

07 B0 S4 On-off-toggle/Dim/Shu/Value/Cycl 983101

Application program usage

Product family: Input
 Product type: Binary input, 4-fold
 Manufacturer: Siemens

Name: Binary input RL 260/23
 Order no.: 5WG1 260-4AB23

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1. Functional description

The RL 260/23 binary input is a KNX device with four binary input channels. The device is installed in an AP 118 Control Module Box or an AP 641 Room Control Box. The bus is connected via a bus terminal block. The device electronics are supplied via the bus voltage.

Input voltages AC/DC 12...230V can be detected by the binary input channels. All binary input channels use the same reference potential.

The device enables both statuses (contact is opened or closed respectively voltage is applied or not) and changes in status (contact is being opened or closed respectively voltage is rising or falling) to be recorded, as well as voltage impulses. It can therefore be used, for example, to monitor voltages (whether mains voltage is available), to record circuit or operating states (whether a miniature circuit-breaker or a residual-current circuit-breaker has been released, a plant is switched on or off, a malfunction or an alarm is being signaled), to record the change of status when switching on or switching off a voltage (whether a switch or a pushbutton was activated, whether it was activated for a shorter or longer period, whether the voltage was switched on or off due to the activation) and to record and count voltage pulses with a minimum voltage on-time of 110 ms and a max. pulse succession of up to 4 pulses per second, without or with monitoring of the number of pulses counted until a pre-determined threshold has been reached or exceeded.

On the one hand the binary input RL 260/23 provides input functions occupying only one binary input channel and on the other it provides input functions requiring two binary input channels.

Therefore, via the parameter window "General" for two channels each (A and B; C and D) it must first be configured whether each is assigned an individual or joint input function.

One of the following functions may be assigned to each single input channel:

- Switching status / binary value transmission
- Switching, edge-triggered
- Switching, on short / long operation
- 1-button sequenced switching group control
- 1-button multi-touch control (multiple output control)
- 1-button dimming
- 1/2-button dimming
- 1-button solar protection control
- 1/2-button solar protection control
- 8-bit value, edge-triggered
- 8-bit value, short / long operation

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- 16-bit value, edge-triggered (integer or floating point value)
- 16-bit value, short / long operation (integer or floating point value)
- 32-bit value, edge-triggered (integer value)
- 32-bit value, short / long operation (integer value)
- 1-bit scene control
- 8-bit scene control
- 8-bit pulse counting (with / without threshold check)
- 16-bit pulse counting (with / without threshold check)
- 32-bit pulse counting (with / without threshold check)

Two consecutive channels (A and B resp. C and D) that were configured as a pair of inputs can be configured for one of these functions:

- 2-button dimming with stop telegram
- 2-button dimming with cyclical sending
- 2-button solar protection control

Debounce time

A fixed debounce time of 20 ms is preset removing the need for the user to configure debounce times.

Behavior at bus voltage failure / recovery

On bus voltage failure the current input status of all inputs is saved in non-volatile memory. For inputs with the assigned function "Switching, edge-triggered" or the function "Switching status / binary value transmission", it is evaluated on bus voltage recovery whether the current status has changed compared to the status on bus voltage failure. Via parameter it can be configured, if in this case the respective change of state of the corresponding object respectively the current contact status shall be transmitted automatically or not.

Behavior on unloading the application program

When the application program is unloaded with ETS the device does not function.

When the programming button is pressed for more than 20 seconds the device is reset to the factory default state.

Building site function

The building site function provided ex-factory enables switching the building site lighting on and off via bus wall switches and actuators, even if these devices have not yet been commissioned with ETS.

Factory default state

In the factory default state all channels (inputs) are set to the function "Switching status / binary value transmission" with this parameter setting:

Reaction on rising edge: Send "On",
Reaction on falling edge: Send "Off".

Function of the programming button

Pressing the programming button

- < 2 s: Programming mode for commissioning with ETS
- > 2 s ... <20 s: Special mode for Desigo TRA. The device may be blocked for the KNX programming mode for approx. 10 seconds. In this situation the programming LED flashes briefly.
- > 20 s: The device is reset to the factory default settings.

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2. Communication objects

Maximum number of group addresses: 120

Maximum number of assignments: 120

Note

The number and names of communication objects visible can vary depending on the parameter settings.

The application program already has been loaded in the factory.

The device is configured and commissioned with Engineering Tool Software (ETS) version ETS v3.0f or higher. With the ETS (Engineering Tool Software) the specific parameters and addresses are assigned appropriately, and downloaded into the device.

The following list shows all objects of the device. Which objects are visible and linkable to group addresses is defined via the functions assigned to the inputs. The objects and associated parameter settings are described with the functions.

No.	Object name	Function	Number of bits	Flags	
21	Channel A, Status	On / Off	1 bit	CRT	
	Channel A, Switching 1	On / Off	1 bit	CRWT	
	Channel A, Switching	Toggle	1 bit	CRWT	
	Channel A, Switching	On	1 bit	CRT	
	Channel A, Switching	Off	1 bit	CRT	
	Channel A, Solar protection	Up / Down	1 bit	CRWT	
	Channel A, Solar protection	Up	1 bit	CRT	
	Channel A, Solar protection	Down	1 bit	CRT	
	Channel A, Position of solar protection	8-bit value	8 bit	CRT	
	Channel A, 8-bit value 1	send	8 bit	CRT	
	Channel A, 16-bit value 1	send	16 bit	CRT	
	Channel A, 16-bit Floating point value 1	send	16 bit	CRT	
	Channel A, 32-bit value 1	send	32 bit	CRT	
	Channel A, Scene 1 / 2	recall	1 bit	CRT	
	Channel A, 8-bit Scene	recall / save	8 bit	CRT	
	Channel A, 8-bit Counter value	send	8 bit	CRT	
	Channel A, 16-bit Counter value	send	16 bit	CRT	
	Channel A, 32-bit Counter value	send	32 bit	CRT	
	22	Channel A, Switching 2	On / Off	1 bit	CRWT
		Channel A, Dimming	brighter / darker	4 bit	CRT
Channel A, Dimming		brighter	4 bit	CRT	
Channel A, Dimming		darker	4 bit	CRT	
Channel A, Slats		Stop / Open / Close	1 bit	CRT	
Channel A, Slats		Stopp / Open	1 bit	CRT	
Channel A, Slats		Stopp / Close	1 bit	CRT	
Channel A, Position of slats		8-bit value	8 bit	CRT	
Channel A, 8-bit value 2		send	8 bit	CRT	
Channel A, 16-bit value 2		send	16 bit	CRT	
Channel A, 16-bit Floating point value 2		send	16 bit	CRT	
Channel A, 32-bit value 2		send	32 bit	CRT	
Channel A, Scene 1 / 2		save	1 bit	CRT	
Channel A, Counter value		reset	8 bit	CWT	
23		Channel A, Switching 3	On / Off	1 bit	CRWT
		Channel A, Dimming	Status	8 bit	CWT
		Channel A, Upper limit violation	On / Off	1 bit	CRT

No.	Object name	Function	Number of bits	Flags	
24	Channel A, 8-bit Counter Threshold	read/write	8 bit	CRWT	
	Channel A, 16-bit Counter Threshold	read/write	16 bit	CRWT	
	Channel A, 32-bit Counter Threshold	read/write	32 bit	CRWT	
25	Channel A, Blocking	On / Off	1 bit	CWT	
26	Channel B, Status	On / Off	1 bit	CRT	
	Channel B, Switching 1	On / Off	1 bit	CRWT	
	Channel B, Switching	Toggle	1 bit	CRWT	
	Channel B, Switching	On	1 bit	CRT	
	Channel B, Switching	Off	1 bit	CRT	
	Channel B, Solar protection	Up / Down	1 bit	CRWT	
	Channel B, Solar protection	Up	1 bit	CRT	
	Channel B, Solar protection	Down	1 bit	CRT	
	Channel B, Position of solar protection	8-bit value	8 bit	CRT	
	Channel B, 8-bit value 1	send	8 bit	CRT	
	Channel B, 16-bit value 1	send	16 bit	CRT	
	Channel B, 16-bit Floating point value 1	send	16 bit	CRT	
	Channel B, 32-bit value 1	send	32 bit	CRT	
	Channel B, Scene 1 / 2	recall	1 bit	CRT	
	Channel B, 8-bit Scene	recall / save	8 bit	CRT	
	Channel B, 8-bit Counter value	send	8 bit	CRT	
	Channel B, 16-bit Counter value	send	16 bit	CRT	
	Channel B, 32-bit Counter value	send	32 bit	CRT	
	27	Channel B, Switching 2	On / Off	1 bit	CRWT
		Channel B, Dimming	brighter / darker	4 bit	CRT
Channel B, Dimming		brighter	4 bit	CRT	
Channel B, Dimming		darker	4 bit	CRT	
Channel B, Slats		Stop / Open / Close	1 bit	CRT	
Channel B, Slats		Stopp / Open	1 bit	CRT	
Channel B, Slats		Stopp / Close	1 bit	CRT	
Channel B, Position of slats		8-bit value	8 bit	CRT	
Channel B, 8-bit value 2		send	8 bit	CRT	
Channel B, 16-bit value 2		send	16 bit	CRT	
Channel B, 16-bit Floating point value 2		send	16 bit	CRT	
Channel B, 32-bit value 2		send	32 bit	CRT	
28	Channel B, Scene 1 / 2	save	1 bit	CRT	
	Channel B, Counter value	reset	8 bit	CWT	
	Channel B, Switching 3	On / Off	1 bit	CRWT	
29	Channel B, Dimming	Status	8 bit	CWT	
	Channel B, Upper limit violation	On / Off	1 bit	CRT	
	Channel B, 8-bit Counter Threshold	read/write	8 bit	CRWT	
30	Channel B, 16-bit Counter Threshold	read/write	16 bit	CRWT	
	Channel B, 32-bit Counter Threshold	read/write	32 bit	CRWT	
31	Channel B, Blocking	On / Off	1 bit	CWT	
31	Channel C, Status	On / Off	1 bit	CRT	
	Channel C, Switching 1	On / Off	1 bit	CRWT	
	Channel C, Switching	Toggle	1 bit	CRWT	
	Channel C, Switching	On	1 bit	CRT	
	Channel C, Switching	Off	1 bit	CRT	
	Channel C, Solar protection	Up / Down	1 bit	CRT	
	Channel C, Solar protection	Up	1 bit	CRT	
	Channel C, Solar protection	Down	1 bit	CRT	
	Channel C, Position of solar protection	8-bit value	8 bit	CRT	
	Channel C, 8-bit value 1	send	8 bit	CRT	
	Channel C, 16-bit value 1	send	16 bit	CRT	
	Channel C, 16-bit Floating point value 1	send	16 bit	CRT	
	Channel C, 32-bit value 1	send	32 bit	CRT	
	Channel C, Scene 1 / 2	recall	1 bit	CRT	
	Channel C, 8-bit Scene	recall / save	8 bit	CRT	
	Channel C, 8-bit Counter value	send	8 bit	CRWT	
	Channel C, 16-bit Counter value	send	16 bit	CRWT	
	Channel C, 32-bit Counter value	send	32 bit	CRWT	
	32	Channel C, Switching 2	On / Off	1 bit	CRWT
		Channel C, Dimming	brighter / darker	4 bit	CRT
Channel C, Dimming		brighter	4 bit	CRT	
Channel C, Dimming		darker	4 bit	CRT	
Channel C, Slats		Stop / Open / Close	1 bit	CRT	
Channel C, Slats		Stopp / Open	1 bit	CRT	
Channel C, Slats		Stopp / Close	1 bit	CRT	

