voltage recovery (and programming). This also applies to a comfort extension.

Grading for set point changes (in 0.1 °C)	1... 50; 10
Saving set point value(s) and comfort extension time	• not • after voltage recovery • after voltage recovery and programming (do not use for first start-up!)

The control may be manually reset to comfort mode from eco, or night mode. This allows the user to maintain the daily nominal value for a longer time, e.g. when having guests. The duration of this comfort extension period is set. After the comfort extension period is terminated, the system returns to eco mode.

Comfort extension time in seconds (can only be activated from eco mode)	1…36000; 3600

Set point Comfort

Comfort mode is usually used for daytime mode when people are present. A starting value is defined for the comfort set point as well as a temperature range in which the nominal value may be modified.

Initial heating/cooling set point (in 0.1 °C) valid till 1st communication *not upon saving the set point value after programming*	-300…800; 210
Min. object value heating/cooling (in 0.1 °C)	-300…800; 160
Max. object value heating/cooling (in 0.1 °C)	-300…800; 280

If the comfort set point is used as the basis, a dead zone is determined for the control mode "heating *and* cooling" to avoid direct switching from heating to cooling.

Dead zone between heating and cooling *only if both heating AND cooling are used.*	1…100; 50

Set point for standby

Standby mode is usually used for daytime mode when people are absent.

If set point values are entered separately:

A starting set point value is defined as well as a temperature range in which the nominal value may be modified.

Initial heating/cooling set point (in 0.1 °C) valid till 1st communication	-300…800; 210
Min. object value heating/cooling (in 0.1 °C)	-300…800; 160
Max. object value heating/cooling (in 0.1 °C)	-300…800; 280

If the comfort set point value is used as a basis:

If the comfort set point value is used as a basis, the deviation from this value is set.

Reduce nominal heating value (in 0.1°C) *for heating*	0…200; 30
Increase nominal cooling value\r\n (in 0.1°C) *for cooling*	0…200; 30

Eco set point

Eco mode is usually used for night mode.

If set point values are entered separately:

A starting set point value is defined as well as a temperature range in which the nominal value may be modified.

Initial heating/cooling set point (in 0.1 °C) valid till 1st communication	-300…800; 210
Min. object value heating/cooling (in 0.1 °C)	-300…800; 160
Max. object value heating/cooling (in 0.1 °C)	-300…800; 280

If the comfort set point value is used as a basis:

If the comfort set point value is used as a basis, the deviation from this value is set.

Reduce nominal heating value (in 0.1°C) *for heating*	0…200; 50
Increase nominal cooling value\r\n (in 0.1°C) *for cooling*	0…200; 60

Set point values for frost/heat protection (building protection)

The building protection mode is used during longer absences. Set points for frost protection (heating) and heat protection (cooling) are determined which may not be modified from outside (no access via operating devices etc.). The building protection mode may be activated with delay, which allows you to leave the building before the controls switch to frost/heat protection mode.

Nominal value frost protection\r\n (in 0,1°C)	-300…800; 70
Nominal value heat protection (in 0,1°C)	-300…800; 350
Activation delay	no • 5 s • ... • 5 min • ... • 2 h

General variables

This setting appears for the control types "Heating *and* Cooling" only. This is where you can decide whether to use a common variable for heating and cooling. If the 2nd level has a common variable, this is also where you determine the control mode of the 2nd level.

For heating and cooling	• separate variables are used • common variables are used for Level 1 • common variables are used for Level 2 • common variables are used for Level 1+2
Control type *only for level 2*	• 2-point control • PI control
Regulating variable of the 2nd Stage is on *only for level 2*	• 1-bit object • 8-bit object

7.5.3. Heating control level 1/2

If a heating control mode is configured, one or two setting sections for the heating levels are displayed.

On the 1st level, heating is controlled by a PI control which allows to either enter control parameters or select predetermined applications.

On the 2nd level (therefore only in case of a 2 level heating), heating is controlled via a PI or a 2-point-control.
On level 2, the set point deviation between the two levels must furthermore be determined, i. e. the lowest set point value from which the 2nd level is then added (when values exceed this set point).

