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**1. USE**

The KNX/RD gateway Cat. No. 0 488 77 is a unidirectional gateway between radio devices ( 0 784 61, 0 883 09) and the KNX BUS. It transfers commands and measured values from wireless sensors to the KNX BUS, for example, to control KNX actuators. The KNX/RD gateway Cat. No. 0 488 77 is divided into 16 channels for control and 4 channels for motion sensors. Each channel can be assigned to one of the following functions:

- Switching
- Dimming
- Shutters control
- Scenes control

The device and channels are configured using the ETS software via the KNX-BUS. The links between the RADIO devices and the RADIO/KNX interface are configured via the gateway push-buttons and display.

**2. TECHNICAL CHARACTERISTICS**

**2.1 Climatic characteristics**

- Ambient operating temperature: -5 to +45°C
- Storage temperature: -25 to +70°C
- Relative humidity (non-condensing): 5 to 93%

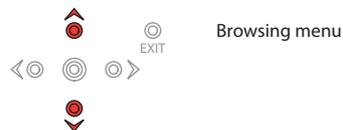
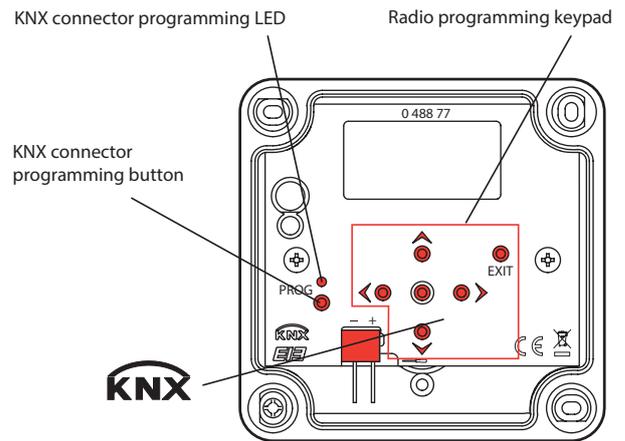
**2.2 Electrical characteristics**

- KNX BUS current consumption: 12 mA
- KNX BUS power supply: 29 V=

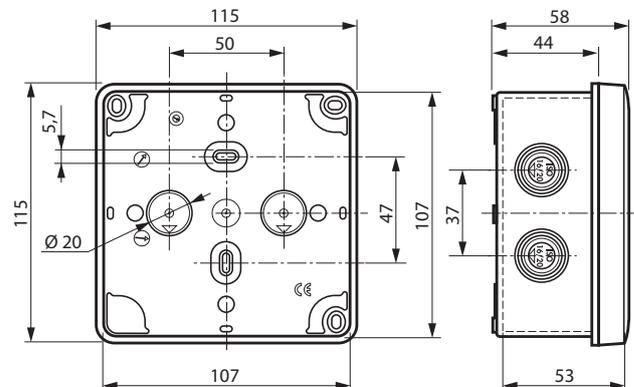
**2.3 Mechanical characteristics**

- Protection class: IP 20
- Weight: 90 g
- KNX connection via terminal block

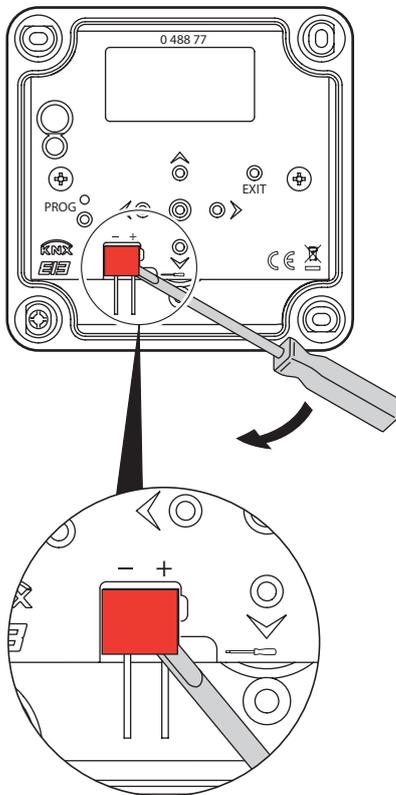
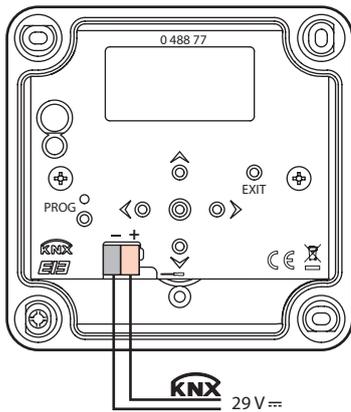
**2.4 Description**



**3. DIMENSIONS (mm)**



4. WIRING

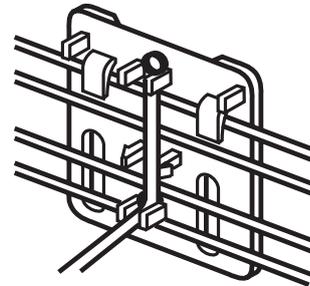


5. ACCESSORIES

- ISO cable gland (RAL 7001 polyamide)
- IP 68 protection
- Resistance to incandescent wire 850°C 30 s
- ISO 16: 0 980 01
- ISO 20: 0 980 03

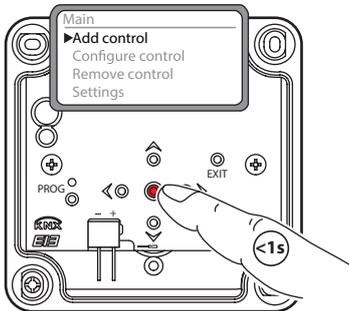


- Fixing plate Cat. No. 0 919 41 on cable duct for wire Ø5 mm max.



