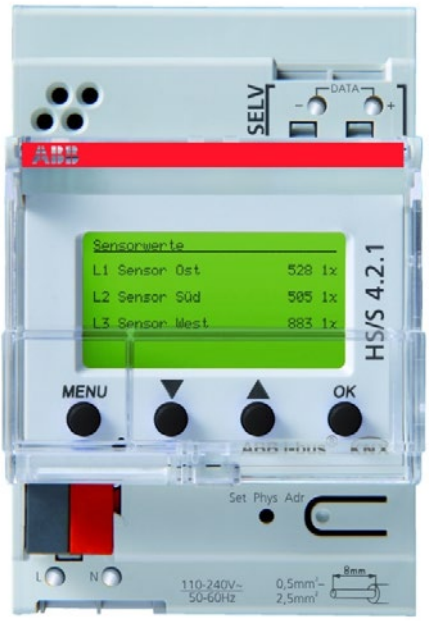
HS/S4.2.1 Outside Light Sensor Interface, MDRC



HS/S4.2.1	2CDG120044R0011

Contents

1 Functional characteristics

HS/S4.2.1 measures the brightness with 1, 2 or 3 external data bus sensors.
The measured values can be sent to the bus.

HS/S4.2.1 has the following channel types:

- 10 brightness-dependent switching channels
- 4 threshold channels with per cent, 8-/16- bit counter values or floating-point number (DPT 9.xxx)
- 6 logic channels (AND, OR, XOR)

See attachment for a detailed description of the channel types.

1.1 Special features

- Up to 3 external **data bus** brightness sensors can be connected (see attachment).
- Switching channels can react to the values of the individual sensors as well as the highest value of all the sensors.
- Switching channels with delay with exceeding and falling below thresholds
- Logic channels can be configured with 4 input objects + internal link with status of the switching, threshold and logic channels.
- Joint data bus connection for HS/S4.2.1 sensors and FW/S 8.2.1 clock possible (see figure).

Figure 1

2 Technical data

Operating voltage	110 – 240 V AC
Frequency	50 – 60 Hz
Operating voltage KNX	Bus voltage, ≤10 mA
Standby output	0.8 W
Brightness measuring range	1 – 100,000 lx
On/off switching delay	0 – 60 min
Number of channels	10
Width	3 module
Installation type	DIN-rail
Connection type	Bus connection: KNX bus terminal | sensor connection: DuoFix plug-in terminals
Max. cable cross-section	2 x 0.75 mm²
Max. line length to sensor	100 m
Ambient temperature	-5 °C … +45 °C -40 °C … +70 °C (sensor)
Protection class	II
IP rating	IP 20

3 The "Brightness Sensor Interface 4C/1.0" application program

3.1 Selection in the product database

Manufacturer	ABB STOTZ-KONTAKT GmbH
Product family	Phys. Sensors
Product type	Outdoor Brightness
Program name	Brightness Sensor Interface 4C/1.0

The ETS database can be found on our downloads page: www.abb.com/knx.

Table 1

Number of communication objects:	171
Number of group addresses:	255
Number of associations:	255

3.2 Communication objects

Table 2

No.	Object name	Function	Type DPT	Flags			
				C	R	W	T
0	*Brightness value sensor 1*	*Physical value*	2 byte 9,004	C	R	-	T
1	*Brightness value sensor 2*	*Physical value*	2 byte 9,004	C	R	-	T
2	*Brightness value sensor 3*	*Physical value*	2 byte 9,004	C	R	-	T
3	*Maximum brightness value*	*Physical value*	2 byte 9,004	C	R	-	T
17	*Brightness sensors status*	*0=OK, 1=min. 1 sensor defective*	1 bit 1.001	C	R	-	T
20	*C1.1 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
21	*C1.2 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
22	*C1 lock*	*Disable = 0*	1 bit 1.001	C	R	W	-
		Disable = 1	1 bit 1.001	C	R	W	-
23	*C1 brightness threshold*	*set/query*	2 byte 9,004	C	R	W	T
		Request	2 byte 9,004	C	R	-	T
24	*C2 1 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T

Continuation:

No.	Object name	Function	Type DPT	Flags			
				C	R	W	T
25	*C2 2 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
26	*C2 lock*	*Disable = 0*	1 bit 1.001	C	R	W	-
		Disable = 1	1 bit 1.001	C	R	W	-
27	*C2 brightness threshold*	*set/query*	2 byte 9,004	C	R	W	T
		Request	2 byte 9,004	C	R	-	T
28	*C3 1 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
29	*C3 2 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
30	*C3 lock*	*Disable = 1*	1 bit 1.001	C	R	W	-
		Disable = 0	1 bit 1.001	C	R	W	-
31	*C3 brightness threshold*	*set/query*	2 byte 9,004	C	R	W	T
		Request	1 bit 1.001	C	R	-	T
32	*C4 1 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T

Continuation:

No.	Object name	Function	Type DPT	Flags			
				C	R	W	T
33	*C4 2 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
34	*C4 lock*	*Disable = 0*	1 bit 1.001	C	R	W	-
		Disable = 1	1 bit 1.001	C	R	W	-
35	*C4 brightness threshold*	*Request*	2 byte 9,004	C	R	-	T
		set/query	1 bit 1.001	C	R	W	T
36	*C5 1 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
37	*C5 2 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
38	*C5 lock*	*Disable = 1*	1 bit 1.001	C	R	W	-
		Disable = 0	1 bit 1.001	C	R	W	-
39	*C5 brightness threshold*	*set/query*	2 byte 9,004	C	R	W	T
		Request	1 bit 1.001	C	R	-	T
40	*C6 1 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T

Continuation:

No.	Object name	Function	Type DPT	Flags			
				C	R	W	T
41	*C6 2 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
42	*C6 lock*	*Disable = 1*	1 bit 1.001	C	R	W	-
		Disable = 0	1 bit 1.001	C	R	W	-
43	*C6 brightness threshold*	*set/query*	2 byte 9,004	C	R	W	T
		Request	1 bit 1.001	C	R	-	T
44	*C7 1 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
45	*C7 2 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
46	*C7 lock*	*Disable = 1*	1 bit 1.001	C	R	W	-
		Disable = 0	1 bit 1.001	C	R	W	-
47	*C7 brightness threshold*	*set/query*	2 byte 9,004	C	R	W	T
		Request	1 bit 1.001	C	R	-	T
48	*C8 1 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T

Continuation:

No.	Object name	Function	Type DPT	Flags			
				C	R	W	T
49	*C8 2 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
50	*C8 lock*	*Disable = 1*	1 bit 1.001	C	R	W	-
		Disable = 0	1 bit 1.001	C	R	W	-
51	*C8 brightness threshold*	*set/query*	2 byte 9,004	C	R	W	T
		Request	1 bit 1.001	C	R	-	T
52	*C9 1 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
53	*C9 2 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
54	*C9 lock*	*Disable = 0*	1 bit 1.001	C	R	W	-
		Disable = 1	1 bit 1.001	C	R	W	-
55	*C9 brightness threshold*	*set/query*	2 byte 9,004	C	R	W	T
		Request	1 bit 1.001	C	R	-	T
56	*C10 1 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T

Continuation:

No.	Object name	Function	Type DPT	Flags			
				C	R	W	T
57	*C10 2 switching channel*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
58	*C10 lock*	*Disable = 0*	1 bit 1.001	C	R	W	-
		Disable = 1	1 bit 1.001	C	R	W	-
59	*C10 brightness threshold*	*Request*	2 byte 9,004	C	R	-	T
		set/query	1 bit 1.001	C	R	W	T
60	*C11 threshold switch input*	*0..65535*	2 byte 7,001	C	R	W	-
		EIS 5	2 byte 9.*	C	R	W	-
		Percent	1 byte 5,001	C	R	W	-
		0..255	1 byte 5,010	C	R	W	-
61	*C11 lock*	*Disable = 0*	1 bit 1,001	C	R	W	-
		Disable = 1	1 bit 1,001	C	R	W	-
62	*C11.1 threshold switch input*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
63	*C11.2 threshold switch input*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T

Continuation:

No.	Object name	Function	Type DPT	Flags			
				C	R	W	T
64	*C12 threshold switch input*	*0..65535*	2 byte 7,001	C	R	W	-
		EIS 5	2 byte 9.*	C	R	W	-
		Percent	1 byte 5,001	C	R	W	-
		0..255	1 byte 5,010	C	R	W	-
65	*C12 lock*	*Disable = 0*	1 bit 1,001	C	R	W	-
		Disable = 1	1 bit 1,001	C	R	W	-
66	*C12.1 threshold switch input*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
67	*C12.2 threshold switch input*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
68	*C13 threshold switch input*	*0..65535*	2 byte 7,001	C	R	W	-
		EIS 5	2 byte 9.*	C	R	W	-
		Percent	1 byte 5,001	C	R	W	-
		0..255	1 byte 5,010	C	R	W	-
69	*C13 lock*	*Disable = 0*	1 bit 1,001	C	R	W	-
		Disable = 1	1 bit 1,001	C	R	W	-
70	*C13.1 threshold switch input*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T

Continuation:

No.	Object name	Function	Type DPT	Flags			
				C	R	W	T
71	*C13.2 threshold switch input*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
72	*C14 threshold switch input*	*0..65535*	2 byte 7,001	C	R	W	-
		EIS 5	2 byte 9.*	C	R	W	-
		Percent	1 byte 5,001	C	R	W	-
		0..255	1 byte 5,010	C	R	W	-
73	*C14 lock*	*Disable = 0*	1 bit 1,001	C	R	W	-
		Disable = 1	1 bit 1,001	C	R	W	-
74	*C14.1 threshold switch input*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
75	*C14.2 threshold switch input*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
76	*C15 Logic module*	*Logic input 1 in AND/OR/XOR gate*	1 bit 1,001	C	R	W	-
77		*Logic input 2 in AND/OR/XOR gate*	1 bit 1,001	C	R	W	-
78		*Logic input 3 in AND/OR gate*	1 bit 1,001	C	R	W	-
79		*Logic input 4 in AND/OR gate*	1 bit 1,001	C	R	W	-
80	*C15 Logic module*	*Disable = 0*	1 bit 1,001	C	R	W	-
		Disable = 1	1 bit 1,001	C	R	W	-

Continuation:

No.	Object name	Function	Type DPT	Flags			
				C	R	W	T
81	*C15.1 Logic module*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
82	*C15.2 Logic module*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
83	*C16 Logic module*	*Logic input 1 in AND/OR/XOR gate*	1 bit 1,001	C	R	W	-
84		*Logic input 2 in AND/OR/XOR gate*	1 bit 1,001	C	R	W	-
85		*Logic input 3 in AND/OR gate*	1 bit 1,001	C	R	W	-
86		*Logic input 4 in AND/OR gate*	1 bit 1,001	C	R	W	-
87	*C16 Logic module*	*Disable = 0*	1 bit 1,001	C	R	W	-
		Disable = 1	1 bit 1,001	C	R	W	-
88	*C16.1 Logic module*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
89	*C16.2 Logic module*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
90	*C17 Logic module*	*Logic input 1 in AND/OR/XOR gate*	1 bit 1,001	C	R	W	-
91		*Logic input 2 in AND/OR/XOR gate*	1 bit 1,001	C	R	W	-
92		*Logic input 3 in AND/OR gate*	1 bit 1,001	C	R	W	-
93		*Logic input 4 in AND/OR gate*	1 bit 1,001	C	R	W	-

Continuation:

No.	Object name	Function	Type DPT	Flags			
				C	R	W	T
94	*C17 Logic module*	*Disable = 1*	1 bit 1,001	C	R	W	-
		Disable = 0	1 bit 1,001	C	R	W	-
95	*C17.1 Logic module*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
96	*C17.2 Logic module*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
97	*C18 Logic module*	*Logic input 1 in AND/OR/XOR gate*	1 bit 1,001	C	R	W	-
98		*Logic input 2 in AND/OR/XOR gate*	1 bit 1,001	C	R	W	-
99		*Logic input 3 in AND/OR gate*	1 bit 1,001	C	R	W	-
100		*Logic input 4 in AND/OR gate*	1 bit 1,001	C	R	W	-
101	*C18 Logic module*	*Disable = 0*	1 bit 1,001	C	R	W	-
		Disable = 1	1 bit 1,001	C	R	W	-
102	*C18.1 Logic module*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
103	*C18.2 Logic module*	*Switching*	1 bit 1.001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T

Continuation:

No.	Object name	Function	Type DPT	Flags			
				C	R	W	T
104	*C19 Logic module*	*Logic input 1 in AND/OR/XOR gate*	1 bit 1,001	C	R	W	-
105		*Logic input 2 in AND/OR/XOR gate*	1 bit 1,001	C	R	W	-
106		*Logic input 3 in AND/OR gate*	1 bit 1,001	C	R	W	-
107		*Logic input 4 in AND/OR gate*	1 bit 1,001	C	R	W	-
108	*C19 Logic module*	*Disable = 1*	1 bit 1,001	C	R	W	-
		Disable = 0	1 bit 1,001	C	R	W	-
109	*C19.1 Logic module*	*Switching*	1 bit 1,001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
110	*C19.2 Logic module*	*Switching*	1 bit 1,001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
111	*C20 Logic module*	*Logic input 1 in AND/OR/XOR gate*	1 bit 1,001	C	R	W	-
112		*Logic input 2 in AND/OR/XOR gate*	1 bit 1,001	C	R	W	-
113		*Logic input 3 in AND/OR gate*	1 bit 1,001	C	R	W	-
114		*Logic input 4 in AND/OR gate*	1 bit 1,001	C	R	W	-
115	*C20 Logic module*	*Disable = 0*	1 bit 1,001	C	R	W	-
		Disable = 1	1 bit 1,001	C	R	W	-

Continuation:

No.	Object name	Function	Type DPT	Flags			
				C	R	W	T
116	*C20.1 Logic module*	*Switching*	1 bit 1,001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T
117	*C20.2 Logic module*	*Switching*	1 bit 1,001	C	R	-	T
		Value	1 byte 5,010	C	R	-	T
		priority	2 bit 2,001	C	R	-	T

3.2.1 Description of objects

3.2.1.1 Physical values

- **Object 0** ***"Brightness sensor 1"***

Sends the current brightness value at the first brightness sensor (data bus).

- **Object 1*"Brightness sensor 2"***

Sends the current brightness value at the second brightness sensor (data bus).

- **Object 2*"Brightness sensor 3"***

Sends the current brightness value at the third brightness sensor (data bus).

- **Object 3** ***"Maximum brightness value"***

Reports the highest measured value from objects 0, 1 and 2.
Received external brightness values are not considered.

- **Objects 4-16**

Not used.

- **Object 17** *"Brightness sensors status"*

0 = All sensors OK
1 = at least 1 sensor defective.

- **Object 18.19**

Not used.

3.2.1.2 Switching channels C1..C10

- **Object 20** *"C1.1 switching channel"*

This is the first output object of a switching channel.
The function of the object depends upon the selected telegram type
(see *Objects* parameter page, *telegram type C1.1* parameter).

Table 3

<table>
<tr><th>Telegram type</th><th>format</th><th>Sent telegrams</th></tr>
<tr><td>Switching</td><td>DPT 1.001 (On/Off)</td><td>On / Off</td></tr>
<tr><td>priority</td><td>DPT 2.001 (priority control)</td><td>2-bit telegram
<table>
<tr><th>Function</th><th>value</th></tr>
<tr><td>no priority (no control)</td><td>0</td></tr>
<tr><td>Priority OFF (control: disable, off)</td><td>2</td></tr>
<tr><td>Priority ON (control: enable, on)</td><td>3</td></tr>
</table></td></tr>
<tr><td>value</td><td>DPT 5.010</td><td>Value between 0 and 255</td></tr>
</table>

- **Object 21** *"C1.2 switching"*

This is the second output object of a switching channel.
The function of the object depends upon the selected telegram type
(see *Objects* parameter page, *telegram type C1.2* parameter).

The telegram type can be parameterized independently of the first output object.
The same setting options are available for this purpose as for the first output object
(see table above for object 20)

The cycle time and the disabling behaviour are apply to both objects (objects 20+21).

- **Object 22** *"Disable C1"*

Only available if the disable function is activated.

The behaviour when setting/cancelling the block and the acting direction can be selected on the *objects* parameter page.

- **Object 23** *"C1 brightness threshold"*

This object can be used to call up the channel's configured brightness threshold.
When the value via object parameter is overwritten to yes, the threshold can be changed via bus telegram.

Table 4: Value range.

Received value	Effect
0 lx	Threshold is reset to the configured value in the ETS.
> 0 lx .. < 3 lx	Value is ignored
3 – 90,000 lx	Value is accepted as new brightness threshold.
> 90,000 lx	Brightness threshold value is set to 90,000 lx.

- **Objects 24..59**

Objects 24 to 59 are for the switching channels C2..C10 and are identical in their function to the objects on channel C1.

3.2.1.3 Threshold switches C11..C14

- **Object 60** *"C11 threshold switch input"*

Channel input object, this object activates the set channel function..

Type of threshold value object	Activation of channel function via
object type: Per cent (DPT 5.001)	Exceeding per cent value
Object type: Counter value 0..255 (DPT 5.010)	Any value in given numerical range
object type: Counter value 0..65535 (DPT 7.001)	
Object type: EIS5 e.g. CO2, brightness (DPT 9.xxx)	2 byte floating-point number

- **Object 61** *"Disable C11"*

Channel disable object.
Only visible if the disable function is activated.
The acting direction (disable with 0 or 1) can be set via parameter.

- **Object 62** *"C11.1 threshold value switch, switch/Value/priority"*

This is the first output object of the threshold switch.
The function of the object depends upon the selected telegram type
(see *Objects* parameter page, *telegram type C11.1* parameter).

Table 5

Telegram type	format	Sent telegrams
Switching	DPT 1.001 (On/Off)	On / Off
priority	DPT 2.001 (priority control)	2-bit telegram *Function* / *value* no priority (no control) / 0 Priority OFF (control: disable, off) / 2 Priority ON (control: enable, on) / 3
value	DPT 5.010	Value between 0 and 255

- **Object 63** *"C11.2 threshold value switch, switch/Value/priority"*

This is the second output object of the threshold switch.
The function of the object depends upon the selected telegram type
(see *Objects* parameter page, *telegram type C11.2* parameter).

The telegram type can be parameterized independently of the first output object.
The same setting options are available for this purpose as for the first output object
(see table above for object 86)

The cycle time and the disabling behaviour are apply to both objects (objects 86+87).

- **Objects 64..75**

Objects 64 to 75 are for the switching channels C12/C14 and are identical in their function to the objects on channel C11.

3.2.1.4 Logic modules C15..C20

- **Object 76** *"C15 logic module, logic input 1 in UND/OR/XOR gate"*

First input object of the logic module.

- **Object 77** *"C15 logic module, logic input 2 in UND/OR/XOR gate"*

Second input object of the logic module.

- **Object 78** *"C15 logic module, logic input 3 in AND/OR gate"*

Third input object of the logic module.
Not used with XOR link.

- **Object 79** *"C15 logic module, logic input 4 in AND/OR gate"*

Fourth input object of the logic module.
Not used with XOR link.

