SIEMENS

July 2012

07 B0 S4 On-off-toggle/Dim/Shu/Value 982202

Application program usage

Product family:	Input
Product type:	Binary input, 4-fold
Manufacturer:	Siemens
Name:	Push button interface UP 220/31
Order no.:	5WG1 220-2AB31

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1. Functional description

The push button interface UP 220/31 is a binary input and output device for installation in in-wall boxes (\emptyset 60 mm, depth: 40 mm).

Each of the four channels may be used either as input for potential-free switch / push button contacts or as output for control of a light emitting diode (LED). Each channel, which is configured as an output, can drive an output current of up to 2mA for controlling a light emitting diode (LED). The required scanning / control voltage is provided by the push button interface (requires no additional power supply).

The application program can be loaded with ETS3.0f or higher and supports a multitude of applications briefly described in the following text.

Note:

A device is without function after the application program has been "unloaded" with the ETS. The status of the inputs is also no longer displayed in this case.

Channel as input

A channel used as input allows for capturing both statuses (contact is closed or open resp. voltage is applied or not) and changes in status (contact becomes closed ore opened resp. voltage is incoming or outgoing). Therefore a push-button interface UP 220/31 can be used, for example, to record if a maintained or momentary contact switch is actuated, if it was actuated for a short or long period, if the contact was opened or closed by the actuation, if a device or system is switched on or off, if a malfunction or alarm is signalled, and to count pulses with a minimum contact closure duration of 100 ms and a maximum number of up to 5 pulses per second, with or without monitoring of the counter value (i.e. the number of counted pulses) until a predetermined threshold has been reached or exceeded.

Whereas most input functions only use one input and thus each input may be assigned a different function, the 2-button functions "Dimming with stop telegram", "Dimming with cyclical sending", and "solar protection control" each use two inputs. Therefore, via the parameter tab "Operation of channels A + B" respectively "Operation of channels C + D", for two channels each it must first be configured whether each is assigned an individual or joint input function or whetherthe first channel is configured as an input and the second as an LED output or whether both channels are assigned as LED outputs.

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

- Switching status / binary value transmission

- Switching, edge-triggered

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- Switching, on short / long operation
- 1-button dimming
- 1/2-button dimming
- 1-button solar protection control
- 1/2-button solar protection control
- 1-button sequenced switching group control
- 1-button multi-touch control (multiple output control)
- 1-bit scene control
- 8-bit scene control
- 8-bit effect control
- 8-bit value, edge-triggered
- 8-bit value, short / long operation
- 16-bit value, edge-triggered
- 16-bit value, short / long operation
- 16-bit floating point value, edge-triggered
- 16-bit floating point value, short / long operation
- 32-bit value, edge-triggered
- 32-bit value, short / long operation
- 8-bit pulse counting without threshold check
- 8-bit pulse counting with threshold check
- 16-bit pulse counting without threshold check
- 16-bit pulse counting with threshold check
- 32-bit pulse counting without threshold check
- 32-bit pulse counting with 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

Channel as LED output

Via a channel used as LED output an LED may be always switched on (e.g. as orientation light) or via the bus it may be switched on statically or flashing (with selectable flash frequency) or switched off. If it is configured for "flashing with acknowledgement" then the LED changes from flashing to static light after reception of the acknowledgement. If the switched on LED is felt to be too bright the brightness can be adjusted via a parameter. Further an object for logical AND resp. OR function, an inhibit object and a status object can be added when needed.

2. Communication objects

Maximum number of group addresses: 120 Maximum number of assignments: 120

Note

Type and number of the available objects is determined by the parameters set with ETS, i.e. visible objects may vary. They are determined by the functions assigned with ETS to channels A to D.

No.	Object name	Function	Number of bits	Flags
1	Channel A, LED	On / Off	1 bit	CWT
2	Channel A, Confirmation	(On / Off)	1 bit	CWT
3	Channel A, Logic operation	On / Off	1 bit	CWT
4	Channel A, LED-Status	On / Off	1 bit	CRT
5	Channel A, Blocking	On / Off	1 bit	CWT
6	Channel B, LED	On / Off	1 bit	CWT
7	Channel B, Confirmation	(On / Off)	1 bit	CWT
8	Channel B, Logic operation	On / Off	1 bit	CWT
9	Channel B, LED-Status	On / Off	1 bit	CRT
10	Channel B, Blocking	On / Off	1 bit	CWT
11	Channel C, LED	On / Off	1 bit	CWT
12	Channel C, Confirmation	(On / Off)	1 bit	CWT
13	Channel C, Logic operation	On / Off	1 bit	CWT
14	Channel C, LED-Status	On / Off	1 bit	CRT
15	Channel C, Blocking	On / Off	1 bit	CWT
16	Channel D, LED	On / Off	1 bit	CWT
17	Channel D, Confirmation	(On / Off)	1 bit	CWT
18	Channel D, Logic operation	On / Off	1 bit	CWT
19	Channel D, LED-Status	On / Off	1 bit	CRT
20	Channel D, Blocking	On / Off	1 bit	CWT
21	Channel A. Status	On / Off	1 bit	CRT
	Channel A. Switching 1	On / Off	1 bit	CRT
	Channel A. Switching	Toggle	1 bit	CRT
	Channel A. Switching	On	1 bit	CRT
	Channel A. Switching	Off	1 bit	CRT
	Channel A. Solar protection	Up / Down	1 bit	CRT
	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	send	16 bit	CRT
	1			
	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 Effect	start / stop	8 bit	CRT
	Channel A, 8-bit Counter value	send	8 bit	CRWT
	Channel A, 16-bit Counter value	send	16 bit	CRWT
	Channel A, 32-bit Counter value	send	32 bit	CRWT
22	Channel A, Switching 2	On / Off	1 bit	CRT
	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	send	16 bit	CRT
	2			
	Channel A, 32-bit value 2	send	32 bit	CRT
	Channel A, Scene 1 / 2	save	1 bit	CRT
	Channel A. Counter value	rocot	9 hit	CWT

