User Manual

Surface Modular Switch

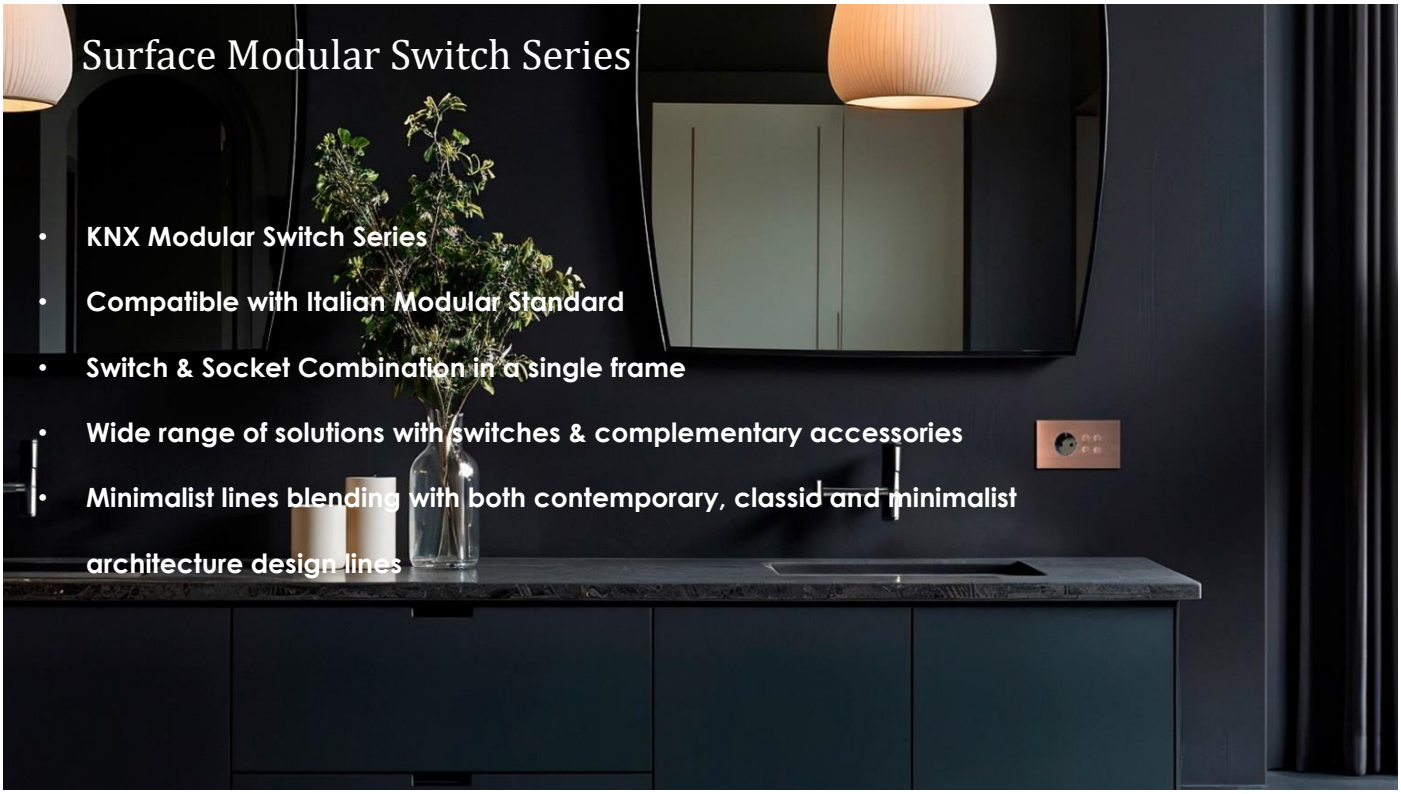
Document Version: 1.0

Last Revision: 13.05.2025

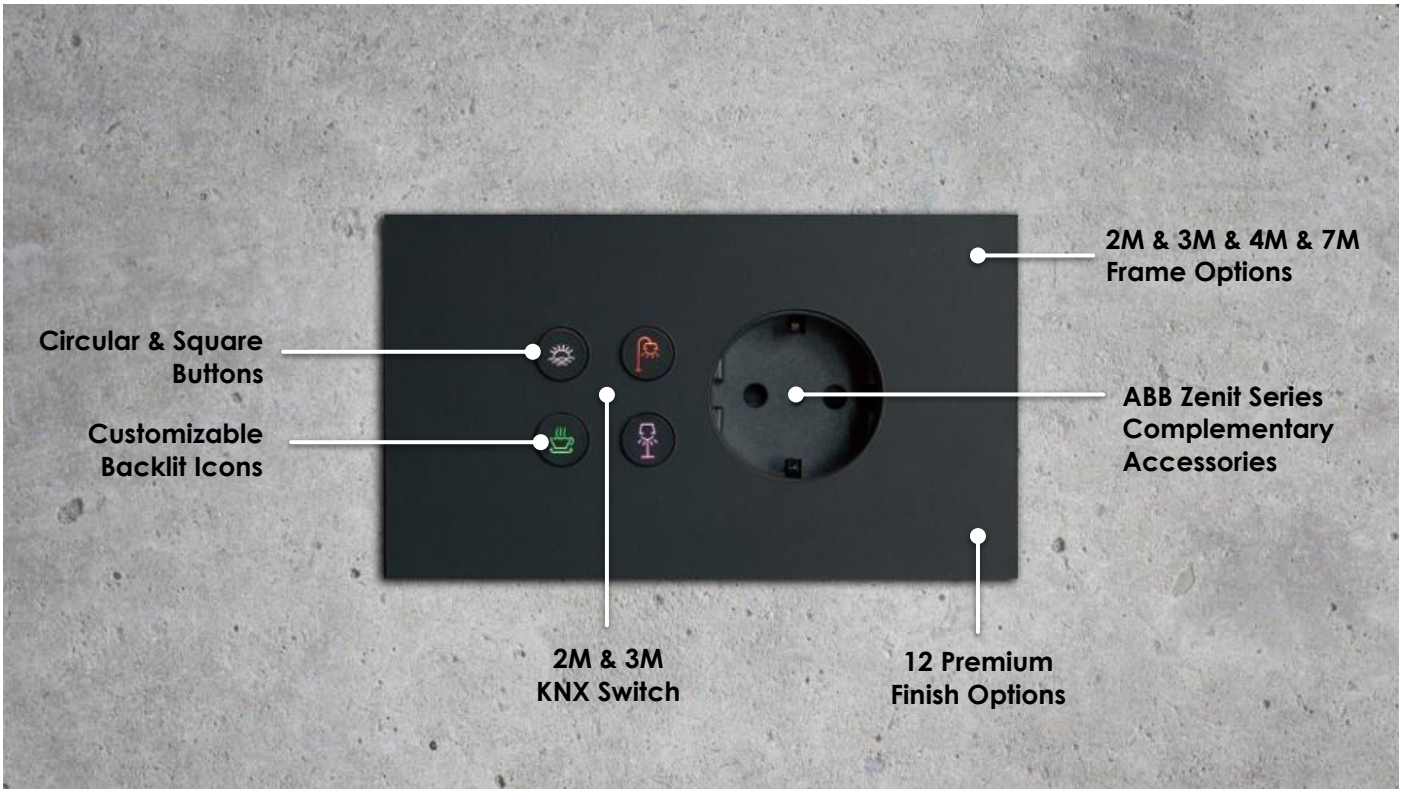
Product Code: CR-SFS-xx-KNX-xx

Table Of Contents

1. Presentation



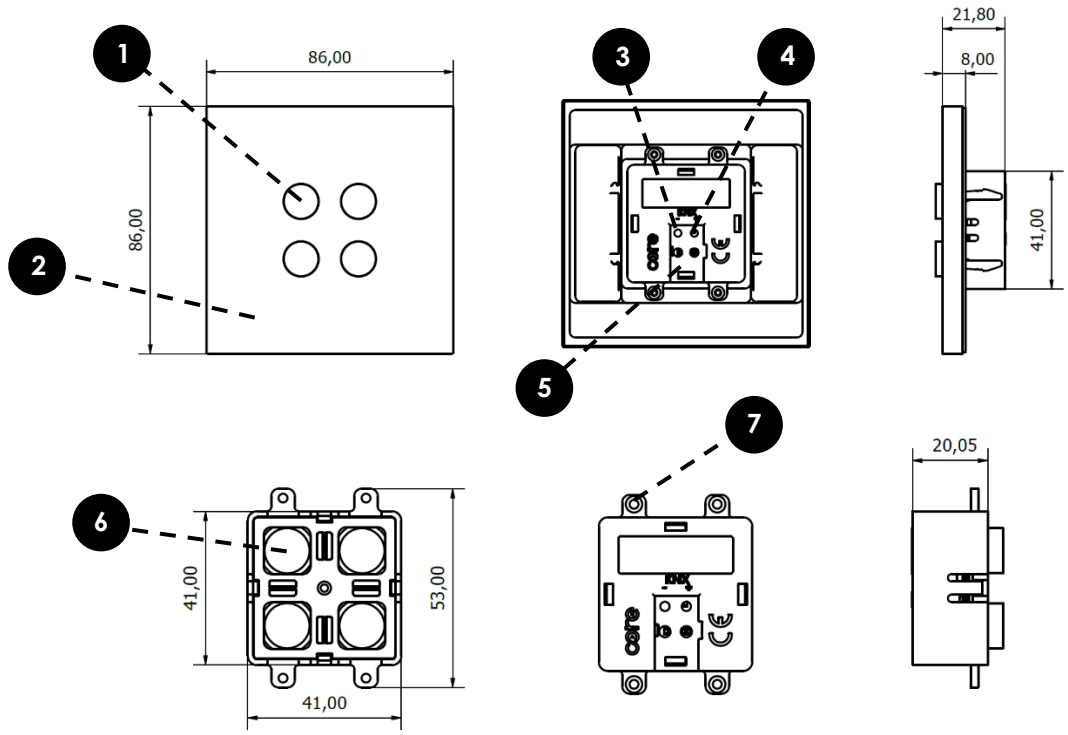
1.1. Main Features