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No.	Object name	Function	Number of bits	Flags	
	Channel C, Position of slats	8-bit value	8 bit	CRT	
	Channel C, 8-bit value 2	send	8 bit	CRT	
	Channel C, 16-bit value 2	send	16 bit	CRT	
	Channel C, 16-bit Floating point value 2	send	16 bit	CRT	
	Channel C, 32-bit value 2	send	32 bit	CRT	
	Channel C, Scene 1 / 2	save	1 bit	CRT	
	Channel C, Counter value	reset	8 bit	CWT	
33	Channel C, Switching 3	On / Off	1 bit	CRWT	
	Channel C, Dimming	Status	8 bit	CWT	
	Channel C, Upper limit violation	On / Off	1 bit	CRT	
34	Channel C, 8-bit Counter Threshold	read/write	8 bit	CRWT	
	Channel C, 16-bit Counter Threshold	read/write	16 bit	CRWT	
	Channel C, 32-bit Counter Threshold	read/write	32 bit	CRWT	
35	Channel C, Blocking	On / Off	1 bit	CWT	
36	Channel D, Status	On / Off	1 bit	CRT	
	Channel D, Switching 1	On / Off	1 bit	CRWT	
	Channel D, Switching	Toggle	1 bit	CRWT	
	Channel D, Switching	On	1 bit	CRT	
	Channel D, Switching	Off	1 bit	CRT	
	Channel D, Solar protection	Up / Down	1 bit	CRWT	
	Channel D, Solar protection	Up	1 bit	CRT	
	Channel D, Solar protection	Down	1 bit	CRT	
	Channel D, Position of solar protection	8-bit value	8 bit	CRT	
	Channel D, 8-bit value 1	send	8 bit	CRT	
	Channel D, 16-bit value 1	send	16 bit	CRT	
	Channel D, 16-bit Floating point value 1	send	16 bit	CRT	
	Channel D, 32-bit value 1	send	32 bit	CRT	
	Channel D, Scene 1 / 2	recall	1 bit	CRT	
	Channel D, 8-bit Scene	recall / save	8 bit	CRT	
	Channel D, 8-bit Counter value	send	8 bit	CRWT	
	Channel D, 16-bit Counter value	send	16 bit	CRWT	
	Channel D, 32-bit Counter value	send	32 bit	CRWT	
	37	Channel D, Switching 2	On / Off	1 bit	CRWT
		Channel D, Dimming	brighter / darker	4 bit	CRT
Channel D, Dimming		brighter	4 bit	CRT	
Channel D, Dimming		darker	4 bit	CRT	
Channel D, Slats		Stop / Open / Close	1 bit	CRT	
Channel D, Slats		Stopp / Open	1 bit	CRT	
Channel D, Slats		Stopp / Close	1 bit	CRT	
Channel D, Position of slats		8-bit value	8 bit	CRT	
Channel D, 8-bit value 2		send	8 bit	CRT	
Channel D, 16-bit value 2		send	16 bit	CRT	
Channel D, 16-bit Floating point value 2		send	16 bit	CRT	
Channel D, 32-bit value 2		send	32 bit	CRT	
Channel D, Scene 1 / 2		save	1 bit	CRT	
Channel D, Counter value		reset	8 bit	CWT	
38	Channel D, Switching 3	On / Off	1 bit	CRWT	
	Channel D, Dimming	Status	8 bit	CWT	
	Channel D, Upper limit violation	On / Off	1 bit	CRT	
39	Channel D, 8-bit Counter Threshold	read/write	8 bit	CRWT	
	Channel D, 16-bit Counter Threshold	read/write	16 bit	CRWT	
	Channel D, 32-bit Counter Threshold	read/write	32 bit	CRWT	
40	Channel D, Blocking	On / Off	1 bit	CWT	

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3. Functions (objects, parameters) for inputs, separately configurable

Channels A and B as well as C and D can each be used as „Inputs, separately configurable“ or as „Inputs, jointly configurable“. Dependent on this setting the available functions and objects change.

Parameter General



Parameter	Settings
Function of channels A + B	inputs, separately configurable; inputs, jointly configured
Function of channels C + D	inputs, separately configurable; inputs, jointly configured

This parameter is used to configure whether the two adjacent inputs (channels) are to be "separately configurable", so that different functions may be assigned to each input if necessary, or whether both inputs are to be "jointly configured" since the push buttons attached to them belong together functionally and are intended either for switching and dimming the lighting or for sun protection control, or Depending on the selected setting for this parameter the parameter windows for the individual channels A and B (c and D) respectively for channel A+B (C+D) become visible or hidden.

One of the following functions may be assigned to each single input channel:

- Switching status / binary value transmission
- Switching, edge-triggered
- Switching, on short / long operation
- 1-button sequenced switching group control
- 1-button multi-touch control (multiple output control)
- 1-button dimming
- 1/2-button dimming
- 1-button solar protection control
- 1/2-button solar protection control
- 8-bit value, edge-triggered
- 8-bit value, short / long operation
- 16-bit value, edge-triggered (integer or floating point value)
- 16-bit value, short / long operation (integer or floating point value)
- 32-bit value, edge-triggered (integer value)

- 32-bit value, short / long operation (integer value)
- 1-bit scene control
- 8-bit scene control
- 8-bit pulse counting (with / without threshold check)
- 16-bit pulse counting (with / without threshold check)
- 32-bit pulse counting (with / without threshold check)

The function is selected via the parameter window for the individual channel.

All parameter windows for the individually configurable channels contain the parameter "Function of input" listed below for selection of the function. This parameter is not listed and described with each individual function description.

Parameter channel A (B, C, D)

Parameter	Settings
Function of input	Send switching status / binary value; Switching edge; Switch short / long; 1-button sequenced switching group control; 1-button multi-touch control (multiple output control); 1- button dimming; 1/2-button dimming; 1-button solar protection control; 1/2- button solar protection control; 1-button solar protection /slat control; 8-bit value edge; 8-bit value short / long; 16-bit value edge; 16-bit value short / long; 32-bit value edge; 32-bit value short / long; 1-bit scene control; 8-bit scene control; 8-bit pulse counting; 16-bit pulse counting; 32-bit pulse counting
This parameter is used to assign the desired function to an input. Depending on the function selected the display of subsequent parameters changes.	

Subsequently, the functions configurable for a single input are described with their associated objects and parameter settings.

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Send switching status / binary value

Operation of Input	Send switching status / Binary value
Switching value when contact is closed	On
Switching value when contact is open	Off
Send switching value after bus voltage recovery	No
Send cyclically	No
Add blocking object	No

This function is used, for example, to query and transmit the switching status of a signaling contact or the voltage level present at a channel input. Adjustment via parameter defines which binary value is to be sent after a status change, whether the switching status / binary value is to be sent cyclically in addition and whether the current switching status / binary value is to be sent automatically even after bus or mains voltage recovery.

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), Status	On / Off	1 bit	CRT
The switching status / binary value is sent via the group address linked with this object.				
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT
<i>This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".</i>				
Via the group address linked to this object blocking of the respective input channel is turned on or off.				
If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.				

Parameters

Parameter	Settings
Switching value when contact is closed	On; Off; no reaction
This parameter determines the switching value to be sent when the contact is closed.	
„On“: when the contact is closed the switching value „on“ is sent.	
„Off“: when the contact is closed the switching value „off“ is sent.	
„no reaction“: when the contact is closed a telegram is not sent.	

Parameter	Settings
Switching value when contact is open	On; Off; no reaction
This parameter determines the switching value to be sent when the contact is open.	
„On“: when the contact is open the switching value „on“ is sent.	
„Off“: when the contact is open the switching value „off“ is sent.	
„no reaction“: when the contact is open a telegram is not sent.	
Send switching value after bus voltage recovery	No; always; if input status changed
This parameter determines if and when a switching value is sent after bus voltage recovery.	
„No“: After bus voltage recovery the current switching value is not sent.	
„always“: After bus voltage recovery the current switching value is always sent.	
„if input status changed“: After bus voltage recovery the current switching status is sent if the switching status changed during the bus voltage failure.	
Send cyclically	No; always; send only On value; send only Off value;
This parameter determines if and when a switching value is sent cyclically via the corresponding communication object.	
„No“: The value is not sent cyclically.	
„always“: Additionally to the event-driven transmission on change of value the status is sent cyclically.	
„send only On value“: Only an "On" value is sent cyclically.	
„ send only On value “: Only an "Off" value is sent cyclically.	
Cycle time in minutes (1...255)	1 ... 255
<i>This Parameter is only visible if the parameter "Send cyclically" is not set to "No".</i>	
This parameter determines the desired cycle time in minutes.	
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	

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Switching edge

Operation of Input	Switching edge
Reaction on rising edge	Toggle
Reaction on falling edge	no reaction
Send switching value after bus voltage recovery	No
Add blocking object	No

This function is used, for binary inputs to which a switch or a push button is attached, to send a switching telegram (ON, OFF or TOGGLE) as a reaction to a rising and / or falling signal edge at this input. Each time when the push button is pressed and / or released resp. when the contact is closed and / or opened a telegram is sent, i.e. this function can be used e.g. to implement the behavior of a bell switch.

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), Switching 1	On / Off	1 bit	CRWT
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT

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

This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".

Via the group address linked to this object blocking of the respective input channel is turned on or off.

If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.

Parameters

Parameter	Settings
Reaction on rising edge	no reaction On Off Toggle
<p>Here an adjustment is made to define which switching 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 input from logical "0" to "1".</p> <p>"no reaction": An edge change at the input does not change the object value and also does not lead to the sending of a telegram.</p>	

Parameter	Settings
<p>"On": In the event of a rising edge the switching value "ON" (binary value „1“) is transferred into the communication object and sent.</p> <p>"Off": In the event of a rising edge the switching value "OFF" (binary value „0“) is transferred into the communication object and sent.</p> <p>"Toggle": In the event of a rising edge, the switching value stored in the communication object is inverted and the new value is sent.</p>	
Reaction on falling edge	no reaction On Off Toggle
<p>Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after a falling edge in the signal status at the channel (input). The falling edge corresponds to a change in the signal status at the input from logical "1" to "0".</p> <p>"no reaction": An edge change at the input does not change the object value and also does not lead to the sending of a telegram.</p> <p>"On": In the event of a falling edge the switching value "ON" (binary value „1“) is transferred into the communication object and sent.</p> <p>"Off": In the event of a falling edge the switching value "OFF" (binary value „0“) is transferred into the communication object and sent.</p> <p>"Toggle": In the event of a rising edge, the switching value stored in the communication object is inverted and the new value is sent.</p>	
Send switching value after bus voltage recovery	No; if input status changed
<p>This parameter determines if and when a switching value is sent after bus voltage recovery.</p> <p>„No“: After bus voltage recovery the current switching value is not sent.</p> <p>„if input status changed“: After bus voltage recovery the current switching status is sent if the switching status changed during the bus voltage failure.</p>	
Add blocking object	No; Yes
<p>This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.</p>	

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Switching short / long

Operation of Input	Switch short / long
Reaction on pressing button short	Toggle
Reaction on pressing button long	no reaction
Long push button action min.	0.5 seconds
Contact type	normally open contact
Add blocking object	No

This function is used, for binary inputs to which a switch or a push button is attached, to send a switching telegram (ON, OFF or TOGGLE) as a reaction to a short or long push button action.

