SIEMENS

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

Application program usage

Product family:	Input
Product type:	Binary input, 2-fold
Manufacturer:	Siemens
Name:	Push button interface UP 220/21
Order no.:	5WG1 220-2AB21

List of Contents

1. Functional description	1
2. Communication objects	2
3. Parameters	9
Operation of channels A +B	9
3.1 Separately configurable inputs	10
3.1.1 Send switching status / binary value	10
3.1.2 Switching edge	11
3.1.3 Switching short / long	12
3.1.4 1-button sequenced switching group control	13
3.1.5 1-button multi-touch control (multiple output con	trol)14
3.1.6 1-button dimming	15
3.1.7 1/2-button dimming	16
3.1.8 1-button-solar protection control	17
3.1.9 1/2-button-solar protection control	18
3.1.10 1-button solar protection / slat control	19
3.1.11 8-bit value edge	20
3.1.12 8-bit value short / long	21
3.1.13 16-bit value edge	22
3.1.14 16-bit value short / long	23
3.1.15 32-bit value edge	25
3.1.16 32-bit value short / long	26
3.1.17 1-bit scene control	27
3.1.18 8-bit scene control	28
3.1.19 8-bit effect control	29
3.1.20 8-bit pulse counting	30
3.1.21 16-bit pulse counting	31
3.1.22 32-bit pulse counting	33
3.2 Jointly configured inputs	34
3.2.1-2-button dimming with stop telegram	35
3.2.2 2-button dimming with cyclical sending	36
3.2.3 2-button solar protection control	37
3.3 Channel A = input, Channel B = LED output	38
3.4 LED output	38
Space for notes	40

1. Functional description

The push button interface UP 220/21 is a binary input and output device for installation in in-wall boxes (\emptyset 60 mm, depth: 40 mm).

Each of the two 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 220/21 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", for two channels each it must first be configured whether each is assigned an individual or joint input function or whether the 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

Update: http://www.siemens.com/gamma

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

- 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 B.

No.	Object name	Function	Number	Flags
1	Champel A LED	On / Off	of bits 1 bit	CWT
1	Channel A, LED		1 bit 1 bit	CWT
2	Channel A, Confirmation Channel A, Logic operation	(On / Off) On / Off	1 bit	CWT
4	Channel A, LED-Status	On / Off	1 bit	CRT
4	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
21	Channel A, Status	On / Off	1 bit	CRT
21	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	Seria	TO DIL	CIU
	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 /	1 bit	CRT
		Close		
	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, 32-bit Value 2 Channel A, Scene 1 / 2	save	32 bit 1 bit	CRT
	Channel A, Scene 172 Channel A, Counter value	reset	8 bit	CWT
23	Channel A, Switching 3	On / Off	8 bit 1 bit	CRT
25	Channel A, Dimming	Status	8 bit	CWT
	Channel A, Upper limit violation	On / Off	8 bit 1 bit	CRT
24	Channel A, 8-bit Counter Threshold	read/write	8 bit	CRWT
24	Channel A, 16-bit Counter Threshold	read/write	16 bit	CRWT
i	Channel A, 32-bit Counter Threshold	read/write	32 bit	CRWT
25	Channel A, Blocking	On / Off	1 bit	CWT
23	channel A, blocking	517 51	i bit	C.111

982302, 40 pages

Update: http://www.siemens.com/gamma

© Siemens AG 2012 Subject to change without further notice Siemens AG Infrastructure and Cities Sector, Building Technologies Control Products and Systems P.O. Box 10 09 53, D-93009 Regensburg

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

Objects LED Output

Obj Object name Function Type Flags						
Object name	Function	Туре	Flags			
Channel A (B), 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						
Channel A (B), Confirmation	(On / Off)	1 bit	CWT			
e channel is assigned t o address linked to th cknowledged, with th	he function is object the	"LED out flashin	put". g of an			
itput.						
Channel A (B), Logic operation	On / Off	1 bit	CWT			
e channel is assigned t p address linked to th of the selected logic	he function is object th	"LED out e value	put". for the			
Channel A (B), 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.						
Channel A (B), 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- creative channel output is applied or disabled						
	LED s are only visible with e channel is assigned t b address linked to th s controlled directly or Channel A (B), Confirmation s are only visible with e channel is assigned t b address linked to th cknowledged, with th tput. Channel A (B), Logic operation s are only visible with e channel is assigned t p address linked to th of the selected logic received. Channel A (B), LED-Status s are only visible with e channel is assigned t p address linked to th of the selected logic received. Channel A (B), LED-Status s are only visible with e channel is assigned to p address linked to th tput is transmitted. Channel A (B), Blocking s are only visible with er "Add blocking object e channel. p address linked to thi	Channel A (B), LEDOn / OffLEDSare only visible with this name e channel is assigned the function o address linked to this object the s controlled directly or via the select Channel A (B), Confirmation(On / Off)Channel A (B), Confirmation(On / Off)Sare only visible with this name e channel is assigned the function o address linked to this object the cknowledged, with the flashing of toput.(On / Off)Channel A (B), Logic operationOn / OffSare only visible with this name e channel is assigned the function o address linked to this object the of the selected logical function received.On / OffChannel A (B), LED-StatusOn / OffSare only visible with this name e channel is assigned the function o address linked to this object the of dress linked to this object the of the selected logical function o address linked to this object the other selects logical function o address linked to this object the other selected logical function o address linked to this object the other selectionChannel A (B), ED-StatusOn / OffBlocking s are only visible with this name e channel A (B), BlockingOn / OffBlocking s are only visible with this name er "Add blocking object" has been e channel.On / Off	Channel A (B), LEDOn / Off1 bitLEDI bits are only visible with this name and function "LED out o address linked to this object the LED out s controlled directly or via the selected logi Channel A (B), Confirmation(On / Off)1 bitChannel A (B), Confirmation(On / Off)1 bitS are only visible with this name and function e channel is assigned the function "LED out o address linked to this object the flashing cknowledged, with the flashing changing tiput.1 bitChannel A (B), Logic operationOn / Off1 bitS are only visible with this name and function e channel is assigned the function "LED out o address linked to this object the value of the selected logical function controlli received.On / OffChannel A (B), LED-StatusOn / Off1 bitS are only visible with this name and function e channel is assigned the function "LED out o address linked to this object the current treceived.On / OffChannel A (B), LED-StatusOn / Off1 bitS are only visible with this name and function e channel is assigned the function "LED out o address linked to this object the current tput is transmitted.On / OffChannel A (B), BlockingOn / Off1 bitBlocking e channel.On / Off1 bitBlocking e channel.On / Off1 bitaddress linked to this object blocking of0 address linked to this object blocking of			

Input Objects

Channels A and B 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.

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

Obj	Object name	Function	Туре	Flags
25 (30)	Channel A (B), 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 respective input channel is turned on or off.

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

Objects for "Inputs, separately configurable "

Note:

The objects for channel A are also visible, if the parameter setting $_{,A}$ = input, B = LED output" is selected.

Function: Send switching status / binary value

Obj	Object name	Function	Туре	Flags
21 (26)	Channel A (B), 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)	Channel A (B), 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: Switch short / long

Obj	Object name	Function	Туре	Flags
21 (26)	Channel A (B), 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.				

Technical manual

Update:	http://www.sie	mens.com/gam	ıma

Obj	Object name	Function	Туре	Flags
22 (27)	Channel A (B),	On / Off	1 bit	CRWT
	Switching 2			
These objects are only visible with this name and function if				
for the function "Switch short / long" the second object "1-				
button group control (sequenced control)" or "1-button multi-				
ple output control (multi-touch control)" is assigned to the re-				
spective char	nnel.			

Function: 1-button sequenced-switching group control

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

Obj	Object name	Function	Туре	Flags
21 (26)	Channel A (B), 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)	Channel A (B), 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.				
23 (28)	Channel A (B), 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)	Channel A (B), 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)	Channel A (B), 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.				