1.2. Dimensions

2M Modular KNX Switch

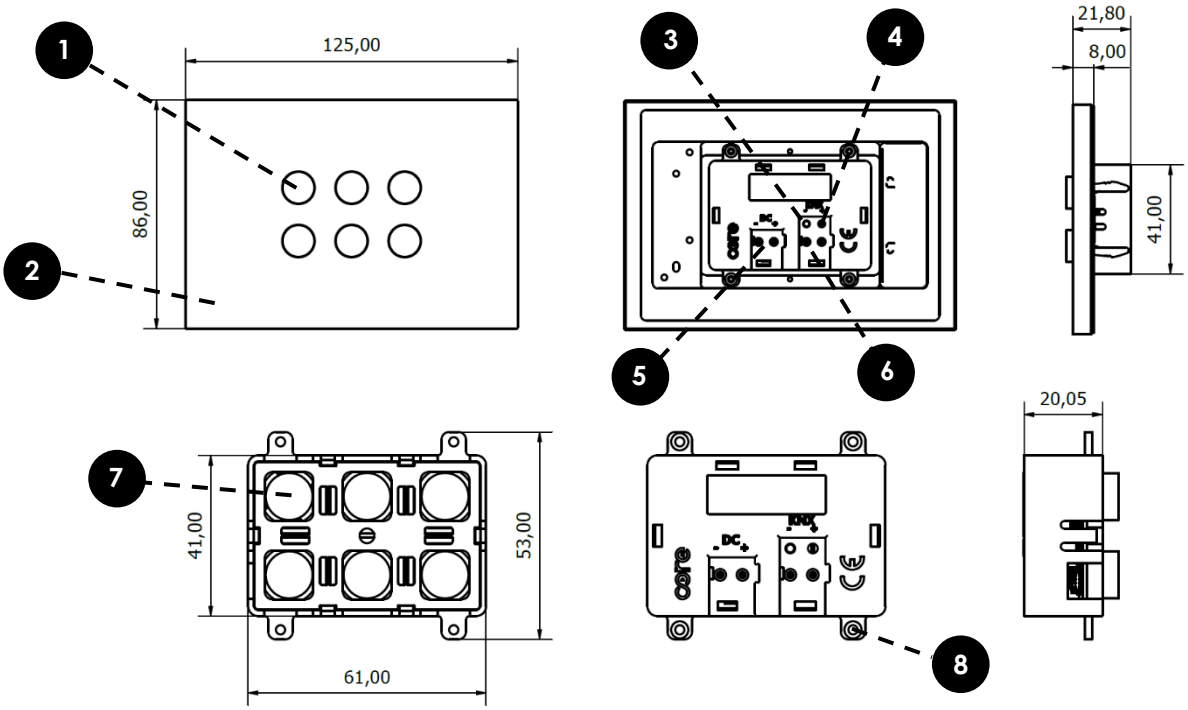
Dimensional drawing (all dimensions are in mm)



1. Button Metal Part (Sold Separately)
2. Frame (Sold Separately)
3. KNX Programming Button
4. KNX Programming Led
5. KNX Connector
6. Buttons with RGB Led
7. Screw Holes

3M Modular KNX Switch

Dimensional drawing (all dimensions are in mm)



1. Button Metal Part (Sold Separately)
2. Frame (Sold Separately)
3. KNX Programming Button
4. KNX Programming Led
5. Auxiliary Power Connector (Not used)
6. KNX Connector
7. Buttons with RGB Led
8. Screw Holes