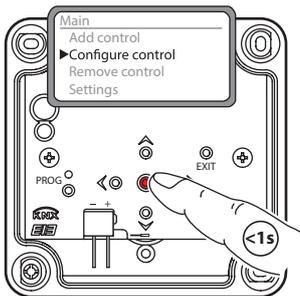
## 6. OPERATION

### 6.1 INSTALLING A TRANSMITTER



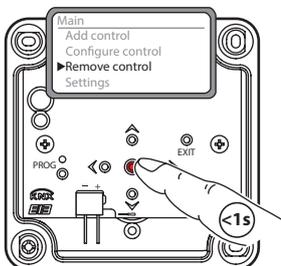
- Find "Add control" in the menu, confirm. "Awaiting control..." is displayed.
- Activate the control for the transmitter to be installed.
- The transmitter is detected, and is displayed on the screen along with "Configure control". If it is the right sensor, confirm, the sensor's orange LED (NETW) goes out.
- Configure the different values (1 to 16) for all 4 buttons using the navigation buttons and confirmation button.

### 6.2 CONFIGURING A TRANSMITTER



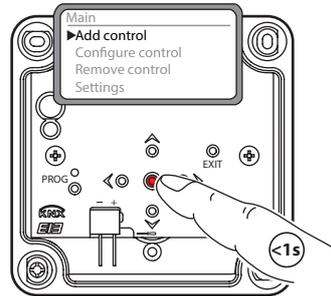
- Find "Configure control" in the menu, confirm. The list of batteryless sensors and installed sensors is displayed.
- Select the transmitter to be configured from the list using the ID marked on the product, confirm.
- Configure the different values (1 to 16) for all 4 buttons using the navigation buttons and confirmation button.

### 6.3 REMOVING A TRANSMITTER



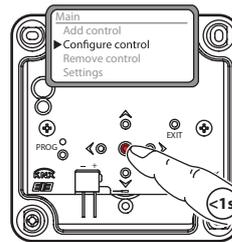
- Find "Remove control" in the menu, confirm. The list of batteryless sensors and installed sensors is displayed.
- Select the transmitter to be removed from the list using the ID marked on the product, confirm.
- Select "Yes", then confirm using the navigation buttons and confirmation button.

### 6.4 INSTALLING A SENSOR



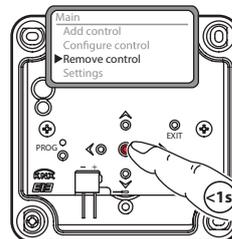
- Find "Add control" in the menu, confirm. "Waiting control..." is displayed.
- Briefly press the NETW button on the sensor to be installed, its orange LED (NETW) comes on with a steady light and then flashes quickly.
- The sensor is detected, and is displayed on the screen along with "Configure control". If it is the right sensor, confirm, the sensor's orange LED (NETW) goes out.
- Configure the different values (1 to 4) for all 4 buttons using the navigation buttons and confirmation button.

### 6.5 CONFIGURING A SENSOR



- Find "Configure control" in the menu, confirm, the list of batteryless sensors and installed sensors is displayed.
- Select the sensor to be configured from the list using the ID marked on the product, confirm.
- Configure the different values (1 to 4) for all 4 buttons using the navigation buttons and confirmation button.

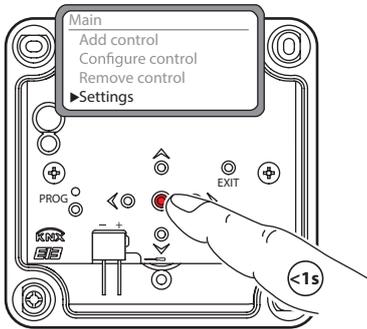
### 6.6 REMOVING A SENSOR



- Find "Remove control" in the menu, confirm. The list of batteryless transmitters and installed sensors is displayed.
- Select the sensor to be removed from the list using the ID marked on the product, confirm.
- Select "Yes", then confirm using the navigation buttons and confirmation button.

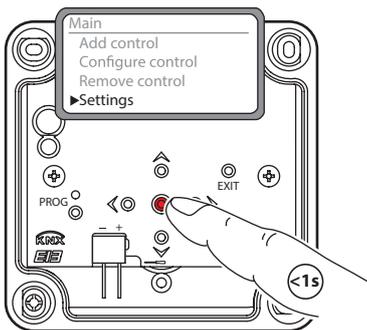
## 7. OTHER OPTIONS

### 7.1 RADIO DIAGNOSTICS



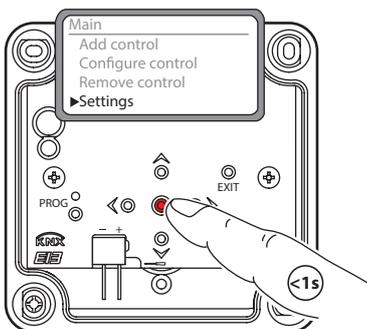
- Find "Settings" in the menu, confirm.
- Select "Radio diagnosis", confirm.
- The software version, PAN ID and channel are displayed, confirm.
- Briefly press the button on the transmitter to be controlled.
- Check on the screen it is the right transmitter by means of its ID.
- Press the "Exit" button to exit the programme.

### 7.2 KNX DIAGNOSTICS



- Find "Settings" in the menu, confirm.
- Select "KNX diagnosis", confirm.
- Select the transmitter or sensor you wish to check, confirm.
- Check on the ETS/Diagnosis/Bus monitoring screen that the requested action is happening.
- Press the "Exit" button to exit the programme.

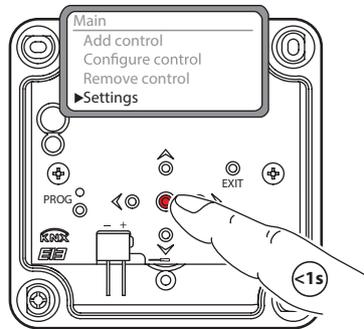
### 7.3 FORMING THE NETWORK ON THE BEST RADIO CHANNEL



- Find "Settings" in the menu, confirm.
- Find "Advanced setting" in the menu, confirm.