- **Object 80***"C15 logic module, disable"*

Channel disable object.
Only visible if the disable function is activated.
The acting direction (disable with 0 or 1) can be set via parameter.

- **Object 81** *"C15.1 logic module, switch/Value/priority"*

This is the first output object of the logic module.
The function of the object depends upon the selected telegram type
(see *Objects* parameter page, *telegram type C15.1* parameter).

Table 6

<table>
<tr><th>Telegram type</th><th>format</th><th>Sent telegrams</th></tr>
<tr><td>Switching</td><td>DPT 1.001 (On/Off)</td><td>On / Off</td></tr>
<tr><td>priority</td><td>DPT 2.001 (priority control)</td><td>2-bit telegram
<table>
<tr><td>Function</td><td>value</td></tr>
<tr><td>no priority (no control)</td><td>0</td></tr>
<tr><td>Priority OFF (control: disable, off)</td><td>2</td></tr>
<tr><td>Priority ON (control: enable, on)</td><td>3</td></tr>
</table></td></tr>
<tr><td>value</td><td>DPT 5.010</td><td>Value between 0 and 255</td></tr>
</table>

- **Object 82** *"C15.2 logic module, switch/Value/priority"*

This is the second output object of the logic module.
The function of the object depends upon the selected telegram type
(see *Objects* parameter page, *telegram type C15.2* parameter).

The telegram type can be parameterized independently of the first output object.
The same setting options are available for this purpose as for the first output object
(see table above for object 105)

The cycle time and the disabling behaviour are apply to both objects (objects 86+87).

- **Objects 83..117**

Objects 83 to 117 are for the logic modules C16/C20 and are identical in their function to the objects on channel C15.

3.3 Parameter

3.3.1 Parameter pages

Table 7

Function	Description
General	Activation of the required channel types. Language setting, backlighting, PIN code.
Measured values	Settings for sending brightness and sensor adjustment.
Switching channel C1: Function .. Switching channel C10: Function	Basic settings, delays etc.
objects*	Telegram type, switching and disable response etc.
Threshold channel C11: Function .. Threshold channel C14: Function	Type of threshold value object, delays etc.
objects*	Telegram type, switching and disable response etc.
Logic channel C15: Function .. Logic channel C20: Function	Number of inputs, links etc.
objects*	Telegram type, switching and disable response etc.

* Own parameter page for each channel.

3.3.2 Parameter description

Settings that lead to the display of other pages or functions are identified by ...
Example: *yes/no*

3.3.2.1 The "*General*" parameter page

Designation	*Values*	Description
Activate switching channel C1	***No*** *Yes.*	The switching channels can issue telegrams independent of brightness.
Activate switching channel C2	***No*** *Yes.*	
Activate switching channel C3	***No*** *Yes.*	
Activate switching channel C4	***No*** *Yes.*	
Activate switching channel C5	***No*** *Yes.*	
Activate switching channel C6	***No*** *Yes.*	
Activate switching channel C7	***No*** *Yes.*	
Activate switching channel C8	***No*** *Yes.*	
Activate switching channel C9	***No*** *Yes.*	
Activate switching channel C10	***No*** *Yes.*	
Activating threshold channel C11	***No*** *Yes.*	Switch threshold value channels based on received bus telegram depending whether a value is exceeded or not achieved.
Activating threshold channel C12	***No*** *Yes.*	
Activating threshold channel C13	***No*** *Yes.*	
Activating threshold channel C14	***No*** *Yes.*	

Continuation:

Designation	*Values*	Description
Activating logic channel C15	***No*** *Yes.*	Logic channels enable the linking of up to 4 input sizes. These can be both specific logic input objects (max. 4) and the switching statuses of other channels (switching, threshold or logic channels).
Activating logic channel C16	***No*** *Yes.*	
Activating logic channel C17	***No*** *Yes.*	
Activating logic channel C18	***No*** *Yes.*	
Activating logic channel C19	***No*** *Yes.*	
Activating logic channel C20	***No*** *Yes.*	
Language after download	*German* *English* *French* *Italian* *Spanish* *Dutch* *Reserved for additional language 7* .. *Reserved for additional language 15*	Language for displayed text info.
Backlit display after download		After download, the display backlighting…
	Off	allow to switch on or off.
	On	switch on or leave on continuously.
	when operating	only switch on when the device is being used (automatic switch-off after approx. 1 minute).
	unchanged: As set on device	do not change
Settings on device	*enabled*	No PIN code: The device is always operable.
	Released via PIN	The device can only be used after the input of a PIN code.
PIN code 1000-9999	Manual input *1000-9999* Default value: ***1234***	Enter desired PIN number here.

3.3.2.2 *"Brightness measurement"* parameter page"

Designation	Values	Description
Send brightness value on change	*no* *of 20 %, at least but 1 lx* *of 30 %, at least but 1 lx* *of 50 %, at least but 1 lx* *of 10 %, at least but 1 lx*	Only send cyclically (if enabled) Send if the value has changed by 10%, 20% etc. since it was last sent. However, if a change of 10% corresponds to a brightness change < 1 lx, then the value is not sent until the change is at least >1 lx.
Send brightness value and sensor status cyclically	*do not send cyclically* *every min* *every 2 min* *every 3 min* *every 5 min* *every 10 min* *every 15 min* *every 20 min* *every 30 min* *every 45 min* *every 60 min*	how often should the current brightness value and the current status of the brightness sensors be sent?
Name for brightness sensor 1 (appears in display)	Text input (max. 16 characters)	Free choice of description for the sensor e.g. "*south side*". Is displayed on device as sensor name.
Brightness adjustment sensor 1 [%]	*-30..30* *(Default = 0)*	Individual adjustment value for the brightness measurement at sensor 1, if the transmitted value deviates from the actual ambient brightness. Example: Brightness = 10,000 lx Transmitted = 11,000 lx Adjustment value = -10 %
Brightness adjustment sensor 2 [%] if available	*-30..30* *(Default = 0)*	Individual adjustment value in per cent, for the brightness measurement at sensor 2
Name for brightness sensor 2 (appears in display)	Text input (max. 16 characters)	Free choice of description for the sensor e.g. "*west side*". Is displayed on device as sensor name.
Brightness adjustment sensor 3 [%] if available	*-30..30* *(Default = 0)*	Individual adjustment value in per cent, for the brightness measurement at sensor 3
Name for brightness sensor 3 (appears in display)	Text input (max. 16 characters)	Free choice of description for the sensor e.g. "*east side*". Is displayed on device as sensor name.

3.3.2.3 Parameter pages: "*Switching channel C1..C10: Function*"

The switching channels C1..C10 switch independent of measured brightness.