Set point difference between levels 1 and 2 (in 0.1°C) *only for level 2*	0…100; 40
Control type *only for level 2 and if no common variables are used*	• 2-point control • PI control

PI control with control parameters:

This setting allows individual input of the parameters for PI control.

Control type	• **PI control**
Set control using	• **Controller parameter** • provided applications

Determine the deviation from the set point value which reaches maximum variable value, i. e. the point at which maximum heating power is activated.
The reset time shows how quickly the controls react to deviations from the set point value. In case of a short reset time, the controls react with a fast increase of the varia-

ble. In case of a long reset time, the controls react somewhat more gently and needs longer until the necessary variable for the set point deviation is reached.
You should set the time appropriate to the heating system at this point (note manufacturer instructions).

Maximum control variable is reached at set point/actual difference of (in °C)	0...5
Reset time (in min.)	1…255; 30

Now determine what should be transmitted when the control is blocked. Set a value greater 0 (=OFF) to receive a basic heating level, e.g. for floor heating.
Upon release, the control variable follows the rule again.

When blocked, the variable shall	• not be transmitted • send a specific value
Value (in %) *only if a value is transmitted*	0...100

In case of a common variable for heating and cooling, 0 is always transmitted as a fixed value.

PI control with predetermined application:

This setting provides fixed parameters for frequent applications.

Control type	• **PI control**
Set control using	• Controller parameter • **provided applications**
Application	• Warm water heating • Floor heating • Convection unit • Electric heating
Maximum control variable is reached at set point/actual difference of (in °C)	Warm water heating: 5 Floor heating: 5 Convection unit: 4 Electric heating: 4
Reset time (in min.)	Warm water heating: 150 Floor heating: 240 Convection unit: 90 Electric heating: 100

Now determine what should be transmitted when the control is blocked. Set a value greater 0 (=OFF) to receive a basic heating level, e.g. for floor heating.
Upon release, the control variable follows the rule again.

When blocked, the variable shall	• not be transmitted • send a specific value
Value (in %) *only if a value is transmitted*	0...100

In case of a common variable for heating and cooling, 0 is always transmitted as a fixed value.

2-point-rule (only level 2):

The 2-point-rule is used for systems which are only set to ON or OFF.

Control type *is determined at a higher level for common variables*	• **2-point control**

Enter the hysteresis that prevents frequent on/off switching of temperatures in the threshold range. Then determine whether a 1 bit object (on/off) or an 8 bit object (on with percentage/off) should be used.

Hysteresis (in 0.1°C)	0…100; 20
Actuating variable is a	• 1-bit object • 8-bit object
Value (in %) *only for 8 bit objects*	0...100

Now determine what should be transmitted when the control is blocked. Set a value greater 0 (=OFF) to receive a basic heating level, e.g. for floor heating.
Upon release, the control variable follows the rule again.

When blocked, the variable shall	• not be transmitted • send a specific value
Value (in %) *only if a value is transmitted*	0...100

7.5.4. Cooling control level 1/2

If a cooling control mode is configured, one or two setting sections for the cooling levels are displayed.

On the 1st level, cooling is controlled by a PI control which allows to either enter control parameters or select predetermined applications.

On the 2nd level (therefore only in case of a 2 level cooling), cooling is controlled via a PI or a 2-point-control.
On level 2, the set point deviation between the two levels must furthermore be determined, i. e. the highest set point value from which the 2nd level is then added (when values exceed this set point).

Set point difference between levels 1 and 2 (in 0.1°C) *only for level 2*	0…100; 40
Control type *only for level 2 and if no common variables are used*	• 2-point control • PI control

PI control with control parameters:

This setting allows individual input of the parameters for PI control.

Control type	• **PI control**

Set control using	• **Controller parameter** • provided applications

Determine the deviation from the set point value which reaches maximum variable value, i. e. the point at which maximum cooling power is activated.
The reset time shows how quickly the controls react to deviations from the set point value. In case of a short reset time, the controls react with a fast increase of the variable. In case of a long reset time, the controls react somewhat more gently and needs longer until the necessary variable for the set point deviation is reached.
You should set the time appropriate to the cooling system at this point (note manufacturer instructions).

Maximum control variable is reached at set point/actual difference of (in °C)	0...5
Reset time (in min.)	1...255; 30

Now determine what should be transmitted when the control is blocked.
Upon release, the control variable follows the rule again.