© Siemens AG 2012

© Siemens AG 2012 Subject to change without further notice

Obj	Object name	Function	Туре	Flags
23 (28)	Channel A (B),	Status	1	CWT
	Dimming		Byte	
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)	Channel A (B), Switching	Toggle	1 bit	CRWT
21 (26)	Channel A (B), Switching	On	1 bit	CRT
21 (26)	Channel A (B), 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 respec- tive channel.				
22 (27)	Channel A (B), Dimming	brighter	4 bit	CRT
22 (27)	Channel A (B), 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)	Channel A (B), 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.				
22 (27)	Channel A (B), 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.				

Function: 1/2-button solar protection control

Obj	Object name	Function	Туре	Flags
21 (26)	Channel A (B), Solar protection	Up	1 bit	CRT
21 (26)	Channel A (B), 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)	Channel A (B), Slats	Stop / Open	1 bit	CRT
22 (27)	Channel A (B), Slats	Stop / Close	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.				

Function: 1-button solar protection / slat control

Obj	Object name	Function	Туре	Flags	
21 (26)	Channel A (B), Posi- tion of solar protec- tion	8-bit Value	1 Byte	CRT	
function "1-b	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)	Channel A (B), Position of slats	8-bit Value	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)	Channel A (B),	send	1	CRT
	8-bit Value 1		Byte	
These object function "8	ts are only visible with t -bit value edge" or "8-b	his name and bit value shoi	l functio rt / long	n if the ″is as-
	e respective channel.			

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

Function: 8-bit value short / long

Obj	Object name	Function	Туре	Flags
21 (26)	Channel A (B), 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.				
22 (27)	Channel A (B), 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)	Channel A (B), 16-bit Value 1	send	2 Byte	CRT		
the function assigned to	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)	Channel A (B), 16-bit Value 1	send	2	CRT
16-bit Value 1 Byte 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)	Channel A (B), 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)	Channel A (B), 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)	Channel A (B), 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)	Channel A (B), 16-bit Floating point value 2	send	2 Byte	CRT
	s are only visible with ion "16-bit value short			

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)	Channel A (B),	send	4	CRT
	32-bit Value 1		Byte	
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 t	he respective channel.			

Function: 32-bit value short / long

Obj	Object name	Function	Туре	Flags
21 (26)	Channel A (B), 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)	Channel A (B), 32-bit Value 2	send	4 Byte	CRT
32-bit Value 2 Byte 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)	Channel A (B), 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)	Channel A (B), 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)	Channel A (B), 8-bit Scene	recall /	1	CRT
	8-bit Scene	save	Byte	
	s are only visible with "8-bit scene control" is			

Function: 8-bit effect control

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

Function:

8-bit pulse counting without threshold monitoring

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

Function: 8-bit pulse counting with threshold monitoring

Obj **Object name** Function Туре Flags 21 (26) Channel A (B), CRWT send 1 8-bit Counter value Byte These objects are only visible with this name and function if the function "8-bit pulse counting" is assigned to the respective channel. 22 (27) Channel A (B), 1 bit CWT reset Counter value These objects are only visible with this name and function if one of the functions "pulse counting" is assigned to the respective channel. 23 (28) Channel A (B), On / Off 1 bit CRT Upper limit violation These objects are only visible with this name and function if the function "8-bit pulse counting" is assigned to the respective channel and the threshold is set "by parameter" or "by object". 24 (29) Channel A (B), read / CRWT 1 8-bit Threshold write Byte These objects are only visible with this name and function if the function "8-bit pulse counting" is assigned to the respective channel and the threshold is set "by object".

Function: 16-bit pulse counting without threshold monitoring

Obj	Object name	Function	Туре	Flags
21 (26)	Channel A (B), 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)	Channel A (B), 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.				

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

Function:

16-bit pulse counting with threshold monitoring

Obj	Object name	Function	Туре	Flags
21 (26)	Channel A (B), 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 respective channel.				
22 (27)	Channel A (B), 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.				
23 (28)	Channel A (B), Upper limit viola- tion	On / Off	1 bit	CRT
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 parameter" or "by ob- ject".				
24 (29)	Channel A (B), 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)	Channel A (B), 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)	Channel A (B), 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: 32-bit pulse counting with threshold monitoring

Obj	Object name	Function	Туре	Flags	
21 (26)	Channel A (B), 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 respective channel.					
22 (27)	Channel A (B), 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.					
23 (28)	Channel A (B), Upper limit viola- tion	On / Off	1 bit	CRT	
the function	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".				
24 (29)	Channel A (B), 32-bit Threshold	read / write	4 Byte	CRWT	
the function	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	Channel A, Switching 1	On / Off	1 bit	CRWT	
the function button dimm	hese objects are only visible with this name and function if ne function "2-button dimming with stop telegram" or "2- utton dimming with cyclical sending" is assigned to the re- pective channel A (+B).				
22	Channel A, Dimming	brighter / darker	4 bit	CRT	
22 Channel A, brighter / 4 bit CRT					

Technical manual

© Siemens AG 2012 Subject to change without further notice

982302, 40 pages

Function: 2-button solar protection control

Obj	Object name	Function	Туре	Flags
21	Channel A, Solar protection	Up / Down	1 bit	CRWT
These objects are only visible with this name and function if the function "2-button solar protection control" is assigned to the respective channel A (+B) resp. C (+D).				
22	Channel A, Slats	Stop / Open / Close	1 bit	CRT
These objects are only visible with this name and function if the function "2-button solar protection control" is assigned to				

the function "2-button solar protection control" is assigned t the respective channel.

3. Parameters

Operation of channels A +B

+ B
its, separately configurable
d switching status / Binary valule
•
•
•
d switching status / Binary valule 📃 💌
_
_
_
_

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 "separately configurable", so that different functions may be assigned to each input if necessary, or

whether both inputs are to be "jointly configured" since the push buttons attached to them belong together functionally and are intended either for switching and dimming the lighting or for sun protection control, or

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.

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

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 edge; 16-bit value edge; 16-bit value short / long; 12-bit value edge; 32-bit value short / long; 1-bit scene control; 8-bit scene control; 8-bit scene control; 8-bit pulse counting; 16-bit pulse counting; 17-bit pulse counting; 18-bit pulse counting; 19-bit pulse counting; 19-bi
parameters changes.	

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	0n 💌
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 clo	sed a telegram is not sent.	
Switching value when contact is open	On; Off ; no reaction	
This parameter determines the switching value to be sent when the contact is open.		
"On": when the contact is open the switching value "on" is sent. "Off": when the contact is open the switching value "off" is sent.		

"no reaction": when the contact is open a telegram is not sent.

© Siemens AG 2012 Subject to change without further notice

	Settings
Send switching value after bus voltage recovery	No; always; if input status changed
This parameter determines if and wh after bus voltage recovery.	en a switching value is sent
"No": After bus voltage recovery the not sent.	e current switching value is
"always": After bus voltage recovery is always sent.	the current switching value
"if input status changed": After bus v switching status is sent if the switc the bus voltage failure.	
Send cyclically	No; always; send only On value;
	send only Off value;
This parameter determines if and wh cyclically via the corresponding com	en a switching value is sent
cyclically via the corresponding comi "No": The value is not sent cyclically. "always": Additionally to the eve	en a switching value is sent nunication object. nt-driven transmission on
cyclically via the corresponding com "No": The value is not sent cyclically. "always": Additionally to the eve change of value the status is sent cyc "send only On value": Only an "On" va	en a switching value is sent nunication object. nt-driven transmission on lically. alue is sent cyclically.
cyclically via the corresponding com "No": The value is not sent cyclically. "always": Additionally to the eve change of value the status is sent cyc "send only On value": Only an "On" va " send only On value ": Only an "Off"	en a switching value is sent nunication object. nt-driven transmission on lically. alue is sent cyclically. value is sent cyclically.
cyclically via the corresponding com "No": The value is not sent cyclically. "always": Additionally to the eve change of value the status is sent cyc "send only On value": Only an "On" va " send only On value ": Only an "Off" Cycle time in minutes (1255)	en a switching value is sent nunication object. nt-driven transmission on lically. alue is sent cyclically. value is sent cyclically.
cyclically via the corresponding com "No": The value is not sent cyclically. "always": Additionally to the eve change of value the status is sent cyc "send only On value": Only an "On" va " send only On value ": Only an "Off"	en a switching value is sent nunication object. nt-driven transmission on lically. alue is sent cyclically. value is sent cyclically.