Each switching channel has a disable object and an object for setting the brightness value.

The switching channels are activated on the general parameter page.
Different parameters are available according to the set functions.

Table 8

Designation	Values	Description
Channel name	Manual input (max. 14 characters)	Enter name that is to appear on the device display for thus channel
Brightness	*Below 3 lx .. below 90,000 lx* (in 70 increments, Default = **below 20 lx**) *Over 3 lx .. over 90,000 lx* (in 70 increments)	The channel condition is fulfilled when the value is below the set threshold. The channel condition is fulfilled when the value is above the set threshold.
Source	***Sensor 1*** *Sensor 2,* *Sensor 3, if available* *maximum value of the 3 sensors*	Which of the 3 installed brightness sensors should be used? The values of the 3 sensors are compared with each other and only the highest value is taken into account.
Light hysteresis	***20 % at least but 1 lx*** *30 % at least but 1 lx* *50 % at least but 1 lx*	The hysteresis prevents frequent switching after small changes in brightness. Depending on the selected condition, it can be either negative or positive. **Example** with 20% hysteresis: Condition: "OVER 4,500 lux" = satisfied from 4,500 lx and no longer satisfied at 4,500 lx - 20% Condition: "UNDER 4500 lux" = satisfied below 4500 lx and no longer satisfied at 4500 lx + 20%

Continuation:

Designation	Values	Description
*Delay when brightness increases**	*none* *5 s, 10 s, 20 s, 30 s, 1 min, 2 min,* ***3 min****, 5 min, 10 min, 15 min, 20 min*	Response time when it gets lighter and the selected threshold is passed as a result. This setting prevents conflicting telegrams from being sent in response to temporary fluctuations in brightness
*Delay when brightness decreases**	*none* *5 s, 10 s, 20 s, 30 s, 1 min, 2 min, 3 min, 5 min,* ***10 min****, 15 min, 20 min*	Response time when it gets darker and the selected threshold is passed as a result. This setting prevents conflicting telegrams from being sent in response to temporary fluctuations in brightness
Value can be overwritten via object	***Yes*** *no*	Should it be possible to change the configured brightness threshold value at any time via bus telegrams?
Overwrite value at download	*Yes* ***no***	With an ETS download, the brightness threshold currently stored in the device with its delay values is **deleted** and **overwritten** with the value set in the ETS The brightness and delay values changed on the device or via an object are **write-protected**. With downloads, the brightness values and delay values are **not downloaded.** The values currently stored in the device are retained. **Exception:** Even if *no* is selected, **all** ETS parameter values will be downloaded on first use (i.e. when the device memory is empty).

* **Important:** Manual changes to the delay values on the device will only be accepted after the next status change.

3.3.2.4 Parameter pages "*Objects*"

All universal, threshold and logic channels have this type of parameter page.
The reaction to fulfilling or not fulfilling the link is configured here..

Table 9

Designation	Values	Description
Telegram type C1.1	***Switching command***	1 bit ON/OFF
	Priority	2-bit Function: Priority inactive (no control) — value: 0 (00_{bin}) Function: Priority ON (control: enable, on) — value: 3 (11_{bin}) Function: Priority OFF (control: disable, off) — value: 2 (10_{bin})
	value	1-byte 0 ... 255
If the condition is met	*no telegram* ***send following telegram once*** *send cyclically*	Send response if channel condition is fulfilled.
Telegram		Type of telegram for the first output object on the channel with fulfilled condition.
	ON *OFF*	For telegram type Switching command.
	no priority ***priority, ON (down)*** *priority, OFF (up)*	For telegram type Priority.
	Telegram 0 ... ***255***	For telegram type Value
If the condition is not met	*no telegram* ***send following telegram once*** *send cyclically*	Send response if channel condition is unfulfilled.
Telegram		Type of telegram for the first output object on the channel with unfulfilled condition.
	ON ***OFF***	For telegram type Switching command.
	no priority *priority, ON (down)* ***priority, OFF (up)***	For telegram type Priority.
	Telegram ***0*** *.. 255*	For telegram type Value

Continuation:

<table>
<tr><th>Designation</th><th>Values</th><th>Description</th></tr>
<tr><td>Should a second telegram be sent?</td><td>Yes
no</td><td>If yes is selected, further parameters and a second transmission object appear.
It can be used to send 2 different telegrams at the same time on the same channel.
The cycle time and the disabling behaviour apply to both objects.</td></tr>
<tr><td>Telegram type C1.2</td><td>Switching command

Priority

value</td><td>Second output object on channel
1 bit ON/OFF

2-bit
<table><tr><th>Function</th><th>value</th></tr><tr><td>Priority inactive (no control)</td><td>0 (00_{bin})</td></tr><tr><td>Priority ON (control: enable, on)</td><td>3 (11_{bin})</td></tr><tr><td>Priority OFF (control: disable, off)</td><td>2 (10_{bin})</td></tr></table>1-byte 0 ... 255</td></tr>
<tr><td>If the condition is met</td><td>no telegram
send following telegram once
send cyclically</td><td>Send response if channel condition is fulfilled.</td></tr>
<tr><td>Telegram</td><td>

ON
OFF

no priority
priority, ON (down)
priority, OFF (up)
Telegram 0 ... 255</td><td>Type of telegram for the second output object on the channel with fulfilled condition.
For telegram type Switching command.

For telegram type Priority.

For telegram type Value</td></tr>
<tr><td>If the condition is not met</td><td>no telegram
send following telegram once
send cyclically</td><td>Send response if channel condition is unfulfilled.</td></tr>
<tr><td>Telegram</td><td>

ON
OFF
no priority
priority, ON (down)
priority, OFF (up)
Telegram 0 .. 255</td><td>Type of telegram for the second output object on the channel with unfulfilled condition.
For telegram type Switching command.

For telegram type Priority.

For telegram type Value</td></tr>
</table>

Continuation:

Designation	Values	Description
Activate lock function	*Yes*	Insert disable parameter and disable object.
	no	No disable function
Response when setting disable	***do not send***	No telegrams as long as the disable object is set.
	as with unfulfilled condition	Same reaction set as in parameter *If the conditioned has not been fulfilled* (see above).
	as with fulfilled condition	Same response as set with the parameter *If all conditions have been fulfilled* (see above).
Behaviour when cancelling the disable function	*do not send*	Not automatically resent when the disable function is cancelled
	update channel	The current channel status is sent immediately as soon as the disable function is cancelled.
Cycle time (if used)	*do not send cyclically* *every min* *every 2 min* *every 3 min* *every 5 min* *every 10 min* *every 15 min* *every 20 min* *every 30 min* *every 45 min* ***every 60 min***	How often should the telegrams for CX.1 and CX.2 be sent?
Telegram with recognised sensor error	***Do not send anymore*** *as with unfulfilled condition as with fulfilled condition*	This parameter takes effect if the brightness sensor (used by channel) reports an error.