When blocked, the variable shall	• not be transmitted • send a specific value
Value (in %) *only if a value is transmitted*	0...100

In case of a common variable for heating and cooling, 0 is always transmitted as a fixed value.

PI control with predetermined application:

This setting provides fixed parameters for a cooling ceiling

Control type	• **PI control**
Set control using	• Controller parameter • **provided applications**
Application	• Cooling ceiling
Maximum control variable is reached at set point/actual difference of (in °C)	Cooling ceiling: 5
Reset time (in min.)	Cooling ceiling: 30

Now determine what should be transmitted when the control is blocked.
Upon release, the control variable follows the rule again.

When blocked, the variable shall	• not be transmitted • send a specific value
Value (in %) *only if a value is transmitted*	0...100

2-point-rule (only level 2):

The 2-point-rule is used for systems which are only set to ON or OFF.

Control type *is determined at a higher level for common variables*	• **2-point control**

Enter the hysteresis that prevents frequent on/off switching of temperatures in the threshold range. Then determine whether a 1 bit object (on/off) or an 8 bit object (on with percentage/off) should be used.

Hysteresis (in 0.1°C)	0…100; 20
Actuating variable is a	• 1-bit object • 8-bit object
Value (in %) *only for 8 bit objects*	0...100

Now determine what should be transmitted when the control is blocked.
Upon release, the control variable follows the rule again.

When blocked, the variable shall	• not be transmitted • send a specific value
Value (in %) *only if a value is transmitted*	0...100

In case of a common variable for heating and cooling, 0 is always transmitted as a fixed value.

7.6. Interfaces

Activate the interfaces (inputs) that you want to use here. The **Temperature evaluation unit KNX T6-UN-B4** provides four interfaces.

Use regulator values 1/2/3/4/5/6	Yes • No

7.6.1. Interface 1...4

The interface inputs can be configured as switches, drive controller, dimmer, for transmitting values and for the scenario recall. Alternatively a T-NTC sensor can be connected, so that further measured temperature values can be handed over to the bus.

Function	• Switch • Changeover switch • Shutter • Roller blind • Awning • Window • Dimmer • 8-bit encoder • 16-bit encoder • Scenario recall • Temperature sensor (NTC)

Input as switch:

If a button with switch function is assigned to the input, select the bus function "Switch" and specify which value is sent when pressing/releasing the button and when it will be sent.

Function	**Switch**
Command when pressing the button	• send 0 • send 1 • do not send telegram
Command when releasing the button	• send 0 • send 1 • do not send telegram
Send value	• no change • for change to 1 • for change to 0 • for change and cyclical • for change to 1 and cyclical • for change to 0 and cyclical
Cycle *(if sent cyclical)*	5 s • 10 s • 30 s • 1 min • 2 min • 5 min • 10 min • 20 min • 30 min • 1 h • 2 h

Input as changeover switch:

If a button with switch function is assigned to the input, select the bus function "Changeover Switch" and specify if the button should switch when pressed/released.

Function	**Changeover Switch**
Command when pressing the button	• Switching • do not send telegram
Command when releasing the button	• Switching • do not send telegram

Input to shutter, blinds, awning or window control:

If the input to the drive control is used via the bus, select the bus function "shutter", "awning", "blinds" or "window" and specify the button function and control mode.

Function	**Shutter / blinds / awning / window**	
Button function	Up • Down Up • Down • Up/ Down On • Off • On/Off Open • Closed • Open/Closed	(shutter) (blinds) (awning) (window)
Control mode*	• Standard • Standard inverted • Comfort mode • Dead man's switch	

A detailed description of the setting options for the individual control modes can be found in chapterControl modes for drive control, Seite 39.

Input as dimmer:

If the input is used as a dimmer, select the bus function "Dimmer" and specify the button function, time interval (switching/dimming) and if requested, the repeat interval for a long button press.

Function	**Dimmer**
Button function	brighter • darker • brighter/darker
Time between switching and dimming (in 0.1 s)	1...50; 5
Repeat the dimm command	no • yes
Repeat the dimm command for a long button press *(if dimm command is repeated)*	every 0.1 s • every 2 sec; every 0,5 sec
Dim by *(if dimm command is repeated)*	1,50% • 3% • 6 % • 12,50% • 25% • 50%

Input 8 bit encoder:

If the input is to be used as an 8bit encoder, select the "8 bit encoder" bus function and specify which value will be sent.