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
Switching telegrams are sent via the group address linked				

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

Parameter	Settings
Reaction on rising edge	no reaction On
	Off Toggle
	define which switching value is
sent after a rising edge in the	f the communication object and signal status at the channel (in- onds to a change in the signal "0" to "1".
5 5	at the input does not change the ot lead to the sending of a tele-
	dge the switching value "ON" (bi- to the communication object and
5	ge the switching value "OFF" (bi- to the communication object and
"Toggle". In the event of a r	ising edge the switching value

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

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

Parameter	Settings
Reaction on falling edge	no reaction On Off
Here an adjustment is made to define which switching value is written into the storage cell of the communication object and sent after a falling edge in the signal status at the channel (in- put). The falling edge corresponds to a change in the signal status at the input from logical "1" to "0". "no reaction": An edge change at the input does not change the object value and also does not lead to the sending of a tele- gram. "On": In the event of a falling edge the switching value "ON" (binary value "1") is transferred into the communication object and sent. "Off": In the event of a falling edge the switching value "OFF" (binary value "0") is transferred into the communication object and sent.	
value is sent. Send switching value after bu	object is inverted and the new
voltage recovery	if input status changed
after bus voltage recovery. "No": After bus voltage recover not sent. "if input status changed": After	nd when a switching value is sent ry the current switching value is bus voltage recovery the current switching status changed during
Add blocking object	No; Yes
This parameter determines if	the input can be blocked via an ot. If an input is blocked (blocking s changes at this input are not

3.1.3 Switching 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	Channel A, Switching 2	On / Off	1 bit	CRWT	
the g	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

Technical manual

© Siemens AG 2012 Subject to change without further notice

Parameter

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 telegram.

Settings

"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 value is sent.

51	the same object as on short
press via	push button press;
	second object

This parameter is only visible when the parameter "reaction on long pressing" is not set to "no reaction".

This parameter determines whether the switching value on long push button press is sent via the same object (Switching 1) or via a second object (Switching 2).

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 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.

3.1.4 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
Swite	Switching telegrams are sent via the group addresses linked			

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

Parameter	Settings
Number of sequenced	2
switching groups	3

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):

Update: http://www.siemens.com/gamma

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

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		

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.

3.1.5 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 switched 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 actions		
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.		
"loggle": The switching value 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.	e value to be sent via the object	
"On": The value "ON" is sent.		
"Off": The value "OFF" is sent.		
"Toggle": The switching value 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.	e value to be sent via the object	
"On": The value "ON" is sent.		
"Off": The value "OFF" is sent.		
"Toggle": The switching value sent last is toggled and the new value is sent.		
Value is seril.		
Contact type	normally open contact normally closed contact	
Contact type		
Contact type The contact type of the push I adjusted here.	normally closed contact button attached to the channel is ontact of the push button used is	
Contact type The contact type of the push I adjusted here. "normally open contact": the c closed when activated, open w	normally closed contact button attached to the channel is ontact of the push button used is then not activated. contact of the push button used is	
Contact type The contact type of the push I adjusted here. "normally open contact": the c closed when activated, open w "normally closed contact": the o	normally closed contact button attached to the channel is ontact of the push button used is then not activated. contact of the push button used is	

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	On / Off	1 bit	CRWT
Switching telegrams are sent to the dimming actuator via the group address linked with this object. In the process, a short push button action produces an ON or OFF telegram, while the last controlled switching direction is reversed respectively.				
22	Channel A, Dimming	Brighter / Darker	4 bit	CRT
The dimming telegrams are sent to the dimming actuator via the group address linked with this object. In the process, a long push button action produces a "100 % dimming" telegram. A stop command is sent when the push button is released. Since the last controlled dimming direction is reversed in the proc- ess, dimming in the opposite direction is effected on the next long push button action.				

Update: http://www.siemens.com/gamma

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

23	Channel A, Dimming	Status	1 Byte	CWT
	5			

The dimming status telegrams are received 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 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.

3.1.7 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
Switching telegrams are sent to the dimming actuator via the group address linked with this object. A short push button action produces an ON or OFF telegram.				
22	Channel A, Dimming	darker	4 bit	CRT
22	Channel A, Dimming	brighter	4 bit	CRT
The dimming telegrams are sent to the dimming actuator via the group address linked with this object.				
A long push button action produces a "100 % dimming" tele- gram. A stop command is sent when the push button is re- leased.				

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

Technical manual

Update: http://www.siemens.com/gamma

© Siemens AG 2012 Subject to change without further notice Siemens AG Infrastructure and Cities Sector, Building Technologies Control Products and Systems P.O. Box 10 09 53, D-93009 Regensburg

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 m long push button action.	inimum period for detecting a	
Contact type	normally open contact	
	normally closed contact	
The contact type of the push but	ton attached to the channel is	
adjusted here.		
"normally open contact": the cont closed when activated, open when	•	
"normally closed contact": the contact of the push button used is open when activated, closed when not activated.		

Add blocking object

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.

No; Yes

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.

© Siemens AG 2012 Subject to change without further notice Update: http://www.siemens.com/gamma

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

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.

ds ds ds			
ds ds ds ds ds ds ds ds			
ds ds ds ds			
od for detecting a			
open contact losed contact			
The contact type of the push button attached to the channel is adjusted here.			
ish button used is ed.			
ush button used is ed.			
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	
addres lower t The pa channe	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, Stop / Close 1 bit CRT Slats				
22	22 Channel A, Stop / Open 1 bit CRT Slats				
via the respec	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 so- lar protection, adjustment via the "Operation of input" pa- rameter defines which of the two channels generates an Open or Close telegram on short push button action.					

982302, 40 pages

Update: http://www.siemens.com/gamma

© Siemens AG 2012 Subject to change without further notice

Parameter	Settings	
Operation of input	Solar Protection Down, Slats Close; Solar Protection Up, Slats Open	
This parameter determines which telegram is sent on long respectively short push button press action.		
Long push button action min.	0.3 Seconds 0.4 Seconds 0.5 Seconds 0.6 Seconds 0.8 Seconds 1.0 Seconds 1.2 Seconds 1.5 Seconds 2.0 Seconds 2.5 Seconds 3.0 Seconds 4.0 Seconds 5.0 Seconds 6.0 Seconds 7.0 Seconds	
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.		

3.1.10 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 Se			Settings		
Position of solar protection		0 (010	0)		

Position of solar protection in %	0 (0100)	
This parameter determines the value of position of the solar protection to be sent.		
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.

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

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
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 configured 8-bit integer value (EIS 6) 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 or not the configured 8-bit 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 (0255)	0	
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-bir 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 in- put. The falling edge corresponds to a change in the signa		

Parameter	Settings			
Value on falling edge (0255)	0			
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.

Technical manual

status at the input from logical "1" to "0".

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

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	Functio	n	Туре	Flags		
21	Channel A, 8-bit Value 1	Send		1 Byte	CRT		
	The configured 8-bit integer value (EIS 6, DPT 5.010) is sent via the group address linked with this object.						
22	Channel A, 8-bit Value 2	Send		1 Byte	CRT		
on a	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.						
Para	Parameter Settings						
Send	l value on short b	outton	No; Yes				

	,			
press				
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 short pressing of the push buttor				
attached to the input.				
Value on short button press	0 (0255)			

Here an adjustment is made to define which value (0...255) is written into the storage cell of the communication object and sent after short pressing of the push button attached to the input.