3.3.2.5 Parameter pages "*Threshold channel C11..C14"*

The threshold channel block forms a separate unit that is completely independent of the brightness measurement.

Principle:
A value is received from the bus and compared with the set threshold.
The condition is fulfilled if the value is higher than the set threshold.
In turn, not fulfilled if the value is below it.

The response of the output objects to fulfilling/not fulfilling the condition is set on the *Objects* parameter page.

The channel status (condition fulfilled/unfulfilled) for each threshold channel can also be configured as input value for logic channels (see below, The logic channels).

The switching channels are activated on the General parameter page.

Table 10

Designation	Values	Description
Type of threshold value object	***object type: Per cent (DPT 5.001)*** *Object type: Counter value 0..255 (DPT 5.010)* *object type: Counter value 0..65535 (DPT 7.001)* *Object type: EIS5 e.g. CO2, brightness, etc. (DPT 9.xxx)*	Value type for threshold.
Parameter for *Percent* threshold object		
Threshold value (in %)	*1..99* Default = ***50***	Desired threshold value as percentage.
Hysteresis (as %)	*1..99* Default = ***5***	Prevents frequent switching after small changes in readings. The hysteresis is uniformly negative for all threshold types, e.g. threshold 50, hysteresis 5 means: Switch on at 50 a switch off at 50 – hysteresis = 45
Parameter for threshold value object *Counter value 0..255*		
Threshold value	*1..254* Default = ***127***	Desired threshold value as 1 byte number from 1 to 254.
Hysteresis	*1..254* Default = ***5***	The hysteresis prevents frequent switching after small changes in readings.

Continuation:

Designation	Values	Description
Parameter for threshold value object *Counter value 0..65535*		
Threshold value	*1..65534* Default = ***1,000***	Desired threshold value as 2 byte number from 1 to 65534.
Hysteresis	*1..65534* Default = ***5***	The hysteresis prevents frequent switching after small changes in readings.
Parameter for threshold value object *EIS5 (e.g. CO_2, brightness…)*		
Threshold value format: *(-000.00..9999)*	-9999..99999 Default = ***20.0***	Desired threshold value as decimal number with prefix. Format: A maximum of 5 characters are permitted including decimal point and prefix. Examples with five characters: -9999 -9.99 10.35 100.6 99999 etc.
Hysteresis format: *0.00..9999*	*0.00..9999* Default = ***1.0***	The hysteresis prevents frequent switching after small changes in readings. Format: Max. 4 characters, positive numbers only. Examples: 0.01 99.9 9999
Common parameters		
Delay with exceeding	***None,*** *5 s, 10 s, 20 s, 30 s, 1 min, 2 min, 3 min, 5 min, 10 min, 15 min, 20 min*	The channel sends immediately. The channel only sends after set delay is completed.
Delay with falling below	***none*** *5 s, 10 s, 20 s, 30 s, 1 min, 2 min, 3 min, 5 min, 10 min, 15 min, 20 min*	The channel sends immediately. The channel only sends after set delay is completed.

3.3.2.6 Parameter pages "*Objects*"

All universal, threshold and logic channels have this type of parameter page.
The reaction to fulfilling or not fulfilling the link is configured here..

Table 11

<table>
<tr><th>Designation</th><th>Values</th><th>Description</th></tr>
<tr><td>Telegram type C11.1</td><td>Switching command

Priority

value</td><td>1 bit ON/OFF

2-bit
<table><tr><th>Function</th><th>value</th></tr><tr><td>Priority inactive (no control)</td><td>0 (00_{bin})</td></tr><tr><td>Priority ON (control: enable, on)</td><td>3 (11_{bin})</td></tr><tr><td>Priority OFF (control: disable, off)</td><td>2 (10_{bin})</td></tr></table>1-byte 0 ... 255</td></tr>
<tr><td>When exceeding the threshold</td><td>no telegram
send following telegram once
send cyclically</td><td>Send response if channel condition is fulfilled.</td></tr>
<tr><td>Telegram</td><td>

ON
OFF
no priority
priority, ON (down)
priority, OFF (up)
Telegram 0 ... 255</td><td>Type of telegram for the first output object on the channel with fulfilled condition.
For telegram type Switching command.

For telegram type Priority.

For telegram type Value</td></tr>
<tr><td>When below threshold</td><td>no telegram
send following telegram once
send cyclically</td><td>Send response if channel condition is unfulfilled.</td></tr>
<tr><td>Telegram</td><td>

ON
OFF
no priority
priority, ON (down)
priority, OFF (up)
Telegram 0 .. 255</td><td>Type of telegram for the first output object on the channel with unfulfilled condition.
For telegram type Switching command.

For telegram type Priority.

For telegram type Value</td></tr>
</table>

Continuation:

<table>
<tr><th>Designation</th><th>Values</th><th>Description</th></tr>
<tr><td>Should a second telegram be sent?</td><td>Yes
no</td><td>If yes is selected, further parameters and a second transmission object appear.
It can be used to send 2 different telegrams at the same time on the same channel.
The cycle time and the disabling behaviour apply to both objects.</td></tr>
<tr><td>Telegram type C11.2</td><td>Switching command

Priority

value</td><td>Second output object on channel
1 bit ON/OFF

2-bit
<table><tr><th>Function</th><th>value</th></tr><tr><td>Priority inactive (no control)</td><td>0 (00_{bin})</td></tr><tr><td>Priority ON (control: enable, on)</td><td>3 (11_{bin})</td></tr><tr><td>Priority OFF (control: disable, off)</td><td>2 (10_{bin})</td></tr></table>1-byte 0 ... 255</td></tr>
<tr><td>When exceeding the threshold</td><td>no telegram
send following telegram once
send cyclically</td><td>Send response if channel condition is fulfilled.</td></tr>
<tr><td>Telegram</td><td>

ON
OFF
no priority
priority, ON (down)
priority, OFF (up)
Telegram 0 ... 255</td><td>Type of telegram for the second output object on the channel with fulfilled condition.
For telegram type Switching command.

For telegram type Priority.