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), Switching 1	On / Off	1 bit	CRWT
Switching telegrams are sent via the group address linked with this object.				
22 (27, 32, 37)	Channel A (B, C, D), Switching 2	On / Off	1 bit	CRWT
These objects are only visible with this name and function if for the function „Switch short / long“ the second object “1-button group control (sequenced control)” or “1-button multiple output control (multi-touch control)” is assigned to the respective channel.				
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT
<p><i>This object is only visible with this name and function if for the respective channel the parameter “Add blocking object” is set to “Yes”.</i></p> <p>Via the group address linked to this object blocking of the respective input channel is turned on or off.</p> <p>If an input is blocked status changes at this input are no longer transmitted. If the function “Send switching status / binary value” is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.</p>				

Parameters

Parameter	Settings
Reaction on pressing button short	no reaction On; Off; Toggle
<p>Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after short pressing of the push button attached to the channel (input).</p> <p>“no reaction”: A short push button action does not change the</p>	

Parameter	Settings
<p>object value and also does not lead to the sending of a telegram.</p> <p>“On”: After a short push button action, the switching value “ON” is transferred into the communication object and sent.</p> <p>“Off”: After a short push button action, the switching value “OFF” is transferred into the communication object and sent.</p> <p>“Toggle”: After a short push button action, the switching value stored in the communication object is inverted and the new value is sent.</p>	
Reaction on pressing button long	no reaction On; Off; Toggle
<p>Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after long pressing of the push button attached to the channel (input).</p> <p>“no reaction”: A long push button action does not change the object value and also does not lead to the sending of a telegram.</p> <p>“On”: After a long push button action, the switching value “ON” is transferred into the communication object and sent.</p> <p>“Off”: After a long push button action, the switching value “OFF” is transferred into the communication object and sent.</p> <p>“Toggle”: After a long push button action, the switching value stored in the communication object is inverted and the new value is sent.</p>	
Send on long push button press via	the same object as on short push button press; second object
<p><i>This parameter is only visible when the parameter “reaction on pressing button long” is not set to „no reaction“.</i></p> <p>This parameter determines whether the switching value on long push button press is sent via the same object (Switching 1) or via a second object (Switching 2).</p>	
Long push button action min.	0.3 Seconds; 0.4 Seconds; 0.5 Seconds; 0.6 Seconds; 0.8 Seconds; 1.0 Seconds; 1.2 Seconds; 1.5 Seconds; 2.0 Seconds; 2.5 Seconds; 3.0 Seconds; 4.0 Seconds; 5.0 Seconds; 6.0 Seconds; 7.0 Seconds
<p>This parameter determines the minimum period for detecting a long push button action.</p>	

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Parameter	Settings
Contact type	normally open contact normally closed contact
The contact type of the push button attached to the channel is adjusted here. "normally open contact": the contact of the push button used is closed when activated, open when not activated. "normally closed contact": the contact of the push button used is open when activated, closed when not activated.	
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	

1-button sequenced-switching group control

The "1-button sequenced switching group control" function enables, for example, the bulbs of one luminaire with two or three groups of bulbs to be switched on and off successively, as a group, by pressing a single push button several times. The number of groups that can be switched is adjusted via a parameter. The switching sequence is predetermined and cannot be modified by the user. If these same groups are controlled by several push buttons with sequenced switching group control, then this occurs from every push button independently from the other push buttons, i.e. every push button only notes which switching command combination it last sent and sends what is, for it, the next subsequent switching order combination.

Objects

Objects 21, 22 and 23 are automatically inserted if 3 sequenced switching groups are chosen (for 2 sequenced switching groups only objects 21 and 22 are inserted)

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), Switching 1	On / Off	1 bit	CRWT
22 (27, 32, 37)	Channel A (B, C, D), Switching 2	On / Off	1 bit	CRT
23 (28, 33, 38)	Channel A (B, C, D), Switching 3	On / Off	1 bit	CRWT

Switching telegrams are sent via the group addresses linked with these objects.

25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT
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This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".

Via the group address linked to this object blocking of the respective input channel is turned on or off.

If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.

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Parameters

Parameter	Settings
Number of sequenced switching groups	2 3
<p>The number of groups that can be switched is adjusted via this parameter.</p> <p>„2“: 2 groups are controlled via 2 switching command telegrams per push button activation in such a way that the following switching sequence can be seen (0= group switched off, 1= group switched on): 00-01-11-10-00</p> <p>„3“: 3 groups are controlled via 3 switching command telegrams per push button activation in such a way that the following switching sequence can be seen (0= group switched off, 1= group switched on): 000-001-010-011-111-110-101-100-000</p> <p>After power recovery the sequence always starts with the switching telegrams Off / On for objects Switching 2 / Switching 1 resp. Off / Off / On for objects Switching 3 / Switching 2 / Switching 1.</p>	
Contact type	normally open contact normally closed contact
<p>The contact type of the push button attached to the channel is adjusted here.</p> <p>“normally open contact”: the contact of the push button used is closed when activated, open when not activated.</p> <p>“normally closed contact”: the contact of the push button used is open when activated, closed when not activated.</p>	
Add blocking object	No; Yes
<p>This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.</p>	

1-button multi-touch control (multiple output control)

The function “1-button multi-touch control (multiple output control)” enables targeted switching of up to 2 resp. 3 load groups using just one push button. The number of push button switching actions immediately following each other determines, which load group is switched:
 1x switching action = switch group 1,
 2x switching action = switch group 2,
 3x switching action = switch group 3.

Objects

Objects 21, 22 and 23 are automatically inserted if 3 sequenced switching groups are chosen (for 2 sequenced switching groups only objects 21 and 22 are inserted)

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), Switching 1	On / Off	1 bit	CRWT
22 (27, 32, 37)	Channel A (B, C, D), Switching 2	On / Off	1 bit	CRT
23 (28, 33, 38)	Channel A (B, C, D), Switching 3	On / Off	1 bit	CRWT

Switching telegrams are sent via the group addresses linked with these objects.

25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT
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This object is only visible with this name and function if for the respective channel the parameter “Add blocking object” is set to “Yes”.

Via the group address linked to this object blocking of the respective input channel is turned on or off.

If an input is blocked status changes at this input are no longer transmitted. If the function “Send switching status / binary value” is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.

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Parameters

Parameter	Settings
Number of switchable groups	2, 3
This parameter determines the number of switchable groups. „2“: 2 groups can be controlled via 2 switching objects. „3“: 3 groups can be controlled via 3 switching objects.	
Max. delay time between two push button actions	0.5 s; 0.75 s; 1.0 s
This parameter determines the maximum permissible delay between two push button actions. If there is no other push button action within this period then the switching object is sent, which corresponds with the number of successive push button actions.	
Switching 1, value to be sent	On; Off; Toggle
This parameter determines the value to be sent via the object Switching 1. „On“: The value „ON“ is sent. „Off“: The value „OFF“ is sent. „Toggle“: The switching value sent last is toggled and the new value is sent.	
Switching 2, value to be sent	On; Off; Toggle
This parameter determines the value to be sent via the object Switching 2. „On“: The value „ON“ is sent. „Off“: The value „OFF“ is sent. „Toggle“: The switching value sent last is toggled and the new value is sent.	
Switching 3, value to be sent	On; Off; Toggle
<i>This parameter is only visible if the parameter "Number of switchable groups" is set to "3".</i> This parameter determines the value to be sent via the object Switching 3. „On“: The value „ON“ is sent. „Off“: The value „OFF“ is sent. „Toggle“: The switching value sent last is toggled and the new value is sent.	
Contact type	normally open contact normally closed contact
The contact type of the push button attached to the channel is adjusted here. "normally open contact": the contact of the push button used is closed when activated, open when not activated. "normally closed contact": the contact of the push button used is open when activated, closed when not activated.	
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	

1-button dimming

Operation of Input	1-button dimming
Long push button action min.	0.5 seconds
Contact type	normally open contact
Add blocking object	No

The channel can be used for 1-button dimming. A distinction is made between short and long push button action.

- TOGGLE switching (short push button action)

When the push button is pressed briefly the value currently stored in the switching object (TOGGLE switching) is inverted and then sent. An ON or OFF telegram is only generated when the push button is released (= falling edge).

- Dim brighter / darker (long push button action)

With the long push button action (the duration can be adjusted via the "General" parameter window), the light becomes brighter or darker depending on the object value and the last controlled dimming direction. If the dimming actuator had been switched off, then a long push button action switches it on and brightens. If the dimming actuator was switched on by a short push button action, then it is dimmed darker by the first long push button action. If the dimming actuator is at a dimming value between 1 and 99%, the dimming direction last activated is inverted and then dimmed in the new direction. A long push button action sends the command "100 % dimming" via the dimming object, while releasing the push button (= falling edge) sends the command "Stop". If a stop command is received before the 100% value is reached, the dimming process is finished and maintained at the brightness obtained.

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), Switching 1	On / Off	1 bit	CRWT
Switching telegrams are sent to the dimming actuator via the group address linked with this object. In the process, a short push button action produces an ON or OFF telegram, while the last controlled switching direction is reversed respectively.				
22 (27, 32, 37)	Channel A (B, C, D), Dimming	brighter / darker	4 bit	CRT
The dimming telegrams are sent to the dimming actuator via the group address linked with this object. In the process, a long push button action produces a "100 % dimming" telegram. A stop command is sent when the push button is released. Since the last controlled dimming direction is reversed in the process, dimming in the opposite direction is effected on the next long push button action.				

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Obj	Object name	Function	Type	Flags
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT

This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".

Via the group address linked to this object blocking of the respective input channel is turned on or off.

If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.

Parameters

Parameter	Settings
Long push button action min.	0.3 Seconds; 0.4 Seconds; 0.5 Seconds; 0.6 Seconds; 0.8 Seconds; 1.0 Seconds; 1.2 Seconds; 1.5 Seconds; 2.0 Seconds; 2.5 Seconds; 3.0 Seconds; 4.0 Seconds; 5.0 Seconds; 6.0 Seconds; 7.0 Seconds
This parameter determines the minimum period for detecting a long push button action.	
Contact type	normally open contact normally closed contact
The contact type of the push button attached to the channel is adjusted here. "normally open contact": the contact of the push button used is closed when activated, open when not activated. "normally closed contact": the contact of the push button used is open when activated, closed when not activated.	
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	

1/2-button dimming

This function allows 2-button dimming with any two inputs with each input providing the function of one push button:

- Off, darker
- On, brighter
- Toggle, darker
- Toggle, brighter

The combination of two push buttons provides switching a light or group of lights on and off as well as dimming them brighter and darker.