Technical manual

982202, 40 pages

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No.				
	Object name	Function	Number	Flags
			of bits	
23	Channel A. Switching 3	On / Off	1 bit	CRT
	Channel A Dimming	Status	8 hit	CWT
	Channel A. Unear limit violation	On LOff	0 bit	CDT
	Channel A, Upper limit violation	On / Off	I DIT	CRI
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 hit	CRWT
25	Character A Black and A Black	0.104	52 bit	CINT
25	Channel A, Blocking	On / Off	I DIT	CWI
26	Channel B, Status	On / Off	1 bit	CRT
	Channel B. Switching 1	On / Off	1 bit	CRT
	Channel B. Switching	llm	1 hit	CRT
	channel b, switching	0111	1 Dit	CINI
	Channel B, Switching	On	1 bit	CRI
	Channel B, Switching	Off	1 bit	CRT
	Channel B. Solar protection	Up/Down	1 hit	CRT
	Channel B. Solar protection	Up	1 hit	CDT
	Channel B, Solar protection	υμ		CNI
	Channel B, Solar protection	Down	1 bit	CRI
	Channel B, Position of solar protection	8-bit value	8 bit	CRT
	Channel B. 8-bit value 1	send	8 hit	CRT
		send	10 bit	CIT
	Channel B, 16-bit value 1	send	16 bit	CRI
	Channel B, 16-bit Floating point value	send	16 bit	CRT
	1			
	Channel B 32-bit value 1	send	32 hit	CBT
		. II		CIT
	Channel B, Scene 172	recall	'i bit	CKI
	Channel B, 8-bit Scene	recall / save	8 bit	CRT
	Channel B. 8-bit Effect	start / stop	8 bit	CRT
	Channel R. 9 bit Countervalue	cond	0 511	CPM/T
	channel B, o-bit Counter Value	senu	110 ס	CRWI
	Channel B, 16-bit Counter value	send	16 bit	CRWT
	Channel B, 32-bit Counter value	send	32 bit	CRWT
27	Channel B. Switching 2	On / Off	1 hit	CRT
27	Channel B. Dimming	brighter / darker	4 bit	CDT
	Channel B, Dimming	brighter / darker	4 DIL	CRI
	Channel B, Dimming	brighter	4 bit	CRT
	Channel B. Dimming	darker	4 bit	CRT
	Channel P. Slats	Stop / Open /	1 hit	CPT
	Channel B, Slats	Stop / Open/	1 DIL	CNI
		Close		
	Channel B, Slats	Stopp / Open	1 bit	CRT
	Channel B. Slats	Stopp / Close	1 bit	CRT
	Channel P. Position of clats	9 bit value	9 hit	CPT
	Channel B, Position of slats	8-bit value	8 bit	CRT
	Channel B, Position of slats Channel B, 8-bit value 2	8-bit value send	8 bit 8 bit	CRT CRT
	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2	8-bit value send send	8 bit 8 bit 16 bit	CRT CRT CRT
	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value	8-bit value send send	8 bit 8 bit 16 bit	CRT CRT CRT
	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value	8-bit value send send send	8 bit 8 bit 16 bit 16 bit	CRT CRT CRT CRT
	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2	8-bit value send send send	8 bit 8 bit 16 bit 16 bit	CRT CRT CRT CRT
	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2	8-bit value send send send send	8 bit 8 bit 16 bit 16 bit 32 bit	CRT CRT CRT CRT CRT
	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2	8-bit value send send send send save	8 bit 8 bit 16 bit 16 bit 32 bit 1 bit	CRT CRT CRT CRT CRT CRT
	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Counter value	8-bit value send send send send save	8 bit 8 bit 16 bit 16 bit 32 bit 1 bit 8 bit	CRT CRT CRT CRT CRT CRT CRT
	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Counter value	8-bit value send send send send save reset	8 bit 8 bit 16 bit 16 bit 32 bit 1 bit 8 bit	CRT CRT CRT CRT CRT CRT CRT
28	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Counter value Channel B, Switching 3	8-bit value send send send send save reset On / Off	8 bit 8 bit 16 bit 16 bit 32 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CWT CRT
28	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Dimming	8-bit value send send send save reset On / Off Status	8 bit 8 bit 16 bit 16 bit 32 bit 1 bit 8 bit 1 bit 8 bit	CRT CRT CRT CRT CRT CRT CRT CWT CRT CWT
28	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Switching 3 Channel B, Duper limit violation	8-bit value send send send save reset On / Off Status On / Off	8 bit 8 bit 16 bit 16 bit 32 bit 1 bit 8 bit 1 bit 8 bit 1 hit	CRT CRT CRT CRT CRT CRT CRT CWT CRT CWT
28	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit Value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Scene 1 / 2 Channel B, Counter value Channel B, Witching 3 Channel B, Upper limit violation Channel B, 9 bit Counter Threeheld	8-bit value send send send save reset On / Off Status On / Off	8 bit 8 bit 16 bit 16 bit 32 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Dimming Channel B, Upper limit violation Channel B, Upper limit violation	8-bit value send send send save reset On / Off Status On / Off read/write	8 bit 8 bit 16 bit 16 bit 32 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28 29	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 16-bit Floating point value 2 Channel B, Scene 1 / 2 Channel B, Scene 1 / 2 Channel B, Counter value Channel B, Dimming Channel B, Dipper limit violation Channel B, B-bit Counter Threshold Channel B, 16-bit Counter Threshold	8-bit value send send send save reset On / Off Status On / Off read/write	8 bit 8 bit 16 bit 16 bit 32 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit Value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Sounter value Channel B, Switching 3 Channel B, Upper limit violation Channel B, 8-bit Counter Threshold Channel B, 16-bit Counter Threshold Channel B, 32-bit Counter Threshold	8-bit value send send send save reset On / Off Status On / Off read/write read/write	8 bit 8 bit 16 bit 16 bit 32 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit 1 bit 8 bit 1 bit 2 bit 1 bit 2 bit 1 bit 2 bit 1 bit 2 bit	CRT CRT CRT CRT CRT CRT CWT CWT CRT CRT CRWT CRW
28	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Switching 3 Channel B, Switching 3 Channel B, Upper limit violation Channel B, 4-bit Counter Threshold Channel B, 8-bit Counter Threshold Channel B, 16-bit Counter Threshold Channel B, 8-bit Counter Threshold Channel B, 8-bit Counter Threshold	8-bit value send send save reset On / Off Status On / Off read/write read/write read/write	8 bit 8 bit 16 bit 16 bit 32 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28 29 30	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit Value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Counter value Channel B, Counter value Channel B, Upper limit violation Channel B, B-bit Counter Threshold Channel B, 16-bit Counter Threshold Channel B, Blocking Channel B, Blocking	8-bit value send send send save reset On / Off Status On / Off read/write read/write read/write	8 bit 8 bit 16 bit 16 bit 32 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit 1 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28 29 <u>30</u> 31	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Dimming Channel B, Diper limit violation Channel B, Upper limit violation Channel B, 8-bit Counter Threshold Channel B, 8-bit Counter Threshold	8-bit value send send send save reset On / Off Status On / Off read/write read/write read/write on / Off On / Off	8 bit 8 bit 16 bit 32 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 16 bit 32 bit 16 bit 32 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28 29 <u>30</u> 31	Channel B, Position of slats Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 16-bit Floating point value 2 Channel B, Scene 1 / 2 Channel B, Counter value Channel B, Dimming Channel B, Diper limit violation Channel B, Bebit Counter Threshold Channel B, 32-bit Counter Threshold Channel B, Blocking Channel B, Blocking Channel C, Status Channel C, Switching 1	8-bit value send send save reset On / Off Status On / Off read/write read/write read/write on / Off On / Off On / Off	8 bit 8 bit 16 bit 16 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit 32 bit 1 bit 1 bit 1 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRWT CRW
28 29 30 31	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Secne 1 / 2 Channel B, Switching 3 Channel B, Dimming Channel B, Dimming Channel B, Upper limit violation Channel B, B-bit Counter Threshold Channel B, 8-bit Counter Threshold Channel C, Switching 1 Channel C, Switching 1	8-bit value send send send save reset On / Off Status On / Off read/write read/write read/write On / Off On / Off On / Off	8 bit 8 bit 16 bit 16 bit 32 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit 32 bit 1 bit 1 bit 1 bit 1 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CWT CRT CRWT CRW
28 29 30 31	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Sounter value Channel B, Dimming Channel B, Diper limit violation Channel B, Upper limit violation Channel B, 8-bit Counter Threshold Channel C, Suitching Channel C, Switching 1 Channel C, Switching	8-bit value send send send save reset On / Off Status On / Off read/write read/write read/write On / Off On / Off On / Off On / Off	8 bit 8 bit 16 bit 16 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit 1 bit 32 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28 29 <u>30</u> 31	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Counter value Channel B, Counter value Channel B, Dipper limit violation Channel B, Bper limit violation Channel B, B-bit Counter Threshold Channel B, 8-bit Counter Threshold Channel B, 16-bit Counter Threshold Channel B, Blocking Channel C, Switching 1 Channel C, Switching Channel C, Switching	8-bit value send send send save reset On / Off Status On / Off read/write read/write read/write on / Off On / Off On / Off Um On	8 bit 8 bit 16 bit 16 bit 32 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CWT CRT CRT CRT CRT CRT CRT CRT CRT
28 29 30 31	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Switching 3 Channel B, Dipming Channel B, Upper limit violation Channel B, Upper limit violation Channel B, 8-bit Counter Threshold Channel C, Switching 1 Channel C, Switching Channel C, Switching	8-bit value send send send save reset On / Off Status On / Off read/write read/write read/write On / Off On / Off On / Off On / Off On / Off	8 bit 8 bit 16 bit 32 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 16 bit 32 bit 16 bit 32 bit 16 bit 1 bit 1 bit 1 bit 1 bit 1 bit 1 bit	CRT CRT CRT CRT CRT CWT CWT CRT CRT CRWT CRW
28 29 <u>30</u> 31	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 16-bit Floating point value 2 Channel B, Scene 1 / 2 Channel B, Scene 1 / 2 Channel B, Counter value Channel B, Dipming Channel B, Dipper limit violation Channel B, Biot Counter Threshold Channel B, 8-bit Counter Threshold Channel B, Blocking Channel C, Switching Channel C, Switching Channel C, Switching Channel C, Switching	8-bit value send send save reset On / Off Status On / Off read/write read/write read/write read/write On / Off On / Off On / Off Um On Off Um	8 bit 8 bit 16 bit 16 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRWT CRW
28 29 30 31	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Dimming Channel B, Dimming Channel B, Upper limit violation Channel B, Bocking Channel B, 8-bit Counter Threshold Channel C, Svitching Channel C, Switching Channel C, Switching Channel C, Solar protection Channel C, Solar protection	8-bit value send send send save reset On / Off Status On / Off read/write read/write read/write on / Off On / Off On / Off Um On On Off	8 bit 8 bit 16 bit 16 bit 32 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CWT CRT CRT CRT CRWT CRW
28 29 30 31	Channel B, Position of slats Channel B, 16-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Diper limit violation Channel B, Upper limit violation Channel B, Bocking Channel B, 8-bit Counter Threshold Channel C, Suitching Channel C, Switching Channel C, Switching Channel C, Switching Channel C, Solar protection Channel C, Solar protection	8-bit value send send save reset On / Off Status On / Off read/write read/write read/write On / Off On / Off On / Off On / Off Um On Off Up / Down Up Dowr	8 bit 8 bit 16 bit 16 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28 29 30 31	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit value 2 Channel B, 32-bit value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Dimming Channel B, Dimming Channel B, Upper limit violation Channel B, B-bit Counter Threshold Channel B, 16-bit Counter Threshold Channel B, 16-bit Counter Threshold Channel B, Blocking Channel C, Status Channel C, Switching 1 Channel C, Switching Channel C, Switching Channel C, Switching Channel C, Solar protection Channel C, Solar protection	8-bit value send send send save reset On / Off Status On / Off read/write read/write On / Off On / Off On / Off On / Off On / Off Um On Off Um On Off Up / Down Up Down	8 bit 8 bit 16 bit 16 bit 32 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CWT CWT CRT CRT CRT CRT CRT CRT CRT CRT CRT CR
28 29 30 31	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Switching 3 Channel B, Dipming Channel B, Upper limit violation Channel B, Upper limit violation Channel B, 8-bit Counter Threshold Channel C, Solit Counter Threshold Channel C, Switching Channel C, Switching Channel C, Switching Channel C, Solar protection Channel C, Solar protection Channel C, Position of solar protection	8-bit value send send save reset On / Off Status On / Off read/write read/write read/write read/write on / Off On / Off On / Off On / Off On / Off Um On Off Um On Off Status On / Off Status On / Off On / Off Status On / Off On / Off	8 bit 8 bit 16 bit 16 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CWT CRT CRT CRT CRT CRT CRT CRT CRT CRT CR
28 29 30 31	Channel B, Position of slats Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 16-bit Floating point value 2 Channel B, Scene 1 / 2 Channel B, Counter value Channel B, Dimming Channel B, Diper limit violation Channel B, Diper limit violation Channel B, Bebit Counter Threshold Channel B, 8-bit Counter Threshold Channel C, Suitching 1 Channel C, Switching Channel C, Switching Channel C, Switching Channel C, Solar protection Channel C, Solar protection	8-bit value send send save reset On / Off Status On / Off Tread/write read/write read/write read/write read/write On / Off On / Off On / Off Um On Off Um Off Um Off Um Off Status Send On / Off On / Off Status On / Off On / Off Status On / Off On / Off Status On / Off Status On / Off On / Off Status Status On / Off Status On / Off Status On / Off Status On / Off Status Status On / Off Status On / Off On / Off Status Sta	8 bit 8 bit 16 bit 16 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28 29 30 31	Channel B, Position of slats Channel B, 16-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Switching 3 Channel B, Dipming Channel B, Upper limit violation Channel B, Upper limit violation Channel B, 16-bit Counter Threshold Channel B, 8-bit Counter Threshold Channel C, Svitching 1 Channel C, Switching Channel C, Switching Channel C, Solar protection Channel C, Solar protection Channel C, Solar protection Channel C, Solar protection Channel C, 8-bit value 1 Channel C, 16-bit value 1	8-bit value send send send save reset On / Off Status On / Off read/write read/write read/write on / Off On / Off On / Off On / Off On / Off Um On Off Um On Off Up / Down Up Down 8-bit value send cond	8 bit 8 bit 16 bit 16 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28 29 30 31	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Value 2 Channel B, 16-bit Value 2 Channel B, 32-bit Value 2 Channel B, Scene 1 / 2 Channel B, Counter value Channel B, Dipming Channel B, Dipper limit violation Channel B, Dipper limit violation Channel B, 8-bit Counter Threshold Channel C, Suitching Channel C, Switching Channel C, Switching Channel C, Switching Channel C, Solar protection Channel C, Solar protection	8-bit value send send save reset On / Off Status On / Off read/write send On / Off On / Off On / Off On / Off Um On Off Up / Down Up Down 8-bit value send send	8 bit 8 bit 16 bit 16 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28 29 30 31	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Switching 3 Channel B, Dipming Channel B, Upper limit violation Channel B, Upper limit violation Channel B, 8-bit Counter Threshold Channel C, Solat Counter Threshold Channel C, Switching Channel C, Switching Channel C, Solar protection Channel C, 8-bit value 1 Channel C, 16-bit Value 1	8-bit value send send send save reset On / Off Status On / Off read/write read/write read/write read/write on / Off On / Off On / Off On / Off Um On Off Um On Off Um On Off Um On Off Status Send Send Send Send Send	8 bit 8 bit 16 bit 16 bit 32 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28 29 30 31	Channel B, Position of slats Channel B, 16-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Switching 3 Channel B, Dimming Channel B, Upper limit violation Channel B, Bocking Channel B, 8-bit Counter Threshold Channel C, Suitching Channel C, Switching 1 Channel C, Switching Channel C, Solar protection Channel C, 16-bit value 1 Channel C, 16-bit value 1	8-bit value send send send save reset On / Off Status On / Off read/write read/write read/write read/write on / Off On / Off On / Off On / Off On / Off On / Off On / Off Um On Off Up / Down Up Down B-bit value send send send	8 bit 8 bit 16 bit 16 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28 29 30 31	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Dimming Channel B, Upper limit violation Channel B, Upper limit violation Channel B, Ubper limit violation Channel B, 32-bit Counter Threshold Channel B, Blocking Channel B, Blocking Channel C, Status Channel C, Switching 1 Channel C, Switching Channel C, Switching Channel C, Switching Channel C, Solar protection Channel C, 16-bit value 1 Channel C, 16-bit Floating point value 1	8-bit value send send send send save reset On / Off Status On / Off read/write read/write on / Off On / Off On / Off On / Off On / Off Up / Down Up Down 8-bit value send send send	8 bit 8 bit 16 bit 16 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CWT CWT CRT CRT CRT CRT CRT CRT CRT CRT CRT CR
28 29 <u>30</u> 31	Channel B, Position of slats Channel B, 16-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Dimming Channel B, Upper limit violation Channel B, Upper limit violation Channel B, 16-bit Counter Threshold Channel B, 8-bit Counter Threshold Channel C, Svitching 1 Channel C, Switching 1 Channel C, Switching Channel C, Switching Channel C, Solar protection Channel C, 16-bit value 1 Channel C, 32-bit value 1 Channel C, 32-bit value 1 Channel C, S-bit value 1 Channel C, Solar protection Channel C, 32-bit value 1 Channel C, Seven 1 / 2 Channel C, Seven 2 / 2 Channe	8-bit value send send send save reset On / Off Status On / Off read/write read/write read/write read/write on / Off On / Off On / Off On / Off On / Off On / Off Um Off Um Off Up / Down Up Down 8-bit value send send send	8 bit 8 bit 16 bit 16 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28 29 30 31	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Scene 1 / 2 Channel B, Counter value Channel B, Dimming Channel B, Dimming Channel B, Dipmring Channel B, B-bit Counter Threshold Channel B, 16-bit Counter Threshold Channel B, 32-bit Counter Threshold Channel B, 32-bit Counter Threshold Channel B, 32-bit Counter Threshold Channel B, 32-bit Counter Threshold Channel C, Switching Channel C, Switching Channel C, Switching Channel C, Switching Channel C, Solar protection Channel C, Solar protection Channel C, Solar protection Channel C, Solar protection Channel C, Soliton of solar protection Channel C, 16-bit value 1 Channel C, 16-bit value 1 Channel C, 32-bit value 1 Channel C, 32-bit value 1	8-bit value send send send send save reset On / Off Status On / Off read/write On / Off On / Off On / Off On / Off On / Off Up / Down Up Down 8-bit value send send send recall	8 bit 8 bit 16 bit 16 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28 29 30 31	Channel B, Position of slats Channel B, 16-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Dimming Channel B, Upper limit violation Channel B, Upper limit violation Channel B, 16-bit Counter Threshold Channel B, 8-bit Counter Threshold Channel C, Svitching 1 Channel C, Switching 1 Channel C, Switching Channel C, Solar protection Channel C, Solar protection Channel C, Solar protection Channel C, Solar protection Channel C, 8-bit value 1 Channel C, 16-bit Floating point value 1 Channel C, 32-bit value 1 Channel C, 8-bit value 1	8-bit value send send send save reset On / Off Status On / Off read/write read/write read/write on / Off On / Off On / Off On / Off On / Off Um On Off Um On Off Up / Down Up Down 8-bit value send send send recall recall / save	8 bit 8 bit 16 bit 16 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28 29 30 31	Channel B, Position of slats Channel B, 16-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Switching 3 Channel B, Switching 3 Channel B, Switching 3 Channel B, Upper limit violation Channel B, Borking Channel B, 48-bit Counter Threshold Channel B, 8-bit Counter Threshold Channel C, Suitching 1 Channel C, Switching 1 Channel C, Switching Channel C, Switching Channel C, Switching Channel C, Solar protection Channel C, 16-bit value 1 Channel C, 16-bit Value 1 Channel C, 32-bit value 1 Channel C, 32-bit value 1 Channel C, Sebit Scene Channel C, 8-bit Scene	8-bit value send send send save reset On / Off Status On / Off read/write read/write read/write read/write read/write on / Off On / Off On / Off On / Off On / Off Up / Down Up Down B-bit value send send send send recall / save start / stop	8 bit 8 bit 16 bit 16 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28 29 30 31	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 16-bit Value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Dimming Channel B, Upper limit violation Channel B, Upper limit violation Channel B, Upper limit violation Channel B, B-bit Counter Threshold Channel B, 8-bit Counter Threshold Channel C, Switching Channel C, Switching Channel C, Switching Channel C, Solar protection Channel C, Solar protection Channel C, Solar protection Channel C, 8-bit value 1 Channel C, 16-bit Value 1 Channel C, 16-bit Floating point value 1 Channel C, 8-bit Scene Channel C, 8-bit Scene Channel C, 8-bit Scene Channel C, 8-bit Scene	8-bit value send send send save reset On / Off Status On / Off read/write read/write read/write read/write on / Off On / Off On / Off On / Off On / Off On / Off Up / Down Up Down 8-bit value send send send recall recall / save start / stop send	8 bit 8 bit 16 bit 16 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28 29 30 31	Channel B, Position of slats Channel B, 16-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Floating point value 2 Channel B, 32-bit value 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Dimming Channel B, Upper limit violation Channel B, Upper limit violation Channel B, 16-bit Counter Threshold Channel B, 16-bit Counter Threshold Channel B, 16-bit Counter Threshold Channel B, 8-bit Counter Threshold Channel B, 8-bit Counter Threshold Channel B, 8-bit Counter Threshold Channel B, 8-bit Counter Threshold Channel C, Subit Counter Threshold Channel C, Switching Channel C, Switching Channel C, Switching Channel C, Solar protection Channel C, Solar protection Channel C, Solar protection Channel C, Solar protection Channel C, 16-bit value 1 Channel C, 32-bit value 1 Channel C, 32-bit value 1 Channel C, 3-bit Scene Channel C, 8-bit Scene Channel C, 8-bit Scene Channel C, 8-bit Counter value 1 Channel C, 8-bit Scene	8-bit value send send send save reset On / Off Status On / Off read/write read/write read/write read/write read/write on / Off On / Off On / Off On / Off On / Off On / Off On / Off Um On Off Up / Down Up Down 8-bit value send send send send send send send sen	8 bit 8 bit 16 bit 16 bit 1 bit 8 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CRT CRT CRT
28 29 <u>30</u> 31	Channel B, Position of slats Channel B, 8-bit value 2 Channel B, 16-bit value 2 Channel B, 16-bit Value 2 Channel B, 16-bit Floating point value 2 Channel B, Scene 1 / 2 Channel B, Scene 1 / 2 Channel B, Switching 3 Channel B, Dimming Channel B, Dimming Channel B, Upper limit violation Channel B, B-bit Counter Threshold Channel B, 16-bit Counter Threshold Channel B, 32-bit Counter Threshold Channel B, 32-bit Counter Threshold Channel B, 32-bit Counter Threshold Channel C, Switching Channel C, Switching Channel C, Switching Channel C, Solar protection Channel C, Solar protection Channel C, Solar protection Channel C, Solar protection Channel C, 16-bit Value 1 Channel C, 16-bit Value 1 Channel C, 32-bit value 1 Channel C, 32-bit value 1 Channel C, 8-bit Scene Channel C, 8-bit Scene Channel C, 8-bit Steree Channel C, 8-bit Scene Channel C, 8-bit Scene	8-bit value send send send save reset On / Off Status On / Off read/write On / Off On / Off On / Off On / Off On / Off Up / Down Up Down 8-bit value send send send recall / save start / stop send send	8 bit 8 bit 16 bit 16 bit 1 bit 1 bit 8 bit 1 bit 8 bit 1 bit	CRT CRT CRT CRT CRT CRT CRT CWT CWT CRT CRT CRT CRT CRT CRT CRT CRT CRT CR