Parameter	Settings					
Send value on long button press	No; Yes					
Here an adjustment is made as to whether or not the configured 8-bit value is to be written into the storage cell of the commu- nication object and sent after long pressing of the push button attached to the input.						
Value on long button press	0 (0255)					
written into the storage cell o	o define which value (0255) is f the communication object and push button attached to the in-					
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 i	when the parameter "reaction on					
	ether the 8-bit value on long push the same object (8-bit value 1) or 2).					
Long push button action min.	0.4 Seconds 0.5 Seconds 0.6 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					
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						
Add blocking objectNo; YesThis 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.						

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

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 *I* or falling signal edge on the channel input (i.e. when a push button is pressed and *I* 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	Function	Туре	Flags			
21	Channel A, 16-bit value 1	2 Byte	CRT				
	The configured 16-bit integer value (DPT 7.001) is sent via the group address linked with this object.						
21	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 value				
This parameter determines w	hether an integer in the range				
065535 or a floating point value (with one decimal place) in					
the range -3276.8 to +3276.7 is	s sent.				

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.			
(065535) is written into the s object and sent after a rising e	to define which integer value storage 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)			
•	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 com- munication object and sent after a rising edge in the signal status at the input. The FP value to be sent should be entered (where necessary with a plus/minus sign) as tenfold the desired FP value (i.e. including decimal place, but excluding point). The rising edge corresponds to a change in the signal status at the input from logical "0" to "1".				
Send value on falling edge	No; Yes			
bit FP value is to be written int nication object and sent after a	s to whether the configured 16- to 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 tenth part0 (-32768+32767)				
This parameter is only visible when "floating point value" shall be sent.				
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				

Technical manual

from logical "1" to "0".

© Siemens AG 2012 Subject to change without further notice

Parameter Settings Add blocking object No; Yes This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking

transmitted.

object value = 1) then status changes at this input are not

3.1.14 16-bit value short / long

Function of channels A + B	nputs, 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			
via tl	configured 16-bit int ne group address lir action if sending via	nked with this c	bject on	long button			
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							

Update: http://www.siemens.com/gamma

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

Obj	Object name	Fund	tion	Туре	Flags		Parameter	Settings	
shor 22	t or on short and lor Channel A,	ng butt Send		ction. 2 Byte	CRT		Value on falling edge in tenth part	0 (-32768+32767)	
22	16-bit Value 2	Seno	I	2 byte	CNI			when "floating point value" shall	
The configured 16-bit floating point value (EIS 9; DPT 9.000) is							be sent.		
	via the group addre press action if sendi							o define which floating point value to the storage cell of the commu-	
ton	Stess action if serior	ng via a	a second c	ibject is t	lonngureu.			a long button press action at the	
Dara	meter		Settings				input. The floating point val	ue to be sent should be entered	
	d value as		integer;			-11	(where necessary with a plus/minus sign) as tenfold the de floating point value (i.e. including decimal place, but exclu		
Send	a value as		floating		ue		point).	ung deema place, but excluding	
This	parameter determ	ines w		•		2	Send on long push button	the same object as on short	
06	5535 or a floating	point v	alue (wit				press via	push button press;	
	ange -3276.8 to +3		1					second object	
	d value on short bu	itton	No; Yes				This parameter is only visible long pressing" is not set to "no	when the parameter "reaction on	
Pres	s an adjustment is r	nade o	s to what	har tha	configured 16	-11		whether the 16-bit value on long	
	alue is to be written						push button press action is	sent via the same object (16-bit	
	object and sent aft						value 1) or via a second object	. (16-bit value 2).	
put.			1			41	Long push button action min		
	e on short button		0 (0 65					0.4 Seconds 0.5 Seconds	
	parameter is only vi							0.6 Seconds	
	an adjustment is							0.8 Seconds	
	55535) is written in ct and sent after a s					1		1.0 Seconds	
-			1			-11		1.2 Seconds	
	e on short button nth part	press	0 (-3276	8+327	67)			1.5 Seconds 2.0 Seconds	
		visible	uhan "fla	atina na	int velve" she	_		2.5 Seconds	
be se	parameter is only	visidie	when tio	ating po	int value sna			3.0 Seconds	
	an adjustment is m	nade to	define w	nich floa	ting point value			4.0 Seconds	
	768+32767) is w							5.0 Seconds	
	ication object and							6.0 Seconds 7.0 Seconds	
	ignal status at the i						This parameter determines th	e minimum period for detecting a	
	Ild be entered (whe						long push button action.	e minimum period for detecting a	
	old the desired floa e, but excluding poin		Sint value	(i.e. inc	luding decima		Contact type	normally open contact	
-	d value on long but		No; Yes			-11	condectype	normally closed contact	
pres			NO, 163				The contact type of the push	button attached to the channel is	
•	an adjustment is r	nade a	s to whet	her the	configured 16-	-	adjusted here.		
	alue is to be written							contact of the push button used is	
tion	object and sent aft	er a lo	ng buttor	n press a	ction at the in	-	closed when activated, open v		
put.								contact of the push button used is	
	e on long button p		0 (0 6				open when activated, closed v		
	parameter is only vi			5			Add blocking object	No; Yes	
	an adjustment is				5			the input can be blocked via an	
	55535) is written in ct and sent after a lo					1		not. If an input is blocked (blocking us changes at this input are not	
obje	ci anu sent diter dit	ny bu	tion press	actiOH d	i ine input.	┛╽	transmitted.	is changes at this input are not	
						1			

© Siemens AG 2012 Subject to change without further notice

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
Send value on falling edge	Yes
Value on falling edge	0
Add blocking object	No

This function is used to send 32-bit integer values (DPT 12.001) ranging from 0...4,294,967,295. An adjustment can be made as to whether a value telegram is to be sent as a reaction to a rising and *l* or falling signal edge on the channel input (i.e. when a push button is pressed and *l* 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 commu- nication object and sent after a falling edge in the signal status at the input. The falling edge corresponds to a change in the signal status at the input from logical "1" to "0".		

Parameter	Settings	
Value on falling edge	0 (0 4.294.967.295)	
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".		
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.		

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

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	Functio	n	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.					
Para	Parameter Settings				
~					

lalalletei	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 made to define which value (0... 4.294.967.295) is written into the storage cell of the communication object and sent after short pressing of the push button attached to the input.

Parameter	Settings
	5
Send value on long button press	No; Yes
32-bit value is to be written in	to whether or not the configured to the storage cell of the commu- long pressing of the push button
Value on long button press	0 (0 4.294.967.295)
	e to define which value (0 the storage cell of the communi- g pressing of the push button at-
Send on long push button press via	the same object as on short push button press; second object
long pressing" is not set to "no i This parameter determines wi	when the parameter "reaction on reaction". nether the 32-bit value on long ent via the same object (32-bit
Long push button action min.	
This parameter determines the	0.4 Seconds 0.5 Seconds 0.6 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 5.0 Seconds 6.0 Seconds 7.0 Seconds minimum period for detecting a
long push button action.	······································
Contact type	normally open contact normally closed contact
adjusted here. "normally open contact": the co closed when activated, open w	putton attached to the channel is ontact of the push button used is hen not activated.
open when activated, closed w	
Add blocking object	No; Yes
additional blocking object or no	the input can be blocked via an ot. If an input is blocked (blocking s changes at this input are not

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 statuses using the push buttons *l* 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, Recall Scene 1/2		1 bit	CRT
grou ceive ampl Scen	p address linked v d, the scene cont e, the stored swi e 1 or Scene 2, r	all Scene 1 or Sce with this object. W roller for 1-bit scen tching statuses an espectively, via th dimming actuators	hen the tene control s ne control s nd brightne e group o	elegram is re- sends, for ex- ess values of

Obj	Object name	Function	Туре	Flags
22	Channel A,	Store	1 bit	CRT
	Scene 1/2			
The telegrams to store Scene 1 or Scene 2, respectively, are sent				
via the group address linked with this object to the correspond-				
ing scene controller with 1-bit scene control.				