- Find "Form best radio network" in the menu, confirm.
- "Confirm" is displayed, confirm.
- "Continue" is displayed, confirm.

### 7.4 RETURN TO FACTORY SETTINGS



- Find "Settings" in the menu, confirm.
- Find "Advanced setting" in the menu, confirm.
- Find "Return to factory setting" in the menu, confirm.
- "Confirm" is displayed, confirm.
- "Continue" is displayed, confirm.

## 8. STANDARDS AND APPROVALS

### Electrical safety

The products satisfy the provisions of: Directive 1999/5/EC issued by the European Parliament and Council of 9th March 1999

On condition that they are used in the manner intended and/ or in accordance with current installation standards and/or the manufacturer's recommendations.

Channel availability depends on national regulations. The wireless LAN system administrator must choose the correct country of use. The channels are then automatically configured to comply with the specified country's regulations.

These provisions are satisfied for directive 1999/5/EC by conformity to the following standards:

EN 301 489  
EN 300 328  
EN 504 91  
KNX certificate CE

## 9. MAINTENANCE

Clean the surface with a cloth.

Do not use acetone, tar-removing cleaning agents or trichloroethylene.

**Caution:** Always test before using other special cleaning products.

**10. DESCRIPTION OF COMMUNICATION OBJECTS**

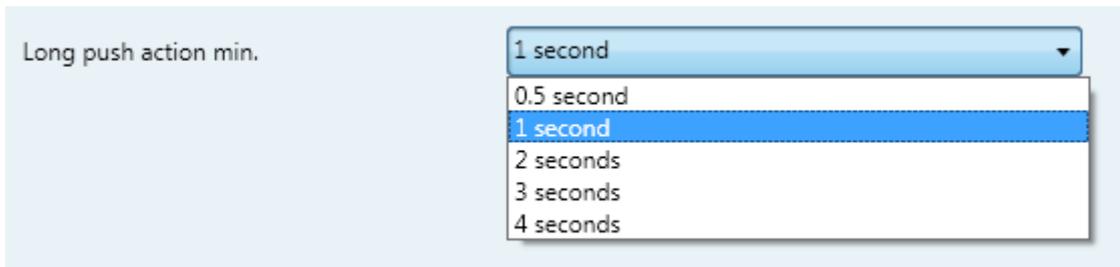
**■ 10.1 General configuration**

The KNX controls can be configured via ETS software (versions ETS ≥ 3).

**■ General settings**

This screen contains the main command parameters, common to all the channels:

- Long push settings



**■ 10.2 Long push configuration**

This parameter determines the minimum time for detecting a long push action.

<b>Long push action min.</b>	0.5 second 1 second 2 seconds 3 seconds 4 seconds	Long push action min. <span style="border: 1px solid black; padding: 2px;">0.5 second</span>
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**11. DESCRIPTION OF COMMUNICATION OBJECTS (continued)**

**11.3 Channel configuration (1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16)**

This screen allows users to choose how to manage the channels and to configure their settings.

The screenshot shows a configuration interface with the following elements:

- Usage type:** A dropdown menu set to "use separatly".
- Channel 15 section:**
  - Channel 15 function: A dropdown menu set to "Not used".
  - Add enable object: A dropdown menu set to "No".
- Channel 16 section:**
  - Channel 16 function: A dropdown menu set to "Not used".
  - Add enable object: A dropdown menu set to "No".

**11.3.1 Use separately**

**Channel X function**

**Not used**

Channel is not used, no accessible communication objects

**11.3.1.1 Switching**

No.	Object name	Function	Size	Flags
2 (9,16,23,30,37,44,51,58,65,72,79,86,93,100,107)	Channel 1 (2 ->16)	Switching	1.001 DP_Switch (1 bit )	CWT

Switching telegrams are sent via the group address linked with this object.

3 (10,17,24,31,38,45,52,59,66,73,80,87,94,101,108)	Channel 1 (2 ->16)	Switching Status	1.001 DP_Switch (1 bit )	CW
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Switching states are received via the group address linked with this object.

The screenshot shows the configuration for Channel 1 with the following settings:

- Channel 1 function:** Switching
- SubFunction:** Short / Long
- Short push reaction:** Toggle
- Long push reaction:** No reaction

**11. DESCRIPTION OF COMMUNICATION OBJECTS (continued)****11.3.1.1 Switching (continued)****SubFunction**

Short/long

Parameters	Setting
Short push reaction	No reaction On Off Toggle

The setting entered here defines which switching value is written into the storage cell of the communication object and sent after a short press on the push-button related to the channel.

"No reaction": A short push does not change the object value and also does not send a telegram.

"On": After a short push, the switching value "ON" (binary value "1") is transferred into the communication object and sent.

"Off": After a short push, the switching value "OFF" (binary value "0") is transferred into the communication object and sent.

"Toggle": After a short push, the switching value stored in the communication object is inverted and the new value is sent.

Long push reaction	No reaction On Off Toggle
--------------------	------------------------------------

The setting entered here defines which switching value is written into the storage cell of the communication object and sent after a long press on the push-button related to the channel.

"No reaction": A long push does not change the object value and also does not send a telegram.

"On": After a long push, the switching value "ON" (binary value "1") is transferred into the communication object and sent.

"Off": After a long push, the switching value "OFF" (binary value "0") is transferred into the communication object and sent.

"Toggle": After a long push, the switching value stored in the communication object is inverted and the new value is sent.

Push/Release

Parameters	Setting
Push reaction	No reaction On Off Toggle

The setting entered here defines which switching value is written into the storage cell of the communication object and sent after pressing the push-button related to the channel.