No.	Object name	Function	Number of bits	Flags
32	Channel C. Switching 2	On / Off	1 hit	CRT
52	Channel C. Dimming	brighter / darker	4 hit	CRT
	Channel C. Dimming	brighter	4 hit	CRT
	Channel C. Dimming	darker	4 bit	CRT
	Channel C. Slats	Stop / Open /	1 bit	CRT
		Close		
	Channel C, Slats	Stopp / Open	1 bit	CRT
	Channel C, Slats	Stopp / Close	1 bit	CRT
	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	send	16 bit	CRT
	2 Channel C. 22 hit value 2	cond	22 hit	CDT
	Channel C, 32-bit value 2	sena	32 DIL 1 hit	
	Channel C. Countervalue	rosot	9 bit	CWT
22	Channel C. Switching 2	Op / Off	1 bit	CPT
در	Channel C. Dimming	Status	8 bit	CWT
	Channel C. Upper limit violation	On / Off	1 hit	CRT
34	Channel C. 8-bit Counter Threshold	read/write	8 hit	CRWT
5.	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	CRT
	Channel D, Switching	Um	1 bit	CRT
	Channel D, Switching	On	1 bit	CRT
	Channel D, Switching	Off	1 bit	CRT
	Channel D, Solar protection	Up / Down	1 bit	CRT
	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	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 Effect	start / stop	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	CRT
	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	CRI
	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	send	16 bit	CRT
	2 Channel D. 22 hityalus 2	cand	22 hit	CDT
	Channel D, 52-Dit Value 2 Channel D, Scene 1/2	Save	⊃∠ UIL 1 hi+	CRT
	Channel D. Counter value	reset	8 hit	CWT
38	Channel D. Switching 3	On / Off	1 hit	CRT
50	Channel D. Dimming	Status	8 hit	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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Objects LED Output

Obj	Object name	Function	Туре	Flags	
1 (6, 11, 16)	Channel A (B, C, D), LED	On / Off	1 bit	CWT	
These objects are only visible with this name and function if the respective channel is assigned the function "LED output". Via the group address linked to this object the LED output of the channel is controlled directly or via the selected logic.					
2 (7, 12, 17)	Channel A (B, C, D), Confirmation	(On / Off)	1 bit	CWT	
These objects are only visible with this name and function if the respective channel is assigned the function "LED output". Via the group address linked to this object the flashing of an LED can be acknowledged, with the flashing changing into a static light output.					
3 (8, 13, 18)	Channel A (B, C, D), Logic operation	On / Off	1 bit	CWT	
Via the group second input	are only visible with e channel is assigned t p address linked to th of the selected logic received.	he function he function his object th al function	and fun "LED out e value controll	for the the	
4 (9, 14, 19)	Channel A (B, C, D), LED-Status	On / Off	1 bit	CRT	
These objects are only visible with this name and function if the respective channel is assigned the function "LED output". Via the group address linked to this object the current status of the LED output is transmitted.					
5 (10, 15, 20)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT	
These objects are only visible with this name and function if the parameter "Add blocking object" has been set to "Yes" for the respective channel. Via the group address linked to this object blocking of the re- spective channel output is enabled or disabled.					

Input Objects

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.

For each input a blocking object can be selected, that is listed once for all functions.

Obj	Object name	Function	Туре	Flags
25 (30, 35, 40)	Channel A (B, C, D), Blocking	On / Off	1 bit	CWT
These objects are 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 re- spective input channel is turned on or off.				
spective 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.				

Objects for "Inputs, separately configurable "

Note:

The objects for channels A and C are also visible, if the parameter setting "A = input, B = LED output" resp. "C = input, D = LED output" is selected.

Function: Send switching status / binary value

Obj	Object name	Function	Туре	Flags	
21 (26, 31, 36)	Channel A (B, C, D), Status	On / Off	1 bit	CRT	
These objects are only visible with this name and function if the function "Send switching status / binary value" is assigned to the respective channel.					

Function: Switching edge

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), Switching 1	On / Off	1 bit	CRWT
These objects are only visible with this name and function if the function "Switching edge" or "Switch short / long" or "1- button dimming" is assigned to the respective channel.				

Function: Switching short / long

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), Switching 1	On / Off	1 bit	CRWT
These object the function button group ple output c ming" is assig	s are only visible with "Switching edge" or , control (sequenced c ontrol (multi-touch c gned to the respective	this name Switch shor ontrol)" or " ontrol)" or channel.	and fun t / longʻ 1-buttor "1-butto	ction if ' or "1- n multi- n dim-

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Obj	Object name	Function	Туре	Flags
22 (27, 32, 37)	Channel A (B, C, D), Switching 2	On / Off	1 bit	CRWT
These object for the funct button group ple output co	s are only visible with tion "Switch short / lo control (sequenced c ontrol (multi-touch cor	this name ong" the sec ontrol)" or " ntrol)" is assi	and fun ond obj 1-buttor gned to	ction if ect "1- multi- the re-

Function: 1-button sequenced-switching group control

spective channel.

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

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), Switching 1	On / Off	1 bit	CRWT
These objects are only visible with this name and function if the function "Switching edge" or "Switch short / long" or "1- button group control (sequenced control)" or "1-button multi- ple output control (multi-touch control)" or "1-button dim- ming" is assigned to the respective channel.				
22 (27, 32, 37)	Channel A (B, C, D), Switching 2	On / Off	1 bit	CRT
These objects are only visible with this name and function if the function "Switching edge" or "Switch short / long" or "1- button group control (sequenced control)" or "1-button multi- ple output control (multi-touch control)" or "1-button dim- ming" is assigned to the respective channel.				ction if " or "1- n multi- n dim-
23 (28, 33, 38)	Channel A (B, C, D), Switching 3	On / Off	1 bit	CRWT
These objects are only visible with this name and function if the function "1-button group control (sequenced control)" or "1-button multiple output control (multi-touch control)" is as- signed to the respective channel.				