2. Technical Specification

2M Modular KNX Switch

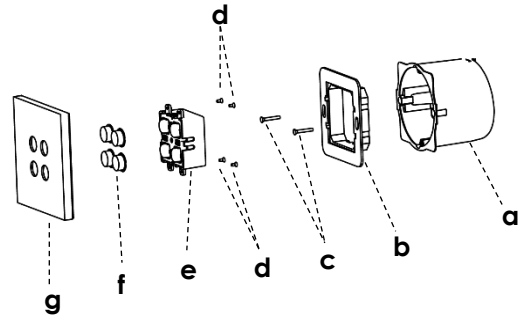
Dimensions (Frame):	86mm X 86mm X 8mm
Dimensions (Electronic Part):	41mm X 41mm X 20mm
Casing Material:	Aluminium, Brass, Nickel, Copper and Aged Brass depending on the finish selection
Power:	30 VDC - from KNX Bus Line
Consumption:	< 12 mA from KNX Bus-line
Connectivity:	KNX-TP
Programming Tool:	ETS
Installation:	Italian Standard In Wall Box, 2M size and more
Operating Temperature:	0°C / +70°C
Storage Temperature:	-20°C / +70°C
Relative Humidity:	95% not condensing
Certification:	Device complies with Electromagnetic Compatibility Directive(2014/30/EU). Tests carried out according to EN55032:2015 and EN55035:2017.

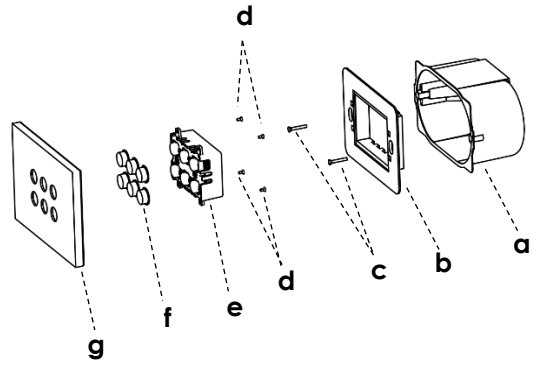
3M Modular KNX Switch

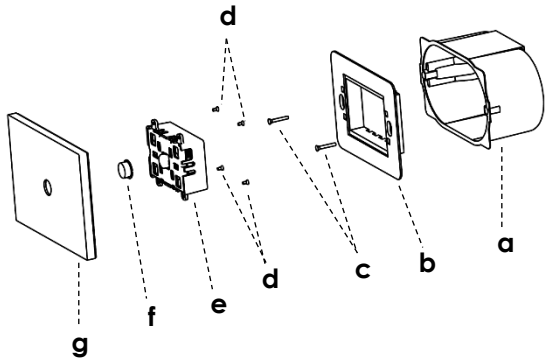
Dimensions (Frame):	86mm X 125mm X 8mm
Dimensions (Electronic Part):	41mm X 61mm X 20mm
Casing Material:	Aluminium, Brass, Nickel, Copper and Aged Brass depending on the finish selection
Power:	30 VDC - from KNX Bus Line
Consumption:	< 12 mA from KNX Bus-line
Connectivity:	KNX-TP
Programming Tool:	ETS
Installation:	Italian Standard In Wall Box, 3M size and more
Operating Temperature:	0°C / +70°C
Storage Temperature:	-20°C / +70°C
Relative Humidity:	95% not condensing
Certification:	Device complies with Electromagnetic Compatibility Directive(2014/30/EU). Tests carried out according to EN55032:2015 and EN55035:2017.

2.1. Installation

2.1.1. Mounting, Electrical Connection







a) Wall mounting box

b) Mounting support (sold separately)

c) Support fixing screws

d) Electronic part fixing screws

e) Electronic part

f) Metal Buttons (sold separately)

g) Frame (sold separately)

The installation of the device requires the following steps:

1. Place the mounting support (b) on the wall mounting box (a) and fix with screws (c)

2. Place metal buttons (f) on the electronic part (e)

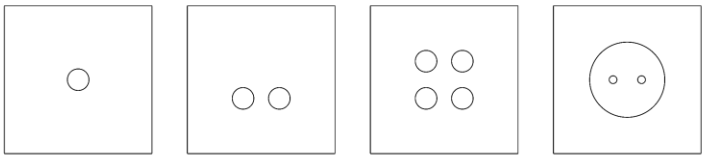
3. Fit the frame (g) to the electronic part (e)