"No reaction": Pressing a push-button does not change the object value and also does not send a telegram.

"On": On pressing a push-button, the switching value "ON" (binary value "1") is transferred into the communication object and sent.

"Off": On pressing a push-button, the switching value "OFF" (binary value "0") is transferred into the communication object and sent.

"Toggle": On pressing a push-button, the switching value stored in the communication object is inverted and the new value is sent.

Release reaction	No reaction On Off Toggle
------------------	------------------------------------

The setting entered here defines which switching value is written into the storage cell of the communication object and sent after releasing the push-button related to the channel.

"No reaction": Releasing the push-button does not change the object value and also does not send a telegram.

"On": On releasing a push-button, the switching value "ON" (binary value "1") is transferred into the communication object and sent.

"Off": On releasing a push-button, the switching value "OFF" (binary value "0") is transferred into the communication object and sent.

"Toggle": On releasing a push-button, the switching value stored in the communication object is inverted and the new value is sent.

**11. DESCRIPTION OF COMMUNICATION OBJECTS (continued)**

**11.3.1.2 Shutter 1-input**

No.	Object name	Function	Size	Flags
2 (9,16,23,30,37,44,51,58,65,72,79,86,93,100,107)	Channel 1 (2 ->16)	Shutter Up/Down	1.008 DP_UpDown (1 bit)	CWT
The Up/Down movement commands are sent via the address linked with this object in order to raise/lower the solar protection.				
8 (15,22,29,36,43,50,57,64,71,78,85,92,99,106,113)	Channel 1 (2 ->16)	Shutter Stop - slats	1.009 DP_OpenClose (1 bit)	CWT
The "STOP" or "Slats OPEN/CLOSE" command is sent via the group address linked with this object.				
7 (14,21,28,35,42,49,56,63,70,77,84,91,98,105,112)	Channel 1 (2 ->16)	Shutter Status	5.001 DP_Scaling (1 byte)	CW

The shutter status telegrams are received from the shutter actuator via the group address linked with this object.

---- Channel 1 ----

Channel 1 function Shutter 1-input ▼

Short push reaction Stop ▼

Long push reaction Cyclical Up/Down ▼

Long push release No reaction ▼

Parameters	Setting
Short push reaction	No reaction Cyclical Up/Down + stop Up + stop Down + stop Cyclical Up/Down Stop Open slats Close slats Up Down
Long push reaction	No reaction Up Down Cyclical Up/Down Stop Cyclical Open/Close slats Open slats Close slats

The setting entered here defines which movement command is written into the storage cell of the communication object and sent after a long press on the push-button related to the channel.

"No reaction": A long push does not change the object value and also does not send a telegram.

Up: A long push sends the Up command (value "0").

Down: A long push sends the Down command (value "1").

Cyclical Up/Down: Each long push sends the following sequence of commands: Up, Down, Up, Down, etc.

Stop: A long push sends the stop command (value "1" or "0").

Cyclical Open/Close slats: Each long push sends the following sequence of commands: Open slats, Close slats, Open slats, Close slats.

**11. DESCRIPTION OF COMMUNICATION OBJECTS (continued)**

**11.3.1.2 Shutter 1-input (continued)**

Parameters	Setting
Open slats: A long push sends the (open slats) command (value "0") Close slats: A long push sends the (close slats) command (value "1")	
Long push release	No reaction Stop

The setting entered here defines which value is written into the storage cell of the communication object and sent when releasing the push-button related to the input after a long push.

"No reaction": A release does not change the object value and also does not lead to the sending of a telegram.

Stop: the stop command (value "1" or "0") is transferred into the communication object and sent.

**11.3.1.3 8-bit scene control**

This function is used to recall/save up to 64 scenes.

A short push recalls the scene and a special long push (10 s) allows users to save a scene; for the defined scene number all the states of the actuators involved are saved.

No.	Object name	Function	Size	Flags
5 (12,19,26,33,40,47,54,61,68,75,82,89,96,103,110)	Channel 1 (2 -> 16)	8-bit scene	17.001 DP_SceneNumber (1 byte)	CT

The telegrams to recall the scene with the configured number ( 1 -> 64) are sent via the group address linked with this object.

---- Channel 1 ----

Channel 1 function 8-bits scene control ▼

Scene num. on short push 1 ▲  
▼

Parameters	Setting
Scene num. on short push	0 -> 64

This parameters determines which scene (1 -> 64) has to be recalled on rising edge.

If value "0" is set, no scene is going to be recalled

**11.3.1.4 Priority**

This function is used to send lock/unlock commands.

No.	Object name	Function	Size	Flags
5 (12,19,26,33,40,47,54,61,68,75,82,89,96,103,110)	Channel 1 (2 -> 16)	Override 2 bits	2.001 DP_Switch_Control (2 bits)	CT

Telegrams with the override commands are sent via the address linked with this object.

---- Channel 1 ----

Channel 1 function Priority ▼

Short push reaction Priority High / On ▼

Long push reaction Priority High / Off ▼

Parameters	Setting
Short push reaction	Priority High/On (Lock On) Priority High/Off (Lock Off) Priority Low/On (Unlock On) Priority Low/Off (Unlock Off)

This is where the desired value to be sent upon a short press of the push-button related to the channel is chosen.

Long push reaction	Priority High/On Priority High/Off Priority Low/On Priority Low/Off
--------------------	--

This is where the desired value to be sent upon a long press of the push-button related to the channel is chosen.

**11. DESCRIPTION OF COMMUNICATION OBJECTS (continued)****11.3.1.4 Priority (continued)**

Value	Behaviour
00b	Low Priority, Off-State
01b	Low Priority, On-State
10b	High Priority, Off-State
11b	High Priority, On-State

**11.3.1.5 Counting**

This function is used to send incremental values on each press.