Function: 1-button dimming

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), Switching 1	On / Off	1 bit	CRWT
These objects are only visible with this name and function if the function "Switching edge" or "Switch short / long" or "1- button dimming" is assigned to the respective channel.				
22 (27, 32, 37)	Channel A (B, C, D), Dimming	brighter / darker	4 bit	CRT
These objects are only visible with this name and function if the function "1-button dimming" is assigned to the respective channel.				

Obj	Object name	Function	Туре	Flags	
23 (28, 33, 38)	Channel A (B, C, D), Dimming	Status	1 Byte	CWT	
These objects are only visible with this name and function if the function "1-button dimming" is assigned to the respective channel.					

Function: 1/2-button dimming

Obj	Object name	Function	Туре	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
These objects are only visible with this name and function if the function "1/2-button dimming" is assigned to the respective channel.				
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
These objects are only visible with this name and function if the function "1/2-button dimming" is assigned to the respective channel.				

Function: 1-button solar protection control

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), Solar protection	Up / Down	1 bit	CRWT
These objects are only visible with this name and function if the function "1-button solar protection control" is assigned to the respective channel.				ction if Ined to
22 (27, 32, 37)	Channel A (B, C, D), Slats	Stop / Open / Close	1 bit	CRT
These objects are only visible with this name and function if the function "1-button solar protection control" is assigned to the respective channel.				

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Function: 1/2-button solar protection control

Obj	Object name	Function	Туре	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
These objects are only visible with this name and function if the function "1/2-button solar protection control" is assigned to the respective channel.				
22 (27, 32, 37)	Channel A (B, C, D), Slats	Stop / Open	1 bit	CRT
22 (27, 32,	Channel A (B, C, D),	Stop /	1 bit	CRT

37)SlatsCloseThese objects are only visible with this name and function if the
function "1/2-button solar protection control" is assigned to the
respective channel.

Function: 1-button solar protection / slat control

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), Position of solar pro- tection	8-bit Va- lue	1 Byte	CRT
These objects are only visible with this name and function if the function "1-button solar protection / slat control" is assigned to the respective channel.				
22 (27, 32, 37)	Channel A (B, C, D), Position of slats	8-bit Va- lue	1 Byte	CRT
These objects are only visible with this name and function if the function "1-button solar protection / slat control" is assigned to the respective channel.				

Function: 8-bit value edge

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), 8-bit Value 1	send	1 Byte	CRT
These objects are only visible with this name and function if the function "8-bit value edge" or "8-bit value short / long" is as-				

signed to the respective channel.

Function: 8-bit value short / long

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), 8-bit Value 1	send	1 Byte	CRT
These objects are only visible with this name and function if the function "8-bit value edge" or "8-bit value short / long" is assigned to the respective channel.				ction if ong" is
22 (27, 32, 37)	Channel A (B, C, D), 8-bit Value 2	send	1 Byte	CRT
These objects are only visible with this name and function if the function "8-bit value edge" or "8-bit value short / long" is assigned to the respective channel.				

Function: 16-bit value edge

Obj	Object name	Function	Туре	Flags	
21 (26, 31, 36)	Channel A (B, C, D), 16-bit Value 1	send	2 Byte	CRT	
These objects are only visible with this name and function if the function "16-bit value edge" or "16-bit value short / long" is assigned to the respective channel and sending the value is configured as "integer".					

Function: 16-bit value short / long

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), 16-bit Value 1	send	2 Byte	CRT
These objects are only visible with this name and function if the function "16-bit value edge" or "16-bit value short / long" is assigned to the respective channel and sending the value is configured as "integer".				
22 (27, 32, 37)	Channel A (B, C, D), 16-bit Value 2	send	2 Byte	CRT
These objects are only visible with this name and function if for the function "16-bit value short / long" the second object is assigned to the respective channel.				

Function: 16-bit floating point value edge

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), 16-bit Floating point value 1	send	2 Byte	CRT
These objects are only visible with this name and function if the function "16-bit value edge" or "16-bit value short / long" is assigned to the respective channel and sending the value is configured as "floating point value".				

Function: 16-bit floating point value short / long

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), 16-bit Floating point value 1	send	2 Byte	CRT
These objects are only visible with this name and function if the function "16-bit value edge" or "16-bit value short / long" is assigned to the respective channel and sending the value is configured as "floating point value".				
22 (27, 32, 37)	Channel A (B, C, D), 16-bit Floating point value 2	send	2 Byte	CRT
These objects are only visible with this name and function if for the function "16-bit value short / long" the second object is assigned to the respective channel.				

Function: 32-bit value edge

Obj	Object name	Function	Туре	Flags	
21 (26, 31, 36)	Channel A (B, C, D), 32-bit Value 1	send	4 Byte	CRT	
These objects are only visible with this name and function if the function "32-bit value edge" or "32-bit value short / long" is assigned to the respective channel.					

Function: 32-bit value short / long

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), 32-bit Value 1	send	4 Byte	CRT
These objects are only visible with this name and function if the function "32-bit value edge" or "32-bit value short / long" is assigned to the respective channel.				
22 (27, 32, 37)	Channel A (B, C, D), 32-bit Value 2	send	4 Byte	CRT
These objects are only visible with this name and function if for the function "32-bit value short / long" the second object is assigned to the respective channel.				

Function: 1-bit scene control

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), Scene 1 / 2	recall	1 bit	CRT
These objects are only visible with this name and function if the function "1-bit scene control" is assigned to the respective channel.				
22 (27, 32, 37)	Channel A (B, C, D), Scene 1 / 2	save	1 bit	CRT
These objects are only visible with this name and function if the function "1-bit scene control" is assigned to the respective channel.				

Function: 8-bit scene control

Obj	Object name	Function	Туре	Flags	
21 (26, 31, 36)	Channel A (B, C, D), 8-bit Scene	recall / save	1 Byte	CRT	
These objects are only visible with this name and function if the function "8-bit scene control" is assigned to the respective channel.					

Function: 8-bit effect control

Obj	Object name	Function	Туре	Flags	
21 (26, 31, 36)	Channel A (B, C, D), 8-bit Effect	start / stop	1 Byte	CRT	
These objects are only visible with this name and function if the function "8-bit effect control" is assigned to the respective channel.					

Function:

8-bit pulse counting without threshold monitoring

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), 8-bit Counter value	send	1 Byte	CRT
These objects are only visible with this name and function if the function "8-bit pulse counting" is assigned to the respec- tive channel.				ction if respec-
22 (27, 32, 37)	Channel A (B, C, D), Counter value	reset	1 bit	CWT
These objects are only visible with this name and function if one of the functions "pulse counting" is assigned to the re- spective channel.				

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Function:

8-bit pulse counting with threshold monitoring

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), 8-bit Counter value	send	1 Byte	CRWT
These objects are only visible with this name and function if the function "8-bit pulse counting" is assigned to the respec- tive channel.				
22 (27, 32, 37)	Channel A (B, C, D), Counter value	reset	1 bit	CWT
These objects are only visible with this name and function if one of the functions "pulse counting" is assigned to the re- spective channel.				ction if the re-
23 (28, 33, 38)	Channel A (B, C, D), Upper limit viola- tion	On / Off	1 bit	CRT
These objects are only visible with this name and function if the function "8-bit pulse counting" is assigned to the respec- tive channel and the threshold is set "by parameter" or "by ob- iect".				ction if respec- "by ob-
24 (29, 34, 39)	Channel A (B, C, D), 8-bit Threshold	read / write	1 Byte	CRWT
These objects are only visible with this name and function if the function "8-bit pulse counting" is assigned to the respec- tive channel and the threshold is set "by object".				

Function:

16-bit pulse counting without threshold monitoring

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), 16-bit Counter value	send	2 Byte	CRWT
These objects are only visible with this name and function if the function "16-bit pulse counting" is assigned to the respec- tive channel.				
22 (27, 32, 37)	Channel A (B, C, D), Counter value	reset	1 bit	CWT
These objects are only visible with this name and function if one of the functions "pulse counting" is assigned to the re- spective channel.				

Function: 16-bit pulse counting with threshold monitoring

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), 16-bit Counter value	send	2 Byte	CRWT
These objects are only visible with this name and function if the function "16-bit pulse counting" is assigned to the respec- tive channel.				
22 (27, 32, 37)	Channel A (B, C, D), Counter value	reset	1 bit	CWT
These objects are only visible with this name and function if one of the functions "pulse counting" is assigned to the re- spective channel.				ction if the re-
23 (28, 33, 38)	Channel A (B, C, D), Upper limit viola- tion	On / Off	1 bit	CRT
These object the function tive channel ject".	s are only visible with "16-bit pulse counting and the threshold is se	this name f is assigned t "by param	and fun d to the eter" or	ction if respec- "by ob-
24 (29, 34, 39)	Channel A (B, C, D), 16-bit Threshold	read / write	2 Byte	CRWT
These objects are only visible with this name and function if the function "16-bit pulse counting" is assigned to the respec- tive channel and the threshold is set "by object".				

Function:

32-bit pulse counting without threshold monitoring

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), 32-bit Counter value	send	4 Byte	CRWT
These objects are only visible with this name and function if the function "32-bit pulse counting" is assigned to the respec- tive channel.				
22 (27, 32, 37)	Channel A (B, C, D), Counter value	reset	1 bit	CWT
These objects are only visible with this name and function if one of the functions "pulse counting" is assigned to the re- spective channel.				

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Function:

32-bit pulse counting with threshold monitoring

Obj	Object name	Function	Туре	Flags
21 (26, 31, 36)	Channel A (B, C, D), 32-bit Counter value	send	4 Byte	CRWT
These objects are only visible with this name and function if the function "32-bit pulse counting" is assigned to the respec- tive channel.				
22 (27, 32, 37)	Channel A (B, C, D), Counter value	reset	1 bit	CWT
These objects are only visible with this name and function if one of the functions "pulse counting" is assigned to the re- spective channel.				ction if the re-
23 (28, 33, 38)	Channel A (B, C, D), Upper limit viola- tion	On / Off	1 bit	CRT
These objects are only visible with this name and function if the function "32-bit pulse counting" is assigned to the respec- tive channel and the threshold is set "by parameter" or "by ob- iect".				ction if respec- "by ob-
24 (29, 34, 39)	Channel A (B, C, D), 32-bit Threshold	read / write	4 Byte	CRWT
These objects are only visible with this name and function if the function "32-bit pulse counting" is assigned to the respec- tive channel and the threshold is set "by object".				

Objects for "inputs, jointly configurable"

Function: 2-button dimming with Stop telegram Function: 2-button dimming with cyclical sending

Obj	Object name	Function	Туре	Flags
21 (31)	Channel A (C), Switching 1	On / Off	1 bit	CRWT
These objects are only visible with this name and function if the function "2-button dimming with stop telegram" or "2- button dimming with cyclical sending" is assigned to the re- spective channel A (+B) resp. C (+D).				
22 (32)	Channel A (C), Dimming	brighter / darker	4 bit	CRT
These objects are only visible with this name and function if the function "2-button dimming with stop telegram" or "2- button dimming with cyclical sending" is assigned to the re- spective channel.				

Function: 2-button solar protection control

Obj	Object name	Function	Туре	Flags
21 (31)	Channel A (C),	Up /	1 bit	CRT
	Solar protection	Down		
These object the function the respectiv	s are only visible with "2-button solar protec e channel A (+B) resp.	this name tion control C (+D).	and fun " is assig	ction if Ined to
22 (32)	Channel A (C), Slats	Stop / Open / Close	1 bit	CRT
These object the function the respectiv	s are only visible with "2-button solar protec e channel.	this name tion control	and fun " is assig	ction if jned to

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3. Parameters

Operation of channels A +B

Note

The configuration for channels C + D is done in the same manner and is not described separately.