4. Mount the screws (d) to fix the electronic part (e) to the frame (g)

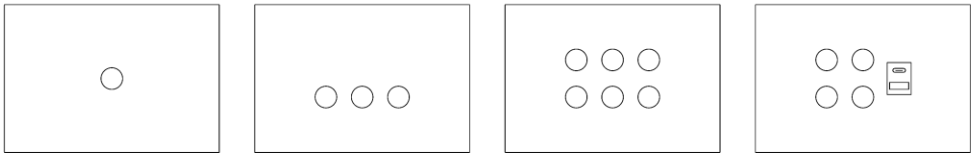
5. Connect KNX cable to the device. Check that polarity is correct

6. Press and place the device to the support with both hands simultaneously on the right and left sides

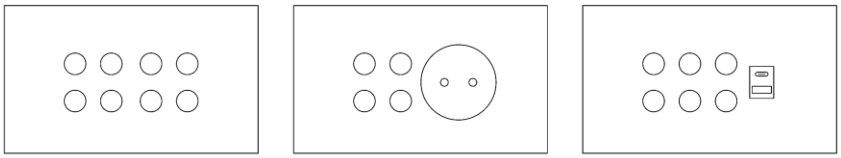
2.1.2. Combination Examples



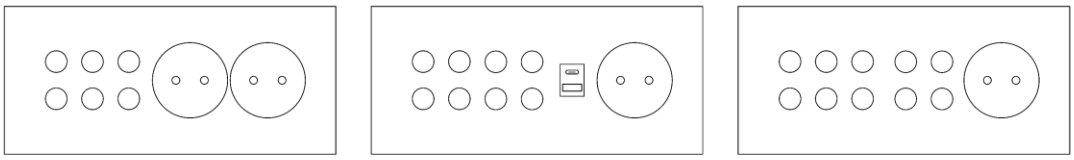
2M Modular



3M Modular



4M Modular



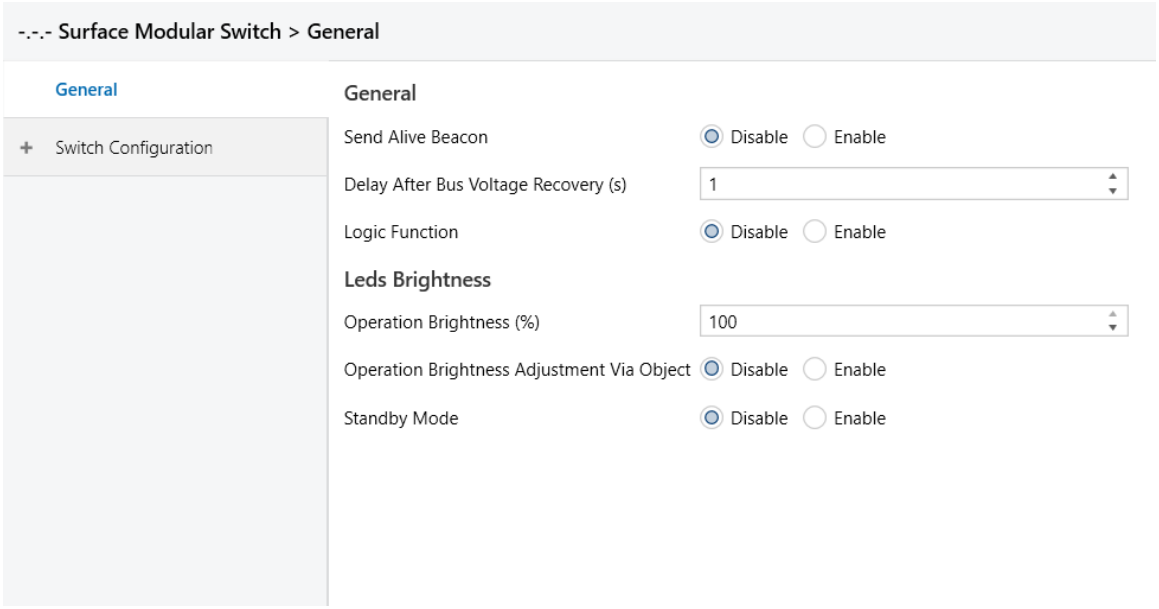
7M Modular

3. ETS Parameters

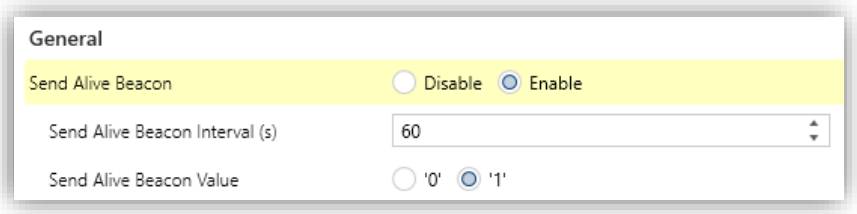
Core Surface Modular Switch series are fully compatible KNX devices that must be configured and set up using the standard KNX configuration tool ETS. The ETS database for this device can be downloaded from ETS online catalogue.

