Suntracer KNX sl

Weather Station

Item number 70154

elsner elektronik

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. Safety and operating instructions

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.

For information on maintenance, disposal, scope of delivery and technical data, please refer to the installation instructions.

2. Description

The **Weather Station Suntracer KNX sl** for the KNX building bus system measures temperature, wind speed, brightness and air pressure. It recognises precipitation and receives the GPS signal for time and location. In addition, using location coordinates and the time, it calculates the exact position of the sun (azimuth and elevation).

All values can be used for the control of limit dependent switching outputs. States can be linked via AND logic gates and OR logic gates. Multi-function modules change input data as required by means of calculations, querying a condition, or converting the data point type.
The integrated shade control system allows intelligent sun protection control of up to 8 façades.

The compact housing of the **Suntracer KNX sl** accommodates the sensors, evaluation circuits and bus-coupling electronics.

Functions:

- **Brightness measurement** (current light strength)

- **GPS receiver**, outputting the current time and location coordinates. The **Weather Station Suntracer KNX sl** also computes the position of the sun (azimuth and elevation)
- **Shade control** for up to 8 façades with slat tracking and shadow edge tracking
- **Wind measurement**: The wind strength is measured electronically and thus noiselessly and reliably, even during hail, snow and sub-zero temperatures. Even turbulent air and rising winds in the vicinity of the device are recorded
- **Wind sensor monitoring**: If the wind measurement value changes by less than ± 0.5 m/s within 48 hours, the maximum measurement value of 35 m/s is output as a fault message. All wind alarms with a limit value below 35 m/s become active as a result
- **Precipitation detection**: The sensor surface is heated, so that only drops and flakes are recognised as precipitation, but not mist or dew. When the rain or snow stops, the sensor is soon dry again and the precipitation warning ends
- **Temperature measurement**
- Frost protection for shading systems
- **Air pressure measurement**
- **Weekly and calendar time switch**: All time switching outputs can be used as communication objects.
  The **weekly time switch** has 24 periods. Each period can be configured either as an output or as an input. If the period is an output, then the switching time is set per parameter or per communication object.
  The **calendar time switch** has 4 periods. Two on/off switching operations, which are executed daily, can be set for each period
- **Switching outputs** for all measured and computed values. Threshold values can be adjusted per parameter or via communication objects
- **8 AND and 8 OR logic gates**, each with 4 inputs. All switching events as well as 16 logic inputs (in the form of communications 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
- **8 multi-function modules** (computers) for changing the input data by calculations, by querying a condition or by converting the data point type
- **Summer compensation** for cooling systems. A characteristic curve matches the target temperature in the room to the external temperature and sets the minimum and maximum target temperature values.

3. Installation and start-up

3.1. Installation location

Select an installation position on the building where the sensors can measure wind, rain and sunshine without hindrance. No structural elements should be mounted above the weather station, from which water could continue to drop on the precipitation sensor even after it has stopped raining or snowing. The weather station should not be shaded by structures or, for example, trees.

At least 60 cm of clearance must be left around the device. This facilitates correct wind speed measurement without eddies. At the same time, this prevents spray (raindrops hitting the device) or snow (snow penetration) from impairing the measurement. The wind sensor must not come into contact with water. The distance also prevents birds from biting the sensor.

The mounting position must be selected so that the sensors for rain and wind cannot be touched by persons.

Please ensure that the extended awning does not cast shade on the device, and does not protect the device against wind.

Temperature measurements can also be distorted by external influences such as warming or cooling of the building structure on which the sensor is mounted. 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).

Magnetic fields, transmitters and interference fields from electrical consumers (e.g. fluorescent lamps, neon signs, switch mode power supplies etc.) can block or interfere with the reception of the GPS signal.

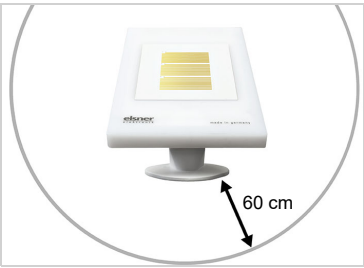


Fig. 1
There must be at least 60 cm clearance to other elements (structures, construction parts, etc.) below, to the sides and in front of the device.

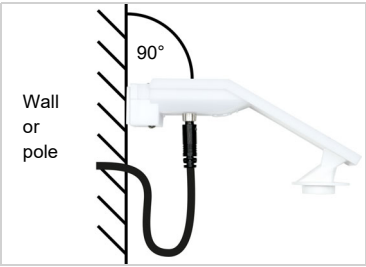


Fig. 2
The device must be attached to a vertical wall (or a pole).

Place the supply line in a loop before leading it into the wall or junction box. This will allow rain to drip off and not drain into the wall or box.

Fig. 3
The device must be mounted in the horizontal (transverse) direction.

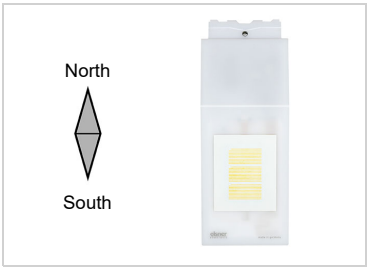


Fig. 4
For installation in the northern hemisphere, the device must be aligned to face south.

For installation in the southern hemisphere, the device must be aligned to face north.

3.2. Position of the sensors

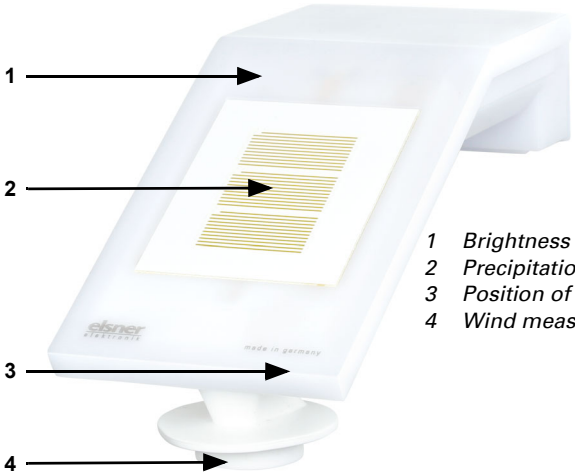


Fig. 5

1 Brightness sensor
2 Precipitation sensor (area with tracks)
3 Position of temperature sensor
4 Wind measuring element

ATTENTION!
Sensitive wind sensor.
- Remove the protective transport sticker after installation.
- Do not touch the sensor on the wind measuring element (on bottom, recessed).

3.2.1. Measurement direction of the brightness sensor

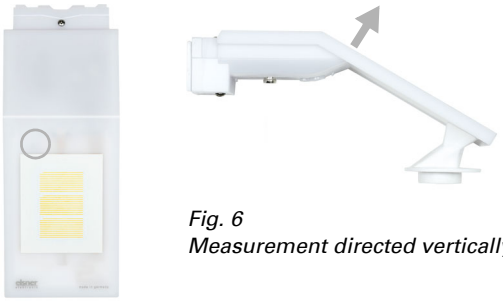


Fig. 6
Measurement directed vertically to the device surface

3.3. Installing the weather station

3.3.1. Attach mount

First, assemble the mount for wall/pole mounting. Release the screw joint of the mount with a cross-headed screwdriver.

Wall installation

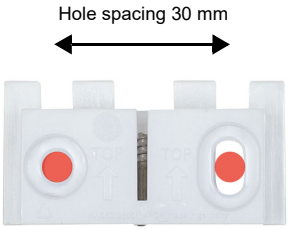


Fig. 7 Front view

Use two screws to attach the mount to the wall. Use the fastening material (dowels, screws) that is suitable for the base.

Make sure that the arrows are pointing upward.

Pole installation

The device is installed on the pole with the enclosed clamp.

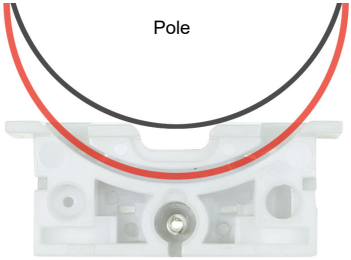


Fig. 8 Bottom view

Insert the clamp in the mount through the recess. Tighten the clamp on the pole.

Make sure that the arrows are pointing upward.

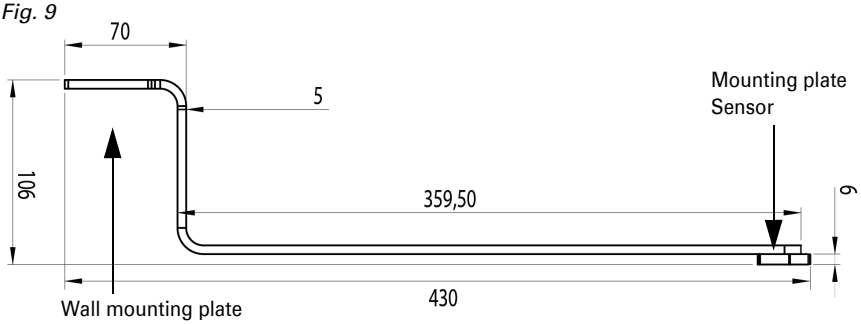
3.3.2. Assembly with Mounting Arm Fix

With the Mounting Arm Fix, the weather station can be flexibly mounted on the wall.

Only use suitable fixing material (screws, dowels) to fix the wall installation plate and make sure that the subsurface is stable.

Dimensions Fix:

Fig. 9



Wall mounting plate Fix:

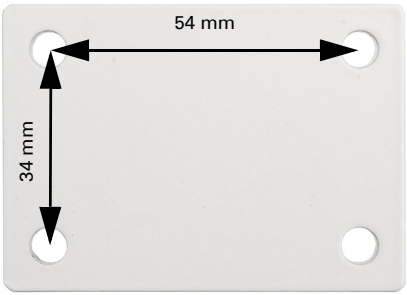


Fig. 10
Hole diameter 6.2 mm

Affix sensor mounting plate:

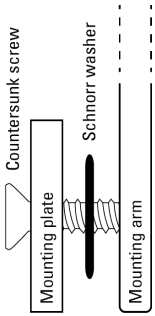
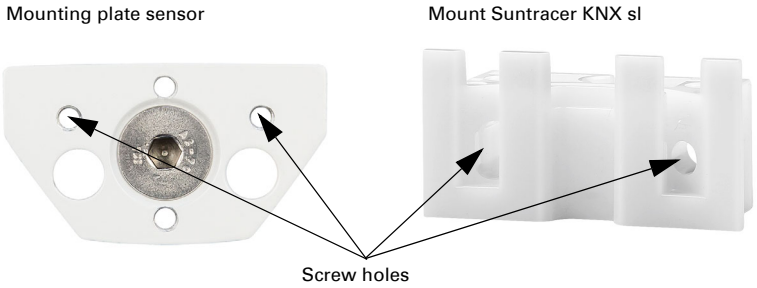


Fig. 11
(Schema sequence screw fastening)

Screw the sensor mounting plate onto the boom with the countersunk screw DIN 7991 M8x10. Place the Schnorr tooth lock washers between the mounting plate and the boom

Fig. 12
For mounting use the cylinder head screws DIN 912 M4x25 and place the DIN 125 washers under the screw heads.

Fig. 13



Installation examples:

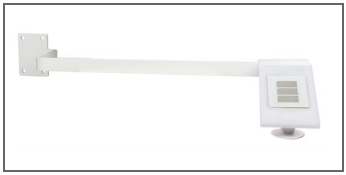
Fig. 14

Sensor offset upwards.

Fig. 15

Sensor offset downwards.

Fig. 16



Sensor offset to the right (or the left).

3.3.3. Attaching and connecting the device

Fig. 17

1. Slide the device onto the mounting from above.
2. Tighten the screw of the mount to secure the device.
3. Screw the M8 connectors of the connection cable onto the connection socket on the bottom side of the device.

Connect the loose end of the connection cable to KNX bus and auxiliary voltage. Use the connection sockets and clips included for this purpose.

KNX bus:	*Auxiliary votage:*
+ red *- black*	*+ yellow* *- white*

Fig. 18
After installation, remove the protective sticker on the wind sensor and the "distance" sticker on the top of the cover.

3.4. Instructions for assembly and initial start-up

The wind measurement value and thus also all wind switching outputs cannot be output until 35 seconds after the power is turned on.

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.

After the bus voltage has been applied, the device will enter an initialisation phase lasting approx. 4 seconds. During this phase no information can be received or sent via the bus.

4. Addressing the equipment

The equipment is delivered ex works with the bus address 15.15.255. You program a different address in the ETS by overwriting the address 15.15.255 or teach the device using the programming button.

The programming button can be reached through the opening on the underside of the housing; it is recessed by approx. 15 mm. Use a thin object to reach the key, e. g. a 1.5 mm² wire.

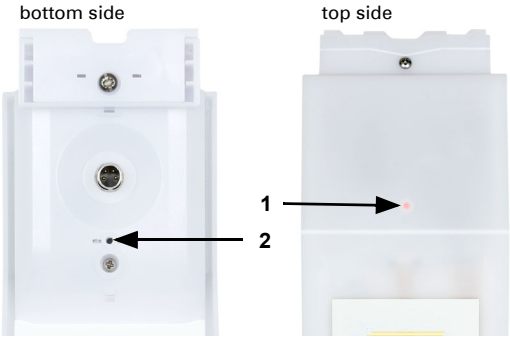


Fig. 19
1 Programming LED (under the semi-transparent lid)
2 Programming button for teaching the device

5. Transfer protocol

Units:

Temperatures in degrees Celsius
Brightness in Lux
Wind in metres per second
Air pressure in Pascal
Azimuth and elevation in degrees

5.1. List of all communications objects

Abbreviation flags:

C Communication
R Read
W Write
T Transmit
U Update

No.	Text	Function	Flags	DPT type	Size
1	Software version	Output	R-CT	[217.1] DPT_Version	2 bytes
24	GPS malfunction (0 : OK | 1: NOK)	Output	R-CT	[1.2] DPT_Bool	1 bit
25	Date / time	Output	RWCT	[19.1] DPT_DateTime	8 bytes
26	Date	Output	RWCT	[11.1] DPT_Date	3 bytes
27	Time	Output	RWCT	[10.1] DPT_TimeOfDay	3 bytes
28	Date and time query	Input	-WC-	[1.017] DPT_Trigger	1 bit
30	Location: Northern latitude [°]	Output	R-CT	[14.7] DPT_Value_AngleDeg	4 bytes
31	Location: Eastern longitude [°]	Output	R-CT	[14.7] DPT_Value_AngleDeg	4 bytes
34	Rain: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
35	Rain: Switching output with fixed delays	Output	R-CT	[1.1] DPT_Switch	1 bit
36	Rain: Switching delay to rain	Input	-WC-	[7,005] DPT_TimePeriodSec	2 bytes
37	Rain: Switching delay to no rain	Input	-WC-	[7,005] DPT_TimePeriodSec	2 bytes
41	Temperature sensor: Malfunction	Output	R-CT	[1.1] DPT_Switch	1 bit
42	Temperature sensor: External measurement	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
43	Temperature sensor: Measurement value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
44	Temperature sensor: Total measurement	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
45	Temperature sensor: Min./Max. measurement query	Input	-WC-	[1.017] DPT_Trigger	1 bit
46	Temperature sensor: Minimum measurement	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes

No.	Text	Function	Flags	DPT type	Size
47	Temperature sensor: Maximum measurement	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
48	Temperature sensor: Min./Max. measurement reset	Input	-WC-	[1.017] DPT_Trigger	1 bit
51	Temp. threshold value 1: Absolute value	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
52	Temp. threshold value 1: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
53	Temp. threshold value 1: Switching delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriodSec	2 bytes
54	Temp. threshold value 1: Switching delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriodSec	2 bytes
55	Temp. threshold value 1: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
56	Temp. threshold value 1: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
58	Temp. threshold value 2: Absolute value	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
59	Temp. threshold value 2: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
60	Temp. threshold value 2: Switching delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriodSec	2 bytes
61	Temp. threshold value 2: Switching delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriodSec	2 bytes
62	Temp. threshold value 2: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
63	Temp. threshold value 2: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
65	Temp. threshold value 3: Absolute value	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
66	Temp. threshold value 3: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
67	Temp. threshold value 3: Switching delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriodSec	2 bytes
68	Temp. threshold value 3: Switching delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriodSec	2 bytes
69	Temp. threshold value 3: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
70	Temp. threshold value 3: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
72	Temp. threshold value 4: Absolute value	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
73	Temp. threshold value 4: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
74	Temp. threshold value 4: Switching delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriodSec	2 bytes
75	Temp. threshold value 4: Switching delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriodSec	2 bytes
76	Temp. threshold value 4: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
77	Temp. threshold value 4: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
81	Frost alarm	Output	R-CT	[1.1] DPT_Switch	1 bit
95	Brightness sensor measurement	Output	R-CT	[9.4] DPT_Value_Lux	2 bytes
101	Brightness sensor threshold value 1: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
102	Brightness sensor threshold value 1: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
103	Brightness sensor threshold value 1: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
104	Brightness sensor threshold value 1: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
105	Brightness sensor threshold value 1: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
106	Brightness sensor threshold value 1: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
108	Brightness sensor threshold value 2: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
109	Brightness sensor threshold value 2: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
110	Brightness sensor threshold value 2: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
111	Brightness sensor threshold value 2: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
112	Brightness sensor threshold value 2: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
113	Brightness sensor threshold value 2: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
115	Brightness sensor threshold value 3: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
116	Brightness sensor threshold value 3: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
117	Brightness sensor threshold value 3: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
118	Brightness sensor threshold value 3: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
119	Brightness sensor threshold value 3: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
120	Brightness sensor threshold value 3: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
122	Brightness sensor threshold value 4: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
123	Brightness sensor threshold value 4: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
124	Brightness sensor threshold value 4: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
125	Brightness sensor threshold value 4: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
126	Brightness sensor threshold value 4: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
127	Brightness sensor threshold value 4: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
129	Brightness sensor 2 threshold value 1: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
130	Brightness sensor 2 threshold value 1: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
131	Brightness sensor 2 threshold value 1: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
132	Brightness sensor 2 threshold value 1: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
133	Brightness sensor 2 threshold value 1: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
134	Brightness sensor 2 threshold value 1: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
136	Brightness sensor 2 threshold value 2: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
137	Brightness sensor 2 threshold value 2: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
138	Brightness sensor 2 threshold value 2: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
139	Brightness sensor 2 threshold value 2: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
140	Brightness sensor 2 threshold value 2: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
141	Brightness sensor 2 threshold value 2: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
143	Brightness sensor 2 threshold value 3: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
144	Brightness sensor 2 threshold value 3: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
145	Brightness sensor 2 threshold value 3: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
146	Brightness sensor 2 threshold value 3: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
147	Brightness sensor 2 threshold value 3: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
148	Brightness sensor 2 threshold value 3: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
150	Brightness sensor 2 threshold value 4: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
151	Brightness sensor 2 threshold value 4: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
152	Brightness sensor 2 threshold value 4: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
153	Brightness sensor 2 threshold value 4: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
154	Brightness sensor 2 threshold value 4: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
155	Brightness sensor 2 threshold value 4: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
157	Brightness sensor 3 threshold value 1: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
158	Brightness sensor 3 threshold value 1: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
159	Brightness sensor 3 threshold value 1: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
160	Brightness sensor 3 threshold value 1: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
161	Brightness sensor 3 threshold value 1: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
162	Brightness sensor 3 threshold value 1: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
164	Brightness sensor 3 threshold value 2: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
165	Brightness sensor 3 threshold value 2: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
166	Brightness sensor 3 threshold value 2: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
167	Brightness sensor 3 threshold value 2: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
168	Brightness sensor 3 threshold value 2: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
169	Brightness sensor 3 threshold value 2: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
171	Brightness sensor 3 threshold value 3: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
172	Brightness sensor 3 threshold value 3: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
173	Brightness sensor 3 threshold value 3: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
174	Brightness sensor 3 threshold value 3: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
175	Brightness sensor 3 threshold value 3: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
176	Brightness sensor 3 threshold value 3: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
178	Brightness sensor 3 threshold value 4: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
179	Brightness sensor 3 threshold value 4: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
180	Brightness sensor 3 threshold value 4: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
181	Brightness sensor 3 threshold value 4: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
182	Brightness sensor 3 threshold value 4: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
183	Brightness sensor 3 threshold value 4: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
185	Total brightness threshold value 1: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
186	Total brightness threshold value 1: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
187	Total brightness threshold value 1: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
188	Total brightness threshold value 1: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
189	Total brightness threshold value 1: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
190	Total brightness threshold value 1: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
192	Total brightness threshold value 2: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
193	Total brightness threshold value 2: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
194	Total brightness threshold value 2: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
195	Total brightness threshold value 2: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
196	Total brightness threshold value 2: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
197	Total brightness threshold value 2: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
199	Total brightness threshold value 3: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
200	Total brightness threshold value 3: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
201	Total brightness threshold value 3: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
202	Total brightness threshold value 3: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
203	Total brightness threshold value 3: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
204	Total brightness threshold value 3: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
206	Total brightness threshold value 4: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
207	Total brightness threshold value 4: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
208	Total brightness threshold value 4: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
209	Total brightness threshold value 4: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
210	Total brightness threshold value 4: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
211	Total brightness threshold value 4: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
213	Twilight brightness threshold value 1: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
214	Twilight brightness threshold value 1: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
215	Twilight brightness threshold 1: delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
216	Twilight brightness threshold 1: delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
217	Twilight brightness threshold value 1: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
218	Twilight brightness threshold value 1: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
220	Twilight brightness threshold value 2: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
221	Twilight brightness threshold value 2: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
222	Twilight brightness threshold 2: delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
223	Twilight brightness threshold 2: delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
224	Twilight brightness threshold value 2: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
225	Twilight brightness threshold value 2: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
227	Twilight brightness threshold value 3: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
228	Twilight brightness threshold value 3: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
229	Twilight brightness threshold 3: delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
230	Twilight brightness threshold 3: delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
231	Twilight brightness threshold value 3: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
232	Twilight brightness threshold value 3: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
234	Twilight brightness threshold value 4: Absolute value	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
235	Twilight brightness threshold value 4: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
236	Twilight brightness threshold 4: delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
237	Twilight brightness threshold 4: delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
238	Twilight brightness threshold value 4: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
239	Twilight brightness threshold value 4: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
251	Night: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
252	Night: Switching delay on night	Input	-WC-	[7,005] DPT_TimePeriodSec	2 bytes
253	Night: Switching delay on day	Input	-WC-	[7,005] DPT_TimePeriodSec	2 bytes
261	Sun position: Azimuth	Output	R-CT	[14.7] DPT_Value_AngleDeg	4 bytes
262	Sun position: Elevation	Output	R-CT	[14.7] DPT_Value_AngleDeg	4 bytes
263	Sun position: Azimuth	Output	R-CT	[9] 9.xxx	2 bytes
264	Sun position: Elevation	Output	R-CT	[9] 9.xxx	2 bytes
271	Wind sensor: Malfunction	Output	R-CT	[1.1] DPT_Switch	1 bit
272	Wind sensor: Measurement [m/s]	Output	R-CT	[9.5] DPT_Value_Wsp	2 bytes
273	Wind sensor: Measurement [Beaufort]	Output	R-CT	[20.014] DPT_Beaufort_Wind_Force_Scale	1 byte
274	Wind sensor: Max. query measurement	Input	-WC-	[1.017] DPT_Trigger	1 bit
275	Wind sensor: Maximum measurement [m/s]	Output	R-CT	[9.5] DPT_Value_Wsp	2 bytes
276	Wind sensor: Maximum measurement [Beaufort]	Output	R-CT	[20.014] DPT_Beaufort_Wind_Force_Scale	1 byte
277	Wind sensor: Max. reset measurement	Input	-WC-	[1.017] DPT_Trigger	1 bit
281	Wind threshold value 1: Absolute value	Input/ Output	RWCT	[9.5] DPT_Value_Wsp	2 bytes
282	Wind threshold value 1: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
283	Wind threshold value 1: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriodSec	2 bytes
284	Wind threshold value 1: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriodSec	2 bytes
285	Wind threshold value 1: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
286	Wind threshold value 1: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
287	Wind threshold value 2: Absolute value	Input/ Output	RWCT	[9.5] DPT_Value_Wsp	2 bytes
288	Wind threshold value 2: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
289	Wind threshold value 2: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriodSec	2 bytes
290	Wind threshold value 2: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriodSec	2 bytes
291	Wind threshold value 2: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
292	Wind threshold value 2: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
293	Wind threshold value 3: Absolute value	Input/ Output	RWCT	[9.5] DPT_Value_Wsp	2 bytes
294	Wind threshold value 3: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
295	Wind threshold value 3: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
296	Wind threshold value 3: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
297	Wind threshold value 3: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
298	Wind threshold value 3: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
299	Wind threshold value 4: Absolute value	Input/ Output	RWCT	[9.5] DPT_Value_Wsp	2 bytes
300	Wind threshold value 4: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
301	Wind threshold value 4: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
302	Wind threshold value 4: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
303	Wind threshold value 4: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
304	Wind threshold value 4: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
401	Sensor air pressure: Malfunction	Output	R-CT	[1.1] DPT_Switch	1 bit
402	Sensor air pressure: Normal measurement [Pa]	Output	R-CT	[14.58] DPT_Value_-Pressure	4 bytes
403	Sensor air pressure: Barometric measurement [Pa]	Output	R-CT	[14.58] DPT_Value_-Pressure	4 bytes
404	Sensor air pressure: Min./Max. measurement query	Input	-WC-	[1.017] DPT_Trigger	1 bit
405	Sensor air pressure: Min. normal measurement [Pa]	Output	R-CT	[14.58] DPT_Value_-Pressure	4 bytes
406	Sensor air pressure: Min. barometric measurement [Pa]	Output	R-CT	[14.58] DPT_Value_-Pressure	4 bytes
407	Sensor air pressure: Max. normal measurement [Pa]	Output	R-CT	[14.58] DPT_Value_-Pressure	4 bytes
408	Sensor air pressure: Max. barometric measurement [Pa]	Output	R-CT	[14.58] DPT_Value_-Pressure	4 bytes
409	Sensor air pressure: Min./Max. measurement reset	Input	-WC-	[1.017] DPT_Trigger	1 bit
410	Sensor air pressure: Pressure range text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
411	Air pressure threshold value 1: Absolute value	Input/ Output	RWCT	[14.58] DPT_Value_-Pressure	4 bytes
412	Air pressure threshold value 1: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
413	Air pressure threshold value 1: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
414	Air pressure threshold value 1: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes

No.	Text	Function	Flags	DPT type	Size
415	Air pressure threshold value 1: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
416	Air pressure threshold value 1: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
417	Air pressure threshold value 2: Absolute value	Input/ Output	RWCT	[14.58] DPT_Value_-Pressure	4 bytes
418	Air pressure threshold value 2: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
419	Air pressure threshold value 2: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
420	Air pressure threshold value 2: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
421	Air pressure threshold value 2: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
422	Air pressure threshold value 2: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
423	Air pressure threshold value 3: Absolute value	Input/ Output	RWCT	[14.58] DPT_Value_-Pressure	4 bytes
424	Air pressure threshold value 3: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
425	Air pressure threshold value 3: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
426	Air pressure threshold value 3: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
427	Air pressure threshold value 3: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
428	Air pressure threshold value 3: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
429	Air pressure threshold value 4: Absolute value	Input/ Output	RWCT	[14.58] DPT_Value_-Pressure	4 bytes
430	Air pressure threshold value 4: (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
431	Air pressure threshold value 4: Delay from 0 to 1	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
432	Air pressure threshold value 4: Delay from 1 to 0	Input	-WC-	[7.5] DPT_TimePeriod-Sec	2 bytes
433	Air pressure threshold value 4: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
434	Air pressure threshold value 4: Switching output block	Input	-WC-	[1.1] DPT_Switch	1 bit
515	Summer Compensation: Outdoor temperature	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
516	Summer Compensation: Target value	Output	R-CT	[9.1] DPT_Value_Temp	2 bytes
517	Summer Compensation: Block (1 = Blocking)	Input	-WC-	[1.1] DPT_Switch	1 bit
539	Façade Wind measurement 1 in m/s	Input	-WCT	[9.5] DPT_Value_Wsp	2 bytes
540	Façade Wind measurement 2 in m/s	Input	-WCT	[9.5] DPT_Value_Wsp	2 bytes
541	Façade Wind measurement 3 in m/s	Input	-WCT	[9.5] DPT_Value_Wsp	2 bytes

No.	Text	Function	Flags	DPT type	Size
542	Façade Wind measurement 4 in m/s	Input	-WCT	[9.5] DPT_Value_Wsp	2 bytes
543	Façade Wind measurement 5 in m/s	Input	-WCT	[9.5] DPT_Value_Wsp	2 bytes
544	Façade Wind measurement 6 in m/s	Input	-WCT	[9.5] DPT_Value_Wsp	2 bytes
545	Façade Wind measurement 7 in m/s	Input	-WCT	[9.5] DPT_Value_Wsp	2 bytes
546	Façade Wind measurement 8 in m/s	Input	-WCT	[9.5] DPT_Value_Wsp	2 bytes
547	Façade Wind automation blocking duration in min.	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
548	Façade Wind automation blocking duration in min. (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
549	Façade Rain (1: Rain | 0: no rain)	Input	-WCT	[1.1] DPT_Switch	1 bit
550	Façade Rain automation Delay in minutes	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
551	Façade Rain automation Delay in minutes (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
552	Façade Brightness in Lux	Input	-WCT	[9.4] DPT_Value_Lux	2 bytes
553	Façade Twilight threshold value in kLux	Input/ Output	RWCT	[9.4] DPT_Value_Lux	2 bytes
554	Façade Twilight threshold value in Lux (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
555	Façade Outside temperature (°C)	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
556	Façade Heat protection threshold value in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
557	Façade Frost alarm threshold value in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
558	Façade Frost alarm start temperature in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
559	Façade Frost alarm start temperature in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
560	Façade Frost alarm start delay in hours	Input/ Output	RWCT	[7.006] DPT_TimePeriodHrs	2 bytes
561	Façade Frost alarm start temperature in hours (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
562	Façade Frost alarm stop temperature in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
563	Façade Frost alarm stop temperature in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
564	Façade Frost alarm stop delay in hours	Input/ Output	RWCT	[7.006] DPT_TimePeriodHrs	2 bytes
565	Façade Frost alarm stop delay in hours (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
566	Façade Pyranometer in W/m²	Input	-WCT	[9.022]DPT_PowerDensity	2 bytes
567	Façade Pyranometer in W/m²	Input	-WCT	[14.5] DPT_Value_Amplitude	4 bytes
568	Façade X channel status output (1: activate)	Input	RWC-	[1.1] DPT_Switch	1 bit
569	Façade X channel name	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes

No.	Text	Function	Flags	DPT type	Size
570	Façade X channel (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
571	Façade X channel state text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
572	Façade X channel status bit text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
573	Façade X channel status bit state	Output	R-CT	[1.1] DPT_Switch	1 bit
574	Façade X channel delay	Output	R-CT	[7,005] DPT_TimePeriodSec	2 bytes
575	Façade X channel status bit selection (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
576	Façade Wind simulation in m/s	Input	RWC-	[9.5] DPT_Value_Wsp	2 bytes
577	Façade Wind extension blocking simulation (1: active)	Input	RWC-	[1.1] DPT_Switch	1 bit
578	Façade Wind alarm simulation (1: active)	Input	RWC-	[1.1] DPT_Switch	1 bit
579	Façade Rain simulation (1: active)	Input	RWC-	[1.1] DPT_Switch	1 bit
580	Façade External temperature in °C simulation	Input	RWC-	[9.1] DPT_Value_Temp	2 bytes
581	Façade Internal temperature in °C simulation	Input	RWC-	[9.1] DPT_Value_Temp	2 bytes
582	Façade Brightness in Lux simulation	Input	RWC-	[9.4] DPT_Value_Lux	2 bytes
583	Façade Sun intensity simulation in watts/m²	Input	RWC-	[9.022]DPT_PowerDensity	2 bytes
584	Façade Date simulation	Input	RWC-	[11.1] DPT_Date	3 bytes
585	Façade Time simulation	Input	RWC-	[10.1] DPT_TimeOfDay	3 bytes
586	Façade Sun direction simulation in °, with date & time	Output	R-CT	[14.7] DPT_Value_AngleDeg	4 bytes
587	Façade Sun height simulation in °, with date & time	Output	R-CT	[14.7] DPT_Value_AngleDeg	4 bytes
588	Façade Sun direction simulation in °	Input	RWC-	[14.7] DPT_Value_AngleDeg	4 bytes
589	Façade Sun height simulation in °	Input	RWC-	[14.7] DPT_Value_AngleDeg	4 bytes
590	Façade Reset simulation (1: reset)	Input	-WC-	[1.015]DPT_Reset	1 bit
591	Façade Sun angle mode simulation (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
592	Façade 1 simulation (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
593	Façade 1 block	Input	RWC-	[1.1] DPT_Switch	1 bit
594	Façade 1 safety (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
595	Façade 1 wind extension block (1: On | 0: Off)	Input	-WC-	[1.1] DPT_Switch	1 bit
596	Façade 1 wind extension block threshold value in m/s	Input	RWCT	[9.5] DPT_Value_Wsp	2 bytes
597	Façade 1 wind extension block threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
598	Façade 1 wind extension block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
599	Façade 1 wind alarm (1: On | 0: Off)	Input	-WC-	[1.1] DPT_Switch	1 bit
600	Façade 1 wind alarm threshold value in m/s	Input	RWCT	[9.5] DPT_Value_Wsp	2 bytes
601	Façade 1 wind alarm threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
602	Façade 1 wind alarm status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
603	Façade 1 frost alarm status (1: On | 0: Off)	Output	RWCT	[1.1] DPT_Switch	1 bit
604	Façade 1 rain automation release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
605	Façade 1 rain alarm status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
606	Façade 1 timed opening release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
607	Façade 1 timed opening status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
608	Façade 1 external temperature Blocking release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
609	Façade 1 external temperature Block in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
610	Façade 1 external temperature Block in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
611	Façade 1 external temperature Block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
612	Façade 1 timed closure release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
613	Façade 1 timed closure status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
614	Façade 1 night closure release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
615	Façade 1 night closure status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
616	Façade 1 heating protection release/ block	Input	RWC-	[1.1] DPT_Switch	1 bit
617	Façade 1 heating protection status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
618	Façade 1 pyranometer release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
619	Façade 1 pyranometer in W/m²	Input/ Output	RWCT	[9.022]DPT_PowerDensity	2 bytes
620	Façade 1 pyranometer in W/m² (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
621	Façade 1 pyranometer status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
622	Façade 1 internal temperature in °C	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
623	Façade 1 internal temperature block release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
624	Façade 1 indoor temp. Block in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
625	Façade 1 indoor temp. Block in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
626	Façade 1 indoor temp. Block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
627	Façade 1 sun automation Release/ block	Input	RWC-	[1.1] DPT_Switch	1 bit
628	Façade 1 sun automation Azimuth from (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
629	Façade 1 sun automation Azimuth from (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
630	Façade 1 sun automation Azimuth up to (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
631	Façade 1 sun automation Azimuth up to (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
632	Façade 1 sun automation Elevation from (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
633	Façade 1 sun automation Elevation from (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
634	Façade 1 sun automation Elevation up to (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
635	Façade 1 sun automation Elevation up to (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
636	Façade 1 sun automation AziEle status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
637	Façade 1 sun automation Brightness measurement in Lux	Input	-WCT	[9.4] DPT_Value_Lux	2 bytes
638	Façade 1 sun automation Brightness threshold value in Lux	Input	RWCT	[9.4] DPT_Value_Lux	2 bytes
639	Façade 1 sun automation Brightness threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
640	Façade 1 sun automation Brightness Short status (1: On)	Output	R-CT	[1.1] DPT_Switch	1 bit
641	Façade 1 sun automation Brightness Long status (1: On)	Output	R-CT	[1.1] DPT_Switch	1 bit
642	Façade 1 extension delay in min.	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
643	Façade 1 extension delay in min. (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
644	Façade 1 short delay in seconds	Input/ Output	RWCT	[7.005] DPT_TimePeriodSec	2 bytes
645	Façade 1 short delay in seconds (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
646	Façade 1 retraction delay in min.	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
647	Façade 1 retraction delay in min. (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
648	Façade 1 movement position	Output	R-CT	[5.1] DPT_Scaling	1 byte
649	Façade 1 slat position	Output	R-CT	[5.1] DPT_Scaling	1 byte
650	Façade 1 channel status output (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
651	Façade 1 channel state text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
652	Façade 1 channel status bit text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
653	Façade 1 channel status bit state	Output	R-CT	[1.1] DPT_Switch	1 bit
654	Façade 1 channel delay	Output	R-CT	[7,005] DPT_TimePeriodSec	2 bytes
655	Façade 1 channel status bit selection (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
656	Façade 2 simulation (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
657	Façade 2 block	Input	RWC-	[1.1] DPT_Switch	1 bit
658	Façade 2 safety (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
659	Façade 2 wind extension block (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
660	Façade 2 wind extension block threshold value in m/s	Input	RWCT	[9.5] DPT_Value_Wsp	2 bytes
661	Façade 2 wind extension block threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
662	Façade 2 wind extension block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
663	Façade 2 wind alarm (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
664	Façade 2 wind alarm threshold value in m/s	Input	RWCT	[9.5] DPT_Value_Wsp	2 bytes
665	Façade 2 wind alarm threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
666	Façade 2 wind alarm status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
667	Façade 2 frost alarm status (1: On | 0: Off)	Output	RWCT	[1.1] DPT_Switch	1 bit
668	Façade 2 rain automation release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
669	Façade 2 rain alarm status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
670	Façade 2 timed opening release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
671	Façade 2 timed opening status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
672	Façade 2 external temperature Blocking release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
673	Façade 2 external temperature Block in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
674	Façade 2 external temperature Block in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
675	Façade 2 external temperature Block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
676	Façade 2 timed closure release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
677	Façade 2 timed closure status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
678	Façade 2 night closure release/block	Input	RWC-	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
679	Façade 2 night closure status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
680	Façade 2 heating protection release/ block	Input	RWC-	[1.1] DPT_Switch	1 bit
681	Façade 2 heating protection status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
682	Façade 2 pyranometer release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
683	Façade 2 pyranometer in W/m²	Input/ Output	RWCT	[9.022]DPT_Pow-erDensity	2 bytes
684	Façade 2 pyranometer in W/m² (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
685	Façade 2 pyranometer status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
686	Façade 2 internal temperature in °C	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
687	Façade 2 internal temperature block release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
688	Façade 2 indoor temp. Block in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
689	Façade 2 indoor temp. Block in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
690	Façade 2 indoor temp. Block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
691	Façade 2 sun automation Release/ block	Input	RWC-	[1.1] DPT_Switch	1 bit
692	Façade 2 sun automation Azimuth from (in °)	Input	RWCT	[14.7] DPT_Value_An-gleDeg	4 bytes
693	Façade 2 sun automation Azimuth from (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
694	Façade 2 sun automation Azimuth up to (in °)	Input	RWCT	[14.7] DPT_Value_An-gleDeg	4 bytes
695	Façade 2 sun automation Azimuth up to (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
696	Façade 2 sun automation Elevation from (in °)	Input	RWCT	[14.7] DPT_Value_An-gleDeg	4 bytes
697	Façade 2 sun automation Elevation from (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
698	Façade 2 sun automation Elevation up to (in °)	Input	RWCT	[14.7] DPT_Value_An-gleDeg	4 bytes
699	Façade 2 sun automation Elevation up to (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
700	Façade 2 sun automation AziEle status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
701	Façade 2 sun automation Brightness measurement in Lux	Input	-WCT	[9.4] DPT_Value_Lux	2 bytes
702	Façade 2 sun automation Brightness threshold value in Lux	Input	RWCT	[9.4] DPT_Value_Lux	2 bytes
703	Façade 2 sun automation Brightness threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
704	Façade 2 sun automation Brightness Short status (1: On)	Output	R-CT	[1.1] DPT_Switch	1 bit
705	Façade 2 sun automation Brightness Long status (1: On)	Output	R-CT	[1.1] DPT_Switch	1 bit
706	Façade 2 extension delay in min.	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
707	Façade 2 extension delay in min. (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
708	Façade 2 short delay in seconds	Input/ Output	RWCT	[7.005] DPT_TimePeriodSec	2 bytes
709	Façade 2 short delay in seconds (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
710	Façade 2 retraction delay in min.	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
711	Façade 2 retraction delay in min. (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
712	Façade 2 movement position	Output	R-CT	[5.1] DPT_Scaling	1 byte
713	Façade 2 slat position	Output	R-CT	[5.1] DPT_Scaling	1 byte
714	Façade 2 channel status output (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
715	Façade 2 channel state text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
716	Façade 2 channel status bit text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
717	Façade 2 channel status bit state	Output	R-CT	[1.1] DPT_Switch	1 bit
718	Façade 2 channel delay	Output	R-CT	[7,005] DPT_TimePeriodSec	2 bytes
719	Façade 2 channel status bit selection (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
720	Façade 3 simulation (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
721	Façade 3 block	Input	RWC-	[1.1] DPT_Switch	1 bit
722	Façade 3 safety (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
723	Façade 3 wind extension block (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
724	Façade 3 wind extension block threshold value in m/s	Input	RWCT	[9.5] DPT_Value_Wsp	2 bytes
725	Façade 3 wind extension block threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
726	Façade 3 wind extension block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
727	Façade 3 wind alarm (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
728	Façade 3 wind alarm threshold value in m/s	Input	RWCT	[9.5] DPT_Value_Wsp	2 bytes
729	Façade 3 wind alarm threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
730	Façade 3 wind alarm status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
731	Façade 3 frost alarm status (1: On | 0: Off)	Output	RWCT	[1.1] DPT_Switch	1 bit
732	Façade 3 rain automation release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
733	Façade 3 rain alarm status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
734	Façade 3 timed opening release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
735	Façade 3 timed opening status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
736	Façade 3 external temperature Blocking release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
737	Façade 3 external temperature Block in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
738	Façade 3 external temperature Block in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
739	Façade 3 external temperature Block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
740	Façade 3 timed closure release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
741	Façade 3 timed closure status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
742	Façade 3 night closure release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
743	Façade 3 night closure status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
744	Façade 3 heating protection release/ block	Input	RWC-	[1.1] DPT_Switch	1 bit
745	Façade 3 heating protection status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
746	Façade 3 pyranometer release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
747	Façade 3 pyranometer in W/m²	Input/ Output	RWCT	[9.022]DPT_PowerDensity	2 bytes
748	Façade 3 pyranometer in W/m² (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
749	Façade 3 pyranometer status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
750	Façade 3 internal temperature in °C	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
751	Façade 3 internal temperature block release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
752	Façade 3 indoor temp. Block in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
753	Façade 3 indoor temp. Block in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
754	Façade 3 indoor temp. Block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
755	Façade 3 sun automation Release/ block	Input	RWC-	[1.1] DPT_Switch	1 bit
756	Façade 3 sun automation Azimuth from (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
757	Façade 3 sun automation Azimuth from (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
758	Façade 3 sun automation Azimuth up to (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
759	Façade 3 sun automation Azimuth up to (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
760	Façade 3 sun automation Elevation from (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
761	Façade 3 sun automation Elevation from (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
762	Façade 3 sun automation Elevation up to (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
763	Façade 3 sun automation Elevation up to (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
764	Façade 3 sun automation AziEle status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
765	Façade 3 sun automation Brightness measurement in Lux	Input	-WCT	[9.4] DPT_Value_Lux	2 bytes
766	Façade 3 sun automation Brightness threshold value in Lux	Input	RWCT	[9.4] DPT_Value_Lux	2 bytes
767	Façade 3 sun automation Brightness threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
768	Façade 3 sun automation Brightness Short status (1: On)	Output	R-CT	[1.1] DPT_Switch	1 bit
769	Façade 3 sun automation Brightness Long status (1: On)	Output	R-CT	[1.1] DPT_Switch	1 bit
770	Façade 3 extension delay in min.	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
771	Façade 3 extension delay in min. (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
772	Façade 3 short delay in seconds	Input/ Output	RWCT	[7.005] DPT_TimePeriodSec	2 bytes
773	Façade 3 short delay in seconds (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
774	Façade 3 retraction delay in min.	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
775	Façade 3 retraction delay in min. (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
776	Façade 3 movement position	Output	R-CT	[5.1] DPT_Scaling	1 byte
777	Façade 3 slat position	Output	R-CT	[5.1] DPT_Scaling	1 byte
778	Façade 3 channel status output (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
779	Façade 3 channel state text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
780	Façade 3 channel status bit text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
781	Façade 3 channel status bit state	Output	R-CT	[1.1] DPT_Switch	1 bit
782	Façade 3 channel delay	Output	R-CT	[7,005] DPT_TimePeriodSec	2 bytes
783	Façade 3 channel status bit selection (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
784	Façade 4 simulation (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
785	Façade 4 block	Input	RWC-	[1.1] DPT_Switch	1 bit
786	Façade 4 safety (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
787	Façade 4 wind extension block (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
788	Façade 4 wind extension block threshold value in m/s	Input	RWCT	[9.5] DPT_Value_Wsp	2 bytes
789	Façade 4 wind extension block threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
790	Façade 4 wind extension block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
791	Façade 4 wind alarm (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
792	Façade 4 wind alarm threshold value in m/s	Input	RWCT	[9.5] DPT_Value_Wsp	2 bytes
793	Façade 4 wind alarm threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
794	Façade 4 wind alarm status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
795	Façade 4 frost alarm status (1: On | 0: Off)	Output	RWCT	[1.1] DPT_Switch	1 bit
796	Façade 4 rain automation release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
797	Façade 4 rain alarm status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
798	Façade 4 timed opening release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
799	Façade 4 timed opening status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
800	Façade 4 external temperature Blocking release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
801	Façade 4 external temperature Block in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
802	Façade 4 external temperature Block in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
803	Façade 4 external temperature Block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
804	Façade 4 timed closure release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
805	Façade 4 timed closure status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
806	Façade 4 night closure release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
807	Façade 4 night closure status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
808	Façade 4 heating protection release/ block	Input	RWC-	[1.1] DPT_Switch	1 bit
809	Façade 4 heating protection status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
810	Façade 4 pyranometer release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
811	Façade 4 pyranometer in W/m²	Input/ Output	RWCT	[9.022]DPT_PowerDensity	2 bytes