For telegram type Value</td></tr>
<tr><td>When below threshold</td><td>no telegram
send following telegram once
send cyclically</td><td>Send response if channel condition is unfulfilled.</td></tr>
<tr><td>Telegram</td><td>

ON
OFF
no priority
priority, ON (down)
priority, OFF (up)
Telegram 0 .. 255</td><td>Type of telegram for the second output object on the channel with unfulfilled condition.
For telegram type Switching command.

For telegram type Priority.

For telegram type Value</td></tr>
</table>

Continuation:

Designation	Values	Description
Activate lock function	*Yes*	Insert disable parameter and disable object.
	no	No disable function
Response when setting disable	***do not send***	No telegrams as long as the disable object is set.
	as with unfulfilled condition	Same reaction set as with parameter *If below threshold* (see above).
	as with fulfilled condition	Same reaction set as with parameter *When exceeding threshold* (see above).
Behaviour when cancelling the disable function	*Do not send*	Not automatically resent when the disable function is cancelled
	update channel	The current channel status is sent immediately as soon as the disable function is cancelled.
Cycle time (if used)	*do not send cyclically* *every min* *every 2 min* *every 3 min* *every 5 min* *every 10 min* *every 15 min* *every 20 min* *every 30 min* *every 45 min* ***every 60 min***	How often should the telegrams for CX.1 and CX.2 be sent?

3.3.2.7 Parameter pages "*Logic channel C15..C20*"

The logic channel block forms a separate unit that is completely independent of the brightness measurement.
The logic channels can thus be used for a broad range of tasks in the KNX device.

Principle:
Up to four 1 bit input values can be logically linked to each other.

These input values can be:

- Logic inputs
- Status of switching channels (fulfilled/unfulfilled)
- Status of threshold channels (fulfilled/unfulfilled)
- Link result of other logic channels (a logic channel cannot be connected with itself)

The response of the output objects to fulfilling/not fulfilling the condition is set on the *Objects* parameter page.
The logic channels are activated on the general parameter page.

Table 12

Designation	Values	Description
Type of link		Selection of logical link between 1-bit input values (see below)
	AND	2 to 4 inputs
	OR	
	XOR	2 inputs
Use input 1	***Yes***	Input is used
	Yes, inverted	Input appears inverted
Use input 2	***Yes***	See above, input 1
	Yes, inverted	
Use input 3	***No***	Input is hidden
	Yes	See above.
	Yes, inverted	
Use input 4	***No***	Input is hidden
	Yes	See above.
	Yes, inverted	

Continuation:

Designation	Values	Description
Input value for input 1	*Input object*	First input object on channel (e.g. object 100 for C18)
	Condition C1 Condition C2 *Condition C3 Condition C4* *Condition C5 Condition C6* *Condition C7 Condition C8* *Condition C9 Condition C10*	Status of switching channel (fulfilled/not fulfilled).
	Status threshold channel C11 *Status threshold channel C12* *Status threshold channel C13* *Status threshold channel C14*	Status of threshold channel (threshold exceeded/not exceeded).
	Link result logic channel C15[(1)] *Link result logic channel C16*[(2)] *Link result logic channel C17*[(3)] *Link result logic channel C18*[(4)] *Link result logic channel C19*[(5)] *Link result logic channel C20*[(6)]	Link result of another logic channel (a logic channel cannot be connected with itself).
Input value for input 2	*See above, Input value for input 1*	Second input object on channel See above.
Input value for input 3	*See above, Input value for input 1*	Third input object on channel See above.
Input value for input 4	*See above, Input value for input 1*	Fourth input object on channel See above.

(1) If C15 unavailable , (2) If C16 unavailable, (3) If C17 unavailable
(4) If C18 unavailable , (5) If C19 unavailable, (6) If C20 unavailable

3.3.2.8 Parameter pages "*Objects*"

All universal, threshold and logic channels have this type of parameter page.
The reaction to fulfilling or not fulfilling the link is configured here..

Table 13

Designation	Values	Description
Telegram type C15.1	***Switching command***	1 bit ON/OFF
	Priority	2-bit Function / value: Priority inactive (no control) – 0 (00_{bin}) Priority ON (control: enable, on) – 3 (11_{bin}) Priority OFF (control: disable, off) – 2 (10_{bin})
	value	1-byte 0 ... 255
If the condition is met	*no telegram* ***send following telegram once*** *send cyclically*	Send response if channel condition is fulfilled, i.e. link result = 1.
Telegram		Type of telegram for the first output object on the channel with fulfilled condition.
	ON *OFF*	For telegram type Switching command.
	no priority ***priority, ON (down)*** *priority, OFF (up)*	For telegram type Priority.
	Telegram 0 ... ***255***	For telegram type Value
If the condition is not met	*no telegram* ***send following telegram once*** *send cyclically*	Send response if channel condition is not fulfilled, i.e. link result = 0.
Telegram		Type of telegram for the first output object on the channel with unfulfilled condition.
	ON ***OFF***	For telegram type Switching command.
	no priority *priority, ON (down)* ***priority, OFF (up)***	For telegram type Priority.
	Telegram ***0*** *.. 255*	For telegram type Value

Continuation:

<table>
<tr><th>Designation</th><th>Values</th><th>Description</th></tr>
<tr><td>Should a second telegram be sent?</td><td>Yes
no</td><td>If yes is selected, further parameters and a second transmission object appear.
It can be used to send 2 different telegrams at the same time on the same channel.
The cycle time and the disabling behaviour apply to both objects.</td></tr>
<tr><td>Telegram type C15.2</td><td>Switching command

Priority

value</td><td>Second output object on channel
1 bit ON/OFF

2-bit
<table><tr><th>Function</th><th>value</th></tr><tr><td>Priority inactive (no control)</td><td>0 (00_{bin})</td></tr><tr><td>Priority ON (control: enable, on)</td><td>3 (11_{bin})</td></tr><tr><td>Priority OFF (control: disable, off)</td><td>2 (10_{bin})</td></tr></table>1-byte 0 ... 255</td></tr>
<tr><td>If the condition is met</td><td>no telegram
send following telegram once
send cyclically</td><td>Send response if channel condition is fulfilled.</td></tr>
<tr><td>Telegram</td><td>

ON
OFF
no priority
priority, ON (down)
priority, OFF (up)
Telegram 0 ... 255</td><td>Type of telegram for the second output object on the channel with fulfilled condition.
For telegram type Switching command.

For telegram type Priority.

For telegram type Value</td></tr>
<tr><td>If the condition is not met</td><td>no telegram
send following telegram once
send cyclically</td><td>Send response if channel condition is unfulfilled.</td></tr>
<tr><td>Telegram</td><td>

ON
OFF
no priority
priority, ON (down)
priority, OFF (up)
Telegram 0 .. 255</td><td>Type of telegram for the second output object on the channel with unfulfilled condition.
For telegram type Switching command.