For tutorial videos: coming soon

3.1. General



SEND ALIVE BEACON



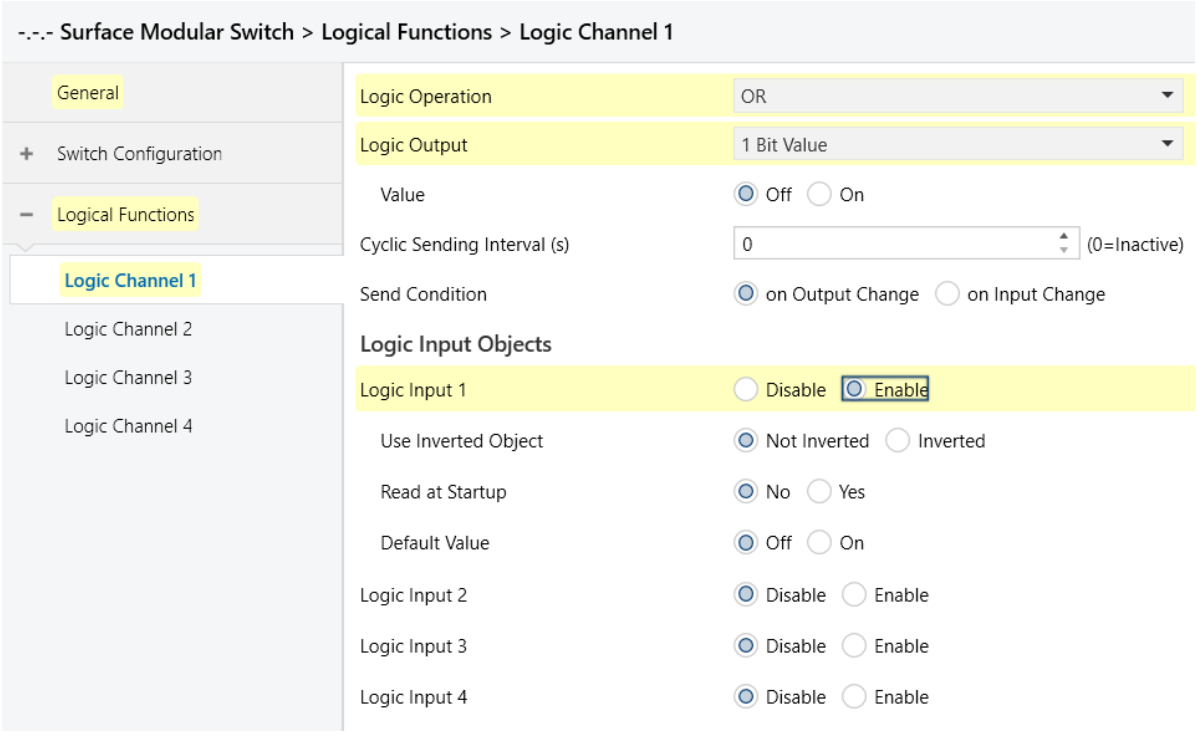
Parameter used to observe that the device and the application are running. It is disabled by default. When activated, Object Number 1 "General – Alive Beacon" will send selected value with defined time interval. [0-65535 s]

DELAY AFTER BUS VOLTAGE RECOVERY

The parameter defines the behaviour of the switch after bus power return. The delay time determines the period between bus voltage recovery and the point after which telegrams can be sent. [0-65535 s]

3.1.1. Logic Function

Logic function tab contains "Logic channels (4)" which are available with three different logic gates. [OR, AND, XOR]



Logic operation: [OR, AND, XOR]

Logic Output:
1 bit
1 byte unsigned value
1 byte signed value
1 byte percentage
2 byte unsigned value
2 byte signed value
2 byte floating value

Cyclic Sending Interval (s):

The defined output value can be sent cyclic or if the parameter is set to "0", cyclic sending of output value will be inactive

Send condition:

[On output change] Output object sends on output change.

[On input change] Output object sends on input change.

Logic Input Objects: [Logic input 1-4]

Each logic channel has a maximum of 4 logic input objects.