No.	Text	Function	Flags	DPT type	Size
812	Façade 4 pyranometer in W/m² (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
813	Façade 4 pyranometer status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
814	Façade 4 internal temperature in °C	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
815	Façade 4 internal temperature block release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
816	Façade 4 indoor temp. Block in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
817	Façade 4 indoor temp. Block in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
818	Façade 4 indoor temp. Block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
819	Façade 4 sun automation Release/ block	Input	RWC-	[1.1] DPT_Switch	1 bit
820	Façade 4 sun automation Azimuth from (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
821	Façade 4 sun automation Azimuth from (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
822	Façade 4 sun automation Azimuth up to (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
823	Façade 4 sun automation Azimuth up to (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
824	Façade 4 sun automation Elevation from (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
825	Façade 4 sun automation Elevation from (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
826	Façade 4 sun automation Elevation up to (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
827	Façade 4 sun automation Elevation up to (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
828	Façade 4 sun automation AziEle status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
829	Façade 4 sun automation Brightness measurement in Lux	Input	-WCT	[9.4] DPT_Value_Lux	2 bytes
830	Façade 4 sun automation Brightness threshold value in Lux	Input	RWCT	[9.4] DPT_Value_Lux	2 bytes
831	Façade 4 sun automation Brightness threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
832	Façade 4 sun automation Brightness Short status (1: On)	Output	R-CT	[1.1] DPT_Switch	1 bit
833	Façade 4 sun automation Brightness Long status (1: On)	Output	R-CT	[1.1] DPT_Switch	1 bit
834	Façade 4 extension delay in min.	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
835	Façade 4 extension delay in min. (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
836	Façade 4 short delay in seconds	Input/ Output	RWCT	[7.005] DPT_TimePeriodSec	2 bytes

No.	Text	Function	Flags	DPT type	Size
837	Façade 4 short delay in seconds (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
838	Façade 4 retraction delay in min.	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
839	Façade 4 retraction delay in min. (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
840	Façade 4 movement position	Output	R-CT	[5.1] DPT_Scaling	1 byte
841	Façade 4 slat position	Output	R-CT	[5.1] DPT_Scaling	1 byte
842	Façade 4 channel status output (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
843	Façade 4 channel state text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
844	Façade 4 channel status bit text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
845	Façade 4 channel status bit state	Output	R-CT	[1.1] DPT_Switch	1 bit
846	Façade 4 channel delay	Output	R-CT	[7,005] DPT_TimePeriodSec	2 bytes
847	Façade 4 channel status bit selection (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
848	Façade 5 simulation (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
849	Façade 5 block	Input	RWC-	[1.1] DPT_Switch	1 bit
850	Façade 5 safety (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
851	Façade 5 wind extension block (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
852	Façade 5 wind extension block threshold value in m/s	Input	RWCT	[9.5] DPT_Value_Wsp	2 bytes
853	Façade 5 wind extension block threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
854	Façade 5 wind extension block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
855	Façade 5 wind alarm (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
856	Façade 5 wind alarm threshold value in m/s	Input	RWCT	[9.5] DPT_Value_Wsp	2 bytes
857	Façade 5 wind alarm threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
858	Façade 5 wind alarm status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
859	Façade 5 frost alarm status (1: On | 0: Off)	Output	RWCT	[1.1] DPT_Switch	1 bit
860	Façade 5 rain automation release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
861	Façade 5 rain alarm status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
862	Façade 5 timed opening release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
863	Façade 5 timed opening status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
864	Façade 5 external temperature Blocking release/block	Input	RWC-	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
865	Façade 5 external temperature Block in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
866	Façade 5 external temperature Block in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
867	Façade 5 external temperature Block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
868	Façade 5 timed closure release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
869	Façade 5 timed closure status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
870	Façade 5 night closure release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
871	Façade 5 night closure status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
872	Façade 5 heating protection release/ block	Input	RWC-	[1.1] DPT_Switch	1 bit
873	Façade 5 heating protection status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
874	Façade 5 pyranometer release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
875	Façade 5 pyranometer in W/m²	Input/ Output	RWCT	[9.022]DPT_Pow-erDensity	2 bytes
876	Façade 5 pyranometer in W/m² (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
877	Façade 5 pyranometer status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
878	Façade 5 internal temperature in °C	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
879	Façade 5 internal temperature block release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
880	Façade 5 indoor temp. Block in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
881	Façade 5 indoor temp. Block in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
882	Façade 5 indoor temp. Block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
883	Façade 5 sun automation Release/ block	Input	RWC-	[1.1] DPT_Switch	1 bit
884	Façade 5 sun automation Azimuth from (in °)	Input	RWCT	[14.7] DPT_Value_An-gleDeg	4 bytes
885	Façade 5 sun automation Azimuth from (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
886	Façade 5 sun automation Azimuth up to (in °)	Input	RWCT	[14.7] DPT_Value_An-gleDeg	4 bytes
887	Façade 5 sun automation Azimuth up to (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
888	Façade 5 sun automation Elevation from (in °)	Input	RWCT	[14.7] DPT_Value_An-gleDeg	4 bytes
889	Façade 5 sun automation Elevation from (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
890	Façade 5 sun automation Elevation up to (in °)	Input	RWCT	[14.7] DPT_Value_An-gleDeg	4 bytes

No.	Text	Function	Flags	DPT type	Size
891	Façade 5 sun automation Elevation up to (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
892	Façade 5 sun automation AziEle status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
893	Façade 5 sun automation Brightness measurement in Lux	Input	-WCT	[9.4] DPT_Value_Lux	2 bytes
894	Façade 5 sun automation Brightness threshold value in Lux	Input	RWCT	[9.4] DPT_Value_Lux	2 bytes
895	Façade 5 sun automation Brightness threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
896	Façade 5 sun automation Brightness Short status (1: On)	Output	R-CT	[1.1] DPT_Switch	1 bit
897	Façade 5 sun automation Brightness Long status (1: On)	Output	R-CT	[1.1] DPT_Switch	1 bit
898	Façade 5 extension delay in min.	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
899	Façade 5 extension delay in min. (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
900	Façade 5 short delay in seconds	Input/ Output	RWCT	[7.005] DPT_TimePeriodSec	2 bytes
901	Façade 5 short delay in seconds (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
902	Façade 5 retraction delay in min.	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
903	Façade 5 retraction delay in min. (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
904	Façade 5 movement position	Output	R-CT	[5.1] DPT_Scaling	1 byte
905	Façade 5 slat position	Output	R-CT	[5.1] DPT_Scaling	1 byte
906	Façade 5 channel status output (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
907	Façade 5 channel state text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
908	Façade 5 channel status bit text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
909	Façade 5 channel status bit state	Output	R-CT	[1.1] DPT_Switch	1 bit
910	Façade 5 channel delay	Output	R-CT	[7,005] DPT_TimePeriodSec	2 bytes
911	Façade 5 channel status bit selection (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
912	Façade 6 simulation (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
913	Façade 6 block	Input	RWC-	[1.1] DPT_Switch	1 bit
914	Façade 6 safety (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
915	Façade 6 wind extension block (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
916	Façade 6 wind extension block threshold value in m/s	Input	RWCT	[9.5] DPT_Value_Wsp	2 bytes
917	Façade 6 wind extension block threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
918	Façade 6 wind extension block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
919	Façade 6 wind alarm (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
920	Façade 6 wind alarm threshold value in m/s	Input	RWCT	[9.5] DPT_Value_Wsp	2 bytes
921	Façade 6 wind alarm threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
922	Façade 6 wind alarm status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
923	Façade 6 frost alarm status (1: On | 0: Off)	Output	RWCT	[1.1] DPT_Switch	1 bit
924	Façade 6 rain automation release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
925	Façade 6 rain alarm status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
926	Façade 6 timed opening release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
927	Façade 6 timed opening status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
928	Façade 6 external temperature Blocking release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
929	Façade 6 external temperature Block in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
930	Façade 6 external temperature Block in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
931	Façade 6 external temperature Block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
932	Façade 6 timed closure release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
933	Façade 6 timed closure status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
934	Façade 6 night closure release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
935	Façade 6 night closure status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
936	Façade 6 heating protection release/ block	Input	RWC-	[1.1] DPT_Switch	1 bit
937	Façade 6 heating protection status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
938	Façade 6 pyranometer release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
939	Façade 6 pyranometer in W/m²	Input/ Output	RWCT	[9.022]DPT_PowerDensity	2 bytes
940	Façade 6 pyranometer in W/m² (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
941	Façade 6 pyranometer status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
942	Façade 6 internal temperature in °C	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
943	Façade 6 internal temperature block release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
944	Façade 6 indoor temp. Block in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes

No.	Text	Function	Flags	DPT type	Size
945	Façade 6 indoor temp. Block in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
946	Façade 6 indoor temp. Block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
947	Façade 6 sun automation Release/ block	Input	RWC-	[1.1] DPT_Switch	1 bit
948	Façade 6 sun automation Azimuth from (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
949	Façade 6 sun automation Azimuth from (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
950	Façade 6 sun automation Azimuth up to (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
951	Façade 6 sun automation Azimuth up to (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
952	Façade 6 sun automation Elevation from (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
953	Façade 6 sun automation Elevation from (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
954	Façade 6 sun automation Elevation up to (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
955	Façade 6 sun automation Elevation up to (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
956	Façade 6 sun automation AziEle status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
957	Façade 6 sun automation Brightness measurement in Lux	Input	-WCT	[9.4] DPT_Value_Lux	2 bytes
958	Façade 6 sun automation Brightness threshold value in Lux	Input	RWCT	[9.4] DPT_Value_Lux	2 bytes
959	Façade 6 sun automation Brightness threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
960	Façade 6 sun automation Brightness Short status (1: On)	Output	R-CT	[1.1] DPT_Switch	1 bit
961	Façade 6 sun automation Brightness Long status (1: On)	Output	R-CT	[1.1] DPT_Switch	1 bit
962	Façade 6 extension delay in min.	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
963	Façade 6 extension delay in min. (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
964	Façade 6 short delay in seconds	Input/ Output	RWCT	[7.005] DPT_TimePeriodSec	2 bytes
965	Façade 6 short delay in seconds (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
966	Façade 6 retraction delay in min.	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
967	Façade 6 retraction delay in min. (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
968	Façade 6 movement position	Output	R-CT	[5.1] DPT_Scaling	1 byte
969	Façade 6 slat position	Output	R-CT	[5.1] DPT_Scaling	1 byte

No.	Text	Function	Flags	DPT type	Size
970	Façade 6 channel status output (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
971	Façade 6 channel state text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
972	Façade 6 channel status bit text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
973	Façade 6 channel status bit state	Output	R-CT	[1.1] DPT_Switch	1 bit
974	Façade 6 channel delay	Output	R-CT	[7,005] DPT_TimePeriodSec	2 bytes
975	Façade 6 channel status bit selection (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
976	Façade 7 simulation (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
977	Façade 7 block	Input	RWC-	[1.1] DPT_Switch	1 bit
978	Façade 7 safety (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
979	Façade 7 wind extension block (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
980	Façade 7 wind extension block threshold value in m/s	Input	RWCT	[9.5] DPT_Value_Wsp	2 bytes
981	Façade 7 wind extension block threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
982	Façade 7 wind extension block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
983	Façade 7 wind alarm (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
984	Façade 7 wind alarm threshold value in m/s	Input	RWCT	[9.5] DPT_Value_Wsp	2 bytes
985	Façade 7 wind alarm threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
986	Façade 7 wind alarm status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
987	Façade 7 frost alarm status (1: On | 0: Off)	Output	RWCT	[1.1] DPT_Switch	1 bit
988	Façade 7 rain automation release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
989	Façade 7 rain alarm status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
990	Façade 7 timed opening release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
991	Façade 7 timed opening status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
992	Façade 7 external temperature Blocking release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
993	Façade 7 external temperature Block in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
994	Façade 7 external temperature Block in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
995	Façade 7 external temperature Block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
996	Façade 7 timed closure release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
997	Façade 7 timed closure status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
998	Façade 7 night closure release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
999	Façade 7 night closure status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
1000	Façade 7 heating protection release/ block	Input	RWC-	[1.1] DPT_Switch	1 bit
1001	Façade 7 heating protection status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
1002	Façade 7 pyranometer release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
1003	Façade 7 pyranometer in W/m²	Input/ Output	RWCT	[9.022]DPT_Pow-erDensity	2 bytes
1004	Façade 7 pyranometer in W/m² (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1005	Façade 7 pyranometer status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
1006	Façade 7 internal temperature in °C	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
1007	Façade 7 internal temperature block release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
1008	Façade 7 indoor temp. Block in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
1009	Façade 7 indoor temp. Block in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1010	Façade 7 indoor temp. Block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
1011	Façade 7 sun automation Release/ block	Input	RWC-	[1.1] DPT_Switch	1 bit
1012	Façade 7 sun automation Azimuth from (in °)	Input	RWCT	[14.7] DPT_Value_An-gleDeg	4 bytes
1013	Façade 7 sun automation Azimuth from (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1014	Façade 7 sun automation Azimuth up to (in °)	Input	RWCT	[14.7] DPT_Value_An-gleDeg	4 bytes
1015	Façade 7 sun automation Azimuth up to (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1016	Façade 7 sun automation Elevation from (in °)	Input	RWCT	[14.7] DPT_Value_An-gleDeg	4 bytes
1017	Façade 7 sun automation Elevation from (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1018	Façade 7 sun automation Elevation up to (in °)	Input	RWCT	[14.7] DPT_Value_An-gleDeg	4 bytes
1019	Façade 7 sun automation Elevation up to (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1020	Façade 7 sun automation AziEle status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
1021	Façade 7 sun automation Brightness measurement in Lux	Input	-WCT	[9.4] DPT_Value_Lux	2 bytes
1022	Façade 7 sun automation Brightness threshold value in Lux	Input	RWCT	[9.4] DPT_Value_Lux	2 bytes
1023	Façade 7 sun automation Brightness threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
1024	Façade 7 sun automation Brightness Short status (1: On)	Output	R-CT	[1.1] DPT_Switch	1 bit
1025	Façade 7 sun automation Brightness Long status (1: On)	Output	R-CT	[1.1] DPT_Switch	1 bit
1026	Façade 7 extension delay in min.	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
1027	Façade 7 extension delay in min. (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1028	Façade 7 short delay in seconds	Input/ Output	RWCT	[7.005] DPT_TimePeriodSec	2 bytes
1029	Façade 7 short delay in seconds (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1030	Façade 7 retraction delay in min.	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
1031	Façade 7 retraction delay in min. (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1032	Façade 7 movement position	Output	R-CT	[5.1] DPT_Scaling	1 byte
1033	Façade 7 slat position	Output	R-CT	[5.1] DPT_Scaling	1 byte
1034	Façade 7 channel status output (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
1035	Façade 7 channel state text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
1036	Façade 7 channel status bit text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
1037	Façade 7 channel status bit state	Output	R-CT	[1.1] DPT_Switch	1 bit
1038	Façade 7 channel delay	Output	R-CT	[7,005] DPT_TimePeriodSec	2 bytes
1039	Façade 7 channel status bit selection (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1040	Façade 8 simulation (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
1041	Façade 8 block	Input	RWC-	[1.1] DPT_Switch	1 bit
1042	Façade 8 safety (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
1043	Façade 8 wind extension block (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
1044	Façade 8 wind extension block threshold value in m/s	Input	RWCT	[9.5] DPT_Value_Wsp	2 bytes
1045	Façade 8 wind extension block threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1046	Façade 8 wind extension block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
1047	Façade 8 wind alarm (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
1048	Façade 8 wind alarm threshold value in m/s	Input	RWCT	[9.5] DPT_Value_Wsp	2 bytes
1049	Façade 8 wind alarm threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1050	Façade 8 wind alarm status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
1051	Façade 8 frost alarm status (1: On | 0: Off)	Output	RWCT	[1.1] DPT_Switch	1 bit
1052	Façade 8 rain automation release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
1053	Façade 8 rain alarm status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
1054	Façade 8 timed opening release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
1055	Façade 8 timed opening status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
1056	Façade 8 external temperature Blocking release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
1057	Façade 8 external temperature Block in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
1058	Façade 8 external temperature Block in °C (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1059	Façade 8 external temperature Block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
1060	Façade 8 timed closure release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
1061	Façade 8 timed closure status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
1062	Façade 8 night closure release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
1063	Façade 8 night closure status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
1064	Façade 8 heating protection release/ block	Input	RWC-	[1.1] DPT_Switch	1 bit
1065	Façade 8 heating protection status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
1066	Façade 8 pyranometer release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
1067	Façade 8 pyranometer in W/m²	Input/ Output	RWCT	[9.022]DPT_PowerDensity	2 bytes
1068	Façade 8 pyranometer in W/m² (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1069	Façade 8 pyranometer status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
1070	Façade 8 internal temperature in °C	Input	-WCT	[9.1] DPT_Value_Temp	2 bytes
1071	Façade 8 internal temperature block release/block	Input	RWC-	[1.1] DPT_Switch	1 bit
1072	Façade 8 indoor temp. Block in °C	Input/ Output	RWCT	[9.1] DPT_Value_Temp	2 bytes
1073	Façade 8 indoor temp. Block in °C 1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1074	Façade 8 indoor temp. Block status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
1075	Façade 8 sun automation Release/ block	Input	RWC-	[1.1] DPT_Switch	1 bit
1076	Façade 8 sun automation Azimuth from (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
1077	Façade 8 sun automation Azimuth from (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
1078	Façade 8 sun automation Azimuth up to (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
1079	Façade 8 sun automation Azimuth up to (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1080	Façade 8 sun automation Elevation from (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
1081	Façade 8 sun automation Elevation from (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1082	Façade 8 sun automation Elevation up to (in °)	Input	RWCT	[14.7] DPT_Value_AngleDeg	4 bytes
1083	Façade 8 sun automation Elevation up to (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1084	Façade 8 sun automation AziEle status (1: On | 0: Off)	Output	R-CT	[1.1] DPT_Switch	1 bit
1085	Façade 8 sun automation Brightness measurement in Lux	Input	-WCT	[9.4] DPT_Value_Lux	2 bytes
1086	Façade 8 sun automation Brightness threshold value in Lux	Input	RWCT	[9.4] DPT_Value_Lux	2 bytes
1087	Façade 8 sun automation Brightness threshold value (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1088	Façade 8 sun automation Brightness Short status (1: On)	Output	R-CT	[1.1] DPT_Switch	1 bit
1089	Façade 8 sun automation Brightness Long status (1: On)	Output	R-CT	[1.1] DPT_Switch	1 bit
1090	Façade 8 extension delay in min.	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
1091	Façade 8 extension delay in min. (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1092	Façade 8 short delay in seconds	Input/ Output	RWCT	[7.005] DPT_TimePeriodSec	2 bytes
1093	Façade 8 short delay in seconds (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1094	Façade 8 retraction delay in min.	Input/ Output	RWCT	[7.006] DPT_TimePeriodMin	2 bytes
1095	Façade 8 retraction delay in min. (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit
1096	Façade 8 movement position	Output	R-CT	[5.1] DPT_Scaling	1 byte
1097	Façade 8 slat position	Output	R-CT	[5.1] DPT_Scaling	1 byte
1098	Façade 8 channel status output (1: On | 0: Off)	Input	RWC-	[1.1] DPT_Switch	1 bit
1099	Façade 8 channel state text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
1100	Façade 8 channel status bit text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
1101	Façade 8 channel status bit state	Output	R-CT	[1.1] DPT_Switch	1 bit
1102	Façade 8 channel delay	Output	R-CT	[7,005] DPT_TimePeriodSec	2 bytes
1103	Façade 8 channel status bit selection (1:+ | 0:-)	Input	-WC-	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
1141	Computer 1: Input I1	Input	RWCT		4 bytes
1142	Computer 1: Input I2	Input	RWCT		4 bytes
1143	Computer 1: Input I3	Input	RWCT		4 bytes
1144	Computer 1: Output O1	Output	R-CT		4 bytes
1145	Computer 1: Output O2	Output	R-CT		4 bytes
1146	Computer 1: Condition text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
1147	Computer 1: Monitoring status	Output	R-CT	[1.1] DPT_Switch	1 bit
1148	Computer 1: Block (1: block)	Input	-WC-	[1.1] DPT_Switch	1 bit
1149	Computer 2: Input I1	Input	RWCT		4 bytes
1150	Computer 2: Input I2	Input	RWCT		4 bytes
1151	Computer 2: Input I3	Input	RWCT		4 bytes
1152	Computer 2: Output O1	Output	R-CT		4 bytes
1153	Computer 2: Output O2	Output	R-CT		4 bytes
1154	Computer 2: Condition text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
1155	Computer 2: Monitoring status	Output	R-CT	[1.1] DPT_Switch	1 bit
1156	Computer 2: Block (1: block)	Input	-WC-	[1.1] DPT_Switch	1 bit
1157	Computer 3: Input I1	Input	RWCT		4 bytes
1158	Computer 3: Input I2	Input	RWCT		4 bytes
1159	Computer 3: Input I3	Input	RWCT		4 bytes
1160	Computer 3: Output O1	Output	R-CT		4 bytes
1161	Computer 3: Output O2	Output	R-CT		4 bytes
1162	Computer 3: Condition text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
1163	Computer 3: Monitoring status	Output	R-CT	[1.1] DPT_Switch	1 bit
1164	Computer 3: Block (1: block)	Input	-WC-	[1.1] DPT_Switch	1 bit
1165	Computer 4: Input I1	Input	RWCT		4 bytes
1166	Computer 4: Input I2	Input	RWCT		4 bytes
1167	Computer 4: Input I3	Input	RWCT		4 bytes
1168	Computer 4: Output O1	Output	R-CT		4 bytes
1169	Computer 4: Output O2	Output	R-CT		4 bytes
1170	Computer 4: Condition text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
1171	Computer 4: Monitoring status	Output	R-CT	[1.1] DPT_Switch	1 bit
1172	Computer 4: Block (1: block)	Input	-WC-	[1.1] DPT_Switch	1 bit
1173	Computer 5: Input I1	Input	RWCT		4 bytes
1174	Computer 5: Input I2	Input	RWCT		4 bytes
1175	Computer 5: Input I3	Input	RWCT		4 bytes
1176	Computer 5: Output O1	Output	R-CT		4 bytes
1177	Computer 5: Output O2	Output	R-CT		4 bytes
1178	Computer 5: Condition text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
1179	Computer 5: Monitoring status	Output	R-CT	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
1180	Computer 5: Block (1: block)	Input	-WC-	[1.1] DPT_Switch	1 bit
1181	Computer 6: Input I1	Input	RWCT		4 bytes
1182	Computer 6: Input I2	Input	RWCT		4 bytes
1183	Computer 6: Input I3	Input	RWCT		4 bytes
1184	Computer 6: Output O1	Output	R-CT		4 bytes
1185	Computer 6: Output O2	Output	R-CT		4 bytes
1186	Computer 6: Condition text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
1187	Computer 6: Monitoring status	Output	R-CT	[1.1] DPT_Switch	1 bit
1188	Computer 6: Block (1: block)	Input	-WC-	[1.1] DPT_Switch	1 bit
1189	Computer 7: Input I1	Input	RWCT		4 bytes
1190	Computer 7: Input I2	Input	RWCT		4 bytes
1191	Computer 7: Input I3	Input	RWCT		4 bytes
1192	Computer 7: Output O1	Output	R-CT		4 bytes
1193	Computer 7: Output O2	Output	R-CT		4 bytes
1194	Computer 7: Condition text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
1195	Computer 7: Monitoring status	Output	R-CT	[1.1] DPT_Switch	1 bit
1196	Computer 7: Block (1: block)	Input	-WC-	[1.1] DPT_Switch	1 bit
1197	Computer 8: Input I1	Input	RWCT		4 bytes
1198	Computer 8: Input I2	Input	RWCT		4 bytes
1199	Computer 8: Input I3	Input	RWCT		4 bytes
1200	Computer 8: Output O1	Output	R-CT		4 bytes
1201	Computer 8: Output O2	Output	R-CT		4 bytes
1202	Computer 8: Condition text	Output	R-CT	[16.0] DPT_String_ASCII	14 bytes
1203	Computer 8: Monitoring status	Output	R-CT	[1.1] DPT_Switch	1 bit
1204	Computer 8: Block (1: block)	Input	-WC-	[1.1] DPT_Switch	1 bit
1211	Weekly timer period 1: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1212	Weekly timer period 1: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1213	Weekly timer period 1: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1214	Weekly timer period 1: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
1215	Weekly timer period 2: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1216	Weekly timer period 2: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1217	Weekly timer period 2: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1218	Weekly timer period 2: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
1219	Weekly timer period 3: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1220	Weekly timer period 3: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1221	Weekly timer period 3: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit

No.	Text	Function	Flags	DPT type	Size
1222	Weekly timer period 3: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_U-count	1 byte
1223	Weekly timer period 4: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1224	Weekly timer period 4: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1225	Weekly timer period 4: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1226	Weekly timer period 4: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_U-count	1 byte
1227	Weekly timer period 5: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1228	Weekly timer period 5: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1229	Weekly timer period 5: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1230	Weekly timer period 5: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_U-count	1 byte
1231	Weekly timer period 6: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1232	Weekly timer period 6: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1233	Weekly timer period 6: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1234	Weekly timer period 6: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_U-count	1 byte
1235	Weekly timer period 7: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1236	Weekly timer period 7: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1237	Weekly timer period 7: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1238	Weekly timer period 7: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_U-count	1 byte
1239	Weekly timer period 8: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1240	Weekly timer period 8: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1241	Weekly timer period 8: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1242	Weekly timer period 8: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_U-count	1 byte
1243	Weekly timer period 9: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1244	Weekly timer period 9: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1245	Weekly timer period 9: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1246	Weekly timer period 9: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_U-count	1 byte
1247	Weekly timer period 10: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1248	Weekly timer period 10: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1249	Weekly timer period 10: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1250	Weekly timer period 10: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_U-count	1 byte

No.	Text	Function	Flags	DPT type	Size
1251	Weekly timer period 11: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1252	Weekly timer period 11: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1253	Weekly timer period 11: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1254	Weekly timer period 11: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
1255	Weekly timer period 12: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1256	Weekly timer period 12: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1257	Weekly timer period 12: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1258	Weekly timer period 12: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
1259	Weekly timer period 13: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1260	Weekly timer period 13: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1261	Weekly timer period 13: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1262	Weekly timer period 13: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
1263	Weekly timer period 14: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1264	Weekly timer period 14: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1265	Weekly timer period 14: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1266	Weekly timer period 14: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
1267	Weekly timer period 15: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1268	Weekly timer period 15: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1269	Weekly timer period 15: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1270	Weekly timer period 15: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
1271	Weekly timer period 16: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1272	Weekly timer period 16: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1273	Weekly timer period 16: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1274	Weekly timer period 16: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte

No.	Text	Function	Flags	DPT type	Size
1275	Weekly timer period 17: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1276	Weekly timer period 17: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1277	Weekly timer period 17: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1278	Weekly timer period 17: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
1279	Weekly timer period 18: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1280	Weekly timer period 18: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1281	Weekly timer period 18: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1282	Weekly timer period 18: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
1283	Weekly timer period 19: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1284	Weekly timer period 19: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1285	Weekly timer period 19: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1286	Weekly timer period 19: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
1287	Weekly timer period 20: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1288	Weekly timer period 20: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1289	Weekly timer period 20: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1290	Weekly timer period 20: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
1291	Weekly timer period 21: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1292	Weekly timer period 21: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1293	Weekly timer period 21: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1294	Weekly timer period 21: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
1295	Weekly timer period 22: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1296	Weekly timer period 22: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1297	Weekly timer period 22: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1298	Weekly timer period 22: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte

No.	Text	Function	Flags	DPT type	Size
1299	Weekly timer period 23: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1300	Weekly timer period 23: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1301	Weekly timer period 23: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1302	Weekly timer period 23: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
1303	Weekly timer period 24: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1304	Weekly timer period 24: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1305	Weekly timer period 24: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1306	Weekly timer period 24: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
1331	Calendar timer period 1: Start date	Input	RWCT	[11.1] DPT_Date	3 bytes
1332	Calendar timer period 1: End date	Input	RWCT	[11.1] DPT_Date	3 bytes
1333	Calendar timer period 1 sequence 1: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1334	Calendar timer period 1 sequence 1: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1335	Calendar timer period 1 sequence 1: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1336	Calendar timer period 1 sequence 1: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
1337	Calendar timer period 1 sequence 2: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1338	Calendar timer period 1 sequence 2: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1339	Calendar timer period 1 sequence 2: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1340	Calendar timer period 1 sequence 2: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
1341	Calendar timer period 2: Start date	Input	RWCT	[11.1] DPT_Date	3 bytes
1342	Calendar timer period 2: End date	Input	RWCT	[11.1] DPT_Date	3 bytes
1343	Calendar timer period 2 sequence 1: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1344	Calendar timer period 2 sequence 1: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1345	Calendar timer period 2 sequence 1: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1346	Calendar timer period 2 sequence 1: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_Ucount	1 byte
1347	Calendar timer period 2 sequence 2: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1348	Calendar timer period 2 sequence 2: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes

No.	Text	Function	Flags	DPT type	Size
1349	Calendar timer period 2 sequence 2: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1350	Calendar timer period 2 sequence 2: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_U-count	1 byte
1351	Calendar timer period 3: Start date	Input	RWCT	[11.1] DPT_Date	3 bytes
1352	Calendar timer period 3: End date	Input	RWCT	[11.1] DPT_Date	3 bytes
1353	Calendar timer period 3 sequence 1: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1354	Calendar timer period 3 sequence 1: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1355	Calendar timer period 3 sequence 1: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1356	Calendar timer period 3 sequence 1: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_U-count	1 byte
1357	Calendar timer period 3 sequence 2: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1358	Calendar timer period 3 sequence 2: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1359	Calendar timer period 3 sequence 2: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1360	Calendar timer period 3 sequence 2: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_U-count	1 byte
1361	Calendar timer period 4: Start date	Input	RWCT	[11.1] DPT_Date	3 bytes
1362	Calendar timer period 4: End date	Input	RWCT	[11.1] DPT_Date	3 bytes
1363	Calendar timer period 4 sequence 1: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1364	Calendar timer period 4 sequence 1: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1365	Calendar timer period 4 sequence 1: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1366	Calendar timer period 4 sequence 1: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_U-count	1 byte
1367	Calendar timer period 4 sequence 2: Switch-on time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1368	Calendar timer period 4 sequence 2: Switch-off time	Input	RWCT	[10.1] DPT_TimeOfDay	3 bytes
1369	Calendar timer period 4 sequence 2: Switching output	Output	R-CT	[1.1] DPT_Switch	1 bit
1370	Calendar timer period 4 sequence 2: 8-bit output	Output	R-CT	[5.10] DPT_Value_1_U-count	1 byte
1391	Logic input 1	Input	-WC-	[1.2] DPT_Bool	1 bit
1392	Logic input 2	Input	-WC-	[1.2] DPT_Bool	1 bit
1393	Logic input 3	Input	-WC-	[1.2] DPT_Bool	1 bit
1394	Logic input 4	Input	-WC-	[1.2] DPT_Bool	1 bit
1395	Logic input 5	Input	-WC-	[1.2] DPT_Bool	1 bit
1396	Logic input 6	Input	-WC-	[1.2] DPT_Bool	1 bit
1397	Logic input 7	Input	-WC-	[1.2] DPT_Bool	1 bit

No.	Text	Function	Flags	DPT type	Size
1398	Logic input 8	Input	-WC-	[1.2] DPT_Bool	1 bit
1399	Logic input 9	Input	-WC-	[1.2] DPT_Bool	1 bit
1400	Logic input 10	Input	-WC-	[1.2] DPT_Bool	1 bit
1401	Logic input 11	Input	-WC-	[1.2] DPT_Bool	1 bit
1402	Logic input 12	Input	-WC-	[1.2] DPT_Bool	1 bit
1403	Logic input 13	Input	-WC-	[1.2] DPT_Bool	1 bit
1404	Logic input 14	Input	-WC-	[1.2] DPT_Bool	1 bit
1405	Logic input 15	Input	-WC-	[1.2] DPT_Bool	1 bit
1406	Logic input 16	Input	-WC-	[1.2] DPT_Bool	1 bit
1411	AND logic 1: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
1412	AND logic 1: 8-bit output A	Output	R-CT		1 byte
1413	AND logic 1: 8-bit output B	Output	R-CT		1 byte
1414	AND logic 1: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
1415	AND logic 2: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
1416	AND logic 2: 8-bit output A	Output	R-CT		1 byte
1417	AND logic 2: 8-bit output B	Output	R-CT		1 byte
1418	AND logic 2: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
1419	AND logic 3: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
1420	AND logic 3: 8-bit output A	Output	R-CT		1 byte
1421	AND logic 3: 8-bit output B	Output	R-CT		1 byte
1422	AND logic 3: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
1423	AND logic 4: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
1424	AND logic 4: 8-bit output A	Output	R-CT		1 byte
1425	AND logic 4: 8-bit output B	Output	R-CT		1 byte
1426	AND logic 4: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
1427	AND logic 5: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
1428	AND logic 5: 8-bit output A	Output	R-CT		1 byte
1429	AND logic 5: 8-bit output B	Output	R-CT		1 byte
1430	AND logic 5: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
1431	AND logic 6: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
1432	AND logic 6: 8-bit output A	Output	R-CT		1 byte
1433	AND logic 6: 8-bit output B	Output	R-CT		1 byte
1434	AND logic 6: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
1435	AND logic 7: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
1436	AND logic 7: 8-bit output A	Output	R-CT		1 byte
1437	AND logic 7: 8-bit output B	Output	R-CT		1 byte
1438	AND logic 7: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
1439	AND logic 8: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
1440	AND logic 8: 8-bit output A	Output	R-CT		1 byte
1441	AND logic 8: 8-bit output B	Output	R-CT		1 byte
1442	AND logic 8: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
1443	OR logic 1: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit

No.	Text	Function	Flags	DPT type	Size
1444	OR logic 1: 8-bit output A	Output	R-CT		1 byte
1445	OR logic 1: 8-bit output B	Output	R-CT		1 byte
1446	OR logic 1: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
1447	OR logic 2: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
1448	OR logic 2: 8-bit output A	Output	R-CT		1 byte
1449	OR logic 2: 8-bit output B	Output	R-CT		1 byte
1450	OR logic 2: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
1451	OR logic 3: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
1452	OR logic 3: 8-bit output A	Output	R-CT		1 byte
1453	OR logic 3: 8-bit output B	Output	R-CT		1 byte
1454	OR logic 3: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
1455	OR logic 4: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
1456	OR logic 4: 8-bit output A	Output	R-CT		1 byte
1457	OR logic 4: 8-bit output B	Output	R-CT		1 byte
1458	OR logic 4: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
1459	OR logic 5: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
1460	OR logic 5: 8-bit output A	Output	R-CT		1 byte
1461	OR logic 5: 8-bit output B	Output	R-CT		1 byte
1462	OR logic 5: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
1463	OR logic 6: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
1464	OR logic 6: 8-bit output A	Output	R-CT		1 byte
1465	OR logic 6: 8-bit output B	Output	R-CT		1 byte
1466	OR logic 6: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
1467	OR logic 7: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
1468	OR logic 7: 8-bit output A	Output	R-CT		1 byte
1469	OR logic 7: 8-bit output B	Output	R-CT		1 byte
1470	OR logic 7: Block	Input	-WC-	[1.1] DPT_Switch	1 bit
1471	OR logic 8: 1-bit switching output	Output	R-CT	[1.2] DPT_Bool	1 bit
1472	OR logic 8: 8-bit output A	Output	R-CT		1 byte
1473	OR logic 8: 8-bit output B	Output	R-CT		1 byte
1474	OR logic 8: Block	Input	-WC-	[1.1] DPT_Switch	1 bit

6. Parameter setting

6.0.1. Behaviour on power failure/power restoration

Behaviour on bus or auxiliary power failure

The device sends nothing.

Behaviour on bus or auxiliary voltage restoration and following programming or reset

The device sends all measurement values as well as switching and status outputs according to their send pattern 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.

6.0.2. Storage of threshold values

For threshold values that are specified via a communication object, a starting value must be entered for the first commissioning. It is valid until the first communication of a new threshold value.

After this, a threshold value once set per parameter or via a communication object is retained until a new threshold value is sent via a communication object. The last threshold value set by communication object is saved in the device, so that it is retained during a power outage and is available once again when power is restored.

6.0.3. Malfunction objects

Malfunction objects are sent after every reset and, additionally, after changes (i.e. at the beginning and end of a malfunction).

6.1. General settings

Set basic characteristics of data transfer. A different transmission delay prevents an overload of the bus shortly after the reset.

Transmission delay after reset/restoration of bus for:	
Measured values	5 ... 300 seconds
Threshold values and switching outputs	5 ... 300 seconds
Façade objects	5 ... 300 seconds
Computer objects	5 ... 300 seconds
time switch objects	5 ... 300 seconds
Logic objects	5 ... 300 seconds
Maximum telegram quota	1 • 2 • 5 • 10 • 20 • 50 Telegrams per sec.

6.1.1. GPS

Set whether the time and date are to be sent as separate objects or as one common object. Specify whether the time and date are to be set by the GPS signal or objects.

If time and date are **set by the GPS-Signal**, the data is available as soon as a valid GPS signal is received.

If time and date are **set by two objects**, then only a maximum of 10 seconds may elapse between receiving the date and receiving the time Furthermore, a change of date may not occur between receiving both objects. The objects must be received by the device on the same day.

The device has an integrated real-time clock. Therefore, time keeps on running internally and can be sent to the bus, even when no GPS coverage is available or no time object has been received for some time. The internal clock can show a time drift of up to ±6 seconds per day.

Object type date and time	• two separate objects • a common object
Date and time will be set by	• GPS signal and not sent • GPS signal and sent periodically • GPS signal and sent on request • GPS signal and sent on request + periodically • object(s) and not sent
Send cycle *(if sent periodically)*	5 s ... 2 h; 1 min

Set what happens in the event of a GPS malfunction. Please note, that after return of auxiliary voltage, it can take up to 10 minutes before the GPS signal is received.

If there is no reception, GPS fault is ... recognised after the last reception	20 min • 30 min • 1 h • 1.5 h • 2 h
GPS fault object sends (1: malfunction| 0: no malfunction)	• never • 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
Send cycle *(if sent periodically)*	5 s ... 2 h; 10 s

6.2. Location

The location data is required in order to be able to calculate the **position of the sun** with the help of the date and time.

The **location** is received via GPS or entered manually (selection of the nearest town or by entering coordinates). Also when using the GPS signal coordinates can be entered manually for the initial commissioning. This data is used as long as no GPS reception exists. For this you select the option "Input (only valid until the first GPS reception)".

Location is determined by	• input • input (only valid until the first GPS reception) • GPS reception
Location input using *(if input selected)*	• Town • Coordinates

Country *(if input by town is selected)*	• Belgium • Denmark • Germany • France • Great Britain • Italy	• Liechtenstein • Luxembourg • Netherlands • Austria • Switzerland • USA
Town *(if input by town is selected)*	6 towns in Belgium 1 town in Denmark 48 towns in Germany; Stuttgart 23 towns in France 4 towns in Great Britain 10 towns in Italy 1 town in Liechtenstein 1 town in Luxembourg 2 towns in the Netherlands 4 towns in Austria 4 towns in Switzerland 2 towns in the USA	
E. longitude [degrees, -180…+180] *(if input by coordinates is selected)*	9 [negative values mean "western longitude"]	
E. longitude [minutes, -59…+59] *(if input by coordinates is selected)*	10 [negative values mean "western longitude"]	
Northern latitude [Degrees, -90…+90] *(if input by coordinates is selected)*	48 [negative values mean "southern latitude"]	
Northern latitude [minutes, -59…+59] *(if input by coordinates is selected)*	46 [negative values mean "southern latitude"]	

The location-**height** above sea level is used to calculate the normal air pressure (see also chapter *Information on air pressure*, Seite 74).

The height is received per GPS or entered manually. When using the GPS signal a height can be entered manually for the initial commissioning. This data is used as long as no GPS reception exists. For this you select the option "Input (only valid until the first GPS reception)".

Height is determined by	• Input • Input (only valid until the first GPS reception) • GPS reception
Height above sea level in metres	-1000 ... 10000; 200

In order to be able to output the **local time**, the time zone (difference to world time (Coordinated Universal Time)) and the summer time rules must be defined. Specify the hours and minutes after winter time (standard time).

Time zone (relative to GMT):	
Prefix	• positive (+) • negative (-)

Hours	0 ... 13; 1
Minutes	0 ... 59; 0
Summertime rule	• Europe • USA • user-defined • none
All the following times are to be entered as winter time = standard time	
Start of Summer Time:	
on	• Monday ... Sunday • Date
From (day) *(for Europe or USA summer time rules)* (Day) *(For user defined summer time rules)*	1 ... 31; 25
(Month)	1 ... 12; 3
(Hour)	0 ... 23; 2
(minutes)	0 ... 59
End of Summer Time:	
on	• Monday ... Sunday • Date
From (day) *(for Europe or USA summer time rules)* (Day) *(For user defined summer time rules)*	1 ... 31; 25
(Month)	1 ... 12; 10
(hour)	0 ... 23; 2
(minutes)	0 ... 59
Time shift:	
hours	-12 ... 12; 1
minutes	0 ... 59

The standard coordinates can be transmitted from the device to the bus and thus be used in other applications, no matter whether they have been received via GPS or specified manually.