For telegram type Priority.

For telegram type Value</td></tr>
</table>

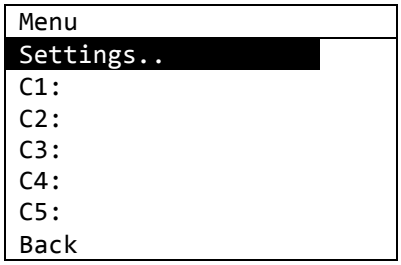
Continuation:

Designation	Values	Description
Activate lock function	*Yes*	Insert disable parameter and disable object.
	no	No disable function
Response when setting disable	***do not send***	No telegrams as long as the disable object is set.
	as with unfulfilled condition	Same reaction set as in parameter *If the conditioned has not been fulfilled* (see above).
	as with fulfilled condition	Same reaction set as in parameter *If the conditioned has been fulfilled* (see above).
Behaviour when cancelling the disable function	*Do not send*	Not automatically resent when the disable function is cancelled
	update channel	The current channel status is sent immediately as soon as the disable function is cancelled.
Cycle time (if used)	*do not send cyclically* *every min* *every 2 min* *every 3 min* *every 5 min* *every 10 min* *every 15 min* *every 20 min* *every 30 min* *every 45 min* ***every 60 min***	How often should the telegrams for CX.1 and CX.2 be sent?
Telegram with recognised sensor error	***Do not send anymore*** *as with unfulfilled condition as with fulfilled condition*	This parameter takes effect if the dimension sensor (used by channel) reports an error.

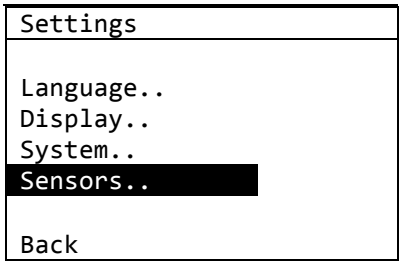
4 Appendix

4.1 Allocate sensors

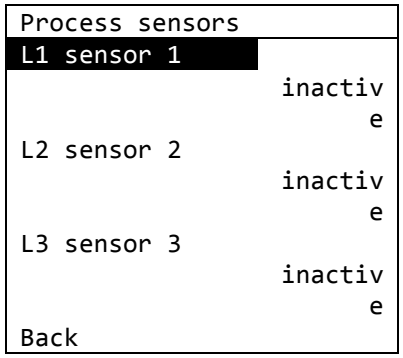
Up to 3 brightness sensors, which are connected to the data bus, can be allocated.
These vary according their serial numbers.



- Press menu button.
  This brings up the *settings*..
- Confirm by pressing OK.

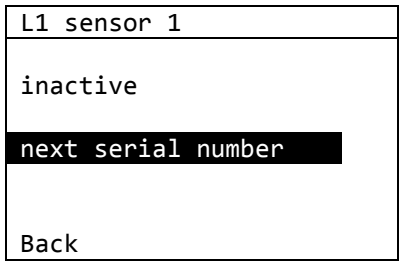


- Select *sensors* with ▲ or ▼ .
- Confirm by pressing OK.



- Select desired sensor with ▲ or ▼
  (e.g. s*ensor 1*).
- Confirm by pressing OK.

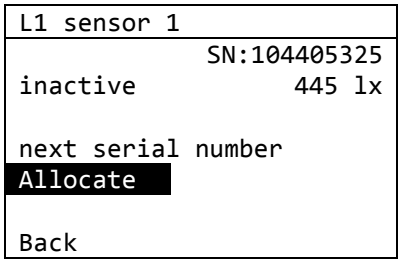
Query data bus according to available sensors:

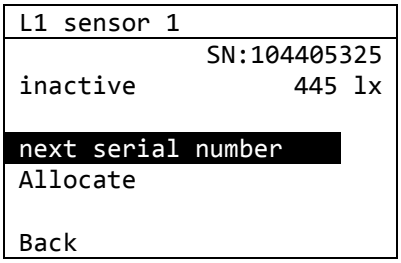


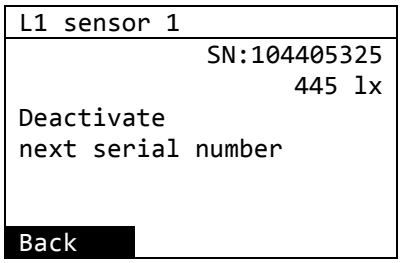
- Select next serial number.
- Confirm by pressing OK.

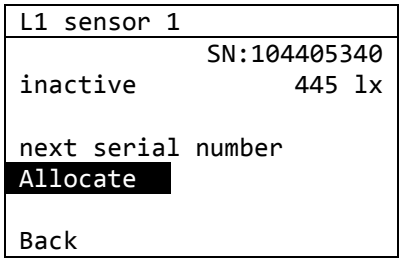
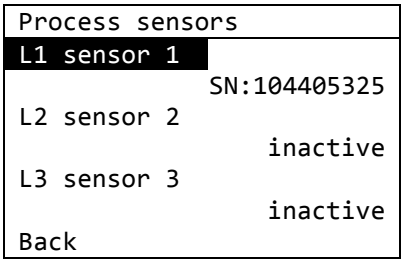
The first detected sensor is displayed with serial number.
A flashing LED on the sensor makes it instantly identifiable without having to make the effort of reading the serial number on the device. The measured brightness value of the sensor is also displayed. This can also be helpful for the allocation of sensors, particularly when they are already installed.

Table 14

<table>
<tr><th>Case 1: The displayed sensor is accepted.</th><th>Case 2: If you want continue searching rather than accepting the sensor.</th></tr>
<tr><td> 

Select allocate and confirm by pressing OK.</td><td> 

Select next serial number and confirm by pressing OK.</td></tr>
<tr><td>Leave settings for sensor 1 by pressing Back.
 

An incorrectly allocated sensor can be separated at any time via the menu item Deactivate.</td><td>Another sensor is found.
Select using Allocate or search for another via Next serial number.
 
</td></tr>
<tr><td colspan="2"> 

Set the second sensor using L2 sensor 2 or leave the sensor menu by pressing Back.</td></tr>
</table>

Service address
ABB STOTZ-KONTAKT GmbH
Eppelheimer Straße 82
69123 Heidelberg
Germany
Tel. +49 6221 701-434
Fax +49 6221 701-724
www.abb.com/knx