With the two buttons connected to independent inputs a short button press action switches on respectively off and a long button press action dims brighter resp. darker.

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), Switching	Toggle	1 bit	CRWT
21 (26, 31, 36)	Channel A (B, C, D), Switching	On	1 bit	CRT
21 (26, 31, 36)	Channel A (B, C, D), Switching	Off	1 bit	CRT
Switching telegrams are sent to the dimming actuator via the group address linked with this object. A short push button action produces an ON or OFF telegram.				
22 (27, 32, 37)	Channel A (B, C, D), Dimming	brighter	4 bit	CRT
22 (27, 32, 37)	Channel A (B, C, D), Dimming	darker	4 bit	CRT
The dimming telegrams are sent to the dimming actuator via the group address linked with this object. A long push button action produces a "100 % dimming" telegram. A stop command is sent when the push button is released.				

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Obj	Object name	Function	Type	Flags
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT
<p><i>This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".</i></p> <p>Via the group address linked to this object blocking of the respective input channel is turned on or off.</p> <p>If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.</p>				

Parameters

Parameter	Settings
Operation of input	Off, darker On, brighter Toggle, darker Toggle, brighter
This parameter determines the operation of the input.	
Long push button action min.	0.3 Seconds; 0.4 Seconds; 0.5 Seconds; 0.6 Seconds; 0.8 Seconds; 1.0 Seconds; 1.2 Seconds; 1.5 Seconds; 2.0 Seconds; 2.5 Seconds; 3.0 Seconds; 4.0 Seconds; 5.0 Seconds; 6.0 Seconds; 7.0 Seconds
This parameter determines the minimum period for detecting a long push button action.	
Contact type	normally open contact normally closed contact
The contact type of the push button attached to the channel is adjusted here. "normally open contact": the contact of the push button used is closed when activated, open when not activated. "normally closed contact": the contact of the push button used is open when activated, closed when not activated.	
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	

1-button solar protection control

Operation of Input	1-button solar protection control
Long push button action min.	0.5 seconds
Contact type	normally open contact
Add blocking object	No

This function allows using just one push button for moving solar protection up and down, stopping of the motion and opening and closing of the slats. To achieve this a distinction is made between short and long push button action.

- Solar protection Up / Down (long push button action)
Depending on the last movement direction stored in the "Solar protection Up / Down" object, using the long push button action (the duration is configurable via the parameter "Long push button action min.") this direction is inverted and the solar protection lowered or raised until the respective final position has been reached and the drive is disconnected via the limit switch.

If a stop command is received before a final position is reached and the limit switch is activated, the movement is terminated immediately, the position arrived at is maintained and the last movement direction is stored.

- Stop or Slats Open / Close (short push button action)
A short push button action sends a telegram that stops the drive when the solar protection is in motion; when the solar protection is not in motion the telegram leads to a brief movement in the opposite direction to the previous one stored in the movement object. In closed Venetian blinds, for example, this would lead to the slats opening by one step. The STOP or Slats OPEN or CLOSE telegram is only generated when the push button is released (= falling edge). Each further push button action sends another "Slats Open / Close" telegram, while the direction of movement remains unchanged. The software of the solar protection actuator defines whether and how a number of successive "Slats Open / Close" telegrams are interpreted and executed.

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), Solar protection	Up / Down	1 bit	CRWT
The movement commands Up / Down are sent via the group address linked with this object in order to raise / lower the solar protection. In the process, a long push button action always produces a movement command in the direction opposing the last direction of movement.				

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Obj	Object name	Function	Type	Flags
22 (27, 32, 37)	Channel A (B, C, D), Slats	Stop / Open / Close	1 bit	CRT
<p>The commands "STOP" or "Slats OPEN / CLOSE" are sent via the group address linked with this object. In the process, a short push button action always produces a command to stop the movement or adjust the slats by one step in the direction opposing the last direction of movement.</p>				
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT
<p><i>This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".</i></p> <p>Via the group address linked to this object blocking of the respective input channel is turned on or off.</p> <p>If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.</p>				

Parameter	Settings
Add blocking object	No; Yes
<p>This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.</p>	

Parameters

Parameter	Settings
Long push button action min.	0.3 Seconds; 0.4 Seconds; 0.5 Seconds; 0.6 Seconds; 0.8 Seconds; 1.0 Seconds; 1.2 Seconds; 1.5 Seconds; 2.0 Seconds; 2.5 Seconds; 3.0 Seconds; 4.0 Seconds; 5.0 Seconds; 6.0 Seconds; 7.0 Seconds
<p>This parameter determines the minimum period for detecting a long push button action.</p>	
Contact type	normally open contact normally closed contact
<p>The contact type of the push button attached to the channel is adjusted here.</p> <p>"normally open contact": the contact of the push button used is closed when activated, open when not activated.</p> <p>"normally closed contact": the contact of the push button used is open when activated, closed when not activated.</p>	

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1/2-button solar protection control

Operation of Input	1/2-button solar protection control
Operation of Input	Solar protection down, Slats close
Long push button action min.	0.5 seconds
Contact type	normally open contact
Add blocking object	No

This function allows 2-button solar protection control with any two inputs with each input providing the function of one push button:

Blind down, close slats

Blind up, open slats

With the combination of two push buttons, the solar protection can be lowered or raised to the respective final position with a long push button action, while a short push button action ends the movement or adjusts the slats by one step. An adjustment can be made to define which push button (or channel) is used to lower the solar protection and close the slats by one step where necessary, and which is used to raise the solar protection and open the slats by one step where necessary.

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), Solar protection	Up	1 bit	CRT
21 (26, 31, 36)	Channel A (B, C, D), Solar protection	Down	1 bit	CRT

The movement commands Up or Down are sent via the group address linked with this object in order to raise respectively lower the solar protection.

The parameter "Operation of input" determines whether a channel generates an Up or Down telegram on a long button press action.

22 (27, 32, 37)	Channel A (B, C, D), Slats	Stop / Open	1 bit	CRT
22 (27, 32, 37)	Channel A (B, C, D), Slats	Stop / Close	1 bit	CRT

The movement commands Stop / Close or Stop / Open are sent via the group address linked with this object in order to close respectively open the slats of the solar protection.

A short push button action always produces a command to stop the movement or to adjust the slats by one step.

Together with the assignment for lowering and raising the solar protection, adjustment via the "Operation of input" parameter defines which of the two channels generates an Open or Close telegram on short push button action.

Obj	Object name	Function	Type	Flags
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT

This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".

Via the group address linked to this object blocking of the respective input channel is turned on or off.

If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.

Parameters

Parameter	Settings
Operation of input	Solar Protection Down, Slats Close; Solar Protection Up, Slats Open
This parameter determines which telegram is sent on long respectively short push button press action.	
Long push button action min.	0.3 Seconds; 0.4 Seconds; 0.5 Seconds; 0.6 Seconds; 0.8 Seconds; 1.0 Seconds; 1.2 Seconds; 1.5 Seconds; 2.0 Seconds; 2.5 Seconds; 3.0 Seconds; 4.0 Seconds; 5.0 Seconds; 6.0 Seconds; 7.0 Seconds;
This parameter determines the minimum period for detecting a long push button action.	
Contact type	normally open contact normally closed contact
The contact type of the push button attached to the channel is adjusted here. "normally open contact": the contact of the push button used is closed when activated, open when not activated. "normally closed contact": the contact of the push button used is open when activated, closed when not activated.	
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	

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1-button solar protection / slat control

Operation of Input	1-button solar protection /slat control
Position of solar protection in %	0
Position of slats in %	0
Contact type	normally open contact
Add blocking object	No

With this function a single push button press action triggers sending two telegrams with a delay of approximately 1 second. The first telegram contains the pre-determined solar protection position in percent, the second telegram contains the pre-determined slat position in percent.

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), Position of solar protection	8-bit Value	1 Byte	CRT
The pre-determined position of the solar protection is sent as a percentage value (0...100%) via the group address linked with this object.				
22 (27, 32, 37)	Channel A (B, C, D), Position of slats	8-bit Value	1 Byte	CRT
The pre-determined position of the slats is sent as a percentage value (0...100%) via the group address linked with this object.				
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT
<p><i>This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".</i></p> <p>Via the group address linked to this object blocking of the respective input channel is turned on or off.</p> <p>If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.</p>				

Parameters

Parameter	Settings
Position of solar protection in %	0 (0...100)
This parameter determines the value of position of the solar protection to be sent.	
Position of slats in %	0 (0...100)
This parameter determines the value of the position of the slats to be sent.	

Parameter	Settings
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	

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8-bit value edge

Operation of Input	8-bit value edge
Send value on rising edge	Yes
Value on rising edge	0
Send value on falling edge	Yes
Value on falling edge	0
Add blocking object	No

This function is used to send 8-bit integer values (EIS 6) ranging from 0...255. An adjustment can be made as to whether a value telegram is sent as a reaction to a rising and / or falling signal edge on the channel (input) (i.e. on pressing and / or releasing a button, for example). Using this function, for example, a dimming value can be assigned to a button in order to dim the corresponding lights to the configured value with one push button action; or different values can be assigned to several buttons, for example, in order to be able control the revolutions of a fan.

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), 8-bit Value 1	send	1 Byte	CRT
The configured 8-bit integer value (EIS 6) is sent via the group address linked with this object.				
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CW T
<p><i>This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".</i></p> <p>Via the group address linked to this object blocking of the respective input channel is turned on or off.</p> <p>If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.</p>				

Parameters

Parameter	Settings
Send value on rising edge	No; Yes
Here an adjustment is made as to whether or not the configured 8-bit value is to be written into the storage cell of the communication object and sent after a rising edge in the signal status at the input. The rising edge corresponds to a change in the signal status at the input from logical "0" to "1".	

Parameter	Settings
Value on rising edge	0 (0...255)
Here an adjustment is made to define which value (0...255) is written into the storage cell of the communication object and sent after a rising edge in the signal status at the input. The rising edge corresponds to a change in the signal status at the input from logical "0" to "1".	
Send value on falling edge	No; Yes
Here an adjustment is made as to whether or not the 8-bit value is to be written into the storage cell of the communication object and sent after a falling edge in the signal status at the input. The falling edge corresponds to a change in the signal status at the input from logical "1" to "0".	
Value on falling edge	0 (0...255)
Here an adjustment is made to define which value (0...255) is written into the storage cell of the communication object and sent after a falling edge in the signal status at the input. The falling edge corresponds to a change in the signal status at the input from logical "1" to "0".	
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	

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8-bit value short / long

Operation of Input	8-bit value short / long
Send value on short button press	Yes
Value on short button press	0
Send value on long button press	Yes
Value on long button press	0
Send on long push button press via	the same object as on short push button press
Long push button action min.	0.5 seconds
Contact type	normally open contact
Add blocking object	No

This function is used to send 8-bit integer values (EIS 6) ranging from 0...255. An adjustment can be made as to whether a value telegram is sent as a reaction to short and / or long push button action. Additionally, it is possible to configure whether the value associated with the long button press action is sent via the same object used for the short button press action or via a second object.