Chan	nels A + B
Function of channels A + B	inputs, separately configurable
Operation of Input	Send switching status / Binary valule
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
Operation of Input	Send switching status / Binary valule
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

Parameter	Settings	
Function of channels A + B	inputs, separately con- figurable; inputs, jointly configured; A = input, B = LED output; LED outputs	
This parameter is used to configure		
whether the two adjacent inputs (channels) are to be "sepa- rately configurable", so that different functions may be assigned to each input if necessary, or		
whether both inputs are to be "jointly buttons attached to them belong to intended either for switching and d sun protection control, or	configured" since the push gether functionally and are imming the lighting or for	
whether channel A serves as an innu	it and channel B as an out-	

whether channel A serves as an input and channel B as an output for LED control, or

whether both channels serve as outputs for LED control.

Depending on the selected setting for this parameter further parameters may become visible or hidden.

3.1 Separately configurable inputs

The following functions are visible when parameter "Function of channels A+ B" is set to "inputs, separately configurable". These functions are only assigned to one input and may be differently configured for each input.

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 con-
	trol;
	1/2- button solar protection con-
	trol;
	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 effect control;
	8-bit pulse counting;
	16-bit pulse counting;
	32-bit pulse counting
This parameter is used to ass	ign the desired function to an in-
put.	
Depending on the function se	elected the display of subsequent
parameters changes.	

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3.1.1 Send switching status / binary value

Function of channels A + B	inputs, separately configurable
Operation of Input	Send switching status / Binary valule
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 this 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.

The following object is inserted automatically:

Obj	Object name	Function	Туре	Flag
21	Channel A, Status	On / Off	1 bit	CRT
The switching status / binary value is sent via the group ad- dress linked with this object.				

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.

Switching value when contact is On; Off; no reaction open

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.

Parameter	Settings	
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 not sent.	current switching value is	
"always": After bus voltage recovery is always sent.	the current switching value	
"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;	
	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 even change of value the status is sent cyc	nt-driven transmission on lically.	
"send only On value": Only an "On" va	lue is sent cyclically.	
" send only On value ": Only an "Off" v	alue is sent cyclically.	
Cycle time in minutes (1255)	1 255	
Inis parameter determines the desire	d 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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3.1.2 Switching edge

Function of channels A + B	inputs, separately configurable	-
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 *I* or falling signal edge at this input. Each time when the push button is pressed and *I* or released resp. when the contact is closed and *I* or opened a telegram is sent, i.e. this function can be used e.g. to implement the behavior of a bell switch.

The following object is inserted automatically:

Obj	Object name	Function	Туре	Flag
21	Channel A, Switching 1	On / Off	1 bit	CRWT
Swito with	ching telegrams a this object.	are sent via the	group ad	ldress linked

Parameter	Settings	
Reaction on rising edge	edge no reaction On Off	
	Toggle	
Here an adjustment is made to written into the storage cell o sent after a rising edge in the put). The rising edge correspondent status at the input from logical	o define which switching value is f the communication object and signal status at the channel (in- onds to a change in the signal "0" to "1".	
"no reaction": An edge change object value and also does no gram.	at the input does not change the t lead to the sending of a tele-	
"On". In the event of a vision a	data tha avuitabina value "ON" (bi	

"On": In the event of a rising edge the switching value "ON" (binary value "1") is transferred into the communication object and sent.

"Off": In the event of a rising edge the switching value "OFF" (binary value "0") is transferred into the communication object and sent.

"Toggle": In the event of a rising edge, the switching value stored in the communication object is inverted and the new value is sent.

	Setti	ngs
Reaction on falling edge	no re	action
	On	
	Off	
	logg	le
rere an adjustment is made to written into the storage cell o sent after a falling edge in the put). The falling edge corresp status at the input from logical "no reaction": An edge change object value and also does no gram. "On": In the event of a falling (binary value "1") is transferred and sent. "Off": In the event of a falling (binary value "O") is transferred and sent. "Toggle": In the event of a risir red in the communication obje	f the signation onds "1" to at the ot lead g edge d into edge d into	the switching value is communication object and I status at the channel (in- to a change in the signa "0". I input does not change the I to the sending of a tele- the switching value "ON" the communication object the switching value "OFF" the switching value sto- nverted and the new value
is sent.		
Send switching value after bu	IS	No; if input status shapsed
voltage recovery		
This parameter determines if ar	ad wh	n input status changeu
This parameter determines if ar after bus voltage recovery.	nd wh	en a switching value is sen
This parameter determines if ar after bus voltage recovery. "No": After bus voltage recove	nd who rv the	en a switching value is sen current switching value is
This parameter determines if ar after bus voltage recovery. "No": After bus voltage recove not sent.	nd who ry the	en a switching value is sen current switching value is
This parameter determines if ar after bus voltage recovery. "No": After bus voltage recove not sent. "if input status changed": After switching status is sent if the the bus voltage failure.	nd who ry the bus v switch	en a switching value is sent current switching value is oltage recovery the current ing status changed during
This parameter determines if ar after bus voltage recovery. "No": After bus voltage recove not sent. "if input status changed": After switching status is sent if the the bus voltage failure. Add blocking object	nd who ry the bus v switch	en a switching value is sen current switching value is oltage recovery the current ing status changed during No ; Yes

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3.1.3 Switch short / long

Function of channels A + B	inputs, separately configurable
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.

The following object is inserted automatically:

Obj	Object name	Function	Туре	Flag
21	Channel A, Switching 1	On / Off	1 bit	CRWT
Switching telegrams are sent via the group address linked with this object.				
22	2 Channel A, On / Off 1 bit CRWT Switching 2			
Switching telegrams for long push button press are sent via the group address linked with this object if the parameter "send on long push button press via" is set to "second object"				

Parameter	Settings	
Reaction on pressing button short	no reaction On; Off; Toggle	
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).		
"no reaction": A short push button action does not change the object value and also does not lead to the sending of a tele- gram.		
"On": After a short push button action, the switching value "ON" is transferred into the communication object and sent.		
"Off": After a short push button action, the switching value "OFF" is transferred into the communication object and sent.		
"Toggle": After a short push button action, the switching value stored in the communication object is inverted and the new value is sent.		
Reaction on pressing button long	no reaction On; Off; Toggle	
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		

Parameter	Settings	
channel (input). "no reaction": A long push button action does not change the object value and also does not lead to the sending of a tele- gram. "On": After a long push button action, the switching value "ON" is transferred into the communication object and sent. "Off": After a long push button action, the switching value "OFF" is transferred into the communication object and sent. "Toggle": After a long push button action, the switching value stored in the communication object is inverted and the new		
Send on long push button press via	the same object as on short push button press; second object	
This parameter is only visible w pressing button long" is not set This parameter determines whe	when the parameter "reaction on to "no reaction". ether the switching value on long the same object (Switching 1) or	
via a second object (Switching 2	2).	
Long push button action min.	0.3 Seconds 0.4 Seconds 0.5 Seconds 0.6 Seconds 1.0 Seconds 1.2 Seconds 1.2 Seconds 2.0 Seconds 3.0 Seconds 4.0 Seconds 5.0 Seconds 6.0 Seconds 7.0 S	
long push button action.	minimum period for detecting a	
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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3.1.4 1-button sequenced switching group control

Function of channels A + B	inputs, separately configurable
Operation of Input	1-button sequenced switching group control
Number of sequenced-switching groups	3
Contact type	normally open contact
Add blocking object	No

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.

The following objects are inserted automatically if 3 sequenced switching groups are chosen (for 2 sequenced switching groups only the first two objects are inserted):

Obj	Object name	Function	Туре	Flags
21	Channel A, Switching 1	On / Off	1 bit	CRWT
22	Channel A, Switching 2	On / Off	1 bit	CRWT
23	Channel A, Switching 3	On / Off	1 bit	CRWT
Switching telegrams are sent via the group addresses linked with these objects.				

Darameter	Sattings

i didilletei	Settings
Number of sequenced	2
switching groups	3
The number of around that any	he switched is adjusted via this

The number of groups that can be switched is adjusted via this parameter.

",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

"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):

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Parameter	Settings	
000-001-010-011-111-110-101-100-000		
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.		
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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3.1.5 1-button multi-touch control (multiple output control)

Function of channels A + B	inputs, separately configurable
Operation of Input	1-button multi-touch control (multiple output control)
Number of switchable groups	2
Max. delay time between two push button actions	1.0 seconds
Switching 1, value to be sent	Toggle
Switching 2, value to be sent	Toggle 💌
Contact type	normally open contact
Add blocking object	No

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.

The following objects are inserted automatically if 3 switching groups are chosen (for 2 switching groups only the first two objects are inserted):

Obj	Object name	Function	Туре	Flags
21	Channel A, Switching 1	On / Off	1 bit	CRWT
22	Channel A, Switching 2	On / Off	1 bit	CRWT
23	Channel A, Switching 3	On / Off	1 bit	CRWT
Switching telegrams are sent via the group addresses linked with these objects.				

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 two0.5 s; 0.75 s; 1.0 spush button actions0.5 s; 0.75 s; 1.0 s		
This parameter determines the maximum permissible delay be- tween 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.		

Parameter	Settings		
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 s value is sent.	sent last is toggled and the new		
Switching 2, value to be sent	On; Off; Toggle		
This parameter determines the Switching 2.	value to be sent via the object		
"On": The value "ON" is sent.			
"Off": The value "OFF" is sent.			
"loggle": The switching value s value is sent.	sent last is toggled and the new		
Switching 3, value to be sent	On; Off; Toggle		
This parameter determines the Switching 3.	value to be sent via the object		
"On": The value "ON" is sent.			
"Off": The value "OFF" is sent.			
"Toggle": The switching value s value is sent.	sent last is toggled and the new		
Contact type normally open contact normally closed contact			
The contact type of the push b adjusted here.	utton attached to the channel is		
"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 t additional blocking object or no object value = 1) then status transmitted.	the input can be blocked via an it. If an input is blocked (blocking changes at this input are not		

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3.1.6 1-button dimming

Function of channels A + B	inputs, separately configurable	-
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.

The following objects are inserted automatically:

Obj	Object name	Function	Туре	Flags	
21	Channel A, Switching 1	Toggle	1 bit	CRWT	
Switc group push last co	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	Channel A, Dimming	Brighter / Darker	4 bit	CRT	
The d the gi push stop d the la ess, d long j	imming telegrams roup address linked button action prod command is sent wl ist controlled dimm limming in the opp push button action.	are sent to the with this object. uces a "100 % c nen the push but ning direction is osite direction is	dimming In the pr limming" tton is re reversed effected	actuator via ocess, a long telegram. A leased. Since in the proc- l on the next	

23	Channel A, Dimming	Status	1 Byte	CWT
The dir	nming status tele	grams are receiv	ed from	the dimming
actuator via the group address linked with this object.				

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. This allows for several operation locations to synchronize and to always invert the last applied dimming direction.

Note:

If this object is not linked with a group address or the latest dimming status has not been received when the push button is pressed then the dimming direction is not influenced by the dimming status.

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 along antest", the contest of the nuch button used in				
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 ch	anges at this input are not			

3.1.7 1/2-button dimming

Function of channels A + B	inputs, separately configurable	•
Operation of Input	1/2-button dimming	•
Operation of Input	Off, darker	•
Long push button action min.	0.5 seconds	•
Contact type	normally open contact	•
Add blocking object	No	•

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.