No.	Object name	Function	Size	Flags
5 (12,19,26,33,40,47,54,61,68,75,82,89,96,103,110)	Channel 1 (2 -> 16)	Counting	17.001 DP_SceneNumber (1 byte)	CT
The telegrams to recall the scene with the configured number ( 1 -> 64) are sent via the group address linked with this object.				
3 (10,17,24,31,38,45,52,59,66,73,80,87,94,101,108)	Channel 1 (2 -> 16)	Reset Counter	1.015 DP_Reset (1 bit)	CW

If a telegram linked with this object is received, then the counter value is reset to the minimum value set by the "minimum value" parameter.

---- Channel 1 ----

Channel 1 function Counting ▼

Minimum value 0

Maximum value 255

Increment / Decrement Increment ▼

Add "Reset counter" Object No ▼

Parameters	Setting
Minimum value	0 -> 255, 0
The setting entered via this parameter defines the minimum counter value. If the "Increment/decrement" parameter is set to "decrement", the next counter value is set to the maximum.	
Maximum value	0 -> 255, 255
The setting entered via this parameter defines the maximum counter value. If the "Increment/decrement" parameter is set to "increment", the next counter value is set to the minimum.	
Increment/Decrement	Increment Decrement
The setting entered here defines whether the counter value is to be increased by value 1 or decreased by the value 1 after each rising edge.	
Add "Reset counter" object	Yes/No
This parameter determines whether the "Reset Counter" object is enabled or not.	

**11.3.1.6 Dimming**

No.	Object name	Function	Size	Flags
2 (9,16,23,30,37,44,51,58,65,72,79,86,93,100,107)	Channel 1 (2 -> 16)	Switching	1.001 DP_Switch (1 bit)	CWT
Switching telegrams are sent via the group address linked with this object.				
6 (13,20,27,34,41,48,55,62,69,76,83,90,97,104,111)	Channel 1 (2 -> 16)	Dimming	3.007 DP_Control_Dimming (4 bits)	CT
Dimming telegrams are sent via the group address linked with this object.				
7 (14,21,28,35,42,49,56,63,70,77,84,91,98,105,112)	Channel 1 (2 -> 16)	Value Status	5.001 DP_Scaling (1 byte)	CW
Dimming status telegrams are received via the group address linked with this object.				

**11. DESCRIPTION OF COMMUNICATION OBJECTS (continued)**

**11.3.1.6 Dimming (continued)**

---- Channel 1 ----

Channel 1 function	Dimming
Switching value on short push	Toggle
Dimming value on long push	Dim +/-
Dimming value on release push	Stop

Parameters	Setting
Switching value on short push	No reaction On Off Toggle
<p>The setting entered here defines which switching value is written into the storage cell of the communication object and sent after a short press on the push-button related to the channel.</p> <p>"No reaction": A short push does not change the object value and also does not send a telegram.</p> <p>"On": After a short push, the switching value "ON" (binary value "1") is transferred into the communication object and sent.</p> <p>"Off": After a short push, the switching value "OFF" (binary value "0") is transferred into the communication object and sent.</p> <p>"Toggle": After a short push, the switching value stored in the communication object is inverted and the new value is sent.</p>	
Dimming value on long push	Dim +/- Dim + Dim - No reaction
<p>The setting entered here defines which dimming value is written into the storage cell of the communication object and sent after a long press on the push-button related to the channel.</p> <p>"No reaction": A long push does not change the object value and also does not send a telegram.</p> <p>"Dim +/-": After a long push, the dimming value stored in the communication object is inverted and the new value is sent.</p> <p>"Dim +" After a long push, the dimming value "Increase 100%" is transferred into the communication object and sent.</p> <p>"Dim -": After a long push, the dimming value "Decrease 100%" is transferred into the communication object and sent.</p>	
Dimming value on release push	No reaction Stop
<p>The setting entered here defines which dimming value is written into the storage cell of the communication object and sent after a long push and release of the push-button related to the channel.</p> <p>"No reaction": A release after a long push does not change the object value and also does not send a telegram.</p> <p>"Stop": When the push-button is released after a long push, the dimming value "Stop" is transferred into the communication object and sent.</p>	

**11.3.1.7 1 x 1 unsigned byte**

No.	Object name	Function	Size	Flags
5 (12,19,26,33,40,47,54,61,68,75,82,89,96,103,110)	Channel 1 (2 -> 16)	Unsigned Value	5.010 DP_Value_1_Ucount (1 byte)	CT

Telegrams with the unsigned value are sent via the group address linked with this object.

---- Channel 1 ----

Channel 1 function	1 x 1 unsigned byte
Byte value on short push (0-255)	1

Parameters	Setting
Byte value on short push (0 -> 255)	0 -> 255, 1
<p>The setting entered here defines which unsigned 8-bit value is written into the storage cell of the communication object and sent after a rising edge in the signal status at the channel (input). The rising edge corresponds to a change in the signal status at the channel from logical "0" to "1".</p>	

**11. DESCRIPTION OF COMMUNICATION OBJECTS (continued)****11.3.1.8 2 x 1 unsigned byte**

No.	Object name	Function	Size	Flags
5 (12,19,26,33,40,47,54,61,68,75,82,89,96,103,110)	Channel 1 (2 -> 16)	Unsigned Value	5.010 DP_Value_1_Ucount (1 byte)	CT

Telegrams with the unsigned value are sent via the group address linked with this object.

---- Channel 1 ----

Channel 1 function 2 x 1 unsigned byte ▼

Byte value on short push (0-255) 1

Byte value on long push (0-255) 0

Parameters	Setting
Byte value on short push (0 -> 255)	0 -> 255, 1
The setting entered here defines which unsigned 8-bit value is written into the storage cell of the communication object and sent after a short press on the push-button attached to the channel.	
Byte value on long push (0 -> 255)	0 -> 255, 0
The setting entered here defines which unsigned 8-bit value is written into the storage cell of the communication object and sent after a long press on the push-button attached to the input.	