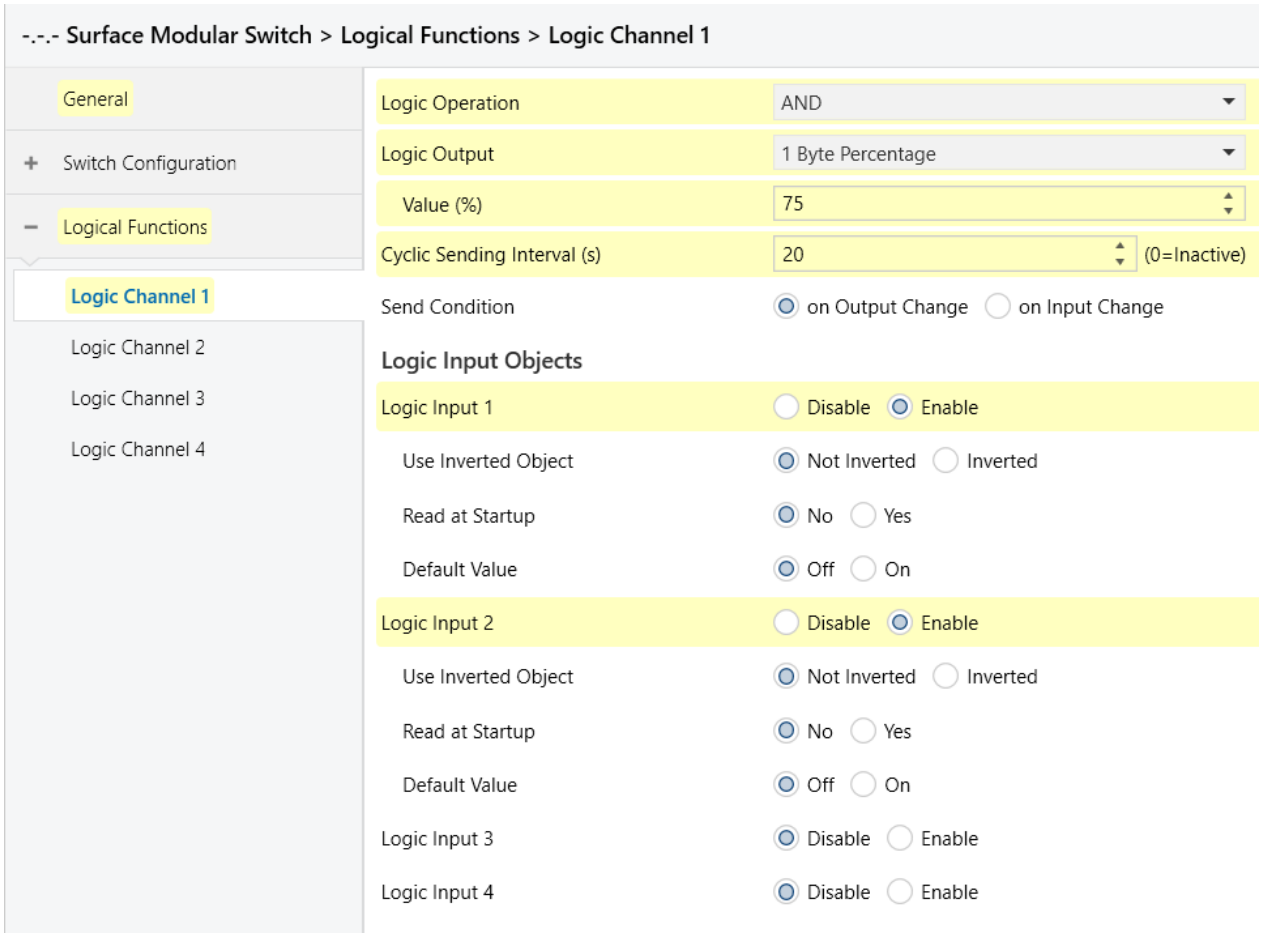
Logic input 1 [Use inverted Object]: Object value will be inverted before the processing in the logic gate.

Logic input 1 [Read at Start-up]: Object will be read out after switch is power return.

Logic input 1 [Default value]: Defines default value of the input object.

Example:

"Input 1" and "Input 2" objects are defined for "AND" logic operation. If both objects are "True" at the same time, then output object will send "1 byte percentage" %75 value for every 20 seconds periodically.



Address	Name	Description	Central	Pass	Data Type	Length	No.	Last Value
0/7/3	Input 1		No	No	boolean	1 bit	1	$01 | True
0/7/4	Input 2		No	No	boolean	1 bit	1	$01 | True
0/7/5	Output (1 Byte)		No	No	percentage (0..100%)	1 byte	1	$BF | 75%

3.1.2. Leds Brightness

Operation Brightness (%)

Brightness level can be defined between %0 - %100 for LEDs.

Operation Brightness Adjustment via Object

It enables receiving from KNX bus of the brightness level of LEDs.