The following objects are inserted automatically:

Obj	Object name	Function	Туре	Flags
21	Channel A, Switching	Off	1 bit	CRT
21	Channel A, Switching	On	1 bit	CRT
21	Channel A, Switching	Toggle	1 bit	CRWT
Switch group a A short	ing telegrams are address linked wit push button actio	sent to the dim h this object. on produces an C	ming act DN or OFF	uator via the ⁻ telegram.
22	Channel A, Dimming	darker	4 bit	CRT
22	Channel A, Dimming	brighter	4 bit	CRT
The dir the gro	nming telegrams oup address linked push button acti	are sent to the with this object	dimming 100 % dii	actuator via
A long push success de los a difficientes de los a difficientes de los as difficientes de l				

gram. A stop command is sent when the push button is released.

Parameter	Settings
Operation of input	Off, darker On, brighter Toggle, darker Toggle, brighter
This parameter determines the opera	tion of the input.

Paramotor	Sottings		
Falalleter	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 mir long push button action.	imum period for detecting a		
Contact type	normally open contact		
	normally closed contact		
The contact type of the push butto	n 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 additional blocking object or not. If object value = 1) then status cha	nput can be blocked via an an input is blocked (blocking anges at this input are not		

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3.1.8 1-button-solar protection control

Function of channels A + B	inputs, separately configurable	•
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.

The following objects are inserted automatically:

Obj	Object name	Function	Туре	Flags
21	Channel A, So- lar 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.

Obj	Object name	Function	Туре	Flags
22	Channel A, Slats	Stop / Open / Close	1 bit	CRT

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.

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 Seconas	
This parameter determines the mir long push button action.	nimum period for detecting a	
Contact type	normally open contact	
	normally closed contact	
The contact type of the push butto adjusted here.	on attached to the channel is	
"normally open contact": the conta	ct of the push button used is	
closed when activated, open when not activated.		
"normally closed contact": the conta	act 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.		

3.1.9 1/2-button-solar protection control

Function of channels A + B	inputs, separately configurable
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.

The following objects are inserted automatically:

Obj	Object name	Function	Туре	Flags
21	Channel A, solar protec- tion	Down	1 bit	CRT
21	Channel A, solar protec- tion	Up	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	Channel A, Slats	Stop / Close	1 bit	CRT
22	Channel A, Slats	Stop / Open	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.

Parameter	Settings
Operation of input	Solar Protection Down, Slats Close; Solar Protection Up, Slats Open
This parameter determines which spectively short push button press a	telegram is sent on long re- action.
Long push button action min.	0.3 Seconds 0.4 Seconds 0.5 Seconds 0.8 Seconds 1.0 Seconds 1.2 Seconds 1.5 Seconds 2.0 Seconds 3.0 Seconds 4.0 Seconds 5.0 Seconds 6.0 Seconds 7.0 Seconds
This parameter determines the mir long push button action.	nimum period for detecting a
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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3.1.10 1-button solar protection / slat control

Function of channels A + B	inputs, separately configurable
Operation of Input	1-button solar protection /slat control
Position of solar protection in %	0
Position of slats in %	0
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 predetermined solar protection position in percent, the second telegram contains the pre-determined slat position in percent.

The following objects are inserted automatically:

Obj	Object name	Function	Туре	Flags
21	Channel A, position of so- lar protection	8-bit value	1 Byte	CRT
The pre-determined position of the solar protection is sent as a percentage value (0100%) via the group address linked with this object.				
22	Channel A, position of slats	8-bit value	1 Byte	CRT
The pre-determined position of the slats is sent as a percent- age value (0100%) via the group address linked with this ob- ject.				

Parameter	Settings	
Position of solar protection in %	0 (0100)	
This parameter determines the tection to be sent.	value of position of the solar pro-	
Position of slats in %	0 (0100)	
This parameter determines the value of the position of the slats to be sent.		
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.		

3.1.11 8-bit value edge

Function of channels A + B	inputs, separately configurable]
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	3
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.

The following object is inserted automatically:

Obj	Object name	Function	Туре	Flags
21	Channel A, 8-bit Value 1	Send	1 Byte	CRT
The o	The configured 8-bit integer value (EIS 6) is sent via the group address linked with this object.			

Deveryorten	Catting	
Parameter	Settings	
Send value on rising edge	No; Yes	
Here an adjustment is made as 8-bit value is to be written into nication object and sent after a the input. The rising edge corre status at the input from logical	to whether or not the configured o the storage cell of the commu- rising edge in the signal status at esponds to a change in the signal "0" to "1".	
Value on rising edge	0 (0255)	
Here an adjustment is made to define which value (0255) is written into the storage cell of the communication object and sent after a rising edge in the signal status at the input. The ris- ing edge corresponds to a change in the signal status at the in- put 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 va- lue is to be written into the storage cell of the communication object and sent after a falling edge in the signal status at the in- put. 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	0 (0255)	
Here an adjustment is made to define which value (0255) is written into the storage cell of the communication object and sent after a falling edge in the signal status at the input. The fal- ling edge corresponds to a change in the signal status at the in- put 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.		

3.1.12 8-bit value short / long

Function of channels A + B	inputs, separately configurable
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 shirt button press action or via a second object.

The following object is inserted automatically:

Obj	Object name	Function	Туре	Flags		
21	Channel A, 8-bit Value 1	Send	1 Byte	CRT		
The o via th	The configured 8-bit integer value (EIS 6, DPT 5.010) is sent via the group address linked with this object.					
22	Channel A, 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.						

Parameter	Settings		
Send value on short button press	No; Yes		
Here an adjustment is made as to whether or not the configure 8-bit value is to be written into the storage cell of the communication object and sent after short pressing of the push butto attached to the input.			
Value on short button press	0 (0255)		
Here an adjustment is made to written into the storage cell o sent after short pressing of the put.	o define which value (0255) is f the communication object and push button attached to the in-		
Send value on long button press	No; Yes		

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Parameter	Settings				
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 commu- nication object and sent after long pressing of the push button attached to the input.					
Value on long button press	Value on long button press 0 (0255)				
Here an adjustment is made to define which value (0255) is written into the storage cell of the communication object and sent after long pressing of the push button attached to the in- put.					
Send on long push button press via	the same object as on short push button press; second object				
This parameter is only visible v long pressing" is not set to "no r This parameter determines whe button press action is sent via t via a second object (8-bit value	when the parameter "reaction on reaction". ether the 8-bit value on long push the same object (8-bit value 1) or 2).				
Long push button action min.	0.3 Seconds 0.4 Seconds 0.5 Seconds 0.8 Seconds 1.0 Seconds 1.2 Seconds 1.5 Seconds 2.0 Seconds 3.0 Seconds 4.0 Seconds 5.0 Seconds 5.0 Seconds 6.0 Seconds 7.0 Seconds				
long push button action.	minimum period for detecting a				
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.					

3.1.13 16-bit value edge

Function of channels A + B	inputs, separately configurable
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:

Obj	Object name	Functio	Function		Flags
21	Channel A, 16-bit value 1	send		2 Byte	CRT
The o grou	configured 16-bit p address linked v	integer v vith this o	alue (DPT object.	7.001) is	s sent via the
21	Channel A, 16-bit floating point value 1	send		2 Byte	CRT
The configured 16-bit floating point value (DPT 9.000) is sent via the group address linked with this object.					
Parameter			Settings		
Send	value as		integer ; floating	point valı	le

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.

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Parameter Settings				
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 commu- nication 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)			
This parameter is only visible w	hen an "integer" shall be sent.			
Here an adjustment is made (065535) is written into the s object and sent after a rising en put. The rising edge correspond at the input from logical "0" to "	to define which integer value torage cell of the communication dge in the signal status at the in- ds to a change in the signal status '1".			
Value on rising edge in tenth part	0 (-32768+32767)			
This parameter is only visible be sent.	when "floating point value" shall			
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				
Send value on falling edge No; Yes				
Here an adjustment is made as bit FP value is to be written int nication object and sent after a at the input. The falling edge signal status at the input from I	s to whether the configured 16– o the storage cell of the commu- a falling edge in the signal status corresponds to a change in the ogical "1" to "0".			
Value on falling edge	0 (0 65535)			
This parameter is only visible w	hen an "integer" shall be sent.			
Here an adjustment is made to define which integer value (065535) 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".				
Value on falling edge in	0 (-32768+32767)			
This parameter is only visible v	when "floating point value" shall			
be sent.	when Troating point value" shall			
Here an adjustment is made to define which FP value (-320.0+320.0) is written into the storage cell of the commu- nication 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".				

Parameter	Se	ttings					
Add blocking object		No ; `	/es				
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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3.1.14 16-bit value short / long

Function of channels A + B	inputs, separately configurable
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 *I* or long button press action on the channel input (i.e. when a push button is pressed and *I* 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 shirt 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:

Obj	Object name	Function	Туре	Flags	
21	Channel A, 16-bit Value 1	Send	2 Byte	CRT	
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	Channel A, 16-bit Value 2	Send 2 Byte		CRT	
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.					
21	Channel A, 16-bit floating point value 1	Send	2 Byte	CRT	
The configured 16-bit floating point value (EIS 9; DPT 9.000) is sent via the group address linked with this object only on					

Obj Object name Function Туре Flags short or on short and long button press action. 22 Channel A. Send 2 Byte CRT 16-bit Value 2 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. 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 No: Yes press action Here an adjustment is made as to whether the configured 16bit 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 **0** (0... 65535) action 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 short button press action at the input. Value on short button press 0 (-32768...+32767) action in tenth part This parameter is only visible when "floating point value" shall be sent. 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). Send value on long button No; Yes press action Here an adjustment is made as to whether the configured 16bit value is to be written into the storage cell of the communication object and sent after a long button press action at the input. Value on long button press 0 (0... 65535) action 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 long button press action at the input.

Parameter Settings					
Value on falling edge in tenth part	0 (-32768+32767)				
This parameter is only visible when "floating point value" shall be sent.					
Here an adjustment is made to define which floating point value (-320.0+320.0) is written into the storage cell of the commu- nication 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).					
Send on long push button press via	the same object as on short push button press; second object				
This parameter is only visible w long pressing" is not set to "no f	when the parameter "reaction on reaction".				
push button press action is s value 1) or via a second object	ent via the same object (16-bit (16-bit value 2).				
Long push button action min.	0.3 Seconds 0.4 Seconds 0.5 Seconds 0.8 Seconds 1.0 Seconds 1.2 Seconds 2.0 Seconds 2.5 Seconds 3.0 Seconds 4.0 Seconds 5.0 Seconds 6.0 Seconds 7.0 Seconds 7.0 Seconds				
Contact type	normally open contact				
The contact type of the push h	normally closed contact				
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.					

3.1.15 32-bit value edge

Function of channels A + B	inputs, separately configurable]
Operation of Input	32-bit value edge]
Send value on rising edge	Yes]
Value on rising edge	0	ł
Send value on falling edge	Yes]
Value on falling edge	0	9
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).

The following object is inserted automatically:

Obj	Object name	Function	Туре	Flags
21	Channel A, 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.				

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 communica- tion 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 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 (065535) 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".

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Parameter	Settings		
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 (065535) 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.

3.1.16 32-bit value short / long

Function of channels A + B	inputs, separately configurable	•
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 shirt button press action or via a second object.

The following object is inserted automatically:

Obj	Object name	Function	Туре	Flags	
21	Channel A, 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	Channel A, 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.					

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 commu- nication 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 mad 4.294.967.295) is written into	e to define which value (0 the storage cell of the communi-	

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.

Parameter	Settings			
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 commu- nication 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 mad 4.294.967.295) is written into cation object and sent after lon tached to the input.	e to define which value (0 the storage cell of the communi- ig pressing of the push button at-			
Send on long push button press via	the same object as on short push button press; second object			
This parameter is only visible v long pressing" is not set to "no r	when the parameter "reaction on reaction".			
This parameter determines when push button press action is s value 1) or via a second object (hether the 32-bit value on long ent via the same object (32-bit (32-bit value 2).			
This parameter determines the	0.3 Seconds 0.4 Seconds 0.5 Seconds 0.6 Seconds 1.0 Seconds 1.2 Seconds 1.2 Seconds 2.0 Seconds 2.5 Seconds 3.0 Seconds 4.0 Seconds 5.0 Seconds 5.0 Seconds 6.0 Seconds 7.0 Seconds 7.0 Seconds 7.0 Seconds			
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				
"normally closed contact": the c open when activated, closed wi	contact of the push button used is hen not activated.			
Add blocking object	No; Yes			
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.				