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), 8-bit Value 1	send	1 Byte	CRT
The configured 8-bit integer value (EIS 6, DPT 5.010) is sent via the group address linked with this object.				
22 (27, 32, 37)	Channel A (B, C, D), 8-bit Value 2	send	1 Byte	CRT
The configured 8-bit integer value (EIS 6, DPT 5.010) is sent on a long button press via the group address linked with this object if sending via a second object is configured.				
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT
<p><i>This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".</i></p> <p>Via the group address linked to this object blocking of the respective input channel is turned on or off.</p> <p>If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.</p>				

Parameters

Parameter	Settings
Send value on short button press	No; Yes
Here an adjustment is made as to whether or not the configured 8-bit value is to be written into the storage cell of the communication object and sent after short pressing of the push button attached to the input.	
Value on short button press	0 (0...255)
Here an adjustment is made to define which value (0...255) is written into the storage cell of the communication object and sent after short pressing of the push button attached to the input.	
Send value on long button press	No; Yes
Here an adjustment is made as to whether or not the configured 8-bit value is to be written into the storage cell of the communication object and sent after long pressing of the push button attached to the input.	
Value on long button press	0 (0...255)
Here an adjustment is made to define which value (0...255) is written into the storage cell of the communication object and sent after long pressing of the push button attached to the input.	
Send on long push button press via	the same object as on short push button press; second object
<p><i>This parameter is only visible when the parameter "reaction on long pressing" is not set to „no reaction“.</i></p> <p>This parameter determines whether the 8-bit value on long push button press action is sent via the same object (8-bit value 1) or via a second object (8-bit value 2).</p>	
Long push button action min.	0.3 Seconds; 0.4 Seconds; 0.5 Seconds; 0.6 Seconds; 0.8 Seconds; 1.0 Seconds; 1.2 Seconds; 1.5 Seconds; 2.0 Seconds; 2.5 Seconds; 3.0 Seconds; 4.0 Seconds; 5.0 Seconds; 6.0 Seconds; 7.0 Seconds
This parameter determines the minimum period for detecting a long push button action.	

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Parameter	Settings
Contact type	normally open contact normally closed contact
The contact type of the push button attached to the channel is adjusted here. "normally open contact": the contact of the push button used is closed when activated, open when not activated. "normally closed contact": the contact of the push button used is open when activated, closed when not activated.	
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	

16-bit value edge

Operation of Input	16-bit value edge
Send value as	integer
Send value on rising edge	Yes
Value on rising edge	0
Send value on falling edge	Yes
Value on falling edge	0
Add blocking object	No

This function is used to send 16-bit integer values (DPT 7.001) ranging from 0...65535 or 16-bit floating point values (DPT 9.000) ranging from -3276.8 to 3276.7 (with one decimal place). The exponent of the 16-bit floating point value is automatically generated. An adjustment can be made as to whether a value telegram is to be sent as a reaction to a rising and / or falling signal edge on the channel input (i.e. when a push button is pressed and / or released).

Using this function it is possible, for example, to switch between a day and a night set point for room temperature control via one switch.

Depending on the selected data type (integer or floating point) either the object for sending an integer value or for sending a floating point value is inserted automatically:

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), 16-bit Value 1	send	2 Byte	CRT
[Parameter "Send value as" = "integer"] The configured 16-bit integer value (DPT 7.001) is sent via the group address linked with this object.				
21 (26, 31, 36)	Channel A (B, C, D), 16-bit floating point value 1	send	2 Byte	CRT
[Parameter "Send value as" = "floating point value"] The configured 16-bit floating point value (DPT 9.000) is sent via the group address linked with this object.				
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT
This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes". Via the group address linked to this object blocking of the respective input channel is turned on or off. If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking				

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Obj	Object name	Function	Type	Flags

ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.

Parameters

Parameter	Settings
Send value as	integer; floating point value
This parameter determines whether an integer in the range 0...65535 or a floating point value (with one decimal place) in the range -3276.8 to +3276.7 is sent.	
Send value on rising edge	No; Yes
Here an adjustment is made as to whether the configured 16-bit FP value is to be written into the storage cell of the communication object and sent after a rising edge in the signal status at the input. The rising edge corresponds to a change in the signal status at the input from logical "0" to "1".	
Value on rising edge	0 (0... 65535)
<i>This parameter is only visible when an "integer" shall be sent.</i> Here an adjustment is made to define which integer value (0...65535) is written into the storage cell of the communication object and sent after a rising edge in the signal status at the input. The rising edge corresponds to a change in the signal status at the input from logical "0" to "1".	
Value on rising edge in tenth part	0 (-32768...+32767)
<i>This parameter is only visible when "floating point value" shall be sent.</i> Here an adjustment is made to define which FP value (-32768...+32767) is written into the storage cell of the communication object and sent after a rising edge in the signal status at the input. The FP value to be sent should be entered (where necessary with a plus/minus sign) as tenfold the desired FP value (i.e. including decimal place, but excluding point). The rising edge corresponds to a change in the signal status at the input from logical "0" to "1".	
Send value on falling edge	No; Yes
Here an adjustment is made as to whether the configured 16-bit FP value is to be written into the storage cell of the communication object and sent after a falling edge in the signal status at the input. The falling edge corresponds to a change in the signal status at the input from logical "1" to "0".	
Value on falling edge	0 (0... 65535)
<i>This parameter is only visible when an "integer" shall be sent.</i> Here an adjustment is made to define which integer value (0...65535) is written into the storage cell of the communication object and sent after a falling edge in the signal status at the input. The falling edge corresponds to a change in the signal status at the input from logical "1" to "0".	

Parameter	Settings
Value on falling edge in tenth part	0 (-32768...+32767)
<i>This parameter is only visible when "floating point value" shall be sent.</i> Here an adjustment is made to define which FP value (-320.0...+320.0) is written into the storage cell of the communication object and sent after a falling edge in the signal status at the input. The FP value to be sent should be entered (where necessary with a plus/minus sign) as tenfold the desired FP value (i.e. including decimal place, but excluding point). The falling edge corresponds to a change in the signal status at the input from logical "1" to "0".	
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	

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16-bit value short / long

Operation of Input	16-bit value short / long
Send value as	integer
Send value on short button press	Yes
Value on short button press	0
Send value on long button press	Yes
Value on long button press	0
Send on long push button press via	the same object as on short push button press
Long push button action min.	0.5 seconds
Contact type	normally open contact
Add blocking object	No

This function is used to send 16-bit integer values (DPT 7.001) ranging from 0...65535 or 16-bit floating point values (DPT 9.000) ranging from -3276.8 to 3276.7 (with one decimal place). The exponent of the 16-bit floating point value is automatically generated. An adjustment can be made as to whether a value telegram is to be sent as a reaction to a short and / or long button press action on the channel input (i.e. when a push button is pressed and / or released). Additionally, it is possible to configure whether the value associated with the long button press action is sent via the same object used for the short button press action or via a second object.

Using this function it is possible, for example, to switch between a day and a night set point for room temperature control via one switch.

Depending on the selected data type (integer or floating point) either the object for sending an integer value or for sending a floating point value is inserted automatically:

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), 16-bit Value 1	send	2 Byte	CRT
[Parameter "Send value as" = "integer"] The configured 16-bit integer value (EIS 5; DPT 7.001) is sent via the group address linked with this object only on short or on short and long button press action.				
22 (27, 32, 37)	Channel A (B, C, D), 16-bit Value 2	send	2 Byte	CRT
[Parameter "Send value as" = "integer"] The configured 16-bit integer value (EIS 5; DPT 7.001) is sent via the group address linked with this object on long button press action if sending via a second object is configured.				

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), 16-bit floating point value 1	send	2 Byte	CRT
[Parameter "Send value as" = "floating point value"] The configured 16-bit floating point value (EIS 9; DPT 9.000) is sent via the group address linked with this object only on short or on short and long button press action.				
22 (27, 32, 37)	Channel A (B, C, D), 16-bit floating point value 2	send	2 Byte	CRT
[Parameter "Send value as" = "floating point value"] The configured 16-bit floating point value (EIS 9; DPT 9.000) is sent via the group address linked with this object on long button press action if sending via a second object is configured.				
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT
<i>This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".</i> Via the group address linked to this object blocking of the respective input channel is turned on or off. If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.				

Parameters

Parameter	Settings
Send value as	integer; floating point value
This parameter determines whether an integer in the range 0...65535 or a floating point value (with one decimal place) in the range -3276.8 to +3276.7 is sent.	
Send value on short button press action	No; Yes
Here an adjustment is made as to whether the configured 16-bit value is to be written into the storage cell of the communication object and sent after a short button press action at the input.	
Value on short button press action	0 (0... 65535)
<i>This parameter is only visible when an "integer" shall be sent.</i> Here an adjustment is made to define which integer value (0...65535) is written into the storage cell of the communication object and sent after a short button press action at the input.	

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Parameter	Settings
Value on short button press action in tenth part	0 (-32768...+32767)
<p><i>This parameter is only visible when "floating point value" shall be sent.</i></p> <p>Here an adjustment is made to define which floating point value (-32768...+32767) is written into the storage cell of the communication object and sent after a short button press action in the signal status at the input. The floating point value to be sent should be entered (where necessary with a plus/minus sign) as tenfold the desired floating point value (i.e. including decimal place, but excluding point).</p>	
Send value on long button press action	No; Yes
<p>Here an adjustment is made as to whether the configured 16-bit value is to be written into the storage cell of the communication object and sent after a long button press action at the input.</p>	
Value on long button press action	0 (0... 65535)
<p><i>This parameter is only visible when an "integer" shall be sent.</i></p> <p>Here an adjustment is made to define which integer value (0...65535) is written into the storage cell of the communication object and sent after a long button press action at the input.</p>	
Value on long button press in tenth part	0 (-32768...+32767)
<p><i>This parameter is only visible when "floating point value" shall be sent.</i></p> <p>Here an adjustment is made to define which floating point value (-320.0...+320.0) is written into the storage cell of the communication object and sent after a long button press action at the input. The floating point value to be sent should be entered (where necessary with a plus/minus sign) as tenfold the desired floating point value (i.e. including decimal place, but excluding point).</p>	
Send on long push button press via	the same object as on short push button press; second object
<p><i>This parameter is only visible when the parameter "reaction on long pressing" is not set to „no reaction“.</i></p> <p>This parameter determines whether the 16-bit value on long push button press action is sent via the same object (16-bit value 1) or via a second object (16-bit value 2).</p>	

Parameter	Settings
Long push button action min.	0.3 Seconds; 0.4 Seconds; 0.5 Seconds; 0.6 Seconds; 0.8 Seconds; 1.0 Seconds; 1.2 Seconds; 1.5 Seconds; 2.0 Seconds; 2.5 Seconds; 3.0 Seconds; 4.0 Seconds; 5.0 Seconds; 6.0 Seconds; 7.0 Seconds
<p>This parameter determines the minimum period for detecting a long push button action.</p>	
Contact type	normally open contact normally closed contact
<p>The contact type of the push button attached to the channel is adjusted here.</p> <p>"normally open contact": the contact of the push button used is closed when activated, open when not activated.</p> <p>"normally closed contact": the contact of the push button used is open when activated, closed when not activated.</p>	
Add blocking object	No; Yes
<p>This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.</p>	

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32-bit value edge (integer)

Operation of Input	32-bit value edge
Send value on rising edge	Yes
Value on rising edge	0
Send value on falling edge	Yes
Value on falling edge	0
Add blocking object	No

This function is used to send 32-bit integer values (DPT 12.001) ranging from 0...4,294,967,295. An adjustment can be made as to whether a value telegram is to be sent as a reaction to a rising and / or falling signal edge on the channel input (i.e. when a push button is pressed and / or released).