Parameter	Settings
Scene number	1
	2

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 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.			
J-			
Contact type	normally open contact normally closed contact		
5	normally closed contact		
Contact type The contact type of the push bu	normally closed contact tton attached to the channel is tact of the push button used is		
Contact type The contact type of the push bu adjusted here. "normally open contact": the con	normally closed contact tton attached to the channel is tact of the push button used is en not activated. ntact of the push button used is		
Contact type The contact type of the push bu adjusted here. "normally open contact": the con closed when activated, open whe "normally closed contact": the con	normally closed contact tton attached to the channel is tact of the push button used is en not activated. ntact of the push button used is		

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

3.1.18 8-bit scene control

Function of channels A + B	inputs, separately configurable
Operation of Input	8-bit scene control
Scene number (164)	1
Scene save enabled	Yes
Long push button action min.	3.0 seconds
Contact type	normally open contact
Add blocking object	No

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

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

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

The following object is inserted automatically:

Obj	Object name	Function	Туре	Flags
21	Channel A, 8-bit Scene	Recall / Store	1 Byte	CRT
ured	telegrams to recal number (164) this object.			

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.			
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.			

3.1.19 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 / sto	р	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 o	bject.				
Parameter Settings					
Effect number (164)			1		
This parameter determines which effect (164) is to be started or stopped.					
Long	ı push button act	ion min.	1.0 Sec 2.0 Sec 3.0 Sec 4.0 Sec 5.0 Sec 6.0 Sec	conds conds conds conds conds conds	
			7.0 Sec	conds	
long For e	parameter detern push button actio ffect control a lor control.	on.	ninimum	period	5
long For e fect o	, push button actic ffect control a lor	on.	ninimum ton acti norma	n period	the current ef

"normally open contact": the contact of the push button used is closed when activated, open when not activated.

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

transmitted.

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

3.1.20 8-bit pulse counting

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

For binary inputs, this function enables the counting and saving of pulses as 8-bit counter value. 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
	telegrams with th p address linked w	e counter value st /ith this object.	tatus are	sent via the
22	Channel A, Counter value	Reset	1 bit	CWT
coun	ter value is reset	with this object is to value 0. The b elegram is irreleva	oinary va	lue (0 or 1)

Obj	Object name	Function	Туре	Flags
23	Channel A, Upper limit violation	On / Off	1 bit	CRT
	object is only visil itoring is selected.	ble when pulse cou	unting wi	ith threshold
Uppe	er limit violation =	On is sent if		
- th	ne counter value is	> threshold,		
	modified counter verrun,	value is sent and	there is	a threshold
- a threshold is set that is < counter value.				
Uppe	er limit violation =	Off is sent if		
- th	ne counter value is	reset,		
se		voltage recovery to ter value, if there	5	
- a	threshold is set th	at is > counter valu	le.	
		nter overrun with	•	

In the event of counter overrun with persistent threshold overrun, "Threshold overrun = ON" will continue to be sent together with the counter value which is now below threshold until the counter is either reset to "0" or a new threshold that is bigger than the current counter value is set.

24	Channel A, 8-bit threshold	Read / Write	1 Byte	CRWT
	This object is only visible when pulse counting with threshold monitoring is selected and the threshold is settable via object.			
		can be queried or o address linked wi		2

Parameter S	ettings
Increment counter after ri	sing edge Illing edge

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

"rising edge": The counter status is increased by 1 after a rising edge.

"falling edge": The counter status is increased by 1 after a falling edge.
Send counter value on
255

Send counter value on change by (0...255)

An adjustment is made via this parameter to define which value the counter value must have changed by in order for it to be sent automatically. The counter status can be queried at any time via the bus, irrespectively of the value set here. "0": Do not send counter value.

Threshold	not applicable; to be set by parameter; to be set by object
	tment is made as to whether the a parameter or is queried and

Parameter	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 queried and modified is supplemented.		
Threshold (1255)	255	
This parameter is only visible if the parameter "Threshold" is set to "to be set by parameter".		
The threshold is adjusted via th	is 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.

3.1.21 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.				