**11. DESCRIPTION OF COMMUNICATION OBJECTS (continued)**

**11.3.2 Use Jointly**

**11.3.2.1 Switching**

No.	Object name	Function	Size	Flags
2 (16,30,44,58,72,86,100)	Channel 1-2 (3-4 -> 15-16)	Switching	1.001 DP_Switch (1 bit)	CWT

Switching telegrams are sent via the group address linked with this object

3 (17,31,45,59,73,87,101)	Channel 1-2 (3-4 -> 15-16)	Switching Status	1.001 DP_Switch (1 bit)	CW
---------------------------	----------------------------	------------------	-------------------------	----

Switching status are received via the group address linked with this object.

4 (18,32,46,60,74,88,102)	Channel 1-2 (3-4 -> 15-16)	Enable	1.002 DP_Enable (1 bit)	CW
---------------------------	----------------------------	--------	-------------------------	----

Enable telegrams are received via the group address linked with this object. They are used to lock (disable) or unlock (enable) the corresponding channels.

They are only visible if the "Add enable object" parameter value is set to "Yes".

Usage type	use jointly
Channel 1-2 function	Switching
Channel 1 - Short push reaction	On
Channel 2 - Short push reaction	Off
Add enable object	No

Parameters	Setting
Channel Xn - Short push reaction	No reaction On Off Toggle

The setting entered here defines which switching value is written into the storage cell of the communication object and sent after a short press on the push-button related to the channel.

"No reaction": A short push does not change the object value and also does not lead to the sending of a telegram.

"On": After a short push, the switching value "ON" (binary value "1") is transferred into the communication object and sent.

"Off": After a short push, the switching value "OFF" (binary value "0") is transferred into the communication object and sent.

"Toggle": After a short push, the switching value stored in the communication object is inverted and the new value is sent.

Channel Xn+1 - Short push reaction	No reaction On Off Toggle
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The setting entered here defines which switching value is written into the storage cell of the communication object and sent after a short press on the push-button related to the channel.

"No reaction": A short push does not change the object value and also does not send a telegram.

"On": After a short push, the switching value "ON" (binary value "1") is transferred into the communication object and sent.

"Off": After a short push, the switching value "OFF" (binary value "0") is transferred into the communication object and sent.

"Toggle": After a short push, the switching value stored in the communication object is inverted and the new value is sent.

Add Enable object	Yes/No
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The parameter determines whether the channels (1-2 or 3-4) can be blocked via an additional Enable object or not. If the channels are blocked (Enable value = 1) the status changes of these channels are not transmitted.

**11. DESCRIPTION OF COMMUNICATION OBJECTS (continued)****11.3.2.2 Dimming**

No.	Object name	Function	Size	Flags
2 (16,30,44,58,72,86,100)	Channel 1-2 (3-4 -> 15-16)	Switching	1.001 DP_Switch (1 bit)	CWT

Switching telegrams are sent via the group address linked with this object.

6 (20,34,48,62,76,90,104)	Channel 1-2 (3-4 -> 15-16)	Dimming	3.007 DP_Control_Dimming (4 bits)	CT
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Dimming telegrams are sent via the group address linked with this object.

7 (21,35,49,63,77,91,105)	Channel 1-2 (3-4 -> 15-16)	Value Status	5.001 DP_Scaling (1 byte)	CW
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Dimming status telegrams are received from the dimming actuator via the group address linked with this object.

4 (18,32,46,60,74,88,102)	Channel 1-2 (3-4 -> 15-16)	Enable	1.002 DP_Enable (1 bit)	CW
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Enable telegrams are received via the group address linked with this object. They are used to lock (disable) or unlock (enable) the corresponding channels.

They are only visible if the "Add enable object" parameter value is set to "Yes".

Channel 1-2 function	Dimming
Channel 1 - Switching value on short push	On
Channel 1 - Switching value on long push	On
Channel 1 - Dimming value on long push	Dim+
Channel 1 - Dimming value on release push	Stop
Channel 2 - Switching value on short push	Off
Channel 2 - Switching value on long push	No reaction
Channel 2 - Dimming value on long push	Dim-
Channel 2 - Dimming value on release push	Stop

Parameters	Setting
Channel X - Switching value on short push	No reaction On Off Toggle

The setting entered here defines which switching value is written into the storage cell of the communication object and sent after a short press on the push-button related to the channel.

"No reaction": A short push does not change the object value and also does not send a telegram.

"On": After a short push, the switching value "ON" (binary value "1") is transferred into the communication object and sent.

"Off": After a short push, the switching value "OFF" (binary value "0") is transferred into the communication object and sent.

"Toggle": After a short push, the switching value stored in the communication object is inverted and the new value is sent.

Channel X - Switching value on long push	No reaction On
--	-------------------

The setting entered here defines which switching value is written into the storage cell of the communication object and sent after a long press on the push-button related to the channel.

"No reaction": A long push does not change the object value and also does not send a telegram.

"On": After a long push, the switching value "ON" (binary value "1") is transferred into the communication object and sent.

Channel X - Dimming value on long push	Dim +/- Dim + Dim - No reaction
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The setting entered here defines which dimming value is written into the storage cell of the communication object and sent after a long press on the push-button related to the channel.

"No reaction": A long push does not change the object value and also does not send a telegram.

"Dim +/-": After a long push, the dimming value stored in the communication object is inverted and the new value is sent.

"Dim +": After a short push, the dimming value "Increase 100%" is transferred into the communication object and sent.

"Dim -": After a short push, the dimming value "Decrease 100%" is transferred into the communication object and sent.