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), 32-bit Value 1	send	4 Byte	CRT

The configured 32-bit integer value (DPT 12.001) is sent via the group address linked with this object.

25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT
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This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".

Via the group address linked to this object blocking of the respective input channel is turned on or off.

If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.

Parameters

Parameter	Settings
Send value on rising edge	No; Yes
Here an adjustment is made as to whether the configured 32-bit value is to be written into the storage cell of the communication object and sent after a rising edge in the signal status at the input. The rising edge corresponds to a change in the signal status at the input from logical "0" to "1".	

Parameter	Settings
Value on rising edge	0 (0... 4.294.967.295)
This parameter is only visible when an "integer" shall be sent. Here an adjustment is made to define which integer value (0...65535) is written into the storage cell of the communication object and sent after a rising edge in the signal status at the input. The rising edge corresponds to a change in the signal status at the input from logical "0" to "1".	
Send value on falling edge	No; Yes
Here an adjustment is made as to whether the configured 16-bit FP value is to be written into the storage cell of the communication object and sent after a falling edge in the signal status at the input. The falling edge corresponds to a change in the signal status at the input from logical "1" to "0".	
Value on falling edge	0 (0... 4.294.967.295)
This parameter is only visible when an "integer" shall be sent. Here an adjustment is made to define which integer value (0...65535) is written into the storage cell of the communication object and sent after a falling edge in the signal status at the input. The falling edge corresponds to a change in the signal status at the input from logical "1" to "0".	
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	

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32-bit value short / long (integer)

Operation of Input	32-bit value short / long
Send value on short button press	Yes
Value on short button press	0
Send value on long button press	Yes
Value on long button press	0
Send on long push button press via	the same object as on short push button press
Long push button action min.	0.5 seconds
Contact type	normally open contact
Add blocking object	No

This function is used to send 32-bit integer values (DPT 12.001) ranging from 0...4,294,967,295.. An adjustment can be made as to whether a value telegram is sent as a reaction to short and / or long push button action. Additionally, it is possible to configure whether the value associated with the long button press action is sent via the same object used for the short button press action or via a second object.

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), 32-bit Value 1	send	4 Byte	CRT
The configured 32-bit integer value (DPT 12.001) is sent via the group address linked with this object.				
22 (27, 32, 37)	Channel A (B, C, D), 32-bit Value 2	send	4 Byte	CRT
The configured 32-bit integer value (DPT 12.001) is sent via the group address linked with this object on long button press action if sending via a second object is configured.				
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT
<p><i>This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".</i></p> <p>Via the group address linked to this object blocking of the respective input channel is turned on or off.</p> <p>If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.</p>				

Parameters

Parameter	Settings
Send value on short button press	No; Yes
Here an adjustment is made as to whether or not the configured 32-bit value is to be written into the storage cell of the communication object and sent after short pressing of the push button attached to the input.	
Value on short button press	0 (0... 4.294.967.295)
Here an adjustment is made to define which value (0... 4.294.967.295) is written into the storage cell of the communication object and sent after short pressing of the push button attached to the input.	
Send value on long button press	No; Yes
Here an adjustment is made as to whether or not the configured 32-bit value is to be written into the storage cell of the communication object and sent after long pressing of the push button attached to the input.	
Value on long button press	0 (0... 4.294.967.295)
Here an adjustment is made to define which value (0... 4.294.967.295) is written into the storage cell of the communication object and sent after long pressing of the push button attached to the input.	
Send on long push button press via	the same object as on short push button press; second object
<i>This parameter is only visible when the parameter "reaction on long pressing" is not set to „no reaction“.</i>	
This parameter determines whether the 32-bit value on long push button press action is sent via the same object (32-bit value 1) or via a second object (32-bit value 2).	
Long push button action min.	0.3 Seconds; 0.4 Seconds; 0.5 Seconds; 0.6 Seconds; 0.8 Seconds; 1.0 Seconds; 1.2 Seconds; 1.5 Seconds; 2.0 Seconds; 2.5 Seconds; 3.0 Seconds; 4.0 Seconds; 5.0 Seconds; 6.0 Seconds; 7.0 Seconds
This parameter determines the minimum period for detecting a long push button action.	

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Parameter	Settings
Contact type	normally open contact normally closed contact
The contact type of the push button attached to the channel is adjusted here. "normally open contact": the contact of the push button used is closed when activated, open when not activated. "normally closed contact": the contact of the push button used is open when activated, closed when not activated.	
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	

1-bit scene control

Operation of Input	1-bit scene control
Scene number	1
Scene save enabled	Yes
Long push button action min.	3.0 seconds
Contact type	normally open contact
Add blocking object	No

Using the "1-bit Scene control" function it is possible for the user, without changing the project planning using the ETS, to re-program a scene component for 1-bit scene control, i.e. to assign different brightness values or switching statuses to the individual groups of the respective scene. Using one button, a short push button action recalls a scene and a long push button action stores a scene, while one communication object is used to store the scene and a second one is used to recall a stored scene. In this connection it can be configured whether a telegram with the value "0" is used to store or recall Scene 1 and a telegram with the value "1" is used to store or recall Scene 2.

Before a scene is stored the actuators concerned must be adjusted to the desired brightness values or switching statuses using the push buttons / sensors provided for the purpose. When a "Store" telegram is received, the addressed scene controllers are prompted to query the currently set values and statuses with the actuators integrated into the scene and store them in the corresponding scene.

Moreover it can be configured whether the push button is only to be used to recall a scene (storage disabled) or whether it is also possible to initiate the storage of a scene via the push button. In order not to inadvertently initiate scene storage by pressing the push button only a little "longer" than a short push button action, scene storage can only be initiated by an "extra long" push button action.

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), Scene 1 / 2	recall	1 bit	CRT
The telegrams to recall Scene 1 or Scene 2 are sent via the group address linked with this object. When the telegram is received, the scene controller for 1-bit scene control sends, for example, the stored switching statuses and brightness values of Scene 1 or Scene 2, respectively, via the group objects to the addressed switching / dimming actuators.				

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Obj	Object name	Function	Type	Flags
22 (27, 32, 37)	Channel A (B, C, D), Scene 1 / 2	save	1 bit	CRT
The telegrams to store Scene 1 or Scene 2, respectively, are sent via the group address linked with this object to the corresponding scene controller with 1-bit scene control.				
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT
<p><i>This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".</i></p> <p>Via the group address linked to this object blocking of the respective input channel is turned on or off.</p> <p>If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.</p>				

Parameters

Parameter	Settings
Scene number	1 2
This parameter determines which scene is to be stored / recalled. „1“: On short push button action, Scene 1 is recalled from the addressed scene controllers via a telegram with the value "0". On long push button action, the addressed scene controllers are prompted to query the currently set values and statuses with the actuators integrated into the scene and store them under the scene with the number 1. „2“: Scene 2 is stored and recalled on this setting.	
Saving scene enabled	No; Yes
This parameter determines if the scene may not only be recalled but the current settings may be saved.	
Long push button action min.	1.0 Seconds; 2.0 Seconds; 3.0 Seconds; 4.0 Seconds; 5.0 Seconds; 6.0 Seconds; 7.0 Seconds
This parameter determines the minimum period for detecting a long push button action. For scene control a long push button action triggers saving the current scene settings.	
Contact type	normally open contact normally closed contact
The contact type of the push button attached to the channel is adjusted here. "normally open contact": the contact of the push button used is closed when activated, open when not activated.	

Parameter	Settings
"normally closed contact": the contact of the push button used is open when activated, closed when not activated.	
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	

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8-bit scene control

Operation of Input	8-bit scene control
Scene number (1...64)	1
Scene save enabled	Yes
Long push button action min.	3.0 seconds
Contact type	normally open contact
Add blocking object	No

Using the 8-bit Scene control it is possible for the user himself, without changing the project planning using the ETS, to re-program scene controllers for 8-bit scene control or actuators with integrated 8-bit scene control, i.e. to assign current values or switching statuses to the respective scene. Using one button, the scene with the configured number (1...64) can be recalled via a short push button action, while a long push button action stores the scene. At the same time, both the command to store a scene and the command to recall a stored scene, together with the number of the desired scene, are transmitted via a single communication object.

Before a scene is stored, the actuators integrated into the scene must be adjusted to the desired values or statuses using the push buttons / sensors provided for the purpose. When a telegram is received, the addressed scene controllers / actuators with integrated scene control are prompted to query the currently set values and statuses with the actuators integrated into the scene and to store them in the corresponding scene.

Moreover it can be configured whether the push button is only to be used to recall a scene (storage disabled) or whether it is also possible to initiate the storage of a scene via the push button. In order not to inadvertently initiate scene storage by pressing the push button only a little "longer" than a short push button action, scene storage can only be initiated by an "extra long" push button action.

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), 8-bit Scene	recall / save	1 Byte	CRT

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

Obj	Object name	Function	Type	Flags
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT

This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".

Via the group address linked to this object blocking of the respective input channel is turned on or off.

If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.

Parameters

Parameter	Settings
Scene number (1...64)	1
This parameter determines which scene (1...64) is to be stored or recalled.	
Saving scene enabled	No; Yes
This parameter determines if the scene may not only be recalled but the current settings may be saved.	
Long push button action min.	1.0 Seconds; 2.0 Seconds; 3.0 Seconds; 4.0 Seconds; 5.0 Seconds; 6.0 Seconds; 7.0 Seconds
This parameter determines the minimum period for detecting a long push button action. For scene control a long push button action triggers saving the current scene settings.	
Contact type	normally open contact normally closed contact
The contact type of the push button attached to the channel is adjusted here. "normally open contact": the contact of the push button used is closed when activated, open when not activated. "normally closed contact": the contact of the push button used is open when activated, closed when not activated.	
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	

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8-bit pulse counting

Operation of Input	8-bit pulse counting
Increment counter after	rising edge
Send counter value on change by (0...255)	255
Threshold	not applicable
Add blocking object	No

For binary inputs, this function enables the counting and saving of pulses as 8-bit counter value with or without threshold monitoring. The counter value stored in the counter value object can be sent on request and after modification by a configurable differential value. Additionally, the counter value can be monitored whether a threshold has been reached or exceeded. When the configured threshold value is exceeded a logical "1" is sent via the communication object "Upper limit violation". The threshold may be set via parameter or may be read and set via telegram from a communication object. Where required, the counter value can be reset to value 0 by telegram via an additional 1-bit communication object. Adjustments can be made via parameters as to whether the counter status should be incremented on rising or falling signal edge, and which value the counter must have changed by in order for the new counter value status to be sent automatically.