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

		Deet		1 1.14	CINIT			
22	Channel A, Counter value	Reset		1 bit	CWT			
	reset							
lfat		with this	: object i	s received	then the			
	If a telegram linked with this object is received, then the counter value is reset to value 0. The binary value (0 or 1)							
	mitted with the te							
tion.		0						
23	Channel A,	On / Of	f	1 bit	CRT			
	Upper limit							
	violation							
	object is only visib	le when	pulse cou	unting wit	h threshold			
	toring is selected.							
Uppe	r 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			
	errun,							
- at	threshold is set that	at is < co	unter valu	ie.				
Uppe	r limit violation = 0	Off is ser	nt if					
- th	e counter value is	reset,						
	ter bus or mains v							
	nding of a count	er value	, if there	is then no	o threshold			
	errun,							
	threshold is set the							
	e event of coun							
				overrun, "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								
	the counter is eith							
until	the counter is eith ger than the curre	ner reset	to "0" or	a new thr				
until	ger than the curre Channel A, 16-	ner reset	to "0" or ter value is	a new thr				
until is big 24	ger than the curre Channel A, 16- bit Threshold	ner reset nt count Read / \	to "0" or ter value is Write	a new thr s set. 2 Byte	eshold that CRWT			
until is big 24 This c	ger than the curre Channel A, 16- bit Threshold object is only visib	ner reset nt count Read / N Ile when	to "O" or ter value is Write pulse cou	a new thr s set. 2 Byte unting wit	eshold that CRWT h threshold			
until is big 24 This o moni	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a	ner reset nt count Read / N Ne when and the t	to "O" or ter value is Write pulse cou	a new thr s set. 2 Byte unting wit is settable	eshold that CRWT h threshold via object.			
until is big 24 This o moni The o	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a current threshold of	ner reset nt count Read / N le when and the t can be q	to "O" or ter value is Write pulse cou threshold ueried or	a new thr s set. 2 Byte unting wit is settable overwritte	eshold that CRWT h threshold via object. n by a new			
until is big 24 This o moni The o	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a	ner reset nt count Read / N le when and the t can be q	to "O" or ter value is Write pulse cou threshold ueried or	a new thr s set. 2 Byte unting wit is settable overwritte	eshold that CRWT h threshold via object. n by a new			
until is big 24 This c moni The c thres	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a current threshold of	ner reset nt count Read / N le when and the t can be q	to "0" or ter value is Write pulse cou threshold ueried or linked wi	a new thr s set. 2 Byte unting wit is settable overwritte	eshold that CRWT h threshold via object. n by a new			
until is big 24 This c moni The c thres Parar	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a urrent threshold o hold via the group	ner reset nt count Read / N ele when and the t can be q address	to "0" or ter value is Write pulse cou threshold ueried or linked wi Settings	a new thr s set. 2 Byte unting wit is settable overwritte th this obj	eshold that CRWT h threshold via object. n by a new			
until is big 24 This c moni The c thres Parar	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a urrent threshold o hold via the group neter	ner reset nt count Read / N ele when and the t can be q address	to "0" or ter value is Write pulse cou threshold ueried or linked wi	a new thr s set. 2 Byte unting wit is settable overwritte th this obj	eshold that CRWT h threshold via object. n by a new			
until is big 24 This of moni The of thresh Parar Incre	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a urrent threshold of hold via the group neter ment counter aft	ner reset nt count Read / N ele when and the t can be q address er	to "0" or ter value is Write pulse couthreshold ueried or linked wi Settings rising ed falling ed	a new thr s set. 2 Byte unting wit is settable overwritte th this obj	eshold that CRWT h threshold via object. n by a new ect.			
until is big 24 This c moni The c thres Parar Incre Here	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a urrent threshold o hold via the group neter	ner reset nt count Read / N Ne when and the t can be q address er made as	to "0" or ter value is Write pulse couthreshold ueried or linked wi Settings rising ed falling ed to wheth	a new thr s set. 2 Byte unting wit is settable overwritte th this obj	eshold that CRWT h threshold via object. n by a new ect.			
until is big 24 This c moni The c thres Parar Incre Here to be nal ee	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a urrent threshold of hold via the group neter ment counter aft an adjustment is increased by valu dge. The rising ed	ner reset nt count Read / N le when and the t can be q address er made as le 1 in th ge corre	to "0" or ter value is Write pulse cou- threshold ueried or linked wi Settings rising ed falling ed to wheth he event o sponds to	a new thr s set. 2 Byte unting wit is settable overwritte th this obj ge ge er the cou of a rising a change	eshold that CRWT h threshold via object. n by a new ect.			
until is big 24 This c moni The c thres Parar Incre Here to be nal ec status	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a urrent threshold of hold via the group neter ment counter aft an adjustment is increased by valu dge. The rising ed s at the input from	rer reset nt count Read / N le when and the t can be q address er made as le 1 in th ge corre n logical	to "0" or ter value is Write pulse cou- threshold ueried or linked wi Settings rising ed falling ed to wheth he event of sponds to "0" to "1".	a new thr s set. 2 Byte unting wit is settable overwritte th this obj ge ge er the cou of a rising a change The fallin	eshold that CRWT h threshold via object. n by a new ect. unter status is or falling sig- in the signal g edge corre-			
until is big 24 This of moni The of thres Parar Incre Here to be nal ee status spono	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a urrent threshold of hold via the group neter ment counter aft an adjustment is increased by valu dge. The rising ed s at the input from ds to a change in	rer reset nt count Read / N le when and the t can be q address er made as le 1 in th ge corre n logical	to "0" or ter value is Write pulse cou- threshold ueried or linked wi Settings rising ed falling ed to wheth he event of sponds to "0" to "1".	a new thr s set. 2 Byte unting wit is settable overwritte th this obj ge ge er the cou of a rising a change The fallin	eshold that CRWT h threshold via object. n by a new ect. unter status is or falling sig- in the signal g edge corre-			
until is big 24 This of moni The of threst Parar Incre Here to be nal eo status spono "1" to	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a urrent threshold of hold via the group neter ment counter aft an adjustment is increased by valu dge. The rising ed s at the input from ds to a change in "0".	er reset nt count Read / N le when and the t can be q address er made as le 1 in th ge corre n logical the signa	to "0" or ter value is Write pulse cou- threshold ueried or linked wi Settings rising ed falling ed to wheth he event of sponds to "0" to "1". al status a	a new thr s set. 2 Byte unting wit is settable overwritte th this obj lge lge er the cou- of a rising a change The fallin t the inpu	eshold that CRWT h threshold via object. n by a new ect. unter status is or falling sig- in the signal g edge corre- t from logical			
until is big 24 This of moni The of threst Parar Incre Here to be nal eo status spond "1" to "rising	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a urrent threshold of hold via the group neter ment counter aft an adjustment is increased by valu dge. The rising ed s at the input from ds to a change in "0". g edge": The cour	er reset nt count Read / N le when and the t can be q address er made as le 1 in th ge corre n logical the signa	to "0" or ter value is Write pulse cou- threshold ueried or linked wi Settings rising ed falling ed to wheth he event of sponds to "0" to "1". al status a	a new thr s set. 2 Byte unting wit is settable overwritte th this obj lge lge er the cou- of a rising a change The fallin t the inpu	eshold that CRWT h threshold via object. n by a new ect. unter status is or falling sig- in the signal g edge corre- t from logical			
until is big 24 This of moni The of thres Parar Incre Here to be nal eq status spond "1" to "rising edge.	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a urrent threshold of hold via the group meter ment counter aft an adjustment is increased by valu dge. The rising ed s at the input from ds to a change in "0". g edge": The cour	er reset nt count Read / N le when and the t can be q address er made as le 1 in th ge corre n logical the signa	to "0" or ter value is Write pulse contreshold ueried or linked wi Settings rising ed falling ed to wheth the event of sponds to "0" to "1". al status a us is incre	a new thr s set. 2 Byte unting wit is settable overwritte th this obj lge dge er the cou of a rising o a change The fallin t the inpu ased by 1	eshold that CRWT h threshold via object. n by a new ect. unter status is or falling sig- in the signal g edge corre- t from logical after a rising			
until is big 24 This of moni The of threst Parar Incre Here to be nal eo status spono "1" to "rising edge. "fallir	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a urrent threshold of hold via the group neter ment counter aft an adjustment is increased by valu dge. The rising ed s at the input from ds to a change in "0". g edge": The court	er reset nt count Read / N le when and the t can be q address er made as le 1 in th ge corre n logical the signa	to "0" or ter value is Write pulse contreshold ueried or linked wi Settings rising ed falling ed to wheth the event of sponds to "0" to "1". al status a us is incre	a new thr s set. 2 Byte unting wit is settable overwritte th this obj lge dge er the cou of a rising o a change The fallin t the inpu ased by 1	eshold that CRWT h threshold via object. n by a new ect. unter status is or falling sig- in the signal g edge corre- t from logical after a rising			
until is big 24 This of moni The of thresh Parar Incre Here to be nal eo status spono "1" to "fallir edge.	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected uurrent threshold of hold via the group meter ment counter aft an adjustment is increased by valu dge. The rising ed s at the input from ds to a change in "0". g edge": The cour	er reset nt count Read / N ele when and the t can be q address e 1 in th ge corren n logical the signa nter statu	to "0" or ter value is Write pulse cou- threshold ueried or linked wi Settings rising ed falling ed to wheth the event of sponds to "0" to "1". al status a us is incre	a new thr s set. 2 Byte unting wit is settable overwritte th this obj lge dge er the cou of a rising o a change The fallin t the inpu ased by 1	eshold that CRWT h threshold via object. n by a new ect. unter status is or falling sig- in the signal g edge corre- t from logical after a rising			
until is big 24 This of moni The of thres Parar Incre Here to be nal eo status spond "1" to "rising edge. "fallir edge. Send	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected uurrent threshold of hold via the group neter ment counter aft an adjustment is increased by valu dge. The rising ed s at the input from ds to a change in "0". g edge": The cour ng edge": The cour counter value or	er reset nt count Read / N ele when and the t can be q address e 1 in th ge corren n logical the signa nter statu	to "0" or ter value is Write pulse contreshold ueried or linked wi Settings rising ed falling ed to wheth the event of sponds to "0" to "1". al status a us is incre	a new thr s set. 2 Byte unting wit is settable overwritte th this obj lge dge er the cou of a rising o a change The fallin t the inpu ased by 1	eshold that CRWT h threshold via object. n by a new ect. unter status is or falling sig- in the signal g edge corre- t from logical after a rising			
until is big 24 This of moni The of thresh Parar Incre Here to be nal ee status spond "1" to "rising edge. "fallir edge. Send chan	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a current threshold of hold via the group neter ment counter aft an adjustment is increased by valu dge. The rising ed s at the input from ds to a change in "0". g edge": The cour ing edge": The cour counter value or ge by (0255)	er made as rest to the to and the to and the to and the to address er made as re 1 in th ge correct the signation of the signation of the sign	to "0" or ter value is Write pulse cou- threshold ueried or linked wi Settings rising ed falling ed to wheth the event of sponds to "0" to "1". al status a us is incre 255	a new thr s set. 2 Byte unting wit is settable overwritte th this obj lge er the cou of a rising o a change The fallin t the inpu ased by 1 ased by 1	eshold that CRWT h threshold via object. n by a new ect. inter status is or falling sig- in the signal g edge corre- t from logical after a rising after a falling			
until is big 24 This of moni The of thresh Parar Incre Here to be nal ee status spond "1" to "fallir edge. Send chan An ac	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a urrent threshold of hold via the group meter ment counter aft an adjustment is increased by valu dge. The rising ed s at the input from ds to a change in "0". g edge": The court ing edge": The court counter value or ge by (0255) djustment is made	rer reset nt count Read / V le when and the t can be q address er made as re 1 in th ge corren hogical the signa nter statu nter statu	to "0" or ter value is Write pulse cou- threshold ueried or linked wi Settings rising ed falling ed to wheth the event of sponds to "0" to "1". al status a us is incre 255 paramete	a new thr s set. 2 Byte unting wit is settable overwritte th this obj ge er the cou of a rising o a change The fallin t the inpu ased by 1 ased by 1	eshold that CRWT h threshold via object. n by a new ect. unter status is or falling sig- in the signal g edge corre- t from logical after a rising after a falling e which value			
until is big 24 This of moni The of thresh Parar Incre Here to be nal eo status spond "1" to "rising edge. "fallir edge. Send chan An ao the of	ger than the curre Channel A, 16- bit Threshold object is only visib toring is selected a current threshold of hold via the group neter ment counter aft an adjustment is increased by valu dge. The rising ed s at the input from ds to a change in "0". g edge": The cour ing edge": The cour counter value or ge by (0255)	rer reset nt count Read / N le when and the t can be q address er made as le 1 in th ge corren hogical the signa iter statu nter statu	to "0" or ter value is Write pulse cou- chreshold ueried or linked wi Settings rising ed falling ed to wheth the event of sponds to "0" to "1". al status a us is incre us is incre 255 paramete changed b	a new thr s set. 2 Byte 2 Byte unting wit is settable overwritte th this obj dge er the cou of a rising o a change The fallin t the inpu ased by 1 ased by 1 ased by 1	eshold that CRWT h threshold via object. n by a new ect. unter status is or falling sig- in the signal g edge corre- t from logical after a rising after a falling e which value r for it to be			