3.1.17 1-bit scene control

Function of channels A + B	inputs, separately configurable
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

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.

The following objects are inserted automatically:

Obj	Object name	Function	Туре	Flags	
21	Channel A, Scene ½	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	Туре	Flags	
22	Channel A, Scene 1/2	Store	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.					

Parameter	Settings			
Scene number	1			
This parameter determines which scene is to be stored / re- called. "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 but the current settings may be s	scene may not only be recalled aved.			
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 n long push button action. For scene control a long push bu current scene settings.	ninimum period for detecting a utton action triggers saving the			
Contact type	normally open contact normally closed contact			
The contact type of the push bur adjusted here.	tton attached to the channel is			
"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				

3.1.18 8-bit scene control

inputs, separately configurable	•
8-bit scene control	•
1	7
Yes	•
3.0 seconds	•
normally open contact	·
No	•
	inputs, separately configurable 8-bit scene control 1 Yes 3.0 seconds normally open contact 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.

The following object is inserted automatically:

Obj	Object name	Function	Туре	Flags	
21	Channel A, 8-bit Scene	Recall / Store	1 Byte	CRT	
The telegrams to recall and store the scene with the config- ured number (164) are sent via the group address linked with this object.					

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transmitted

Parameter	Settings					
Scene number (164)	1					
This parameter determines which scene (164) 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.						
"normally open contact": the con closed when activated, open whe "normally closed contact": the con open when activated, closed whe	n not activated. ntact of the push button used is n not activated.					
"normally open contact": the con closed when activated, open whe "normally closed contact": the con open when activated, closed whe Add blocking object	n not activated. ntact of the push button used is n not activated. No; Yes					

3.1.19 8-bit effect control

Function of channels A + B	inputs, separately configurable
Operation of Input	8-bit effect control
Effect number (164)	1
Long push button action min.	1.0 seconds
Contact type	normally open contact
Add blocking object	No

Using the 8-bit effect control it is possible to use a push button connected to the input to start and stop the effect with the configured number (1...64) on a KNX / DALI Gateway N141/02.

As with the 8-bit scene control short and long button press actions are distinguished.

The following object is inserted automatically:

Obj	Object name	Function	Туре	Flags	
21	Channel A, 8-bit effect	start / stop	1 Byte	CRT	
The telegrams to start and stop the effect with the configured number (164) are sent via the group address linked with this object.					
The telegram starting the effect control is triggered by a short					

button press action, whereas a long button press action stops the effect control.

The effect control is started via a telegram with a logic "0" in bit 7 of the object and it is stopped with a logic "1" in bit 7 of the object.

Parameter	Settings			
Effect number (164)	1			
This parameter determines which effect (164) is to be started or stopped.				
Long push button action min. 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 effect control a long push but fect control.	tton action stops the current ef-			
Contact type	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.				

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Parameter	Settings		
"normally closed contact": the contact of the push button used 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.

3.1.20 8-bit pulse counting

Function of channels A + B	inputs, separately configurable	I
Operation of Input	8-bit pulse counting	I
Increment counter after	rising edge	I
Send counter value on change by (0255)	255	1
Threshold	not applicable	I
Add blocking object	No	I

For binary inputs, this function enables the counting and saving of pulses as 8-bit counter value. 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.

The following objects are inserted automatically:

Obj	Object name	Function	Туре	Flags		
21	Channel A, 8-bit counter value	send	1 Byte	CRWT		
The telegrams with the counter value status are sent via the group address linked with this object.						
22	Channel A, Counter value	Reset	1 bit	CWT		
If a telegram linked with this object is received, then the coun- ter value is reset to value 0. The binary value (0 or 1) transmit- ted with the telegram is irrelevant for the reset function.						

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Obi	Object name	Functio	n	Type	Flags			
23	Channel A	On / Of	F	1 bit	CRT			
20	Upper limit	0.1.7 0.1						
	violation							
This	This object is only visible when pulse counting with threshold							
moni	monitoring is selected.							
Uppe	er limit violation =	On is ser	nt if					
- th	e counter value is	s > thresh	iold,					
- a 0\	- a modified counter value is sent and there is a threshold overrun,							
- a	threshold is set th	at is < co	unter valu	ie.				
Uppe	er limit violation =	Off is ser	nt if					
- th	e counter value is	reset,						
- af se o\	ter bus or mains ending of a count verrun,	voltage r ter value	ecovery to , if there	ogether v is then r	with the first no threshold			
- a	threshold is set th	at is > co	unter valu	ie.				
In th verru geth until is big	In the event of counter overrun with persistent threshold o- verrun, "Threshold overrun = ON " will continue to be sent to- gether with the counter value which is now below threshold until the counter is either reset to "0" or a new threshold that is binger than the current counter value is set							
24	24 Channel A, Read / Write 1 Byte CRWT 8-bit threshold							
This moni	object is only visi toring is selected	ble when and the t	pulse cou threshold	unting wi is settabl	ith threshold e via object.			
The o	current threshold	can be q	ueried or	overwritt	en by a new			
thres	hold via the grou	p address	i linked wi	th this ob	oject.			
Para	meter		Settings					
Incre	ement counter af	ter	rising ed falling ed	l ge lge				
Here	an adjustment is	made as	s to wheth	ner the co	ounter status is			
to be	increased by valu	ue 1 in th	e event of	a rising	or falling signal			
eage	. The rising edge	edge. The rising edge corresponds to a change in the signal						
status at the input from logical "0" to "1". The falling edge corre-								
spon	ds to a change in	m logical the sign	"0" to "1" al status a	. The fall at the inc	ing edge corre- out from logical			
spon "1" to	ds to a change in o "0".	m logical the sign	"0" to "1" al status a	. The fall at the inp	ing edge corre- out from logical			
spon "1" to "risin	ds to a change in o "O". g edge": The cou	m logical the sign nter stat	"0" to "1" al status a us is incre	. The fall at the inp eased by	ing edge corre- out from logical 1 after a rising			
spon "1" to "risin edge "fallin	ds to a change in o "O". g edge": The cou ng edge": The cou	m logical the sign nter stat inter stat	"0" to "1" al status a us is incre us is incre	. The fall at the inp eased by eased by	ing edge corre- out from logical 1 after a rising 1 after a falling			
spon "1" to "risin edge "fallin edge	ds to a change in , "0". g edge": The cou ng edge": The cou	m logical the sign nter stat inter stat	"0" to "1" al status a us is incre us is incre	. The fall at the inp eased by eased by	ing edge corre- out from logical 1 after a rising 1 after a falling			
spon "1" to "risin edge "fallin edge Send chan	ds to a change in , "0". g edge": The cou g edge": The cou I counter value o ge by (0255)	m logical the sign nter stat Inter stat n	"0" to "1" al status a us is incre us is incre 255	. The fall at the inp eased by eased by	ing edge corre- out from logical 1 after a rising 1 after a falling			
spon "1" to "risin edge "fallin edge Send chan An ac the o sent time	ds to a change in , "0". g edge": The cou	m logical the sign nter stat nter stat n e via this st have st have e count vectively o	"0" to "1" al status a us is incre us is incre 255 paramete changed b er status of the valu	. The fall at the inp eased by r to defir by in ord can be c re set her	ing edge corre- but from logical 1 after a rising 1 after a falling ne which value er for it to be queried at any e.			
spon "1" to "risin edge "fallin edge Send chan An ac the o sent time "0": E	s at the input no ds to a change in o "0". g edge": The cou d counter value o ge by (0255) djustment is made counter value mu automatically. The via the bus, irresp Do not send count	m logical the sign nter stat n e via this st have ne count sectively er value.	"0" to "1" al status a us is incre us is incre 255 paramete changed h er status of the valu	. The fall at the inp assed by assed by r to defir by in ord can be o re set her	ing edge corre- but from logical 1 after a rising 1 after a falling ne which value er for it to be queried at any e.			
spon "1" to "risin edge "fallin edge Send chan An ac the o sent time "0": [] Thre	ds to a change in , "0". g edge": The cou ng edge": The cou I counter value o ge by (0255) djustment is made counter value mu automatically. Th via the bus, irresp to not send count shold	m logical the sign nter stat nter stat n e via this st have ne count nectively er value.	"0" to "1" al status a us is incre us is incre 255 paramete changed k er status of the valu	. The fall at the inp ased by ased by r to defin by in ord can be c icable; by parage	ing edge corre- but from logical 1 after a rising 1 after a falling ne which value er for it to be queried at any e.			
spon "1" tc "risin edge "fallin edge Send chan An ac the c sent time "0": [] Thre	ds to a change in , "0". g edge": The cou ng edge": The cou I counter value o ge by (0255) djustment is made counter value mu automatically. Th via the bus, irresp Do not send count shold	m logical the sign nter stat n e via this st have be count bectively er value.	"0" to "1" al status a us is incre us is incre 255 paramete changed b er status of the valu not appl to be set to be set	. The fall at the inp ased by ased by r to defir by in ord can be c re set her icable; by paran by objec	ing edge corre- but from logical 1 after a rising 1 after a falling ne which value er for it to be queried at any e.			
spon "1" to "risin edge "fallin edge Send the o sent time "0": E Thre Using	ds to a change in , "0". g edge": The cou I counter value o ge by (0255) djustment is made counter value mu automatically. The via the bus, irresp to not send count shold a this parameter	m logical the sign nter stat inter stat e via this st have be count bectively of er value. an adjus	"0" to "1" al status a us is incre us is incre 255 paramete changed b er status of the valu not appl to be set to be set tment is r	. The fall at the inp ased by ased by r to defir by in ord can be c re set her icable; by paran by objec made as	ing edge corre- but from logical 1 after a rising 1 after a falling ne which value er for it to be queried at any e. neter; t to whether the			

Settings				
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 gueried and modified is supplemented.				
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				
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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3.1.21 16-bit pulse counting

Function of channels A + B	inputs, separately configurable
Operation of Input	16-bit pulse counting
Increment counter after	rising edge
Send counter value on change by (0255)	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.

The following objects are inserted automatically:

Obj	Object name	Function	Туре	Flags
21	Channel A, 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.				

22	Channel A, Counter value reset	Reset		1 bit	CWT		
If a te ter va ted v	If a telegram linked with this object is received, then the coun- ter value is reset to value 0. The binary value (0 or 1) transmit- ted with the telegram is irrelevant for the reset function.						
23	Channel A, Upper limit violation	On / Of	f	1 bit	CRT		
This moni Uppe - th	This object is only visible when pulse counting with threshold monitoring is selected. Upper limit violation = On is sent if - the counter value is > threshold						
- a 0\ - a	modified counter /errun, threshold is set tha	value is at is < co	s sent and ounter valu	there is a	a threshold		
Uppe - th	er limit violation = (le counter value is	Off is sei reset, voltage r	nt if	aathar w	ith the first		
- ai se O\	ending of a count verrun,	er value	, if there	is then no	o threshold		
- a In th verru gethe until is big	- a threshold is set that is > counter value. In the event of counter overrun with persistent threshold o- verrun, "Threshold overrun = ON" will continue to be sent to- gether 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	24 Channel A, 16- Read / Write 2 Byte CRWT						
This	object is only visib	le when	pulse cou	unting wit	h threshold		
The o thres	current threshold of hold via the group	and the can be q address	ueried or o linked wi	overwritte th this obj	n by a new ect.		
Para	motor		Sottings				
Incre	ement counter aft	er	rising ed	ge lge			
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 sig- nal edge. The rising edge corresponds to a change in the signal status at the input from logical "0" to "1". The falling edge corre- sponds 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 edge. "falling edge": The counter status is increased by 1 after a falling edge.							
Send chan	l counter value or ige by (0255)	I	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.							