Send coordinates	• never • periodically • on change • on change and periodically
on change of	0.5° • 1° • 2° • 5° • 10°
Send cycle	5 s ... 2 h; 5 min

6.3. Rain

Activate the rain sensor in order to use objects and switch outputs.

Use rain sensor	No • **Yes**

Set, in which cases delay times received are to be kept per object. The parameter is only taken into consideration if the setting by object is activated further down. Please note that the setting "After power restoration and programming" should not be used for the initial start-up, as the factory settings are always used until the first call (setting via objects is ignored).

Maintain the	
delays received via communication objects	• never • after power restoration • after power restoration and programming

Select whether the special rain output is to be used with fixed switching delay. This switching output has no delay on rain recognition and 5 minutes delay after it is dry again.

Use rain output with fixed switching delay	No • Yes

Set the delay times. If the delays are defined using objects, then the times set here are only valid up to the first call.

Delays can be set via objects (in seconds)	No • Yes
Delay on rain	none • 1 s ... • 2 h
Delay on no rain (after drying of the sensor)	5 min • 1 h... • 2 h

Define the send pattern for the rain switch output and specify the object value for the event of rain.

Switching output sends	• on change • on change to rain • on change to no rain • on change and periodically • on change to rain and periodically • on change to no rain and periodically
Send cycle *(if sent periodically)*	5 s ... 2 h; 10 s
Object value(s) with rain	0 • 1

6.4. Temperature measurement value

First of all set whether the temperature sensor malfunction object is to be used and correct, if necessary, the output of the measurement value by specifying an offset (e.g. in order to compensate malfunction sources).

Use malfunction object	No • Yes
Offset in 0.1°C	-50… 50; 0

Then set the mixed value calculation if desired.

Use external reading	No • Yes
Ext. Reading proportion of the total reading *(if external reading is to be used)*	5% • 10% • 15% • ... • 50% • ... • 95% • 100%
All following settings refer to the total measured value	

Specify the send pattern for the total measured value.

Send pattern	• never • periodically • on change • on change and periodically
on change of *(if sent on change)*	0.1°C • 0.2°C • 0.5°C • 1.0°C • 2.0°C • 5.0°C
Send cycle *(if sent periodically)*	5 s … 2 h; 10 s

Select whether the minimum and maximum value should be used.

Use minimum and maximum value	No • Yes

6.5. Temperature threshold values

Activate the temperature threshold values required (maximum four) The menus for the further setting of the threshold values are then displayed.

Threshold value 1	No • Yes
Threshold value...	No • Yes
Threshold value 4	No • Yes

6.5.1. Temperature threshold value 1-4

Threshold value

Set, in which cases threshold values and delay times received are to be kept per object. The parameter is only taken into consideration if the specification/ setting by object is activated further down. Please note that the setting "After power restoration and pro-

gramming" should not be used for the initial start-up, as the factory settings are always used until the first call (setting via objects is ignored).

Maintain the	
threshold values and delays received via communication objects	• never • after power supply restoration • after power supply restoration and programming

Select whether the threshold value is to be specified per parameter or via a communication object.

Threshold value setpoint using	Parameter • Communications object

When the **threshold value per parameter** is specified, then the value is set.

Threshold value in 0.1°C	-300 ... 800; 200

When the **threshold value per communication object** is specified, the starting value, object value limit and type of change to the threshold value are then set.
From the 1st communication onwards, the threshold value corresponds to the value of the communication object and is not multiplied by the factor 0.1.

Start threshold value in 0.1°C valid until first call	-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
Step size *(upon increase/decrease change)*	0.1°C • 0.2°C • 0.3°C • 0.4°C • 0.5°C • 1°C • 2°C • 3°C • 4°C • 5°C

With both of the methods for specifying the threshold values the hysteresis is set.

Hysteresis setting	in % • absolute
Hysteresis in % of the threshold value *(for setting in %)*	0 ... 50; 20
Hysteresis in 0.1°C *(for absolute setting)*	0 ... 1100; 50

Switching output

Define which value the output transmits if the threshold value is exceeded or undercut. Set the delay for the switching and in which cases the switch output transmits.

When the following conditions apply, the output is (LV = Threshold value)	• GW above = 1 | GW - Hyst. below = 0 • GW above = 0 | GW - Hyst. below = 1 • GW below = 1 | GW + Hyst. above = 0 • GW below = 0 | GW + Hyst. above = 1
Delays can be set via objects (in seconds)	No • Yes

Delay from 0 to 1	none • 1 s ... 2 h
Delay from 1 to 0	none • 1 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 *(if sent periodically)*	5 s ... 2 h

Block

If necessary, activate the switching output block and set what a 1 or 0 at the block entry means and what happens in the event of a block.

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 first call	0 • 1
Action when locking	• Do not send message • send 0 • send 1
Action upon 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 • Status object/s send/s
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

6.6. Frost alarm

If necessary, activate the parameter frost alarm. The parameter is independent of the frost alarm used for the façade controller. The internal façade frost alarm is set separately (see F*açade setting* > *Frostalarm*, Seite 90)

Use frost alarm	No • **Yes**

Set which conditions are valid for the frost alarm. The frost alarm is active in cold outdoor temperatures in combination with precipitation.

Start frost alarm when	
an external temperature of (in 0.1 °C) is not reached.	-50 ... 40; 20
during or until (in hours) after precipitation.	1 ... 10; 5
End frost alarm when	
an external temperature of (in 0.1 °C)	30 ... 100; 50
for more than (in hours) is exceeded.	1 ... 10; 5

Define the send pattern and the object value.

Send pattern	• on change • on change to frost • on change to no frost • on change and periodically • on change to frost and periodically • on change to no frost and periodically
Send cycle *(if sent periodically)*	5 s ... 2 h; 1 min
Object value with frost	0 • 1

6.7. Brightness measurement value

Set the send pattern for the measured brightness.

Send pattern	• never • periodically • on change • on change and periodically
at and above change in % *(if sent on change)*	1 ... 100; 20
Send cycle *(if sent periodically)*	5 s ... 2 h

6.8. Brightness threshold values

Activate the brightness threshold values required (maximum four) The menus for the further setting of the threshold values are then displayed.

Threshold value 1	No • Yes
Threshold value...	No • Yes
Threshold value 4	No • Yes

If the shade automation is to be used, a threshold value must be active!

6.8.1. Brightness threshold value 1-4

Threshold value

Set, in which cases threshold values and delay times received are to be kept per object. The parameter is only taken into consideration if the specification/ setting by object is activated further down. Please note that the setting "After power restoration and programming" should not be used for the initial start-up, as the factory settings are always used until the first call (setting via objects is ignored).

Maintain the	
threshold values and delays received via communication objects	• never • after power supply restoration • after power supply restoration and programming

Select whether the threshold value is to be specified per parameter or via a communication object.

Threshold value setpoint using	Parameter • Communications object

When the **threshold value per parameter** is specified, then the value is set.

Threshold value in kLux	1000 ... 150000; 60000

When the **threshold value per communication object** is specified, the starting value, object value limit and type of change to the threshold value are then set.

Start threshold value in Lux valid until first call	1000 ... 150000; 60000
Object value limit (min.) in Lux	1000 ... 150000
Object value limit (max.) in Lux	1000 ... 150000
Type of threshold change	Absolute value • Increase/decrease
Increment in Lux *(upon increase/decrease change)*	1000 • 2000 • 5000 • 10000 • 20000

With both of the methods for specifying the threshold values the hysteresis is set.

Hysteresis setting	in % • absolute
Hysteresis in % of the threshold value *(for setting in %)*	0 ... 100; 50
Hysteresis in Lux *(for absolute setting)*	0 ... 150000; 30000

Switching output

Define which value the output transmits if the threshold value is exceeded or undercut. Set the delay for the switching and in which cases the switch output transmits.

When the following conditions apply, the output is (LV = Threshold value)	• GW above = 1 | GW - Hyst. below = 0 • GW above = 0 | GW - Hyst. below = 1 • GW below = 1 | GW + Hyst. above = 0 • GW below = 0 | GW + Hyst. above = 1
Delays can be set via objects (in seconds)	No • Yes
Delay from 0 to 1	none • 1 s ... 2 h
Delay from 1 to 0	none • 1 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 *(if sent periodically)*	5 s ... 2 h

Block

If necessary, activate the switching output block and set what a 1 or 0 at the block entry means and what happens in the event of a block.

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 first call	0 • 1
Action when locking	• Do not send message • send 0 • send 1
Action upon 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 • Status object/s send/s

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

6.9. Twilight brightness threshold values

Activate the twilight threshold values required (maximum four) The menus for the further setting of the threshold values are then displayed.

Threshold value 1	No • Yes
Threshold value...	No • Yes
Threshold value 4	No • Yes

6.9.1. Twilight threshold value 1-4

Threshold value

Set, in which cases threshold values and delay times received are to be kept per object. The parameter is only taken into consideration if the specification/ setting by object is activated further down. Please note that the setting "After power restoration and programming" should not be used for the initial start-up, as the factory settings are always used until the first call (setting via objects is ignored).

Maintain the	
threshold values and delays received via communication objects	• never • after power supply restoration • after power supply restoration and programming

Select whether the threshold value is to be specified per parameter or via a communication object.

Threshold value setpoint using	Parameter • Communications object

When the **threshold value per parameter** is specified, then the value is set.

Threshold value in kLux	1 ... 1000; 10

When the **threshold value per communication object** is specified, the starting value, object value limit and type of change to the threshold value are then set.

Start threshold value in Lux valid until first call	1 ... 1000; 10
Object value limit (min.) in Lux	1 ... 1000
Object value limit (max.) in Lux	1 ... 1000
Type of threshold change	Absolute value • Increase/decrease
Increment in Lux *(upon increase/decrease change)*	1 • 2 • 5 • 10 • 20 • 50

With both of the methods for specifying the threshold values the hysteresis is set.

Hysteresis setting	in % • absolute
Hysteresis in % of the threshold value *(for setting in %)*	0 ... 100; 50
Hysteresis in Lux *(for absolute setting)*	0 ... 1000; 5

Switching output

Define which value the output transmits if the threshold value is exceeded or undercut. Set the delay for the switching and in which cases the switch output transmits.

When the following conditions apply, the output is (LV = Threshold value)	• GW above = 1 | GW - Hyst. below = 0 • GW above = 0 | GW - Hyst. below = 1 • GW below = 1 | GW + Hyst. above = 0 • GW below = 0 | GW + Hyst. above = 1
Delays can be set via objects (in seconds)	No • Yes
Delay from 0 to 1	none • 1 s ... 2 h
Delay from 1 to 0	none • 1 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 *(if sent periodically)*	5 s ... 2 h

Block

If necessary, activate the switching output block and set what a 1 or 0 at the block entry means and what happens in the event of a block.

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 first call	0 • 1

Action when locking	• do not send message • send 0 • send 1
Action upon 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 • status object/s send/s
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

6.10. Night

If necessary, activate the night recognition.

Use night recognition	No • **Yes**

Set, in which cases delay times received are to be kept per object. The parameter is only taken into consideration if the setting by object is activated further down. Please note that the setting "After power restoration and programming" should not be used for the initial start-up, as the factory settings are always used until the first call (setting via objects is ignored).

Maintain the	
delays received via communication objects	• never • after power supply restoration • after power supply restoration and programming

Specify below which brightness the device should recognise "night" and with which hysteresis this is to be outputted.

Night is recognised below Lux	1 ... 1000; 10
Hysteresis in Lux	0 ... 500; 5

Set the delay for the switching and in which cases the switch output sends and which value is output at night.

Delays can be set via objects (in seconds)	No • Yes
Switching delay on night	none • 1 s ... 2 h
Switching delay on day	none • 1 s ... 2 h
Switching output sends	• on change • on change to night • on change to day • on change and periodically • on change to night and periodically • on change to day and periodically
Send cycle *(if sent periodically)*	5 s ... 2 h
Object value at night	0 • 1

6.11. Sun position

Select whether the device should calculate the sun position itself or if the values are received via the bus. The type of object and send pattern are also set.

Sun position	is calculated • is received
Object type	4 Byte floating point • 2 Byte floating point
Send pattern *(if the sun position is calculated by the device)*	• never • periodically • on change • on change and periodically
on change of *(if sent on change)*	0.1 degrees • 0.2 degrees • 0.5 degrees • 1.0 degree • 2.0 degrees • 5.0 degrees
Send cycle *(if sent periodically)*	5 s ... 2 h; 1 min

6.12. Wind measurement

If necessary, activate the wind malfunction object. Specify whether the measurement should also be output in Beaufort.

Use malfunction object	No • Yes
Measured value additionally output in the Beaufort scale	No • Yes

Define the send pattern and, if necessary, activate the maximum value (this value is not retained after a reset).

Send pattern	• never • periodically • on change • on change and periodically

on change of *(if sent on change)*	2% • 5% • 10% • 25% • 50%
Send cycle *(if sent periodically)*	5 s ... 2 h; 10 s
Use maximum value	No • Yes

Beaufort scale

Beaufort	Meaning
0	Calm
1	Light air
2	Light breeze
3	Gentle breeze
4	Moderate breeze
5	Fresh breeze
6	Strong breeze
7	High wind
8	Gale
9	Severe gale
10	Storm
11	Violent storm
12	Hurricane

6.13. Wind threshold values

Activate the wind threshold values required (maximum four) The menus for the further setting of the threshold values are then displayed.

Threshold value 1	No • Yes
Threshold value...	No • Yes
Threshold value 4	No • Yes

6.13.1. Wind threshold value 1-4

Threshold value

Set, in which cases threshold values and delay times received are to be kept per object. The parameter is only taken into consideration if the specification/ setting by object is activated further down. Please note that the setting "After power restoration and pro-

gramming" should not be used for the initial start-up, as the factory settings are always used until the first call (setting via objects is ignored).

Maintain the	
threshold values and delays received via communication objects	• never • after power supply restoration • after power supply restoration and programming
.	

Select whether the threshold value is to be specified per parameter or via a communication object.

Threshold value setpoint using	Parameter • Communications object

When the **threshold value per parameter** is specified, then the value is set.

Threshold value in 0.1 m/s	1 ... 350; 40

When the **threshold value per communication object** is specified, the starting value, object value limit and type of change to the threshold value are then set.
From the 1st communication onwards, the threshold value corresponds to the value of the communication object and is not multiplied by the factor 0.1.

Start threshold value in 0.1 m/s valid until first call	1 ... 350; 40
Object value limit (min.) in 0.1 m/s increments	1 ... 350
Object value limit (max.) in 0.1 m/s increments	1 ... 350
Type of threshold change	Absolute value • Increase/decrease
Step size *(upon increase/decrease change)*	0.1 m/s • 0.2 m/s • 0.5 m/s • 1.0 m/s • 2.0 m/s • 5.0 m/s

With both of the methods for specifying the threshold values the hysteresis is set.

Hysteresis setting	in % • absolute
Hysteresis in % (relative to threshold value) *(for setting in %)*	0 ... 50; 20
Hysteresis in 0.1 m/s *(for absolute setting)*	0 ... 350; 20

Switching output

Define which value the output transmits if the threshold value is exceeded or undercut. Set the delay for the switching and in which cases the switch output transmits.

When the following conditions apply, the output is (LV = Threshold value)	• GW above = 1 | GW - Hyst. below = 0 • GW above = 0 | GW - Hyst. below = 1 • GW below = 1 | GW + Hyst. above = 0 • GW below = 0 | GW + Hyst. above = 1

Delays can be set via objects (in seconds)	No • Yes
Delay from 0 to 1	none • 1 s ... 2 h
Delay from 1 to 0	none • 1 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 *(if sent periodically)*	5 s ... 2 h

Block

If necessary, activate the switching output block and set what a 1 or 0 at the block entry means and what happens in the event of a block.

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 first call	0 • 1
Action when locking	• Do not send message • send 0 • send 1
Action upon 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 • Status object/s send/s
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

6.14. Air pressure measurement

If necessary, activate the air pressure malfunction object. Specify whether the measured value is, in addition, to be outputted as barometric pressure (see below *Information on air pressure*).

Use malfunction object	No • Yes
Measured value additionally output as barometric pressure	No • Yes

Define the send pattern and, if necessary, activate the minimum and maximum value (these values are not retained after a reset).

Send pattern measurement	• never • periodically • on change • on change and periodically
on change of *(if sent on change)*	10 Pa • 20 Pa • 50 Pa • 100 Pa • 200 Pa • 500 Pa
Send cycle *(if sent periodically)*	5 s ... 2 h; 1 min
Use minimum and maximum value	No • Yes

Information on air pressure

The unit for air pressure is Pascal (Pa).
1 Pa = 0,01 hPa = 0,01 mbar

The air pressure is specified as "normal air pressure" or as "barometric pressure". The normal air pressure is the pressure compensated for height and temperature. The barometric air pressure is the pressure measured directly by the sensor (without compensation).

Air pressure (in Pa)	Meaning	Weather tendency
up to 98,000 Pa	very low	stormy
98,000 ... 100,000 Pa	low	rainy
100,000 ... 102,000 Pa	normal	changeable
102,000 ... 104,000 Pa	high	sunny
104,000 Pa:	very high	very dry

6.15. Air pressure threshold values

Activate the air pressure threshold values required (maximum four) The menus for the further setting of the threshold values are then displayed.

Threshold value 1	No • Yes
Threshold value...	No • Yes
Threshold value 4	No • Yes

6.15.1. Air pressure threshold value 1-4

Threshold value

Set, in which cases threshold values and delay times received are to be kept per object. The parameter is only taken into consideration if the specification/ setting by object is activated further down. Please note that the setting "After power restoration and programming" should not be used for the initial start-up, as the factory settings are always used until the first call (setting via objects is ignored).
Select the type of measured value for the calculation of the threshold value (see *Information on air pressure*)

Maintain the	
threshold values and delays received via communication object	• never • after power supply restoration • after power supply restoration and programming
Type of measurement for threshold value calculation	• Normal air pressure • Barometric pressure

Select whether the threshold value is to be specified per parameter or via a communication object.

Threshold value setpoint using	Parameter • Communications object

When the **threshold value per parameter** is specified, then the value is set.

Threshold value in 10 Pa	3000 ... 11000; 10200

When the **threshold value per communication object** is specified, the starting value, object value limit and type of change to the threshold value are then set.

Start threshold value in 10 Pa valid until first call	3000 ... 11000; 10200
Object value limit (min.) in 10 Pa	3000 ... 11000
Object value limit (max.) in 10 Pa	3000 ... 11000
Type of threshold change	Absolute value • Increase/decrease
Step size *(upon increase/decrease change)*	10 Pa • 20 Pa • 50 Pa • 100 Pa • 200 Pa • 500 Pa

With both of the methods for specifying the threshold values the hysteresis is set.

Hysteresis setting	in % • absolute
Hysteresis in % (relative to threshold value) *(for setting in %)*	0 ... 50; 20
Hysteresis in 10 Pa *(for absolute setting)*	0 ... 11000; 100

Switching output

Define which value the output transmits if the threshold value is exceeded or undercut. Set the delay for the switching and in which cases the switch output transmits.

When the following conditions apply, the output is (LV = Threshold value)	• GW above = 1 | GW - Hyst. below = 0 • GW above = 0 | GW - Hyst. below = 1 • GW below = 1 | GW + Hyst. above = 0 • GW below = 0 | GW + Hyst. above = 1
Delays can be set via objects (in seconds)	No • Yes
Delay from 0 to 1	none • 1 s ... 2 h
Delay from 1 to 0	none • 1 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 *(if sent periodically)*	5 s ... 2 h

Block

If necessary, activate the switching output block and set what a 1 or 0 at the block entry means and what happens in the event of a block.

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 first call	0 • 1
Action when locking	• Do not send message • send 0 • send 1
Action upon 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 • Status object/s send/s

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

6.16. Summer Compensation

With the summer compensation the target value for the room temperature can automatically be adapted by cooling at higher outdoor temperatures. The objective is to prevent a too great a difference between indoor and outdoor temperature in order to keep the energy consumption low.

Activate the summer compensation.

Use summer compensation	No • **Yes**

Using the points 1 and 2, define the outdoor temperature range in which the target value for the indoor temperature is to be adapted linearly. Then, specify which indoor temperature target values are to be valid below point1 and above point 2.

Standard values according to DIN EN 60529

Point 1: External temperature = 20°, Target value = 20°C.
Point 2: External temperature = 32°, Target value = 26°C.

Characteristic curve description:	
External temperature point 1 (in 0.1°C increments)	0 ... 500 ; 200
Outdoor temperature point 2 (in 0.1°C increments)	0 ... 500 ; 320
below point 1 the target value is (in 0.1°C)	0 ... 500 ; 200
above point 2 the target value is (in 0.1°C)	0 ... 500 ; 260

Set the send pattern for the summer compensation.

Send pattern	• periodically • on change • on change and periodically

on change of *(if sent on change)*	0.1°C • 0.2°C • 0.5°C • 1°C • 2°C • 5°C
Send cycle *(if sent periodically)*	5 s ... 2 h; 1 min

If necessary, activate the block for the summer compensation and set what a 1 or 0 at the block input means and what happens in the event of a block.

Use 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 first call	0 • 1
Action when locking	• do not send • Send value
Value (in increments of 0.1°C) *(if a value is sent during blocking)*	0 ... 500; 200

6.17. Optimal usage of façade controller functions

6.17.1. Classifying the façades for the control unit

The control options for shades are façade-related functions.

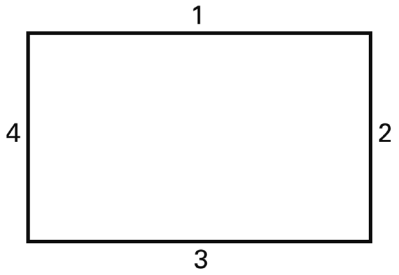


Fig. 20

Most buildings have 4 façades. It is generally recommended that the solar protection of each façade be controlled separately.