**11. DESCRIPTION OF COMMUNICATION OBJECTS (continued)****11.3.2.2 Dimming (continued)**

Parameters	Setting
Channel X - Dimming value on release push	No reaction Stop
<p>The setting entered here defines which dimming value is written into the storage cell of the communication object and sent after a long press on the push-button related to the channel.</p> <p>"No reaction": A long push does not change the object value and also does not send a telegram.</p> <p>"Stop": When the push-button is released after a long push, the dimming value "Stop" is transferred into the communication object and sent.</p>	
Channel X +1 - Switching value on short push	No reaction On Off Toggle
<p>The setting entered here defines which switching value is written into the storage cell of the communication object and sent after a short press on the push-button related to the channel.</p> <p>"No reaction": A short push does not change the object value and also does not send a telegram.</p> <p>"On": After a short push, the switching value "ON" (binary value "1") is transferred into the communication object and sent.</p> <p>"Off": After a short push, the switching value "OFF" (binary value "0") is transferred into the communication object and sent.</p> <p>"Toggle": After a short push, the switching value stored in the communication object is inverted and the new value is sent.</p>	
Channel X +1 - Switching value on long push	No reaction On
<p>The setting entered here defines which switching value is written into the storage cell of the communication object and sent after a long press on the push-button related to the channel.</p> <p>"No reaction": A long push does not change the object value and also does not lead to the sending of a telegram.</p> <p>"On": After a long push, the switching value "ON" (binary value "1") is transferred into the communication object and sent.</p>	
Channel X +1 - Dimming value on long push	Dim +/- Dim + Dim - No reaction
<p>The setting entered here defines which dimming value is written into the storage cell of the communication object and sent after a long press on the push-button related to the channel.</p> <p>"No reaction": A long push does not change the object value and also does not send a telegram.</p> <p>"Dim +/-": After a long push, the dimming value stored in the communication object is inverted and the new value is sent.</p> <p>"Dim +": After a short push, the dimming value "Increase 100%" is transferred into the communication object and sent.</p> <p>"Dim -": After a short push, the dimming value "Decrease 100%" is transferred into the communication object and sent.</p>	
Channel X +1 - Dimming value on release push	No reaction Stop
<p>The setting entered here defines which dimming value is written into the storage cell of the communication object and sent after a long press on the push-button related to the channel.</p> <p>"No reaction": A long push does not change the object value and also does not send a telegram.</p> <p>"Stop": When the push-button is released after a long push, the dimming value "Stop" is transferred into the communication object and sent.</p>	
Add enable object	Yes/No
<p>The parameter determines whether the channels can be blocked via an additional Enable object or not. If the channels are blocked (Enable value = 1) the status changes of these channels are not transmitted.</p>	

**11. DESCRIPTION OF COMMUNICATION OBJECTS (continued)****11.3.2.3 Shutter 2-inputs**

No.	Object name	Function	Size	Flags
2 (16,30,44,58,72,86,100)	Channel 1-2 (3-4 -> 15-16)	Shutter Up/Down	1.008 DP_UpDown (1 bit)	CWT
The movement commands Up/Down are sent via the address linked with this object in order to raise/lower the solar protection.				
8 (22,36,50,64,78,92,106)	Channel 1-2 (3-4 -> 15-16)	Shutter Stop - slats	1.009 DP_OpenClose (1 bit)	CWT
The command "STOP" or "Slats OPEN/CLOSE" is sent via the group address linked with this object.				
7 (21,35,49,63,77,91,105)	Channel 1-2 (3-4 -> 15-16)	Shutter Status	5.001 DP_Scaling (1 byte)	CW
Shutter status telegrams are received from the shutter actuator via the group address linked with this object.				
4 (18,32,46,60,74,88,102)	Channel 1-2 (3-4 -> 15-16)	Enable	1.003 DP_Enable (1 bit)	CW

Enable telegrams are received via the group address linked with this object. They are used to lock (disable) or unlock (enable) the corresponding channels.

They are only visible if the "Add Enable object" parameter value is set to "Yes".

Channel 1-2 function	Shutter 2-inputs
Channel 1 - Short push reaction	Up + stop
Channel 1 - Long push reaction	Open slats
Channel 1 - Long push release	No reaction
Channel 2 - Short push reaction	Down + stop
Channel 2 - Long push reaction	Close slats
Channel 2 - Long push release	No reaction
Add enable object	No

**11. DESCRIPTION OF COMMUNICATION OBJECTS (continued)****11.3.2.3 Shutter 2-inputs (continued)**

Parameters	Setting
Channel X - Short push reaction	No reaction Cyclical Up/Down + stop Up + stop Down + stop Cyclical Up/Down Stop Open slats Close slats Up Down
<p>The setting entered here defines which movement command is written into the storage cell of the communication object and sent after a short press on the push-button related to the channel.</p> <p>"No reaction": Actions do not change the object value and also do not send a telegram.</p> <p>Cyclical Up/Down + stop: Each short push transfers the following sequence of command values into the communication object: Up, Stop, Down, Stop, Up, Stop, Down, Stop, etc.</p> <p>Up + stop: Each short push transfers the following sequence of command values into the communication object: Up, Stop, Up, Stop, etc.</p> <p>Down + stop: Each short push transfers the following sequence of command values into the communication object: Up, Stop, Up, Stop, etc.</p> <p>Cyclical Up/Down: Each short push transfers the following sequence of command values into the communication object: Up, Down, Up, Down, etc.</p> <p>Stop: A short push transfers the stop command value ("1" or "0") into the communication object.</p> <p>Open slats: A short push transfers the stop (open slats) command value ("0") into the communication object.</p> <p>Close slats: A short push transfers the stop (close slats) command value ("1") into the communication object.</p> <p>Up: A short push transfers the Up command (value "0") into the communication object.</p> <p>Down: A short push transfers the Down command (value "1") into the communication object.</p>	
Channel X - Long push reaction	No reaction Up Down Cyclical Up/Down Stop Cyclical Open/Close slats Open slats Close slats
<p>The setting entered here defines which movement command is written into the storage cell of the communication object and sent after a long press on the push-button related to the channel.</p> <p>"No reaction": Actions do not change the object value and also do not send a telegram.</p> <p>Up: A long push transfers the Up command (value "0") into the communication object.</p> <p>Down: A long push sends the Down command (value "1").</p> <p>Cyclical Up/Down: Each short push sends the following sequence of commands: Up, Down, Up, Down, etc.</p> <p>Stop: A long push sends the stop command (value "1" or "0").</p> <p>Cyclical Open /Close slats: Each short push sends the following sequence of commands: Open slats, Close slats, Open slats, Close slats.</p> <p>Open slats: A long push transfers the stop (open slats) command (value "0") into the communication object.</p> <p>Close slats: A long push transfers the stop (close slats) command (value "1") into the communication object.</p>	
Channel X - Long push release	No reaction Stop
<p>The setting entered here defines which value is written into the storage cell of the communication object and sent after a long push release of the push-button related to the channel.</p> <p>"No reaction": Actions do not change the object value and also do not send a telegram.</p> <p>Stop: The stop command (value "1" or "0") is transferred into the communication object and sent.</p>	