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Parameter	Settings		
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 (165.535)	65535		
This parameter is only visible if the parameter "Threshold" is set to "to be set by 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.

3.1.22 32-bit pulse counting

Function of channels A + B	inputs, separately configurable	ĺ
Operation of Input	32-bit pulse counting	I
Increment counter after	rising edge	I
Send counter value on change by (0255)	255	I
Threshold	not applicable	ĺ
Add blocking object	No	I

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.

The following objects are inserted automatically:

Obj	Object name	Function	Туре	Flags
21	Channel A, 32-bit Counter value	Send	4 Byte	CRT
The telegrams with the counter value status are sent via the group address linked with this object.				

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22	Channel A,	Reset		1 bit	CWT	
	Counter value					
lf a te ter va ted v	If a telegram linked with this object is received, then the coun- ter value is reset to value 0. The binary value (0 or 1) transmit- ted with the telegram is irrelevant for the reset function					
23	Channel A	On / Of	f	1 bit	CRT	
20	Upper limit	0117 011				
	violation					
This	object is only visil	ole when	pulse cou	unting w	th threshold	
mon	toring is selected.					
Uppe	er limit violation =	On is ser	nt if			
- th	e counter value is	> thresh	old,			
- a	modified counter	value is	sent and	there is	a threshold	
0\	/errun, threshold is set th	at ia	untervelu			
- d	unresnoid is set un	off is an	unter valu	ie.		
Uppe +h	er infint violation =	UT IS Sei	IL II			
- ui	tor bus or mains	voltago r	acovoru t	aathary	with the first	
- ai	ending of a count	er value	if there	is then i	no threshold	
0\	/errun,		,			
- a	threshold is set th	at is > co	unter valu	ie.		
In th	e event of count	er overru	ın with pe	ersistent	threshold o-	
verru	n, "Threshold ove	errun = C	N″ will co	ntinue to	b be sent to-	
geth	er with the count	er value	which is I	now belo	ow threshold	
until ic bio	the counter is eit	her reset	t to "0" or	a new th	reshold that	
24	Channel A 22	Road / V	Vrito	A Puto		
24	bit Threshold	Redu / V	vinte	4 byte	CRWT	
This	object is only visil	ole when	pulse cou	unting w	th threshold	
mon	toring is selected	and the t	threshold i	is settabl	e via object.	
The o	current threshold	can be q	ueried or	overwritt	en by a new	
thres	hold via the group	o address	i linked wi	th this ol	oject.	
			-			
Para	meter		Settings			
Incre	ment counter af	ter	rising ed falling ed	l ge lge		
Here	an adjustment is	made as	to wheth	er the co	unter status is	
to be	increased by valu	ue 1 in tl	ne event c	ot a rising	g or talling sig-	
nai e statu	age. The fising ed	ige corre n logical	""" to "1	a cnang The falli	e in the signa	
spon	ds to a change in	the sign	al status a	t the inp	ut from logica	
"1" to	"1" to "0".					
"risin edge	"rising edge": The counter status is increased by 1 after a rising edge.					
"fallin edge	"falling edge": The counter status is increased by 1 after a falling					
Send	counter value o	n	255			
chan	ge by (0255)					
An a	djustment is made	e via this	paramete	r to defir	ne which value	
the o	the counter value must have changed by in order for it to be					
sent	sent automatically. The counter status can be queried at any					
time	via the bus, irresp	ectively o	of the valu	ie set her	e.	
"	"0": Do not send counter value					

Parameter	Settings			
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 queried and modified is a parameter.				
Threshold (14.296.067.294)	4296067294			
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			

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.

3.2 Jointly configured inputs

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 pa rameters may become visible or hidden.

3.2.1-2-button dimming with stop telegram

Function of channels A + B	inputs, jointly configured	-
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.

The following objects are inserted automatically:

Obj	Object name	Function	Туре	Flags
21	Channel A, 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 in- put" 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	Channel A, 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 de- fines which of the two channels generates a telegram for brighter / darker dimming on long push button action.				

Parameter	Settings
Operation of input	Off, darker / On, brighter On, brighter / Off, darker Toggle, darker / Toggle, brighter Toggle, brighter / Toggle, darker
Adjustment via this parame channel is to be used to swi be used to switch on and b both channels is to take place	eter defines which push button / tch off and darken and which is to prighten, or whether switching on e via a TOGGLE function.

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Parameter	Settings		
Long push button action	0.3 Seconds		
min.	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 t	he minimum period for detecting a		
long push button action.			
Contact type	normally open contact		
	normally closed contact		
The contact type of the push adjusted here.	button attached to the channel is		
"normally open contact": the contact of the push button used is closed when activated, open when not activated.			
"normally closed contact": the	e 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			

3.2.2 2-button dimming with cyclical sending

Function of channels A + B	inputs, jointly configured	•
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 from0% to 100% and vice versa).

<u>Note:</u> 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).

The following objects are inserted automatically:

Obj	Object name	Function	Туре	Flags
21	Channel A, 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 in- put" 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	Channel A, Dimmen	brighter / dar- ker	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 de- fines which of the two channels generates a telegram for brighter / darker dimming on long push button action.				

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		

Parameter	Settings			
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 0.6 Seconds 0.6 Seconds 1.0 Seconds 1.2 Seconds 1.5 Seconds 2.5 Seconds 2.5 Seconds 3.0 Seconds 3				
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.				

3.2.3 2-button solar protection control

Function of channels A + B	inputs, jointly configured
Operation of Inputs	2-button solar protection control
Operation of Input	Solar protection down, Slats close / Solar protection
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.

The following objects are inserted automatically:

Obj	Object name	Functio	n	Туре	Flags
21	Channel A, Solar protec- tion	Up / Dov	wn	1 bit	CRWT
The movement commands Up / Down are sent via the group address linked with this object in order to raise / lower the so- lar protection. Adjustment via the "Operation of input" pa- rameter defines which of the two channels generates an Up or Down telegram on long push button action.					
22	Channel A, Slats	Stop Close	/ Open / e	1 bit	CRT
The commands "Stop" or "Slats open / close" are sent via the group address linked with this object. A short push button ac- tion 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 chan- nels generates an Open or Close telegram on short push but- ton action.					
Para	meter		Settings		
Oper	ation of input		Solar pro	otection	down. Slats

	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 low the solar protection and close the slats and which channel is raise the solar protection and open the slats.		defines which channel is to lower the slats and which channel is to pen the slats.

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Parameter	Settings			
Long push button action	0.3 Seconds			
min.	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 long push button action.	minimum period for detecting a			
Contact type	normally open contact			
	normally closed contact			
The contact type of the push be adjusted here.	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				

3.3 Channel A = input, Channel B = LED output

Function of channels A + B	A = input, B = LED output	•
Operation of Input	Send switching status / Binary valule	•
Switching value when contact is closed	0n 🖸	·
Switching value when contact is open	Off	·
Send switching value after bus voltage recovery	No	•
Cyclically sending	No	•
Add blocking object	No	•
Output activation	0 = no electric current / 1 = electric current	•
LED brightness in %	100	•
Status LED output on bus voltage recovery	as before bus voltage failure	•
flashing	No	•
Logic operation	no logic operation	-
		-
Add status object	No	-

When the parameter setting "A = input; B = LED output" is selected as function for channels A+ B, the parameter settings for channel A follow chapter 3.1, separately configurable inputs, and the parameter settings for channel B follow chapter 3.4, LED output.

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3.4 LED output

Note

Setting the parameters for channels A + B follows the same scheme. Therefore only the objects and parameter settings for channel B are described.

Function of channels A + B	LED outputs
Output activation	0 = no electric current / 1 = electric current
LED brightness in %	100
Status LED output on bus voltage recovery	as before bus voltage failure
flashing	No
Logic operation	no logic operation
Add status object	No
Add blocking object	No

This parameter window allows setting the behavior of an output controlling an LED and its associated communication objects. You may set the brightness of the LED, whether it shall flash and with which flashing frequency, whether flashing must be acknowledged (after acknowledgement the flashing is replaced by steady LED light, as long as the output is switched on), whether the LED output is controlled via a logic link, and whether a blocking or a status object are desired.

An output can only flash when the parameter "flashing" is <u>not</u> set to "No". If additionally the parameter "logical combination" is <u>not</u> set to "No" then the output can only flash when result of the logical combination is true. When the flashing is acknowledged it changes to steady light.. If the logical combination is no longer fulfilled the flashing respectively the steady light switches off. If is is fulfilled again then the output flashes again until it is either acknowledged respectively switches off when the logical combination is no longer fulfilled.

The following objects are inserted automatically:

Obj	Object name	Function	Туре	Flags
6	Channel B, LED	On / Off	1 bit	CWT
The switching telegram On resp. Off switching the LED on or off are received via the group address linked with this object.				

Obj	Object name	Function	Type	Flags	
7	Channel B, Confirmation	(On / Off)	1 bit	CWT	
The telegram for acknowledgement of a flashing LED is re- ceived via the group address linked with this object. The bi- nary value (0 or 1) transmitted with the telegram is irrelevant for the acknowledgement function. When the telegram is received, flashing of the LED turns into steady light as long as the LED output is switched on.					
8	Channel B, logic operati- on	On / Off	1 bit	CWT	
Telegra ject co lected	Telegrams received via the group address linked with this ob- ject contain the current value for the second input of the se- lected logic operation controlling the LED output.				
9	Channel B, LED Status	On / Off	1 bit	CRT	
After a via the	After a change of value the current status of the LED is sent via the group address linked with this object.				
10	Channel B, blocking	On / Off	1 bit	CWT	
Telegrams received via the group address linked with this ob- ject block or release reception of LED output control tele- grams. While the LED output is blocked all other telegrams for control of the output are ignored.					

Parameter	Settings	
Output activation	0 = no electric current / 1 = electric current; 0 = electric current / 1 = no electric current; always electric current (orientation light)	
This parameter determines how the output is switched on: via a telegram with a logic "1" or a telegram with a logic "0" or whether it should be switched on permanently for the LED e.g. to serve as an orientation light. When the parameter is set to "always electric current" all objects disappear.		
LED brightness in % 25; 50; 75; 100		
This parameter allows for reducing the light of the switched on LED is f	ne current through the LED elt to be too bright.	
Status LED output on bus voltage recovery	as before bus voltage failure; no electric current; electric current	
This parameter determines the desired switching state of the output on bus voltage recovery: <u>as before bus voltage failure</u> : The status of the LED saved at bus voltage failure is recalled from memory and is restored. <u>no electric current</u> : The LED output is switched off. electric current: The LED output is switched on.		

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Parameter	Settings
Flashing	No; without confirmation; with confirmation
This parameter determines whether the LED, when switched on, shall flash and whether the flashing must be confirmed. For "Flashing with confirmation" the LED changes from flashing to steady light after a confirmation telegram was received, as long as the LED output is still switched on. When the LED is switched on again the last status remains.	
flashing frequency (in Hz)	0,3; 1,0; 3,0
This parameter determines the frequency for the LED flashing. On and Off period are equally long.	
Logic operation	no logic operation; AND logic operation OR logic operation
This parameter determines whether the LED output is addition- ally controlled on and off via a logic operation with an additional object "logic operation".	
Initial value of logic operation object on bus voltage recovery	as before bus voltage failure; Off; On
This parameter is only visible when a logic operation is config- ured. This parameter determines the initial value of the logic opera- tion object on bus voltage recovery.	
Add status object	No; Yes
This parameter determines whether the object "Status" is added, which enables automatically sending the current status of the LED output on change of value.	
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.	
Status LED output on blocking	as before blocking; no electric current; electric current
This parameter determines the state that the LED output shall take after the LED output is blocked.	
Status LED output on unblocking	as before unblocking; no electric current; electric current
This parameter determines the state that the LED output shall take after the LED output is unblocked.	
"As before unblocking" refers to the current object status.	