In the event of power supply failure to the electronics (power outage) the counter value is permanently stored in a memory protected against data loss in the event of voltage failure. The counter value is transferred from this memory into the working memory on bus voltage recovery.

The counter value rolls over to zero when the maximum possible value is exceeded.

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), 8-bit Counter value	send	1 Byte	CRT
The telegrams with the counter value status are sent via the group address linked with this object.				
22 (27, 32, 37)	Channel A (B, C, D), Counter value	reset	1 bit	CWT
If a telegram linked with this object is received, then the counter value is reset to value 0. The binary value (0 or 1) transmitted with the telegram is irrelevant for the reset function.				

Obj	Object name	Function	Type	Flags
23 (28, 33, 38)	Channel A (B, C, D), Upper limit violation	On / Off	1 bit	CRT
<i>This object is only visible when pulse counting with threshold monitoring is selected.</i>				
Upper limit violation = On is sent if				
<ul style="list-style-type: none"> - the counter value is > threshold, - a modified counter value is sent and there is a threshold overrun, - a threshold is set that is < counter value. 				
Upper limit violation = Off is sent if				
<ul style="list-style-type: none"> - the counter value is reset, - after bus or mains voltage recovery together with the first sending of a counter value, if there is then no threshold overrun, - a threshold is set that is > counter value. 				
In the event of counter overrun with persistent threshold overrun, "Threshold overrun = ON" will continue to be sent together with the counter value which is now below threshold until the counter is either reset to "0" or a new threshold that is bigger than the current counter value is set.				
24 (29, 34, 39)	Channel A (B, C, D), 8-bit threshold	Read / Write	1 Byte	CRWT
<i>This object is only visible when pulse counting with threshold monitoring is selected and the threshold is settable via object.</i>				
The current threshold can be queried or overwritten by a new threshold via the group address linked with this object.				
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT
<i>This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".</i>				
Via the group address linked to this object blocking of the respective input channel is turned on or off.				
If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.				

Parameters

Parameter	Settings
Increment counter after	rising edge falling edge
Here an adjustment is made as to whether the counter status is to be increased by value 1 in the event of a rising or falling signal edge. The rising edge corresponds to a change in the signal status at the input from logical "0" to "1". The falling edge corresponds to a change in the signal status at the input from logical "1" to "0". "rising edge": The counter status is increased by 1 after a rising	

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Parameter	Settings
edge. "falling edge": The counter status is increased by 1 after a falling edge.	
Send counter value on change by (0...255)	255
An adjustment is made via this parameter to define which value the counter value must have changed by in order for it to be sent automatically. The counter status can be queried at any time via the bus, irrespectively of the value set here. "0": Do not send counter value.	
Threshold	not applicable; to be set by parameter; to be set by object
Using this parameter, an adjustment is made as to whether the threshold is predetermined as a parameter or is queried and modifiable via a communication object. The data type of the threshold always corresponds to that of the counter value. "not applicable": Threshold monitoring is not executed. "to be set by parameter": The threshold is set as a parameter. "to be set by object": A communication object via which the threshold can be queried and modified is supplemented.	
Threshold (1...255)	255
This parameter is only visible if the parameter "Threshold" is set to "to be set by parameter". The threshold is adjusted via this parameter.	
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	

16-bit pulse counting

Operation of Input	16-bit pulse counting
Increment counter after	rising edge
Send counter value on change by (0...255)	255
Threshold	not applicable
Add blocking object	No

This function enables the counting and saving on binary inputs of pulses as 16-bit counter value with threshold check. The counter value stored in the counter value object can be sent on request and after modification by a configurable differential value. In addition, a check can be made on whether the counter status has already reached or exceeded a threshold value. If the threshold is exceeded, a logical 1 is sent immediately via the "Upper limit violation" communication object. The threshold can either be set as a parameter or queried and modified via a communication object by telegram. Where required, the counter value can be reset to value 0 by telegram via an additional 1-bit communication object. If the threshold is again fallen short of due to the changed threshold or a counter reset, then a logical 0 is sent immediately via the "Upper limit violation" communication object. Adjustments can be made via parameters as to whether the counter value status should be increased on rising or falling signal edge and which value the counter must have changed by in order for the new counter value status to be sent automatically. It can also be defined whether the threshold is a value that is adjustable as a parameter, or whether it can be queried and modified via the bus.

In the event of power supply failure to the electronics (power outage) both the counter value and the threshold (if this can be changed via a communication object) are permanently stored in a memory protected against data loss in the event of voltage failure. They are transferred from this memory into the working memory on bus voltage recovery.

The counter value rolls over to zero when the maximum possible value is exceeded.

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), 16-bit Counter value	send	2 Byte	CRWT
The telegrams with the counter value status are sent via the group address linked with this object.				

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Obj	Object name	Function	Type	Flags
22 (27, 32, 37)	Channel A (B, C, D), Counter value	reset	1 bit	CWT
<p>If a telegram linked with this object is received, then the counter value is reset to value 0. The binary value (0 or 1) transmitted with the telegram is irrelevant for the reset function.</p>				
23 (28, 33, 38)	Channel A (B, C, D), Upper limit violation	On / Off	1 bit	CRT
<p><i>This object is only visible when pulse counting with threshold monitoring is selected.</i></p> <p>Upper limit violation = On is sent if</p> <ul style="list-style-type: none"> - the counter value is > threshold, - a modified counter value is sent and there is a threshold overrun, - a threshold is set that is < counter value. <p>Upper limit violation = Off is sent if</p> <ul style="list-style-type: none"> - the counter value is reset, - after bus or mains voltage recovery together with the first sending of a counter value, if there is then no threshold overrun, - a threshold is set that is > counter value. <p>In the event of counter overrun with persistent threshold overrun, "Threshold overrun = ON" will continue to be sent together with the counter value which is now below threshold until the counter is either reset to "0" or a new threshold that is bigger than the current counter value is set.</p>				
24 (29, 34, 39)	Channel A (B, C, D), 16-bit Threshold	read / write	2 Byte	CRWT
<p><i>This object is only visible when pulse counting with threshold monitoring is selected and the threshold is settable via object.</i></p> <p>The current threshold can be queried or overwritten by a new threshold via the group address linked with this object.</p>				
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT
<p><i>This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".</i></p> <p>Via the group address linked to this object blocking of the respective input channel is turned on or off.</p> <p>If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.</p>				

Parameters

Parameter	Settings
Increment counter after	rising edge falling edge
<p>Here an adjustment is made as to whether the counter status is to be increased by value 1 in the event of a rising or falling signal edge. The rising edge corresponds to a change in the signal status at the input from logical "0" to "1". The falling edge corresponds to a change in the signal status at the input from logical "1" to "0".</p> <p>"rising edge": The counter status is increased by 1 after a rising edge.</p> <p>"falling edge": The counter status is increased by 1 after a falling edge.</p>	
Send counter value on change by (0...255)	255
<p>An adjustment is made via this parameter to define which value the counter value must have changed by in order for it to be sent automatically. The counter status can be queried at any time via the bus, irrespectively of the value set here.</p> <p>"0": Do not send counter value.</p>	
Threshold	not applicable; to be set by parameter; to be set by object
<p>Using this parameter, an adjustment is made as to whether the threshold is predetermined as a parameter or is queried and modifiable via a communication object. The data type of the threshold always corresponds to that of the counter value.</p> <p>"not applicable": Threshold monitoring is not executed.</p> <p>"to be set by parameter": The threshold is set as a parameter.</p> <p>"to be set by object": A communication object via which the threshold can be queried and modified is supplemented.</p>	
Threshold (1...65.535)	65535
<p>This parameter is only visible if the parameter "Threshold" is set to "to be set by parameter".</p> <p>The threshold is adjusted via this parameter.</p>	
Add blocking object	No; Yes
<p>This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.</p>	

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32-bit pulse counting

Operation of Input	32-bit pulse counting
Increment counter after	rising edge
Send counter value on change by (0...255)	255
Threshold	not applicable
Add blocking object	No

This function enables the counting and saving on binary inputs of pulses as 32-bit counter value with threshold check. The counter value stored in the counter value object can be sent on request and after modification by a configurable differential value. In addition, a check can be made on whether the counter status has already reached or exceeded a threshold value. If the threshold is exceeded, a logical 1 is sent immediately via the "Upper limit violation" communication object. The threshold can either be set as a parameter or queried and modified via a communication object by telegram. Where required, the counter value can be reset to value 0 by telegram via an additional 1-bit communication object. If the threshold is again fallen short of due to the changed threshold or a counter reset, then a logical 0 is sent immediately via the "Upper limit violation" communication object. Adjustments can be made via parameters as to whether the counter value status should be increased on rising or falling signal edge and which value the counter must have changed by in order for the new counter value status to be sent automatically. It can also be defined whether the threshold is a value that is adjustable as a parameter, or whether it can be queried and modified via the bus.

In the event of power supply failure to the electronics (power outage) both the counter value and the threshold (if this can be changed via a communication object) are permanently stored in a memory protected against data loss in the event of voltage failure. They are transferred from this memory into the working memory on bus voltage recovery.

The counter value rolls over to zero when the maximum possible value is exceeded.

Objects

Obj	Object name	Function	Type	Flags
21 (26, 31, 36)	Channel A (B, C, D), 32-bit Counter value	send	4 Byte	CRWT
The telegrams with the counter value status are sent via the group address linked with this object.				

Obj	Object name	Function	Type	Flags
22 (27, 32, 37)	Channel A (B, C, D), Counter value	reset	1 bit	CWT
If a telegram linked with this object is received, then the counter value is reset to value 0. The binary value (0 or 1) transmitted with the telegram is irrelevant for the reset function.				
23 (28, 33, 38)	Channel A (B, C, D), Upper limit viola- tion	On / Off	1 bit	CRT
<i>This object is only visible when pulse counting with threshold monitoring is selected.</i>				
Upper limit violation = On is sent if				
- the counter value is > threshold,				
- a modified counter value is sent and there is a threshold overrun,				
- a threshold is set that is < counter value.				
Upper limit violation = Off is sent if				
- the counter value is reset,				
- after bus or mains voltage recovery together with the first sending of a counter value, if there is then no threshold overrun,				
- a threshold is set that is > counter value.				
In the event of counter overrun with persistent threshold overrun, "Threshold overrun = ON" will continue to be sent together with the counter value which is now below threshold until the counter is either reset to "0" or a new threshold that is bigger than the current counter value is set.				
24 (29, 34, 39)	Channel A (B, C, D), 32-bit Threshold	read / write	4 Byte	CRWT
<i>This object is only visible when pulse counting with threshold monitoring is selected and the threshold is settable via object.</i>				
The current threshold can be queried or overwritten by a new threshold via the group address linked with this object.				
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT
<i>This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".</i>				
Via the group address linked to this object blocking of the respective input channel is turned on or off.				
If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.				