**11. DESCRIPTION OF COMMUNICATION OBJECTS (continued)****11.3.2.3 Shutter 2-inputs (continued)**

Parameters	Setting
Channel X +1 - Short push reaction	No reaction Cyclical Up/Down + stop Up + stop Down + stop Cyclical Up/Down Stop Open slats Close slats Up Down
<p>The setting entered here defines which movement command is written into the storage cell of the communication object and sent after a short press on the push-button related to the channel.</p> <p>"No reaction": Actions do not change the object value and also do not send a telegram.</p> <p>Cyclical Up/Down + stop: Each short push transfers the following sequence of command values into the communication object: Up, Stop, Down, Stop, Up, Stop, Down, Stop, etc.</p> <p>Up + stop: Each short push transfers the following sequence of command values into the communication object: Up, Stop, Up, Stop, etc.</p> <p>Down + stop: Each short push transfers the following sequence of command values into the communication object: Up, Stop, Up, Stop, etc.</p> <p>Cyclical Up/Down: Each short push transfers the following sequence of command values into the communication object: Up, Down, Up, Down, etc.</p> <p>Stop: A short push transfers the stop command value ("1" or "0") into the communication object.</p> <p>Open slats: A short push transfers the stop (open slats) command value ("0") into the communication object.</p> <p>Close slats: A short push transfers the stop (close slats) command value ("1") into the communication object.</p> <p>Up: A short push transfers the Up command (value "0") into the communication object.</p> <p>Down: A short push transfers the Down command (value "1") into the communication object.</p>	
Channel X +1 - Long push reaction	No reaction Up Down Cyclical Up/Down Stop Cyclical Open/Close slats Open slats Close slats
<p>The setting entered here defines which movement command is written into the storage cell of the communication object and sent after a long press on the push-button related to the channel.</p> <p>"No reaction": Actions do not change the object value and also do not send a telegram.</p> <p>Up: A long push transfers the Up command (value "0") into the communication object.</p> <p>Down: A long push sends the Down command (value "1").</p> <p>Cyclical Up/Down: Each short push sends the following sequence of commands: Up, Down, Up, Down, etc.</p> <p>Stop: A long push sends the stop command (value "1" or "0").</p> <p>Cyclical Open /Close slats: Each short push sends the following sequence of commands: Open slats, Close slats, Open slats, Close slats.</p> <p>Open slats: A long push transfers the stop (open slats) command (value "0") into the communication object.</p> <p>Close slats: A long push transfers the stop (close slats) command (value "1") into the communication object.</p>	
Channel X - Long push release	No reaction/Stop
<p>The setting entered here defines which value is written into the storage cell of the communication object and sent after a long push release of the push-button related to the channel.</p> <p>"No reaction": Actions do not change the object value and also do not send a telegram.</p> <p>Stop: the stop command (value "1" or "0") is transferred into the communication object and sent.</p>	
Add enable object	Yes/No
<p>The parameter determines whether the channels (1-2 or 3-4) can be blocked via an additional Enable object or not. If the channels (1-2 or 3-4) are blocked (Enable value = 1), the status changes of these channels are not transmitted.</p>	

## 11. DESCRIPTION OF COMMUNICATION OBJECTS (continued)

### ■ 10.4 Sensor configuration (1,2,3,4)

This screen allows users to choose how to manage the channels and to configure their settings.

No.	Object name	Function	Size	Flags
114 (116,118,120)	Channel 1 (2-> 4)	Occupied/Unoccupied	1.018 (occupancy)	CWT
115 (117,119,121)	Channel 1 (2-> 4)	Enable	1.003 DP_Switch (1 bit)	CW

Enable telegrams are received via the group address linked with this object. They are used to lock (disable) or unlock (enable) the corresponding channels.

They are only visible if the "Add enable object" parameter value is set to "Yes".

The screenshot shows a configuration interface for two sensors. For each sensor, there are three dropdown menus: 'Sensor X' (set to 'Activated'), 'occupancy cyclical repetition' (set to 'never'), and 'Add enable object' (set to 'No'). The 'Add enable object' dropdown for the second sensor is open, showing options: 'never', '5 seconds', '10 seconds', '30 seconds', '1 minutes', '1,5 minutes', '2 minutes', and '5 minutes'.

Parameters	Setting
Occupancy cyclical repetition	never
	5 seconds
	10 seconds
	30 seconds
	1 minute
	1.5 minutes
	2 minutes
	5 minutes
The setting entered here defines periodic sending of an occupancy telegram, use "never" to disable it.	

#### 11.4.1 Use separately

##### Channel X function

##### Not used

Channel is not usable, no accessible communication objects.

11. DIMENSIONS (mm)