Function	**8 bit encoder**
Value	0...255

Input 16 bit encoder:

If the input is to be used as a 16bit encoder, select the "16 bit encoder" bus function and specify which value will be sent.

Function	**16 bit encoder**
Value in 0.1	-6707600...6707600; 0

Input for scenario control:

If scenarios are recalled and stored with the input, select the bus function "Recall scenario" and define the storage, time difference (recall/storage) and the scenario number.

Bus function	**Scenarios**
Scenario no.	0...127
Scenario function	• Activate • Activate and save
Press key for longer than (in 01 s) Scenario saving *(only when "and save" is selected)*	1...50

Input for temperature sensor T-NTC:

If a T-NTC temperature sensor is connected to the input, select the bus function "Temperature sensor (NTC)" and set the following parameters for the measured value.

Choose whether a **Malfunction object** should be transmitted.

Use malfunction object	Yes • <u>No</u>

Use **Offsets** to adjust the readings to be sent.

Offset in 0.1°C	-50…50; <u>0</u>

The unit can calculate a **mixed value** from its own reading and an external value. Set the mixed value calculation if desired.

Use external measured value	Yes • <u>No</u>
Ext. Reading proportion of the total reading	5% • 10% • ... • <u>50%</u> • ... • 100%
Send behaviour	• periodically • <u>on change</u> • on change and periodically
On change of *(if sent on change)*	0.1°C • ... • <u>0.5°C</u> • ... • 5.0°C
Send cycle *(if sent periodically)*	<u>5 s</u> • ... • 2 h

Note: If an external portion is used, all of the following settings are related to the overall reading!

7.6.2. Control modes for drive control

If inputs are being used as switches to operate shades or windows, then various control modes can be set.

Control mode	• Standard • Standard inverted • Comfort mode • Dead man's switch

Standard:

If briefly operated, the drive will move incrementally or stops. If operated longer, the drive will move up to the end position. The time difference between "short" and "long" is set individually.

Control mode	**Standard**
Behavior during button operation: short = stop/increment long = Up or Down	
Time between short and long in 0.1 seconds	1...50; <u>10</u>

Standard inverted:

When pushed shortly, the drive moves up to the end position. When pushed for longer, the drive moves incrementally or stops. The time difference between "short" and "long" and the repeat interval is set individually.

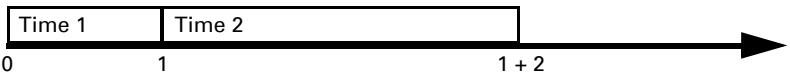
Control mode	**Standard inverted**
Behavior during button operation: short = Up or Down long = Stop/Step	
Time between short and long in 0.1 seconds	1...50; 10
Repeat the step command for a long button press	every 0.1 s • every 2 sec; every 0.5 sec

Comfort mode:

In the **comfort mode** actuating the button briefly, a bit longer and long will trigger different responses of the drive. The time intervals are set individually.

Short actuation (shorter than Time 1): The drive is positioned step-wise and stopped.
Holding it slightly longer (longer than Time 1, but shorter than Time 1+2): Drive running. Drive stops when the button is released.
Long holding (release after Time 1+2 runs out): Drive moves independently to the end position. The movement can be interrupted by a short tap.

Ill. 1
Time interval comfort mode diagram



Point in time 0:	*Actuate of button, start of time 1*
Release before time 1 expired:	*step (or stop if drive is moving)*
Point in time 1:	*End of time 1, start of time 2* *Moving command*
Release after time 1 expired *but before time 2 expires:*	*Stop*
Release after time 1 + 2 expired:	*Move into end position*

Control mode	**Comfort mode**
Behavior during button operation: Button is pushed and released before time 1 expired = stop/step held longer than time 1 = Up or Down released between time 1 and 1-2= stop released after time 1 +2 = no more stop	
Time 1	0.0s ... • 2 s; 0.4 s
Time 2	0 s • 2 s; 2 s

Dead man's switch:

The drive moves as soon as the button is actuated and stops as soon as the button is released.