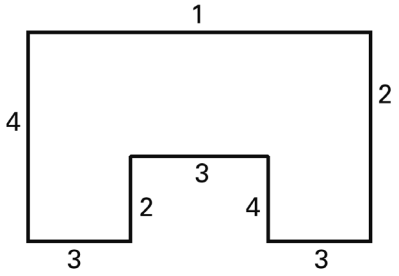


Fig. 21

Even in buildings with a U-shaped layout, only 4 façades have to be controlled differently, as several have the same alignment.

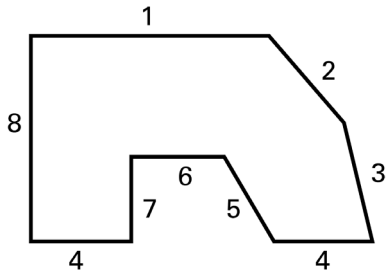


Fig. 22

In buildings with an asymmetrical layout the façades with a non-right-angled orientation (2, 3, 5) and façades that are set back (6) must be controlled separately.

Curved/round fronts should be divided into several façades (segments) to be controlled individually.

If a building has more than 8 façades, the deployment of another weather station is recommended; particularly as this also makes it possible to measure the wind speed in another location.

When there are several buildings, wind measurement should take place separately for each building (e.g. with additional KNX W sl wind sensors), as, depending on the positions of the buildings in relation to one another, different wind speeds may occur.

6.17.2. Orientation and inclination of the façade

Alignment and slant of the façade are needed for the shadow edge tracking and the slat auto-guide.

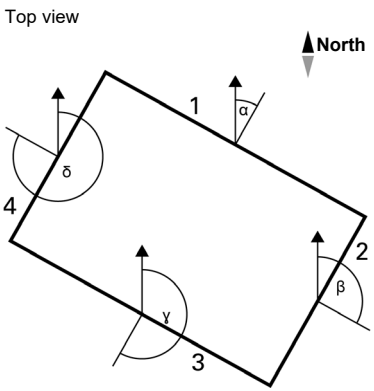


Fig. 23

The façade orientation corresponds to the angle between the North-South axis and the façade vertical. The angle α is measured here in a clockwise direction.

The façade orientations result as follows:

Façade 1: α
Façade 2: $\beta = \alpha + 90°$
Façade 3: $\gamma = \alpha + 180°$
Façade 4: $\delta = \alpha + 270°$

Example: If the building is skewed by $\alpha = 30°$, then the direction for façade 1 = 30°, façade 2 = 120°, façade 3 = 210° and façade 4 = 300°.

Side view

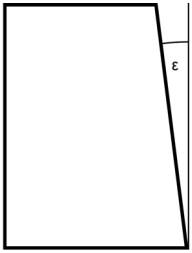


Fig. 24

If a façade surface is not oriented vertically, this must be taken into account. A forward inclination of the façade is counted as a positive angle; a backwards inclination (as in the picture) as a negative angle. This also allows a sunshade of a window built into a sloping roof surface to be controlled according to the current position of the sun.

If a façade is not a flat surface, but rather arched or bent, it must be subdivided into several segments to be controlled separately.

Remember, when setting a façade inclination greater than 0° also to adjust the height of the sun at which shading is to take place.

6.17.3. Shadow edge tracking and slat tracking

Shadow edge tracking

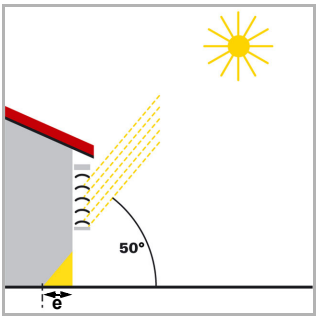
With shadow edge tracking the sunshade is not moved down fully; instead, it is moved only so far that the sun can still shine a configurable distance (e.g. 50 cm) into the room. This allows the room user to look outside through the lower part of the window, and plants which may be on the window ledge to be exposed to the sun.

Shadow edge tracking can only be used with a sunshade which is moved **from the top downwards** (e.g. shutters, textile shades or blinds with horizontal slats). This function *cannot* be used with sunshades which are pulled in front of a window from one or both sides.

Slat tracking

During slat tracking the horizontal slats of shutters are not fully closed but rather automatically adjusted according to the position of the sun so that it cannot shine directly into the room. Diffuse daylight can still enter the room through the slats and contribute to dazzle-free room lighting. Using slat tracking with an external shutter, the entry of warm air into the room through sunshine can be reduced and, at the same time, energy costs for lighting the room can be reduced.

Using shadow edge tracking and slat tracking

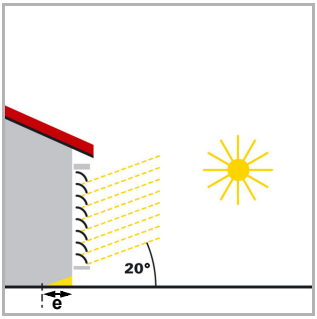


Sunshade when the position of the sun is high

Fig. 25

The sunshade is only partially closed and automatically moved down only enough so that the sun cannot shine further into the room than specified via the maximum permitted penetration depth (e).

The slats can be set horizontally without the sun shining directly into the room.

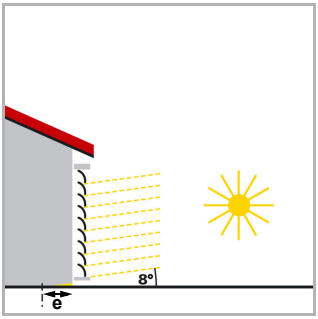


Sunshade when the sun is in a central position

Fig. 26

The sunshade is automatically moved down only far enough so that the sun does not exceed the maximum permitted penetration depth (e) in the room.

The slats are automatically closed further, so that the sun cannot shine directly into the room. Despite that, diffuse daylight can still reach the room and so contribute to the room lighting.



Sunshade when the position of the sun is low

Fig. 27

The sunshade is automatically moved down almost fully, so that the sun does not shine too far into the room.

The slats are automatically closed further, so that the sun does not shine in directly.

6.17.4. Slat types and determination of width and spacing

With slat tracking, a distinction is made between a sunshade or glare protection with horizontal slats and one with vertical slats.

A sunshade with horizontal slats (e.g. external shutter) is typically moved downwards from the top. In the case of an internal glare protector there are versions consisting of thin strips of material (vertical slats), which can be rotated by up to 180° and are pulled out from one or both sides of the window.

Both types of slat can be adjusted by the sensor **Suntracer KNX sl** so that no direct sunlight falls into the room, but as much diffuse daylight as possible does.

In order for slat tracking to set the slats correctly, their width and spacing from one another must be known.

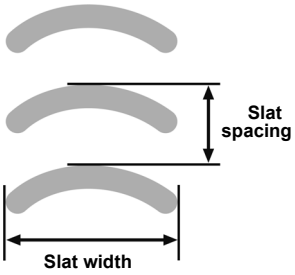


Fig. 28

Horizontal slats

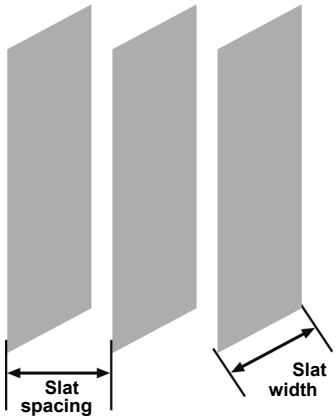


Fig. 29

Vertical slats

6.17.5. Slat position for horizontal slats

The slat angle at 0% move command and at 100% move command must, during commissioning, be aligned to the pre-settings of the product parameters of the **Weather Station Suntracer KNX sl**, and, if necessary, corrected, so that the slat guide on the façade works properly.

The drive used for the shutters defines whether this adjustment can take place almost continuously during slat tracking in many small steps (as with SMI drives, for example) or whether it is only possible in a few large steps (as with most standard drives).

Slat position at 100%

After moving to the 100% slat position the slats form an angle α with the vertical. This angle must be entered in the parameter "Slat angle (in °) after slat move command 100%" (see *Sonnenschutzposition und Nachführungen*, Seite 106 following). The default setting is 10°.

The angle α is always measured to the vertical (perpendicular).

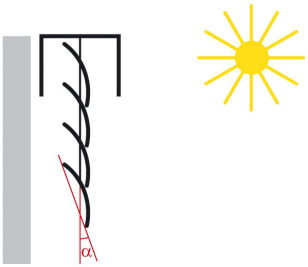


Fig. 30

Example of a typical slat position at move command 100%
(angle α approx. 10°)

Slat position at 0%

After moving to the 0% slat position the slats form another angle with the vertical. This must be entered in the parameter "Slat angle (in °) after slat move command 0%" (see *Sonnenschutzposition und Nachführungen*, Seite 106 following). The default setting is 90°.

The possible angle at slat position 0% depends on the mechanics of the blind and the actuator.

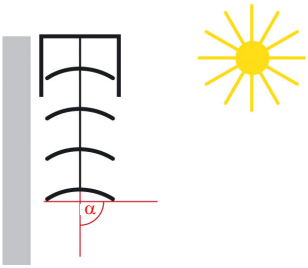


Fig. 31

Example 1 of a slat position at move command 0%
(angle α approx. 90°)

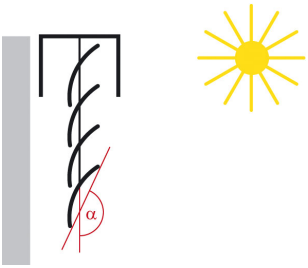


Fig. 32

Example 2 of a slat position at move command 0% (angle α approx. 160°)

By setting the actual angle at 0% and 100% slat position the façade controller can convert the optimal slat angle for the actual sun position into a % command and transmit this to the actuator.

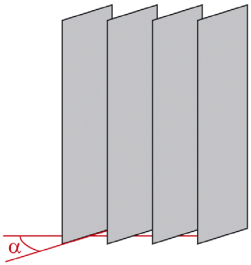
6.17.6. Slat position for vertical slats

The slat angle at 0% move command and at 100% move command must, during commissioning, be aligned to the pre-settings of the product parameters of the **Weather Station Suntracer KNX sl**, and, if necessary, corrected, so that the slat guide on the façade works properly.

Slat position at 100%

After moving to the 100% slat position the slats form an angle α with the direction of movement. This angle must be entered in the parameter "Slat angle (in °) after slat move command 100%" (see *Sonnenschutzposition und Nachführungen*, Seite 106 following). The default setting is 10°.

The angle α is, seen from the outside, always measured to the left.



View from the outside

Fig. 33

Example of a slat position at move command 100% (angle α approx. 10°)

Position 0%

After moving to the 0% slat position the slats form another angle with the direction of movement. This must be entered in the parameter "Slat angle (in °) after slat move command 0%" (see *Sonnenschutzposition und Nachführungen*, Seite 106 following). The default setting is 90°.

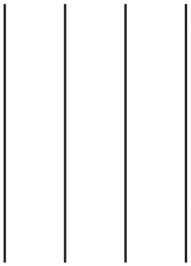
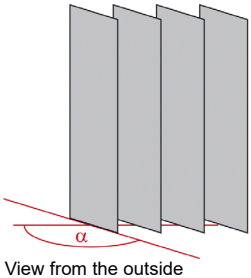


Fig. 34

Example 1 of a slat position at move command 0% (angle α approx. 90°)



View from the outside

Fig. 35

Example 2 of a slat position at move command 0% (angle α approx. 130°)

The possible angle utilisation (difference between slat position 100% and 0%) depends on the mechanics of the blind and the actuator. Take care that the angle utilisation is not limited by the configuration of the actuator.

By setting the actual angle at 0% and 100% slat position the façade controller can convert the ideal slat angle for the actual sun position into a % command and transmit this to the actuator.

6.18. Simulation

Simulation objects help when testing the settings that have been made for façades. They are activated in the setting area *Façades*. By sending various values to the simulation objects number 576 to 591 different weather conditions and times of day can be tested. With the object "590 façade simulation reset (1:Reset)" you can delete all the simulation values that were set.

Activating simulation

In order to start the simulation, the simulation object for the façade must be activated. For façade 1, for example, the object is "592 façade 1 simulation (1: On | 0: Off) Set the value of this object to 1 to start the simulation for façade 1.

The facade and all other subordinate functions must be released (no active blocks) so that the simulated positions can be output.

When the simulation is activated the retraction delay (movement delay LONG) is set to 10 seconds. All other delay times are set to 0. All output objects of the relevant façade

adapt their state to the values of the input objects for the simulation. The objects for normal operation are ignored.

Ending the simulation

Set the value of the object "Façade 1 simulation (1:on | 0:off)" to 0 to end the simulation for façade 1.

When deactivating the simulation, it is possible that when an automation is performed for the first time (e.g. sun automation) that the delay times from the simulation are still used. All output objects of the relevant façade adapt their state to the values of the input objects for normal operation. The simulation objects are once again ignored.

The most recently received values for the simulation objects and also for the objects for normal operation are retained when switching between simulation and normal mode. No reset takes place. This means that when the simulation is ended the last used value for normal operation is applied.

Calculation of the sun position for the simulation

During the simulation it is possible to have the sun position, dependent on the simulation object for date and time, sent to the bus. In order that this functions, a location must be set in the product parameters or the location received via GPS. As long as the location is unknown sun positions are not calculated in the simulation.

6.19. Status output

The status of the automation functions of the façade controller can be used for visualisation or other bus functions. The device offers various possibilities for the status output.

Object status

A status object is available for every function of the automatic.

For the rain alarm on façade 1, for example, it is the object No. 605 "Façade 1 rain alarm status".

Status of all façades

The status of all façades and their automatic functions can be issued in a compact form via an automatic status-bit object. For this purpose, a status of safety, automatic delay after an alarm, wind extension block, timed opening, outdoor temperature block, timed/night closure, heat protection, pyranometer, rain automation, indoor temperature block, shading because of the sun or automatic status, can be issued for every façade. Only the condition *of one* function *of one* façade is always issued. Using the object 575 one can switch to the next function (status-bit) and/or with the object 570 to the next façade.

The objects 568 to 575 are used for the compact output.

No.	Identification	Range	Function / Info
568	Façade X channel Status output	Activation	Set to "active" in order to use the status output
569	Façade X channel Name	Façade	Output of the façade name (when changing façades). Name of the parameter can be adapted (see *Fassade Sicherheit*, Seite 92).
570	Façade X channel (1:+ | 0:-)	Façade	Change to the next/previous façade.
571	Façade X channel Status text	Status	Output of the condition of the selected status-bit as text. Text can be adapted per parameter, see *Texte für Fassade (Objekt „Fass. X Kanal Zustand Text“)*, Seite 91.
572	Façade X channel Status-bit text	Status	Text output for visualising the selected status-bit (when changing the status bit). Text can be adapted per parameter, see *Texte für Status-Bits (Objekt „Fass. X Kanal Statusbit Text“)*, Seite 92.
573	Façade X channel Status-bit condition	Status	Output of the selected automatic status-bit
574	Façade X channel Delay	Status	Displaying the delay time for the selected status-bit. Some automation functions have delay times that must first be run through before the status-bit is (re-)set.
575	Façade X channel Status-bit selection (1:+ | 0:-)	Status	Output of the automatic status-bit

Status of a façade

The compact form of the status output described for all façades can also be performed for single façades. For this, the objects 650 to 655 are used for façade 1, for the other façades the objects named accordingly for the desired façade. The status output corresponds to that for all façades, only that here the objects for changing façades and the text object for the output of the name of the façade are missing. The text output with the object 652 "Façade 1 channel status-bit text" is also taken from the table *Texts for object „façade. X: Channel status-bit text“*.

6.20. Façade setting

If necessary, activate the façade controller (shading controller). When the façade controller is activated, the objects for the simulation of various parameter settings can also be activated. For this simulation, with the exception of a retraction delay (10 seconds),

no time functions (delay times etc.) are used. Please observe the instructions for the simulation in chapter *Simulation*, Seite 85

Use façades	No • Yes
Use simulation objects	No • Yes

In addition, you must activate the required façades individually in order to load the menus for the safety and automation functions.

Use façade 1	No • Yes
Use façades ...	No • Yes
Use facade 8	No • Yes

Furthermore, fundamental settings for the façade controller are made in the façade menu, e.g. for wind and rain alarm, twilight, outdoor temperature sensor, frost and heat protection and the status output.

General settings

Set, in which cases threshold values received are to be kept per object. Please note that the setting "After power restoration and programming" should not be used for the initial start-up, as the factory settings are always used until the first call (setting via objects is ignored).

Maintain the	
target threshold values received via communication objects	• never • after power supply restoration • after power supply restoration and programming

Live monitoring

If the functionality of the wind and rain sensors is to be checked, use wind and rain object monitoring. If data is not regularly being received from the sensors, a defect is assumed and the corresponding alarm is triggered.

Using wind and rain object monitoring	No • **Yes**
Monitoring period	5 s ... 2 h

Independently of live monitoring, the measured values for wind, outdoor temperature and global radiation (pyranometer) are monitored **for changes**. After 48 hours without any change in the measured values a defect is assumed and the corresponding function is set to alarm or block. No settings are required for this.

Wind and rain alarm

Set the automation block for wind and rain alarm. Please observe, that this block begins after the end of the wind or rain alarm and is **only valid for automation**. It avoids frequent extension and retraction during rapidly changing weather conditions. Manual operation is again possible directly after the end of the alarm.

The duration of the blocking can be specified by parameter or received as an object via the bus.

Preset automation blocking duration per	Parameter • object
Automation blocking duration after wind and rain alarm (in minutes) *(for definition via an object only valid until first call)*	0 ... 360; 5

When specifying the blocking duration **by object** the minimum and maximum blocking duration and the increment for the change to the parameter are also defined.

Minimum automation blocking duration	0 ... 360
Maximum automation blocking duration	0 ... 360; 30
Blocking duration increment	0 ... 50; 1

Rain automation

For external shades either a rain alarm or a rain automation can be set which have opposite functions. The selection is made in the menu *Façades: Façade X safety*.

The rain alarm protects the shading against getting wet. The rain automation ensures that the shading is, under certain conditions, extended during rainfall. The curtain can thus be cleaned by natural means. Please observe the specifications from the manufacturer of the curtain and set the rain alarm or automation accordingly.

If a rain automation has been set for the shading, then the extension delay can be specified directly via parameter or received as an object via the bus.

Preset extension delay for rain automation per	Parameter • object
Extension delay on rain automation (in minutes) *(for definition via an object only valid until first call)*	0 ... 360; 5

Rain alarm: Shading is retracted as soon as precipitation is signalled and is blocked during the precipitation.
Rain automation: Precipitation is only considered in pre-set periods. A rain position is approached. The extension delay during precipitation can be set.

Twilight

Set the twilight threshold value. The threshold value can be specified directly by parameter or received as an object via the bus. The device's internally measured value is used for brightness. The switching delay between day and twilight is 1 minute.

Preset threshold value for twilight per	Parameter • object
Night is determined at a light level below (in Lux) *(for definition via an object only valid until first call)*	1 ... 200; 10

When specifying the threshold value **by object** the minimum and maximum values that can be set for twilight values and the increment for the change are also defined.

Minimum variable value (in Lux) for twilight	1 ... 200; 2
Maximum variable value (in Lux) for twilight	1 ... 200; 100
Increment (in Lux)	1 ... 10; 2

Outdoor temperature

Define which outdoor temperature value for frost alarm, heat protection and outdoor temperature block are to be used. The device's own internal values or a value received via a communication object can be used.

Measured value from	Internal sensor • communication object

After 48 hours without any change in the value a defect is assumed and the frost alarm, heat protection and outdoor temperature block are activated.

Heat protection

Define the outdoor temperature for the heat protection. The threshold value can be specified directly by parameter or received as an object via the bus.

Preset threshold value for heat protection per	Parameter • object
Activate heat protection, if outdoor temperature is exceeded.	
Temperature (in 0.1°C) *(for definition via an object only valid until first call)*	100 ... 500; 350
Hysteresis (in 0.1°C)	10 ... 200; 50

When specifying the threshold value **by object** the minimum and maximum values that can be set for temperature and the increment for the change are also defined.

Minimum temperature that can be set (in 0.1 °C)	100 ... 500; 200
Maximum temperature that can be set (in 0.1 °C)	100 ... 500; 380
Increment (in 0.1 °C)	1 ... 10; 5

Frost alarm

This frost alarm is only used within the façade controller and is independent of the general parameter *Frost alarm* (siehe *Frost alarm*, Seite 90).

The frost alarm is active in cold outdoor temperatures in combination with precipitation. The conditions can be specified directly by parameter or received as an object via the bus.

Preset frost protection values per	Parameter • object
Start frost alarm when	
an external temperature of (in 0.1 °C) is not reached. *(for definition via an object only valid until first call)*	-200 ... 300; 20
during or until (in hours) after precipitation. *(for definition via an object only valid until first call)*	1 ... 10; 5
End frost alarm when	
an external temperature of (in 0.1 °C)	-200 ... 300; 50
for more than (in hours) is exceeded.	1 ... 10; 5

When specifying the conditions **by object** the minimum and maximum temperature and time values that can be set and the temperature increment for the change are also defined.

Start frost alarm when	
Minimum outdoor temperature that can be set (in 0.1 °C)	-200 ... 300; -10
Maximum outdoor temperature that can be set (in 0.1 °C)	-200 ... 300; 40
Minimum start-time that can be set (in 0.1 °C)	1 ... 10
Maximum start-time that can be set (in 0.1 °C)	1 ... 10
End frost alarm when	
Minimum outdoor temperature that can be set (in 0.1 °C)	-200 ... 300; 20
Maximum outdoor temperature that can be set (in 0.1 °C)	-200 ... 300; 100
Minimum start-time that can be set (in 0.1 °C)	1 ... 10
Maximum start-time that can be set (in 0.1 °C)	1 ... 10
Temperature increment (in 0.1 °C)	0 ... 250; 5
Time increment ± 1 hour	

Status output façade

Information on the various possibilities for the status output can be found in chapter *Status output*, Seite 86. In principal the status output is a singular function, but, in compact form, possible for singular and for all façades possible. For the output in a compact form pre-sets are made here and the output texts defined.

Set which value in the status release object **for all façades** means active respectively inactive.