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Parameters

Parameter	Settings
Increment counter after	rising edge falling edge
<p>Here an adjustment is made as to whether the counter status is to be increased by value 1 in the event of a rising or falling signal edge. The rising edge corresponds to a change in the signal status at the input from logical "0" to "1". The falling edge corresponds to a change in the signal status at the input from logical "1" to "0".</p> <p>"rising edge": The counter status is increased by 1 after a rising edge.</p> <p>"falling edge": The counter status is increased by 1 after a falling edge.</p>	
Send counter value on change by (0...255)	255
<p>An adjustment is made via this parameter to define which value the counter value must have changed by in order for it to be sent automatically. The counter status can be queried at any time via the bus, irrespectively of the value set here.</p> <p>"0": Do not send counter value.</p>	
Threshold	not applicable; to be set by parameter; to be set by object
<p>Using this parameter, an adjustment is made as to whether the threshold is predetermined as a parameter or is queried and modifiable via a communication object. The data type of the threshold always corresponds to that of the counter value.</p> <p>"not applicable": Threshold monitoring is not executed.</p> <p>"to be set by parameter": The threshold is set as a parameter.</p> <p>"to be set by object": A communication object via which the threshold can be queried and modified is supplemented.</p>	
Threshold (1...4.296.067.295)	4296067295
<p>This parameter is only visible if the parameter "Threshold" is set to "to be set by parameter".</p> <p>The threshold is adjusted via this parameter.</p>	
Add blocking object	No; Yes
<p>This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.</p>	

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4. Functions (objects, parameters) for inputs, jointly configured

Channels A and B as well as C and D can each be used as „Inputs, separately configurable“ or as „Inputs, jointly configurable“. Dependent on this setting the available functions and objects change.

Parameter General



Parameter	Settings
Function of channels A + B	inputs, separately configurable; inputs, jointly configured
Function of channels C + D	inputs, separately configurable; inputs, jointly configured

This parameter is used to configure whether the two adjacent inputs (channels) are to be “separately configurable“, so that different functions may be assigned to each input if necessary, or whether both inputs are to be “jointly configured“ since the push buttons attached to them belong together functionally and are intended either for switching and dimming the lighting or for sun protection control, or

Depending on the selected setting for this parameter the parameter windows for the individual channels A and B (c and D) respectively for channel A+B (C+D) become visible or hidden.

Two consecutive channels (A and B resp. C and D) that were configured as a pair of inputs can be configured for one of these functions:

- 2-button dimming with stop telegram
- 2-button dimming with cyclical sending
- 2-button solar protection control

The function is selected via the parameter window for the channel pair.

All following parameter windows contain the below listed parameter for selection of the function of jointly configured inputs. This parameter is not repeated and described again with the individual functions.

Parameter	Settings
Function of input	2-button dimming with stop telegram; (2-button dimming with cyclical sending); 2-button solar protection control
This parameter is visible when a function shall be assigned to a pair of inputs. Depending on the selected setting for this parameter further parameters may become visible or hidden.	

Subsequently, the functions configurable for a joined inputs are described with their associated objects and parameter settings.

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2-button dimming with Stop telegram

Operation of Inputs	2-button dimming with stop telegram
Operation of Input	Off, darker / On, brighter
Long push button action min.	0.5 seconds
Contact type	normally open contact
Add blocking object	No

Using the push button pair attached to the two channel inputs, the light can be switched on or off by a short push button action, while a long push button action brightens or dims. An adjustment can be made as to which push button (or channel) switches off and darkens and which one switches on and brightens.

“Dimming with two push buttons with stop telegram” is used to send a “100% brighter” or “100% darker” dimming telegram as soon as a long push button action has been recognized, while releasing the push button sends a stop telegram.

Objects

Obj	Object name	Function	Type	Flags
21 (31)	Channel A (C), Switching 1	On / Off	1 bit	CRWT
ON or OFF switching telegrams are sent via the group address linked with this object. Adjustment via the “Operation of input” parameter defines which of the two channels the ON or OFF function is assigned to on short push button action, or whether the TOGGLE function is assigned to both.				
22 (32)	Channel A (C), Dimming	brighter / darker	4 bit	CRT
Dimming telegrams are sent via the group address linked with this object. Together with the assignment for switching on and off, adjustment via the “Operation of input” parameter defines which of the two channels generates a telegram for brighter / darker dimming on long push button action.				
25 (35)	Channel A (C), Blocking	On / Off	1 bit	CWT
<p><i>These objects are only visible with this name and function if for the respective channel the parameter “Add blocking object” is set to “Yes”.</i></p> <p>Via the group address linked to this object blocking of the respective input channel is turned on or off.</p> <p>If an input is blocked status changes at this input are no longer transmitted. If the function “Send switching status / binary value” is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.</p>				

Parameters

Parameter	Settings
Operation of input	Off, darker / On, brighter On, brighter / Off, darker Toggle, darker / Toggle, brighter Toggle, brighter / Toggle, darker
Adjustment via this parameter defines which push button / channel is to be used to switch off and darken and which is to be used to switch on and brighten, or whether switching on both channels is to take place via a TOGGLE function.	
Long push button action min.	0.3 Seconds; 0.4 Seconds; 0.5 Seconds; 0.6 Seconds; 0.8 Seconds; 1.0 Seconds; 1.2 Seconds; 1.5 Seconds; 2.0 Seconds; 2.5 Seconds; 3.0 Seconds; 4.0 Seconds; 5.0 Seconds; 6.0 Seconds; 7.0 Seconds
This parameter determines the minimum period for detecting a long push button action.	
Contact type	normally open contact normally closed contact
The contact type of the push button attached to the channel is adjusted here. “normally open contact”: the contact of the push button used is closed when activated, open when not activated. “normally closed contact”: the contact of the push button used is open when activated, closed when not activated.	
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	

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2-button dimming with cyclical sending

Operation of Inputs	(2-button dimming with cyclical sending)
Operation of Input	Off, darker / On, brighter
Long push button action min.	0.5 seconds
Contact type	normally open contact
Add blocking object	No

Using the push button pair attached to the two channel inputs, the light can be switched on or off by a short push button action, while a long push button action brightens or dims. An adjustment can be made as to which push button (or channel) switches off and darkens and which one switches on and brightens.

"2-button dimming with cyclical sending" sends, as soon as a long push button press action is detected, a dimming telegram brighter resp. darker with step 1/8 every 0.5 seconds, as long as a long push button press action is detected (i.e. in 4 seconds it may be dimmed from 0% to 100% and vice versa).

Note: Instead of the "2-button dimming with cyclical sending" the "2-button dimming with stop telegram" should be used (lower bus traffic load because of much less telegrams).

Objects

Obj	Object name	Function	Type	Flags
21 (31)	Channel A (C), Switching 1	On / Off	1 bit	CRWT
ON or OFF switching telegrams are sent via the group address linked with this object. Adjustment via the "Operation of input" parameter defines which of the two channels the ON or OFF function is assigned to on short push button action, or whether the TOGGLE function is assigned to both.				
22 (32)	Channel A (C), Dimming	brighter / darker	4 bit	CRT
Dimming telegrams are sent via the group address linked with this object. Together with the assignment for switching on and off, adjustment via the "Operation of input" parameter defines which of the two channels generates a telegram for brighter / darker dimming on long push button action.				
25 (35)	Channel A (C), Blocking	On / Off	1 bit	CWT
<p><i>These objects are only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".</i></p> <p>Via the group address linked to this object blocking of the respective input channel is turned on or off.</p> <p>If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking</p>				

Obj	Object name	Function	Type	Flags
ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.				

Parameters

Parameter	Settings
Operation of input	Off, darker / On, brighter On, brighter / Off, darker Toggle, darker / Toggle, brighter Toggle, brighter / Toggle, darker
Adjustment via this parameter defines which push button / channel is to be used to switch off and darken and which is to be used to switch on and brighten, or whether switching on both channels is to take place via a TOGGLE function.	
Long push button action min.	0.3 Seconds; 0.4 Seconds; 0.5 Seconds; 0.6 Seconds; 0.8 Seconds; 1.0 Seconds; 1.2 Seconds; 1.5 Seconds; 2.0 Seconds; 2.5 Seconds; 3.0 Seconds; 4.0 Seconds; 5.0 Seconds; 6.0 Seconds; 7.0 Seconds
This parameter determines the minimum period for detecting a long push button action.	
Contact type	normally open contact normally closed contact
The contact type of the push button attached to the channel is adjusted here.	
"normally open contact": the contact of the push button used is closed when activated, open when not activated.	
"normally closed contact": the contact of the push button used is open when activated, closed when not activated.	
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	

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2-button solar protection control

Operation of Inputs	2-button solar protection control
Operation of Input	Solar protection down, Slats close / Solar protection u
Long push button action min.	0.5 seconds
Contact type	normally open contact
Add blocking object	No

Using one push button pair, the solar protection can be lowered or raised to the respective final position with a long push button action, while a short push button action ends the movement or adjusts the slats by one step. An adjustment can be made to define which push button (or channel) is used to lower the solar protection and close the slats by one step where necessary, and which is used to raise the solar protection and open the slats by one step where necessary.

Objects

Obj	Object name	Function	Type	Flags
21 (31)	Channel A (C), Solar protection	Up / Down	1 bit	CRT
The movement commands Up / Down are sent via the group address linked with this object in order to raise / lower the solar protection. Adjustment via the "Operation of input" parameter defines which of the two channels generates an Up or Down telegram on long push button action.				
22 (32)	Channel A (C), Slats	Stop / Open / Close	1 bit	CRT
The commands "Stop" or "Slats open / close" are sent via the group address linked with this object. A short push button action always produces a command to stop the movement or to adjust the slats by one step. Together with the assignment for lowering and raising the solar protection, adjustment via the "Operation of input" parameter defines which of the two channels generates an Open or Close telegram on short push button action.				
25 (35)	Channel A (C), Blocking	On / Off	1 bit	CWT
<p><i>This object is only visible with this name and function if for the respective channel the parameter "Add blocking object" is set to "Yes".</i></p> <p>Via the group address linked to this object blocking of the respective input channel is turned on or off.</p> <p>If an input is blocked status changes at this input are no longer transmitted. If the function "Send switching status / binary value" is assigned to the channel, then when the blocking ends it is examined if the contact status of the input changed while it was blocked. If this is the case the changed status is transmitted automatically.</p>				

Parameters

Parameter	Settings
Operation of input	Solar protection down, Slats close / Solar protection up, Slats open; Solar protection up, Slats open / Solar protection down, Slats close
Adjustment via this parameter defines which channel is to lower the solar protection and close the slats and which channel is to raise the solar protection and open the slats.	
Long push button action min.	0.3 Seconds; 0.4 Seconds; 0.5 Seconds; 0.6 Seconds; 0.8 Seconds; 1.0 Seconds; 1.2 Seconds; 1.5 Seconds; 2.0 Seconds; 2.5 Seconds; 3.0 Seconds; 4.0 Seconds; 5.0 Seconds; 6.0 Seconds; 7.0 Seconds
This parameter determines the minimum period for detecting a long push button action.	
Contact type	normally open contact normally closed contact
The contact type of the push button attached to the channel is adjusted here. "normally open contact": the contact of the push button used is closed when activated, open when not activated. "normally closed contact": the contact of the push button used is open when activated, closed when not activated.	
Add blocking object	No; Yes
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not transmitted.	