Control mode	**Dead man's switch**
Behavior during button operation: Push button = Up or Down command Release button = Stop command	

7.7. Logic

Activate the logic inputs and assign object values up to 1st communication. Then, activate the required logic outputs.

Use logic inputs	No • **Yes**
Object value prior to 1. Communication for:	
Logic input 1... 16	0 • 1

AND logic

Logic 1 / 2 / 3 / 4	not active • active

OR logic

Logic 1 / 2 / 3 / 4	not active • active

7.7.1. AND and/or OR logic 1 / 2 / 3 / 4

AND- and OR logic gates provide the same setting options. Assign the inputs to a switching event and set the send behaviour.

1. / 2. / 3. / 4. Input	• do not use • all switching events which are available to the sensor (see *AND logic connection inputs*, Page 43)“)
Logic output sends	• one 1-bit object • two 8-bit objects

If the logic output sends one 1-bit object:

Logic output sends	**one 1 bit object**
if logic = 1 ➔ object value	1 • 0
if logic = 0 ➔ object value	0 • 1

If the logic output sends two 8-bit objects:

Logic output sends	**two 8 bit objects**
Type of objects	• Value (0 ... 255) • Percent (0% ... 100%) • Angle (0°... 360°) • Scenario load (0 ... 127)
If logic = 1 ➔ Object A value	Setting dependent on "type of object"
If logic = 0 ➔ Object A value	Setting dependent on "type of object"
If logic = 1 ➔ Object B value	Setting dependent on "type of object"
If logic = 0 ➔ Object B value	Setting dependent on "type of object"

Send behaviour	• on change of logic • on change of logic to 1 • on change of logic to 0 • on change of logic and periodically • on change of logic to 1 and periodically • on change of logic to 0 and periodically • on change of logic + receipt of object • on change of logic + receipt of object and periodically
Send cycle *(is only sent if periodically is selected)*	5 s • 10 s • 30 s • 1 min • ... • 2 h

Block

Logic outputs can also be blocked using objects.

Analysis of the blocking object	• at value 1: block | at value 0: release • at value 0: block | at value 1: release
Blocking object value before 1st communication	0 • 1
Behaviour of the switching output	
On block	• do not send message • send value for logic = 0 • send value for logic = 1

Behaviour on release of the switching output is dependent on send behaviour

Value of the parameter "Send behaviour":	Settings options "Behaviour of the switching output on release":
on change of logic	• do not send message • send value for current logic status
on change of logic to 1	• do not send message • if logic = 1 ➔ send value for 1
on change of logic to 0	• do not send message • if logic = 0 ➔ send value for 0
on change of logic and periodically	send value for current logic status (no selection)

on change of logic to 1 and periodically	if logic = 1 ➔ send value for 1 (no selection)
on change of logic to 0 and periodically	if logic = 0 ➔ send value for 0 (no selection)
on change of logic and receipt of object	• do not send message • Status object/s send/s
on change of logic and receipt of object and periodically	send value for current logic status (no selection)

7.7.2. AND logic connection inputs

Do not use
Logic input 1
Logic input 1 inverted
Logic input 2
Logic input 2 inverted
Logic input 3
Logic input 3 inverted
Logic input 4
Logic input 4 inverted
Logic input 5
Logic input 5 inverted
Logic input 6
Logic input 6 inverted
Logic input 7
Logic input 7 inverted
Logic input 8
Logic input 8 inverted
Logic input 9
Logic input 9 inverted
Logic input 10
Logic input 10 inverted
Logic input 11
Logic input 11 inverted
Logic input 12
Logic input 12 inverted
Logic input 13
Logic input 13 inverted
Logic input 14
Logic input 14 inverted
Logic input 15
Logic input 15 inverted
Logic input 16
Logic input 16 inverted

7.7.3. Connection inputs of the OR logic

The OR logic connection inputs correspond to those of the AND logic. In addition the following inputs are available for the OR logic:

Switching output AND logic 1
Switching output AND logic 1 inverted
Switching output AND logic 2
Switching output AND logic 2 inverted
Switching output AND logic 3
Switching output AND logic 3 inverted
Switching output AND logic 4
Switching output AND logic 4 inverted

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