Parameter	Settings			
"0": Do not send counter value.				
Threshold	not applicable; to be set by parameter; to be set by object			
Using this parameter, an adjustment is made as to whether the threshold is predetermined as a parameter or is queried and modifiable via a communication object. The data type of the threshold always corresponds to that of the counter value. "not applicable": Threshold monitoring is not executed. "to be set by parameter": The threshold is set as a parameter. "to be set by object": A communication object via which the threshold can be queried and modified is supplemented.				
Threshold (165.535)	65535			
This parameter is only visible if the parameter "Threshold" is set to "to be set by parameter". The threshold is adjusted via this parameter.				
Add blocking object	No; Yes			
This parameter determines if the input can be blocked via an additional blocking object or not. If an input is blocked (blocking object value = 1) then status changes at this input are not				

g ٦p transmitted.

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

3.1.22 32-bit pulse counting

Function of channels A + B	inputs, separately configurable
Operation of Input	32-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 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.				

22	Channel A,	Reset		1 bit	CWT	
If a	Counter value	uith thi	a biast i	, reeive	d than the	
ir a	If a telegram linked with this object is received, then the counter value is reset to value 0. The binary value (0 or 1)					
	transmitted with the telegram is irrelevant for the reset func-					
tion.		5			-	
23	Channel A,	On / Of	f	1 bit	CRT	
	Upper limit					
	violation					
	object is only visit		i pulse cou	inting wi	th threshold	
	itoring is selected.					
	er limit violation =					
	ie counter value is					
	modified counter verrun,	value is	sent and	there is	a threshold	
- a	threshold is set th	at is < co	unter valu	e.		
Uppe	er limit violation =	Off is se	nt if			
- th	ne counter value is	reset,				
	ter bus or mains					
	ending of a count verrun,	ter value	, if there	is then r	no threshold	
	threshold is set th	at is > co	unter valu	e.		
	ne event of coun				nt threshold	
	run, "Threshold ov					
	er with the count					
until the counter is either reset to "0" or a new threshold that						
-	Channel A. 32-	is bigger than the current counter value is set.				
	$(hannel A + J_{-})$				CDIACT	
24	,	Read / V	Vrite	4 Byte	CRWT	
	bit Threshold			,		
This	bit Threshold object is only visit	ole when	pulse cou	unting wi	th threshold	
This mon	bit Threshold object is only visil itoring is selected	ole when and the	ı pulse cou threshold i	unting wi	th threshold e via object.	
This mon The o	bit Threshold object is only visit	ole when and the can be q	pulse cou threshold i ueried or o	unting wi is settable overwritt	th threshold e via object. en by a new	
This mon The o	bit Threshold object is only visil itoring is selected current threshold	ole when and the can be q	pulse cou threshold i ueried or o	unting wi is settable overwritt	th threshold e via object. en by a new	
This mon The o thres	bit Threshold object is only visil itoring is selected current threshold	ole when and the can be q	pulse cou threshold i ueried or o	unting wi is settable overwritt	th threshold e via object. en by a new	
This mon The o thres Para	bit Threshold object is only visil itoring is selected current threshold shold via the group	ole when and the can be q o address	pulse cou threshold i ueried or i linked wi	unting wi is settable overwritt th this ob	th threshold e via object. en by a new	
This mon The o thres Para	bit Threshold object is only visil itoring is selected current threshold shold via the group meter	ole when and the can be q o address	pulse cou threshold i ueried or o i linked wi Settings	unting wi is settable overwritt th this ob	th threshold e via object. en by a new	
This moni The o thres Para Incre	bit Threshold object is only visil itoring is selected current threshold shold via the group meter	ble when and the can be q b address ter	pulse cou threshold i ueried or i linked wir Settings rising ed falling ed	unting wi is settable overwritt th this ob ge Ige	th threshold e via object. en by a new oject.	
This mon The o thres Para Incre Here to be	bit Threshold object is only visit itoring is selected current threshold shold via the group meter ement counter aft an adjustment is e increased by value	ble when and the can be q b address ter made as ue 1 in ti	pulse cou threshold i ueried or i inked wir Settings rising ed falling ed to wheth he event c	unting wi is settablic overwritt th this ob ge ge er the co of a rising	th threshold e via object. en by a new oject. unter status is g or falling sig-	
This moni The o thress Para Incre Here to be nal e	bit Threshold object is only visil itoring is selected current threshold shold via the group meter ement counter aff an adjustment is e increased by valu dge. The rising ec	ble when and the can be q b address ter made as ue 1 in tl dge corre	pulse cou threshold i ueried or o linked wi Settings rising ed falling ed to wheth he event co esponds to	unting wi is settabli overwritt th this ob ge lge er the co of a rising a chang	th threshold e via object. en by a new oject. unter status is g or falling sig- e in the signa	
This moni The o thres Para Incre Here to be nal e statu	bit Threshold object is only visil itoring is selected current threshold shold via the group meter ement counter aff an adjustment is e increased by valu dge. The rising ec is at the input fror	ble when and the can be q b address ter made as ue 1 in tl dge corre n logical	pulse cou threshold i ueried or o i linked wi Settings rising ed falling ed to wheth he event co esponds to "0" to "1".	unting wi is settablicoverwritt the this ob ge ge er the co of a rising a chang The falli	th threshold e via object. en by a new oject. unter status is g or falling sig- e in the signa ng edge corre-	
This moni The o thres Para Incre Here to be nal e statu	bit Threshold object is only visil itoring is selected current threshold shold via the group meter ement counter aft an adjustment is cincreased by valu dge. The rising ec is at the input fror ds to a change in	ble when and the can be q b address ter made as ue 1 in tl dge corre n logical	pulse cou threshold i ueried or o i linked wi Settings rising ed falling ed to wheth he event co esponds to "0" to "1".	unting wi is settablicoverwritt the this ob ge ge er the co of a rising a chang The falli	th threshold e via object. en by a new oject. unter status is g or falling sig e in the signa ng edge corre	
This moni The o thress Para Incre Here to be nal e statu spon "1" to	bit Threshold object is only visil itoring is selected current threshold shold via the group meter ement counter aff an adjustment is e increased by valu dge. The rising ec is at the input fror ds to a change in o "0".	ble when and the can be q b address ter made as ue 1 in tl dge corre n logical the sign	pulse cou threshold i ueried or o i linked wi Settings rising ed falling ed to wheth he event co esponds to "0" to "1". al status a	unting wi is settabli- overwritt th this ob ge lge er the co of a rising a chang The falli t the input	th threshold e via object. en by a new oject. unter status is g or falling sig- e in the signa ng edge corre- ut from logica	
This moni The o thress Para Incre Here to be nal e statu spon "1" to	bit Threshold object is only visit itoring is selected current threshold shold via the group meter ement counter aff an adjustment is e increased by valu dge. The rising ed is at the input fror ds to a change in o "0".	ble when and the can be q b address ter made as ue 1 in tl dge corre n logical the sign	pulse cou threshold i ueried or o i linked wi Settings rising ed falling ed to wheth he event co esponds to "0" to "1". al status a	unting wi is settabli- overwritt th this ob ge lge er the co of a rising a chang The falli t the input	th threshold e via object. en by a new oject. unter status is g or falling sig e in the signa ng edge corre ut from logica	
This moni The of thress Para Incree Here to be nal e statu spon "1" to "risin edge	bit Threshold object is only visil itoring is selected current threshold shold via the group meter ement counter aff an adjustment is e increased by valu dge. The rising ed is at the input fror ds to a change in o "0". g edge": The counter an edge": The counter	ble when and the f can be q b address ter made as ue 1 in th dge corre n logical the sign nter state	s pulse cou threshold i ueried or of inked wir Settings rising ed falling ed to wheth he event co sponds to "0" to "1". al status a us is increa	unting wi is settable overwritt th this ob ge ge er the co of a rising a chang The falli t the inpr ased by	th threshold e via object. en by a new oject. unter status is g or falling sig e in the signa ng edge corre- ut from logica I after a rising	