Analysis of the status release object	• 1 = activated | 0 = deactivated • 0 = activated | 1 = deactivated
value until first call	0 • 1

For the status output the status bit selected (i.e. the function) and, if applicable, also the active façade is output. As a result, it can easily be visualised which status is just being issued. The texts can be adapted individually and should, as a maximum, be 14 characters long.

Texts for façade (Object "Fac. X channel state text"

Safety	Safety [Free text]
Automatic delay after alarm	Autom. delay [free text]
Wind extension block	Wind ext. bl. [free text]
Time open	Time - open [Free text]
Outdoor temperature block	Outd. temp. Sp. [free text]
Time/night closure	Time/night clo. [free text]
Heat protection	Heat protection [Free text]
Pyranometer	Pyranometer [Free text]
Rain automation	Rain automation [Free text]
Interior temperature block	Int. temp. Sp. [free text]
Shading because of the sun	Brightness [Free text]
No automation active	No automat. [free text]

Texts for status bits (Object "Fac. X channel status bit text"

Blocking the automation via Communications object	Auto. Block [Free text]
Wind extension block status	Wind ext. bl. [free text]
Wind alarm status	Wind alarm [Free text]
Rain alarm status	Rain alarm [Free text]
Rain automation status	Rain automation [Free text]
Frost alarm status	Frost alarm [Free text]
Safety status	Safety [Free text]
Time open status	Time open [Free text]
Outdoor temperature blocking status	Out-temp block [Free text]
Night closure status	Night closure [Free text]
Timed closure status	Timed closure [Free text]
Heat protection status	Heat protection [Free text]
Pyranometer status	Pyranometer [Free text]
Indoor temperature blocking status	Indoor-temp block [Free text]

Sun shining on façade status	Sun on fac. [Free text]
Sun bright, short retraction delay Status	Bright. short [Free text]
Sun bright, long retraction delay Status	Bright. long [Free text]

6.20.1. Façade safety

Set the basic and safety relevant functions for the façade.

Enter a name for the façade and specify whether simulation objects are to be loaded. Simulation help when testing the settings that have been made. For this observe the chapter *Simulation*, Seite 85.

For shutters and slat blinds use the setting - shade has slats. As a result, further settings, especially for slats, are possible.

Name	Façade 1 [Free text]
Use simulation objects	No • Yes
Does the shade have slats?	No • Yes

Configure the blocking for the façade and define how safety/ alarm objects and movement/position objects are to be handled.

Analysis of the blocking object	• 1 = block | 0 = release • 0 = block | 1 = release
Blocking object value before first call	0 • 1
Action after locking	• executing the last automation command • Waiting for next automation command
Consolidate wind, frost and rain alarms to safety object?	No • Yes
Send pattern of the safety and alarm 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
Send cycle *(if sent periodically)*	5 s ... 2 h; 10 s
Send pattern of the move and slat position objects	• on change • on change and periodically
Send cycle *(if sent periodically)*	5 s ... 2 h; 10 s

Set, in which cases threshold values received are to be kept per object.

Maintain the	
target threshold values received via communication objects	• never • after power supply restoration • after power supply restoration and programming
(applicable for façade safety and façade automation)	

This setting also affects the release objects of the facade automation (opening time, outdoor temperature block, time and night closing, heat protection, pyranometer, rain automation, indoor temperature block and solar protection automation).

Please note that the setting "After power restoration and programming" should not be used for the initial start-up, as the factory settings are always used until the first call (setting via objects is ignored).

Priorities

The functions of the façade are arranged according to their priorities. First named have higher priority. 1. Wind, 2. Frost, 3. Rain.

Wind alarm and wind extension block

If the wind threshold values are exceeded, a wind alarm can be triggered, i.e. the shade is retracted.

If the wind extension block is active, the curtain can no longer be extended (not even by manual commands). If the curtain has already been extended, it remains in its position.

If the wind alarm is used, then, as a precaution, the alarm is activated, if over a period of 48 hours no change in the measured value has been recorded at the relevant wind sensor.

Set with what the wind alarm and, if desired, wind extension blocking is to be defined.

Use	• No • as wind alarm per threshold value • as wind alarm per bit object • as wind alarm and extension block per threshold value • as wind alarm per threshold value/extension block per bit object • as wind alarm per bit object/extension block per threshold value • as wind alarm/wind extension block per bit object

If **alarm or extension block per bit object** is defined, no further settings are required. The wind alarm is defined externally and the alarm or block information is received by the weather station as a 1-bit object. The duration of blocking by the auto-

mation after a wind alarm is set in the "façades" menu (see *Wind and rain alarm*, Seite 88).

If **Alarm or extension block per threshold value** is defined, then set which sensors are relevant for this. The wind value measured internally in the device can be used, but also the values of the external wind communication objects assigned to the façades. With several sensors, only one must exceed the threshold value in order for the alarm/ block to become active.

In addition, a delay can be specified per parameter. It specifies the time that elapses from the point at which the threshold value is exceeded until the wind alarm or the wind extension block is triggered. If the value falls below the threshold value, a fixed holding time of 5 minutes elapses before the wind alarm / the wind extension block is deactivated again. If the threshold value is exceeded within 5 minutes, the holding time starts again from the beginning.

After the five-minute holding time has elapsed, the automatic block starts. It is set in the "Façades" menu (see *Wind and rain alarm*, Seite 88). Manual driving is possible again immediately after the holding time has elapsed.

Internal sensor measurement	No • Yes
Communication object measurements	
Façade wind 1 / 2 / 3 / 4 / 5 / 6 / 7 / 8	No • Yes

Select whether the threshold value is to be specified per parameter or via a communication object.

Threshold value setpoint using	Parameter • object

When the **threshold value per parameter** is specified, then the value and delay time are set.

Wind threshold value (in 0.1 m/s) prevents shading (extension block)	0 ... 255; 40
Wind alarm threshold (in 0.1 m/s) retracts the shade (wind alarm)	0 ... 255; 40/80;
Wind alarm delay (in s)	0 ... 255; 2

When the **threshold value per communication object** is specified, then the starting value, minimum and maximum threshold value and delay time are set.

Wind alarm threshold (in 0.1 m/s) retracts the shade	0 ... 255; 80
Minimum threshold value (in 0.1 m/s)	0 ... 255; 20
Maximum threshold value (in 0.1 m/s)	0 ... 255; 120
0.5 m/s increment	
Wind alarm delay (in s)	0 ... 255; 2

Frost alarm

Set whether the frost alarm is to be used for this façade. Further parameters for the frost alarm are set in the "façades" menu (see *Frost alarm*, Seite 90).

Use	No • Yes

If the frost alarm is used, then, as a precaution, the alarm is activated, if over a period of 48 hours no change in the measured value has been recorded at the relevant outdoor temperature sensor.

Rain

In the event of precipitation either a rain alarm can be triggered for the façade, i.e the shade is retracted and blocked, or a rain automation is executed. The rain automation moves to a certain position and is valid for the periods set. At other times with "rain automation" set the shade does not react to precipitation.

Further parameters for the rain automation are set in the "façades" menu (see *Rain automation*, Seite 89). Rain alarm does not have any extension delay.

Set whether precipitation should trigger the rain alarm or the rain automation.

Use	• No • as rain alarm • as rain automation

If in the event of precipitation, the **rain automation** is triggered, then set in which periods of the week and the calendar-timer, the rain movement position is to be travelled to. The periods are defined in the menu "week timer" or "month timer" (see *Weekly timer*, Seite 113 and *Calendar timer*, Seite 114).

Use rain automation	
with week timer	
Period 1 24	No • Yes
with calendar timer	
Period 1...4 Sequence 1/2	No • Yes

Then also set the movement position.

Movement position (in %)	0 ...100
Slat position (in %) *(only for window shades with slats)*	0 ...100

Define the value of the release object for the rain automation. Using the release object, the rain automation can be deactivated at short-notice.

Evaluation of the rain automation - release object	1 = activated | 0 = deactivated 0 = activated | 1 = deactivated
value until first call	0 • 1

Define the follow-up time The follow-up time is the delay time after the end of the precipitation warning.

Rain automation follow-up time in minutes	1 ... 120; 5

Within the automation functions the rain automation has a low priority. To display the sequence, rain automation is also listed in the *Façade X automation* without the settings being possible.

6.20.2. Façade automation

Set automation for the façade

Priorities

The functions of the façade are arranged according to their priorities. First named have higher priority. 1. Time open, 2. Outdoor temperature block, 3. Time and night closure, 4. Heat protection, 5. Pyranometer 6. Rain automation 7. Interior temperature block, 8. Solar protection automation.

Time open

The curtain can, at certain times, be opened compulsorily or stay open. For time opening, a movement position can be defined.

Set whether a time opening is to be used.

use	No • **Yes**

Set in which periods of the week and the calendar-timer, the time opening movement position is to be approached. The periods are defined in the menu "week timer" or "month timer" (see *Weekly timer*, Seite 113 and *Calendar timer*, Seite 114).

Use time opening	
with week timer	
Period 1 24	No • Yes
with calendar timer	
Period 1...4 Sequence 1/2	No • Yes

Set the movement position. Define the value of the release object for time opening. Using the release object, time opening can be deactivated at short-notice.

Movement position (in %)	0 ...100
Slat position (in %) *(only for window shades with slats)*	0 ...100
Evaluation of the time opening-release object	1 = activated | 0 = deactivated 0 = activated | 1 = deactivated
value until first call	0 • 1

Outdoor temperature block

Below a certain outdoor temperature, the shade is withdrawn.

Set whether an outdoor temperature block is to be used. The threshold value can also be set by "changeable per object".

Use	• No • Yes • Changeable per object

Then set the threshold value for the temperature block and the hysteresis for the event that the value is exceeded.

Deactivate block for outdoor temperatures above	
Threshold value (in 0.1°C increments) (*if changeable:* until first call)	-200 ... 300; 50
Hysteresis (in 0.1°C)	-200 ... 300; 30

When specifying the threshold value **by object** the minimum and maximum values that can be set and the increment for the change are also defined.

Minimum variable per object Threshold value (in 0.1°C increments)	-200 ... 300; 0
Maximum variable per object Threshold value (in 0.1°C increments)	-200 ... 300; 200
Increment for threshold value change (in 0.1°C)	1 ... 20; 5

Define the value of the release object for the outdoor temperature block. Using the release object, the outdoor temperature block can be deactivated at short-notice.

Evaluation of the outdoor temperature - release object	1 = activated | 0 = deactivated 0 = activated | 1 = deactivated
value until first call	0 • 1

If the outdoor temperature block is used, then, as a precaution, the block is activated, if over a period of 48 hours no change in the measured value has been recorded at the relevant temperature sensor.

Time and night closure

The curtain can, at certain times, and at night, be closed compulsorily. For the time and night closure a movement position can be defined.

Set whether a time and/or night closure is to be used

Use	No • **Yes**
Use timed closure	No • Yes
Use night-time closure	No • Yes

For the **timed closure**, set in which periods of the week and the calendar-timer, the timed closure movement position is to be travelled to. The periods are defined in the menu "week timer" or "month timer" (see *Calendar timer*, Seite 114 and *Calendar timer*, Seite 114).

Use time opening	
with week timer	
Period 1 24	No • Yes
with calendar timer	
Period 1...4 Sequence 1/2	No • Yes

Define the value of the release object for the timed closure. Using the release object, the timed closure can be deactivated at short-notice.

Evaluation of the timed closure-release object	1 = activated | 0 = deactivated 0 = activated | 1 = deactivated
value until first call	0 • 1

Define the value of the release object for the **night closure**. Using the release object, the night closure can be deactivated at short-notice.

Evaluation of the timed closure-release object	1 = activated | 0 = deactivated 0 = activated | 1 = deactivated
value until first call	0 • 1

The brightness below which the "night" is recognised is set in the "façades" menu (see *Twilight*, Seite 89).

You can define that the **time and night closure** are only performed once per period/ night. Then also set the movement position.

Night and timed closure only once	No • Yes
Position for night or timed closure	
Movement position (in %)	0 ... 100
Slat position (in %) *(only for window shades with slats)*	0 ... 100

Heat protection

Above a certain outdoor temperature, a heat protection can be travelled to. Further parameters for heat protection are set in the "façades" menu (see *Heat protection*, Seite 99).

Define the value of the release object. Using the release object, the heat protection can be deactivated at short-notice.

Evaluation of the heat protection object	1 = activated | 0 = deactivated 0 = activated | 1 = deactivated
value until first call	0 • 1

Set the movement position.

Position for heat protection	
Movement position (in %)	0 ... 100
Slat position (in %) *(only for window shades with slats)*	0 ... 100; 90

If heat protection is used, then, as a precaution, protection is activated, if over a period of 48 hours no change in the measured value has been recorded at the relevant temperature sensor.

Pyranometer (global radiation)

Above a certain global radiation value, a protection position can be taken up.

Set whether the global radiation is to be considered. The threshold value can also be set by "changeable per object".

Use	• No • Yes • Changeable per object

Then set the threshold value for the global radiation and the hysteresis for the event that the value is not reached.

Deactivate block for outdoor temperatures above	
Threshold value (in W/m²) (*if changeable:* until first call)	0 ... 2500; 500
Hysteresis threshold value in	in percent • in Watt/m²
Hysteresis of the threshold value (in 0.1 °C) (in %)	 0 ... 2500; 400 0 ... 100; 30

When specifying the threshold value **by object** the minimum and maximum values that can be set and the increment for the change are also defined.

Minimum threshold value that can be set (in W/m²)	0 ... 2500; 100
Maximum threshold value that can be set (in W/m²)	0 ... 2500
Threshold value increment (in W/m²)	0 ... 200; 50

Set the movement position and define the value of the release object. Using the release object, the pyranometer controller can be deactivated at short-notice.

Movement position pyranometer	
Movement position (in %)	0 ... 100
Slat position (in %) *(only for window shades with slats)*	0 ... 100; 90

Evaluation of the Pyranometer release object	1 = activated | 0 = deactivated 0 = activated | 1 = deactivated
value until first call	0 • 1

If global radiation monitoring is used, then, as a precaution, the protection is activated, if over a period of 48 hours no change in the measured value has been recorded at the relevant pyranometer.

Rain automation

If rain protection has configured as rain automation, then its priority is between the pyranometer controller and the interior temperature block. Rain automation is set in the general settings of the *façade* (see chapter *Rain automation*, Seite 101) and at *façade X safety* (see chapter *Rain*, Seite 96).

Interior temperature block

Below a certain interior temperature, the curtain can be prevented from opening.

Set whether an interior temperature block is to be used. The threshold value can also be set by "changeable per object".

Use	• No • Yes • Changeable per object

Then set the threshold value for the temperature block and the hysteresis for the event that the value is not reached.

Allow shading at internal temperature above	
Threshold value (in 0.1°C increments) (*if changeable:* until first call)	-32768 ... 32767; 200
Hysteresis (in 0.1°C)	-200 ... 300; 20

When specifying the threshold value **by object** the minimum and maximum values that can be set and the increment for the change are also defined.

Minimum variable per object Threshold value (in 0.1°C increments)	-32768 ... 32767; 100
Maximum variable per object Threshold value (in 0.1°C increments)	-32768 ... 32767; 350
Increment for threshold value change (in 0.1°C)	1 ... 20; 5

Define the value of the release object for the interior temperature block. Using the release object, the interior temperature block can be deactivated at short-notice.

Evaluation of the interior temperature blocking release object	1 = activated | 0 = deactivated 0 = activated | 1 = deactivated
value until first call	0 • 1

Solar protection automation

If none of the blocks is active, then the position of the sun and the brightness are checked and is, corresponding to the solar protection automation, shaded.

Set whether solar protection automation is to be used.

Use	No • **Yes**

Define the value of the release object for solar protection automation. Using the release object, solar protection automation can be deactivated at short notice.

Evaluation of the solar automation release object	1 = activated | 0 = deactivated 0 = activated | 1 = deactivated
value until first call	0 • 1

Sun position

Set the direction and height of the sun for shading. The angle, which is specified for the direction of the sun (azimuth), is aligned according to the orientation of the façade. In addition, the angle of the façade and obstacles which cast a shadow on the façade, such as, for example, a wall or overhanging roof, can also be taken into account in the setting for sun direction (azimuth) and sun height (elevation).

Top view

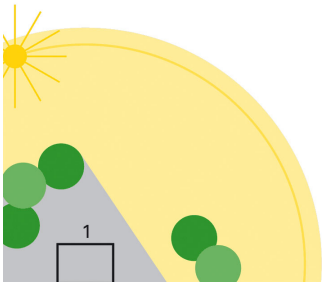


Fig. 36

1a: Sun elevation (Azimuth)

In the morning the building is fully shaded by surrounding trees.

Top view

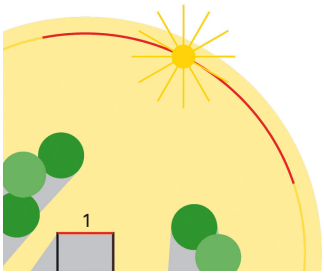


Fig. 37

1b: Sun elevation (Azimuth)

For façade 1, shading must only be active in the azimuth marked red, as the sun can then shine on to the building without obstruction

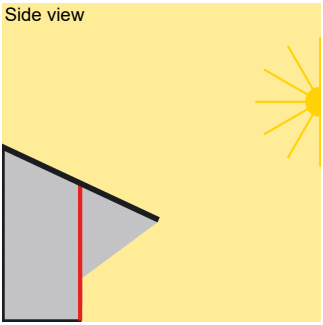


Fig. 38

2: Sun position (Elevation)

When the sun's position is high, the façade is only shaded by the roof overhang. Shading is only necessary if the sun is low (in the figure approx. below 53°).

Select whether the ranges for the direction and height of the sun are to be specified per parameter or via a communication object.

Specification for the ranges of sun direction and height by	Parameter • object

If the ranges are specified **by parameter**, then several ranges can be specified. Specify the direction for the shading, either with the defined compass direction or with "angle range" and by inputting the values exact to a degree. If the ranges are specified **by communication object**, then only the starting values for direction and height are defined, that are valid until the first call.

Number of ranges for sun direction and height	1 • 2 • 3
Range 1 / 2 / 3	
Sun direction (*when specified by parameter:* valid until first call)	• All sides (0° ... 360°) • West (180° ... 360°) • South-West (135° ... 315°) • South (90° ... 270°) • South-East (45° ... 225°) • East (0° ... 180°) • Angle range
at and above (in °) *(for angle range)*	0 ... 360; 90
until (in °) *(for angle range)*	0 ... 360; 270
Sun elevation (*when specified by parameter:* valid until first call)	• every height (0° ... 90°) • Angle range
at and above (in °) *(for angle range)*	0 ... 90
until (in °) *(for angle range)*	0 ... 90
Incrementally in ° *(for specification by parameter)*	1 ... 10; 2

For sun direction and height, a fixed hysteresis of 1° is valid

Brightness value (sensor selection)

Next you select which brightness value (sensor) is to be relevant for the shading of the façade. As a brightness value the highest value actually measured by the three internal sensors can be used, or a value that was received via a communication object.

Brightness sensor selection:	• Internal sensors (maximum value) • via communication object

Brightness threshold value

Select whether the brightness threshold value is to be specified per parameter or via a communication object. Please observe that the communication object outputs the threshold value in *Lux* the threshold value, however is set in *Kilolux*.

Threshold value definition for brightness per	Parameter • object

Set the brightness threshold value and the hysteresis for the event that the value is not reached. If the value is specified via communication object, then a starting value and the possible setting range is defined.

Threshold value (in kLux) (*when specified by parameter:* valid until first call)	1 ... 150; 60
Minimum threshold value that can be set (in kLux) *(for specification by parameter)*	1 ... 150; 10
Maximum threshold value that can be set (in kLux) *(for specification by parameter)*	1 ... 150; 80
Increment for threshold value (kLux) *(for specification by parameter)*	1 ... 5; 5
Hysteresis threshold value in	in percent (%) • in kLux
Hysteresis of the threshold value (in kLux) (in %)	 1 ... 150; 20 0 ... 100; 30

Travel delays

For the shading there are three travel delays:

The **extension delay** defines the waiting time for the sun automation after the brightness threshold value has been exceeded.

At the end of the **short delay time** after the brightness value has not been reached an intermediate position is approached. For example, here a position can be defined that only differs from the shading position "extended" by the slat position on the shutter. The shade does not immediately go up, but lets in somewhat more light. This position is set further down in the same menu.

The **retraction delay** defines the waiting time for the retraction after the brightness threshold value has not been reached.

Select whether the travel delay is to be specified per parameter or via objects.

Specifying the withdrawal and extension delay	Parameter • object

Set the delay times. If the delays are specified via communication object, then a starting value and the possible setting range is defined.

Extension delay (in minutes) (*when specified by parameter:* valid until first call)	1 ... 240
Minimum extension delay that can be set (in minutes) *(for specification by parameter)*	1 ... 240
Maximum extension delay that can be set (in minutes) *(for specification by parameter)*	1 ... 240; 40
Incrementally (in minutes) *(for specification by parameter)*	1 ... 10
Brief delay (in seconds) (*when specified by parameter:* valid until first call)	1 ... 3600; 10
Minimum short delay (in seconds) *(for specification by parameter)*	1 ... 3600
Maximum short delay (in seconds) *(for specification by parameter)*	1 ... 3600; 120
Increment (in seconds) *(for specification by parameter)*	1 ... 240
Retraction delay (in minutes) (*when specified by parameter:* valid until first call)	1 ... 240; 30
Minimum extension delay that can be set (in minutes) *(for specification by parameter)*	1 ... 240; 10
Maximum extension delay that can be set (in minutes) *(for specification by parameter)*	1 ... 240
Incrementally (in minutes) *(for specification by parameter)*	1 ... 10

Solar protection position and auto-guiding

Solar protection extends the shading automatically if

- the sun is coming from the set direction and
- the brightness of the set threshold value

- is exceeded over a period longer the extension delay time.

For the movement position "Solar protection" auto-guiding can be set. Settings for slats are only displayed if the shading for the façade has been defined as having slats (see *Façade safety*, Seite 93).