edge.	
Send counter value on change by (0255)	255
the counter value must have a	parameter to define which value changed by in order for it to be er status can be queried at any of the value set here.

"0": Do not send counter value.

Update: http://www.siemens.com/gamma

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

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 an 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 (14.296.067.294)	4296067294	
This parameter is only visible if to "to be set by parameter". The threshold is adjusted via thi	the parameter "Threshold" is set	
Add blocking object	No; Yes	
additional blocking object or no	the input can be blocked via an pt. If an input is blocked (blocking changes at this input are not	

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.	

© Siemens AG 2012 Subject to change without further notice

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 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 channel is to be used to switch off and darken and which is to be used to switch on and brighten, or whether switching or both channels is to take place via a TOGGLE function.	

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
This parameter determines to long push button action.	 2.0 Seconds 2.5 Seconds 3.0 Seconds 4.0 Seconds 5.0 Seconds 6.0 Seconds 7.0 Seconds he 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.	

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

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

Technical manual

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:

	Object name	Functio	n	Туре	Flags
21	Channel A, Solar protec- tion	Up / Do	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 /	1 bit	CRT
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.					
	5	n Open o			
butto	5	n Open o		legram o	
butto Para	on action.	n Open o	r Close te Settings Solar pro close / Solar pro open; Solar pro	otection	

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
	normany open contact
	normally closed contact
The contact type of the push I	
The contact type of the push I adjusted here.	normally closed contact outton attached to the channel is
The contact type of the push l adjusted here. "normally open contact": the c	normally closed contact outton attached to the channel is ontact of the push button used is
The contact type of the push I adjusted here. "normally open contact": the c closed when activated, open w	normally closed contact button attached to the channel is ontact of the push button used is hen not activated.
The contact type of the push I adjusted here. "normally open contact": the c closed when activated, open w "normally closed contact": the c	normally closed contact outton attached to the channel is ontact of the push button used is hen not activated. contact of the push button used is
The contact type of the push I adjusted here. "normally open contact": the c closed when activated, open w "normally closed contact": the c open when activated, closed w	normally closed contact button attached to the channel is ontact of the push button used is hen not activated. contact of the push button used is hen not activated.
The contact type of the push I adjusted here. "normally open contact": the c closed when activated, open w "normally closed contact": the c	normally closed contact outton attached to the channel is ontact of the push button used is hen not activated. contact of the push button used is

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

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	On 💌
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
Add blocking 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.

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 not set to "No". If additionally the parameter "logical combination" is not 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.								

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

Obj	Object name	Function	Туре	Flags	Parameter	Settings	
7	Channel B, Confirmation	(On / Off)	1 bit	CWT	Flashing	No; without confirmation;	
	elegram for ackr				This parameter determines who	with confirmation ether the LED, when switched on,	
	d via the group a value (0 or 1) trai				shall flash and whether the flas		
	e acknowledgem		ie telegiai		For "Flashing with confirmation	n" the LED changes from flashing	
	the telegram is					ation telegram was received, as I switched on. When the LED is	
steady light as long as the LED output is switched on.					switched on again the last statu		
8	Channel B, logic operati-	On / Off	1 bit	CWT	flashing frequency (in Hz)	0,3; 1,0; 3,0	
	on					frequency for the LED flashing.	
	rams received via				On and Off period are equally lo	no logic operation;	
lected	ontain the currer l logic operation o	controlling the L	ED output		Logic operation	AND logic operation OR logic operation	
9	Channel B, LED Status	On / Off	1 bit	CRT		This parameter determines whether the LED output is addition	
After a change of value the current status of the LED is sent					ally controlled on and off via a logic operation with an additional object "logic operation".		
via the	e group address l		object.		Initial value of logic operation	ob- as before bus voltage	
10	Channel B, blocking	On / Off	1 bit	CWT	ject on bus voltage recovery	failure; Off;	
Telear	rams received via	the group add	ress linked	with this ob-		On	
	lock or release				This parameter is only visible v	when a logic operation is config-	
grams					ured.	ured. This parameter determines the initial value of the logic opera-	
	the LED output is output are ignor		ner telegra	ms for control	tion object on bus voltage recov		
or the	output are ignor	eu.			Add status object	No; Yes	
					This parameter determines whe	ther the object "Status" is added,	
Parameter Settings						ending the current status of the	
Output activation 0 = no electric cur			ctric current / 1	LED output on change of value.			
•	·		= electric current;		Add blocking object	No; Yes	
			0 = electric current / 1 = no electric current; always electric current (orientation light)		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.		
Thic n	aramatar datarm		-	<u> </u>		as before blocking.	
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.					Status LED output on blocking	no electric current;	
	ve as an orienta					electric current	
	s electric current				This parameter determines the state that the LED output shall take after the LED output is blocked.		
LED b	rightness in %		25; 50; 75	; 100	Status LED output on unblock		
This parameter allows for reducing the current throu if the light of the switched on LED is felt to be too brid						no electric current; electric current	
Status LED output on bus voltage recovery		bus voltage	as before bus voltage failure;		This parameter determines the take after the LED output is unb	e state that the LED output shall plocked.	
		no electric current; electric current		"As before unblocking" refers to			
output as before voltag	parameter detern t on bus voltage i fore bus voltage f ge failure is recalle ectric current: The	recovery: <u>ailure</u> : The state ed from memor	us of the L y and is res	ED saved at bus stored.			
	<u>ic current</u> : The LE			1.			

July 2012

07 B0 S2 On-off-toggle/Dim/Shu/Value 982302

Space for notes