Without auto-guiding a fixed position is travelled to.

With a four step slat guiding concept, a defined movement position is travelled to and the slats are tilted in four steps according to the position of the sun.

For slat auto-guiding, the direction and slant of the façade are taken into account, and internally the angle of the slat so calculated that no direct light can shine through the slats.

For shadow edge tracking, a fixed slat position is set (only for shades with slats). For the movement position, the orientation and slant of the façade and the height of the window are taken into consideration so that it can be defined how far the sun may shine into the room.

Shadow edge tracking and slat auto-guide are also possible in combination.

Before setting auto-guide, please read the instructions in chapter *Optimal usage of façade controller functions*, Seite 78

Solar protection position	• Without auto-guide • Slats in 4 stages • Shadow edge tracking • Slat auto-guide • Shadow edge tracking and slat auto-guide

Without auto-guiding a fixed position is travelled to.

Movement position (in %)	0 ... 100
Slat position (in %) *(only for window shades with slats)*	0 ... 100; 80

With the **four step slat guiding** the fixed movement position and the four slat angles are defined (only for shades with slats).

Movement position (in %)	0 ... 100
Slat position (in %) for sun height (in °)	
0° to 15°	0 ... 100
15° to 30°	0 ... 100; 80
30° to 45°	0 ... 100; 65
45° to 90°	0 ... 100; 50

For the **slat guiding** the fixed movement position and the characteristics of the façade and the slats are specified (only for shades with slats). The device calculates the ideal

slat position, so that no direct light can enter through the slats, but such that, at all times, as much indirect light as possible lights up the room.

With the setting for the minimum change of angle for transmission of a movement command, the "increment" respectively the frequency of the angle correction can be adjusted. Hereby, the technical possibilities of the drive used must be taken into consideration. The minimum change of angle is taken into account in the device internal calculation, so that direct sunlight can be prevented, even for large steps.

The slat angle at 0% move command and at 100% move command must, during commissioning, be aligned to the pre-settings of the parameters, and, if necessary, corrected, so that the slat guide on the façade works properly. For this purpose, observe chapter *Slat position for horizontal slats*, Seite 82 respectively *Slat position for vertical slats*, Seite 84.

Movement position (in %)	0 ... 100
Orientation of the façade (North=0°, East=90°, South=180°, West=270°)	0 ... 360; 180
Inclination of the façade in ° (0° = no inclination)	-90 ... 90; 0
see *Orientation and inclination of the façade*, Seite 79	
Slat orientation	Horizontal • vertical
Slat width (in mm)	0 ... 1000; 80
Slat distance (in mm)	0 ... 1000; 75
see *Slat types and determination of width and spacing*, Seite 81	
Minimum change of angle for transmitting a new slat position	1 ... 90; 10
Slat angle (in °) after after slat move command 0%	0 ... 180; 90
Slat angle (in °) after after slat move command 100%	0 ... 180; 10
see *Slat position for horizontal slats*, Seite 82 respectively *Slat position for vertical slats*, Seite 84	

For the **shadow edge auto-guide** a fixed slat position is set (only for shades with slats). For the movement position the orientation and angle of the façade and the height of the windows (glass height) are specified. The device calculates the ideal position so that the specified maximum depth of penetration into the room for the sun, is not exceeded.

Using the setting for, from which shadow edge shift, in centimetres, a move command is to be transmitted, the frequency of the position correction can be adjusted. Hereby, the technical possibilities of the drive used must be taken into consideration.

See also chapter *Shadow edge tracking and slat tracking*, Seite 80.

Slat position (in %)	0 ... 100; 80
Orientation of the façade (North=0°, East=90°, South=180°, West=270°)	0 ... 360; 180
Inclination of the façade in ° (0° = no inclination)	-90 ... 90; 0
Window height in cm	0 ... 1000; 150
Maximum depth of penetration by the sun into the room in cm	10 ... 250; 50
From a shadow shift of cm auto-tracking is performed	1 ... 50; 10

Please observe: The slant of the façade and the angle set for the height of the sun should be compatible. Thus, if the façade is slanted forwards by 10°, then the sun only needs to be considered up to a height of 80°. Enter this separately with the parameters the parameter for sun direction and height (see chapter *solar protection automation*, *Sun position*, Seite 102).

Intermediate position for the short retraction delay time

Solar protection automation moves to the "short delay" position if
- the shading has been extended by the solar protection automation and
- the brightness is then below the value (threshold value - hysteresis)
- for longer than the short delay time.

For the movement position "short retraction delay" a movement position and a slat position can be set. Settings for slats are only displayed if the shading for the façade has been defined as having slats (see *Façade safety*, Seite 93).

Use movement position	No • Yes
Movement position (in %)	0 ... 100
Use slat position	No • Yes
Slat position (in %)	0 ... 100

Standard movement position

Solar protection automation is terminated and the standard position is approached.
- the sun is not coming from the set shading direction or
- the brightness is then below the value (threshold value - hysteresis)
- for longer than the time (short delay + retraction delay time).

Move to position, if no automation with higher priority is being executed	
Movement position (in %)	0 ... 100
Slat position (in %) *(only for window shades with slats)*	0 ... 100

Settings for slats are only displayed if the shading for the façade has been defined as having slats (see *Façade safety*, Seite 93).

Status output façade

Information on the various possibilities for the status output can be found in chapter *Status output*, Seite 86. In principal the status output is a singular function, but, in compact form, possible for singular and for all façades possible. The texts for the output in compact form are defined in the general settings for the façade (see chapter *Status output*, Seite 86).

Set which value in the status release object **for this façade** means active respectively in active.

Evaluation of the façade Status release object	1 = activated | 0 = deactivated 0 = activated | 1 = deactivated
value until first call	0 • 1

6.20.3. Computer

Activate the multi-functional computer, with which the input data can be changed by calculation, querying a condition or converting the data point type. The menus for the further setting of the computer are then displayed.

Computer 1	No • Yes
Computer...	No • Yes
Computer 8	No • Yes

6.20.4. Computers 1-8

Set, in which cases input values received are to be kept per object. Please note that the setting "After power restoration and programming" should not be used for the initial start-up, as the factory settings are always used until the first call (setting via objects is ignored).

Maintain the	
input values received via communication objects	• never • after power supply restoration • after power supply restoration and programming

Select the function set the input mode and starting values for input 1 and input 2.

Function (I = Input)	• Prerequisite: E1 = E2 • Prerequisite: E1 > E2 • Prerequisite: E1 >= E2 • Prerequisite: E1 < E2 • Prerequisite: E1 <= E2 • Prerequisite: E1 - E2 >= E3 • Prerequisite: E2 - E1 >= E3 • Prerequisite: E1 - E2 amount >= E3 • Calculation: E1 + E2 • Calculation: E1 - E2 • Calculation: E2 - E1 • Calculation: E1 - E2 Amount • Calculation: Output 1 = E1 × X + Y | Output 2 = E2 × X + Y | • Transformation: General
Tolerance for comparison *(in the case of prerequisite E1 = E2)*	0 ... 4,294,967,295
Input type	[Selection options depending on the function] • 1 bit • 1 byte (0...255) • 1 byte (0%...100%) • 1 byte (0°...360°) • 2 byte counter without math. symbol • 2 byte counter with math. symbol • 2 byte floating point • 4 byte counter without math. symbol • 4 byte counter with math. symbol • 4 byte floating point
Starting value E1 / E2 / E3	[Input range depending on the type of input]

Prerequisites

When querying the prerequisites set the output type and output values at different statuses:

Output type	• 1 bit • 1 byte (0...255) • 1 byte (0%...100%) • 1 byte (0°...360°) • 2 byte counter without math. symbol • 2 byte counter with math. symbol • 2 byte floating point • 4 byte counter without math. symbol • 4 byte counter with math. symbol • 4 byte floating point
Output value *(if applicable output value A1 / A2)*	

if the condition is met	0 [Input range depending on the type of output]
if the condition is not met	0 [Input range depending on the type of output]
if the monitoring time period is exceeded	0 [Input range depending on the type of output]
if blocked	0 [Input range depending on the type of output]

Set the output send pattern.

Output sends	• on change • on change and after reset • on change and periodically • when receiving an input object • when receiving an input object and periodically
Type of change *(is only sent if "on change" is selected)*	• on each change • on change to condition met • on change to condition not met
Send cycle *(if sent periodically)*	5 s ... 2 h; 10 s

Set the text to be displayed for conditions met / not met.

Text if the condition is met	[Free text max. 14 chars.]
Text if the condition is not met	[Free text max. 14 chars.]

If applicable set the send delays.

Send delay in the event of change to the condition is met	none • 1 s • ... • 2 h
Send delay in the event of change to the condition is not met	none • 1 s • ... • 2 h

Calculations and transformation

For calculations and transformations set the output values to the various conditions:

Output value (if applicable A1 / A2)	
if the monitoring time period is exceeded	0 [Input range depending on the type of output]
if blocked	0 [Input range depending on the type of output]

Set the output send pattern.

Output sends	• on change • on change and after reset • on change and periodically • when receiving an input object • when receiving an input object and periodically
on change of *(only if calculations are transmitted for changes)*	1 ... [Input range depending on the type of input]
Send cycle *(if sent periodically)*	5 s ... 2 h; 10 s

For **Calculations of the form output 1 = E1 × X + Y | output 2 = E2 × X +Y** define the variables X and Y. The variables can have a positive or negative sign, 9 digits before and 9 digits after the decimal point.

Formula for output A1: A1 = E1 × X + Y	
X	1.00 [free input]
Y	0.00 [free input]
Formula for output A2: A2 = E2 × X + Y	
X	1.00 [free input]
Y	0.00 [free input]

Further settings for all formulas

If necessary, activate the input monitoring. Set which inputs are to be monitored, at which intervals the inputs are to be monitored and what value the "monitoring status" should have, if the monitoring period is exceeded without feedback.

Use input monitoring	No • Yes
Monitoring of	• E1 • E2 • E3 • E1 and E2 • E1 and E3 • E2 and E3 • E1 and E2 and E3 [depending on the function]
Monitoring period	5 s • ... • 2 h; 1 min
Value of the object "monitoring status" if period is exceeded	0 • 1

If necessary, activate the computer block and set what a 1 or 0 at the block entry means and what happens in the event of a block.

Use block	No • Yes
Analysis of the blocking object	• At value 1: block | At value 0: release • At value 0: block | At value 1: release

Value before first call	0 • 1
Output pattern On block	• do not send anything • send value
On release	• as send pattern [see above] • send current value immediately

6.21. Weekly timer

In the weekly timer in the device 24 periods can be defined. These periods are, for example, used for the internal automatic function timed opening and timed closure.

The respective period objects can be configured as inputs or outputs, i.e. send to the bus (timer internal, use internal and for other bus members) or be switched from there (timer function via an external device). If several devices are used in the system, the timer settings may be done on one device that sends the period objects as output. The other devices take over the timer-command (input), whereby a better synchronisation is achieved.

Activate the required periods for the weekly timer. The menus for the further setting of the computer are then loaded.

Use period 1	No • Yes
Use ... period	No • Yes
Use period 24	No • Yes

6.21.1. Weekly timer period 1-24

Set whether the period can be set (period object is the output and is sent to the bus) or if the period is received externally via the bus (period object is the input).

Period	• can be set (period object is output) • can be switched (time period object is output)

Period can be set (time period object is output)

Set whether the switching times are set per object and in which cases the switching times received are to be retained. Please note that the setting "After power restoration and programming" should not be used for the initial start-up, as the factory settings are always used until the first call (setting via objects is ignored).

Use objects for switching times	No • Yes
The threshold values and delays received by the communication object	
Switching data should	• not be retained • be retained after power restoration • be retained after power restoration and programming

Set the switching on and off times and the days of the week for this period. If, for example, 15:35 is set as the switch-off time, the output switches off on the change from 15:35 to 15:36.

Switch on time (hours)	0 ... 23
Switch on time (minutes)	0 ... 59
Switch-off time (hours)	0 ... 23
Switch-off time (minutes)	0 ... 59
Period switches to	
Monday ... Sunday	No • Yes

Set the send pattern for the week clock switch output and the value of the output.

Switching output sends	• never • on change • on change to active • on change to inactive • on change and periodically • on change to active and periodically • on change to inactive and periodically
Send cycle *(if sent periodically)*	5 s ... 2 h; 10 s
8-bit output value if Period active	0 ... 255
8-bit output value if Period not active	0 ... 255

Period that can be switched externally (time period is the input)

The time switches are taken over from an external timer switch. Set at which value the period is to be active and define the object value before the first communication.

Period is active	• at object value = 1 • at object value = 0
Object value prior to initial communication	0 • 1

6.22. Calendar timer

In the calendar timer in the device, four periods with two switching sequences can be defined. These periods are, for example, used for the internal automatic function timed opening and timed closure (see chapter *Time open*, Seite 97 and *Time and night closure*, Seite 98).

Activate the required periods for the calendar timer. The menus for the further setting of the computer are then loaded.

Use period 1	No • Yes
Use ... period	No • Yes
Use period 4	No • Yes

6.22.1. Calendar clock Period 1-4

Set whether the switching date and the switching time are set per object and in which cases the switching dates and times received are to be retained. Please note that the setting "After power restoration and programming" should not be used for the initial start-up, as the factory settings are always used until the first call (setting via objects is ignored).

Use objects for switching times	No • Yes
Maintain the	
switching data and times received via communication objects	• never • after power restoration • after power restoration and programming
.	

Define the period

From:	
Month	January ... December
Day	1 ... 29 / 1 ... 30 / 1 ... 31 (according to month)
Up to and including:	
Month	January ... December
Day	1 ... 29 / 1 ... 30 / 1 ... 31 (according to month)

Sequence 1 / 2

Define the switching times.

Switch on time (hours)	0 ... 23
Switch on time (minutes)	0 ... 59
Switch-off time (hours)	0 ... 23
Switch-off time (minutes)	0 ... 59
Switching output sends	• never • on change • on change to active • on change to inactive • on change and periodically • on change to active and periodically • on change to inactive and periodically
Send cycle *(if sent periodically)*	5 s ... 2 h; 10 s

Set the send pattern for the switch sequence and the value of the 8-bit output.

Switching output sends	• never • on change • on change to active • on change to inactive • on change and periodically • on change to active and periodically • on change to inactive and periodically
Send cycle *(if sent periodically)*	5 s ... 2 h; 10 s
8-bit output value if Period active	0 ... 255
8-bit output value if Period not active	0 ... 255

6.23. Logic

The device has 16 logic inputs, eight AND and eight OR logic gates.

Activate the logic inputs and assign object values up to first call.

Use logic inputs	Yes • No
Object value prior to first call for:	
- Logic input 1	0 • 1
- Logic input ...	0 • 1
- Logic input 16	0 • 1

Activate the required logic outputs.

AND logic

AND logic 1	not active • active
AND logic ...	not active • active
AND logic 8	not active • active

OR logic

OR logic 1	not active • active
OR logic ...	not active • active
OR logic 8	not active • active

6.23.1. AND logic 1-8 and OR logic outputs 1-8

The same setting options are available for AND and OR logic.

Each logic output may transmit one 1 bit or two 8 bit objects. Determine what the out put should send if logic = 1 and = 0.

1. / 2. / 3. / 4. Input	• do not use - Logic inputs 1...16 - Logic inputs 1...16 inverted • all switching events that the device provides (see *Connection inputs of the AND/OR logic*)
Output type	• a 1-Bit-object • two 8-bit objects

If the **output type is a 1-bit object**, set the output values for the various conditions.

Output value if logic = 1	1 • 0
Output value if logic = 0	1 • 0
Output value If block is active	1 • 0
Output value if monitoring period is exceeded	1 • 0

If the **output type is two 8-bit objects**, set the type of object and the output values for the various conditions.

Object type	• Value (0…255) • Percent (0…100%) • Angle (0…360°) • Scene call-up (0…127)
Output value object A if logic = 1	0 … 255 / 100% / 360° / 127; 1
Output value object B if logic = 1	0 … 255 / 100% / 360° / 127; 1
Output value object A if logic = 0	0 … 255 / 100% / 360° / 127; 0
Output value object B if logic = 0	0 … 255 / 100% / 360° / 127; 0
Output value object A if block is active	0 … 255 / 100% / 360° / 127; 0
Output value object B if block is active	0 … 255 / 100% / 360° / 127; 0
Output value object A if monitoring period is exceeded	0 … 255 / 100% / 360° / 127; 0
Output value object B if monitoring period is exceeded	0 … 255 / 100% / 360° / 127; 0

Set the output send pattern.

Send pattern	• 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+object receipt • on change of logic+object receipt and periodically
Send cycle *(if sent periodically)*	5 s • 10 s • ... • 2 h

Block

If necessary, activate the block for the logic output and set what a 1 or 0 at the block input means and what happens in the event of a block.

Use 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 first call	0 • 1
Output pattern On block	• Do not send message • Transmit block value [see above, Output value if blocking active]
On release (with 2 seconds release delay)	[send value for current logic status]

Monitoring

If necessary, activate the input monitoring. Set which inputs are to be monitored, at which intervals the inputs are to be monitored and what value the "monitoring status" should have, if the monitoring period is exceeded without a feedback being given.

Use input monitoring	No • Yes
Input monitoring	• 1 • 2 • 3 • 4 • 1 + 2 • 1 + 3 • 1 + 4 • 2 + 3 • 2 + 4 • 3 + 4 • 1 + 2 + 3 • 1 + 2 + 4 • 1 + 3 + 4 • 2 + 3 + 4 • 1 + 2 + 3 + 4
Monitoring period	5 s • ... • 2 h; 1 min
Output behaviour on exceeding the monitoring time	• Do not send message • Send value exceeding [= value of the parameter "monitoring period"]

6.23.2.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
Temperature Sensor Malfunction ON
Temperature sensor malfunction OFF
Pressure sensor malfunction ON
Pressure sensor malfunction OFF
GPS Malfunction ON
GPS malfunction OFF
Wind Sensor malfunction ON
Wind sensor malfunction OFF
Switching output rain
Switching output rain inverted
Switching output rain 2
Switching output rain 2 inverted
Switching output night
Switching output inverted
Frost alarm active
Frost alarm inactive

Switching output 1 Temperature
Switching output 1 Temperature inverted
Switching output 2 Temperature
Switching output 2 Temperature inverted
Switching output 3 Temperature
Switching output 3 Temperature inverted
Switching output 4 Temperature
Switching output 4 Temperature inverted
Brightness sensor switching output 1
Brightness sensor switching output 1 inverted
Brightness sensor switching output 2
Brightness sensor switching output 2 inverted
Brightness sensor switching output 3
Brightness sensor switching output 3 inverted
Brightness sensor switching output 4
Brightness sensor switching output 4 inverted
Switching output 1 Twilight
Switching output 1 Twilight inverted
Switching output 2 Twilight
Switching output 2 Twilight inverted
Switching output 3 Twilight
Switching output 3 Twilight inverted
Switching output 4 Twilight
Switching output 4 Twilight inverted
Switching output 1 Pressure
Switching output 1 Pressure inverted
Switching output 2 Pressure
Switching output 2 Pressure inverted
Switching output 3 Pressure
Switching output 3 Pressure inverted
Switching output 4 Pressure
Switching output 4 Pressure inverted
Wind switching output 1
Wind switching output 1 inverted
Wind switching output 2
Wind switching output 2 inverted
Wind switching output 3
Wind switching output 3 inverted
Wind switching output 4
Wind switching output 4 inverted
Weekly timer period 1 active
Weekly timer period 1 inactive
Weekly timer period 2 active
Weekly timer period 2 inactive
Weekly timer period 3 active
Weekly timer period 3 inactive
Weekly timer period 4 active
Weekly timer period 4 inactive

Weekly timer period 5 active
Weekly timer period 5 inactive
Weekly timer period 6 active
Weekly timer period 6 inactive
Weekly timer period 7 active
Weekly timer period 7 inactive
Weekly timer period 8 active
Weekly timer period 8 inactive
Weekly timer period 9 active
Weekly timer period 9 inactive
Weekly timer period 10 active
Weekly timer period 10 inactive
Weekly timer period 11 active
Weekly timer period 11 inactive
Weekly timer period 12 active
Weekly timer period 12 inactive
Weekly timer period 13 active
Weekly timer period 13 inactive
Weekly timer period 14 active
Weekly timer period 14 inactive
Weekly timer period 15 active
Weekly timer period 15 inactive
Weekly timer period 16 active
Weekly timer period 16 inactive
Weekly timer period 17 active
Weekly timer period 17 inactive
Weekly timer period 18 active
Weekly timer period 18 inactive
Weekly timer period 19 active
Weekly timer period 19 inactive
Weekly timer period 20 active
Weekly timer period 20 inactive
Weekly timer period 21 active
Weekly timer period 21 inactive
Weekly timer period 22 active
Weekly timer period 22 inactive
Weekly timer period 23 active
Weekly timer period 23 inactive
Weekly timer period 24 active
Weekly timer period 24 inactive
Calendar timer period 1 sequence 1 active
Calendar timer period 1 sequence 1 inactive
Calendar timer period 1 sequence 2 active
Calendar timer period 1 sequence 2 inactive
Calendar timer period 2 sequence 1 active
Calendar timer period 2 sequence 1 inactive
Calendar timer period 2 sequence 2 active
Calendar timer period 2 sequence 2 inactive

Calendar timer period 3 sequence 1 active
Calendar timer period 3 sequence 1 inactive
Calendar timer period 3 sequence 2 active
Calendar timer period 3 sequence 2 inactive
Calendar timer period 4 sequence 1 active
Calendar timer period 4 sequence 1 inactive
Calendar timer period 4 sequence 2 active
Calendar timer period 4 sequence 2 inactive

6.23.3. 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:

AND logic output 1
AND logic output 1 inverted
AND logic output 2
AND logic output 2 inverted
AND logic output 3
AND logic output 3 inverted
AND logic output 4
AND logic output 4 inverted
AND logic output 5
AND logic output 5 inverted
AND logic output 6
AND logic output 6 inverted
AND logic output 7
AND logic output 7 inverted
AND logic output 8
AND logic output 8 inverted

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