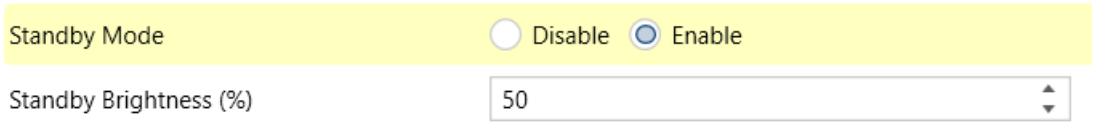
174	Operation Brightness Adjustment	Operation Brightness Adjustment	1 byte	percentage (0..100%)
175	Operation Brightness Status	Operation Brightness Status	1 byte	percentage (0..100%)

Standby Mode

Through the standby mode it is possible to keep the Surface Modular Switch in a stand-by state, setting a level of brightness of the LEDs and reactivate the backlighting of the buttons only in operation or triggered via KNX bus.

Standby Brightness (%)

Brightness level in standby state can be defined between %0 - %100 for LEDs.



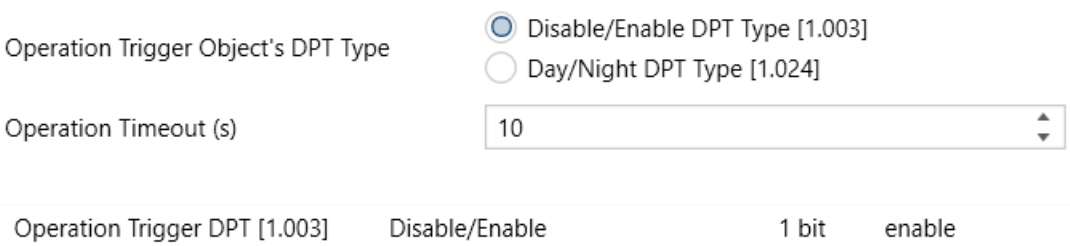
Standby Brightness Adjustment via Object

It enables receiving from KNX bus of the brightness level of LEDs in standby state.

176	Standby Brightness Adjustment	Standby Brightness Adjustment	1 byte	percentage (0..100%)
177	Standby Brightness Status	Standby Brightness Status	1 byte	percentage (0..100%)

Operation Trigger Object's DPT Type

Disable/Enable DPT Type [1.003]

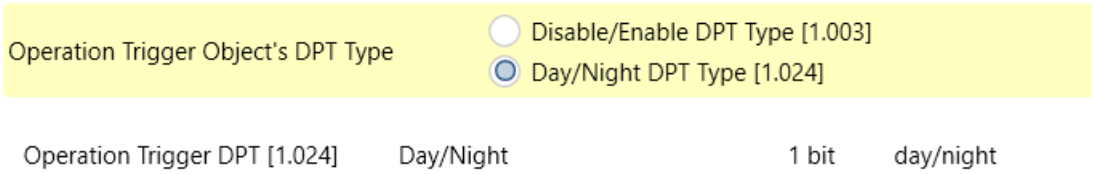


178	Operation Trigger DPT [1.003]	Disable/Enable	1 bit	enable

When a button is pressed or "enable" telegram (1) is received by the object from KNX bus, brightness level of LEDs switches to operation brightness level until the end of operation timeout. When operation timeout is over, brightness level of LEDs will be dimmed to standby brightness level.

"disable" telegram (0) has no function for the object "Operation Trigger DPT [1.003]"

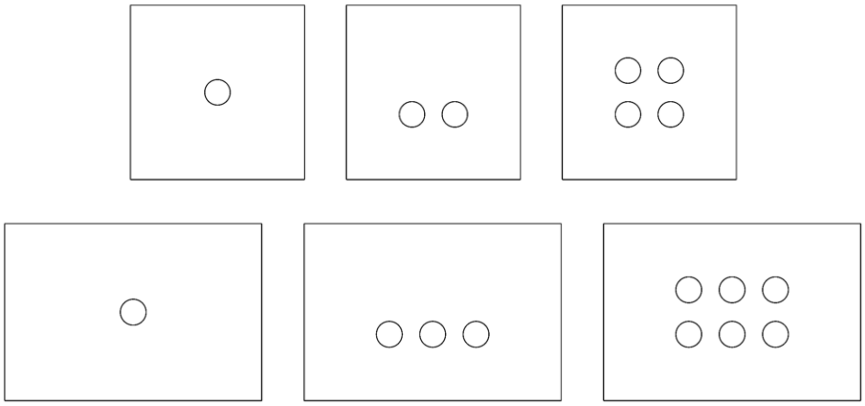
Day/Night DPT Type [1.024]

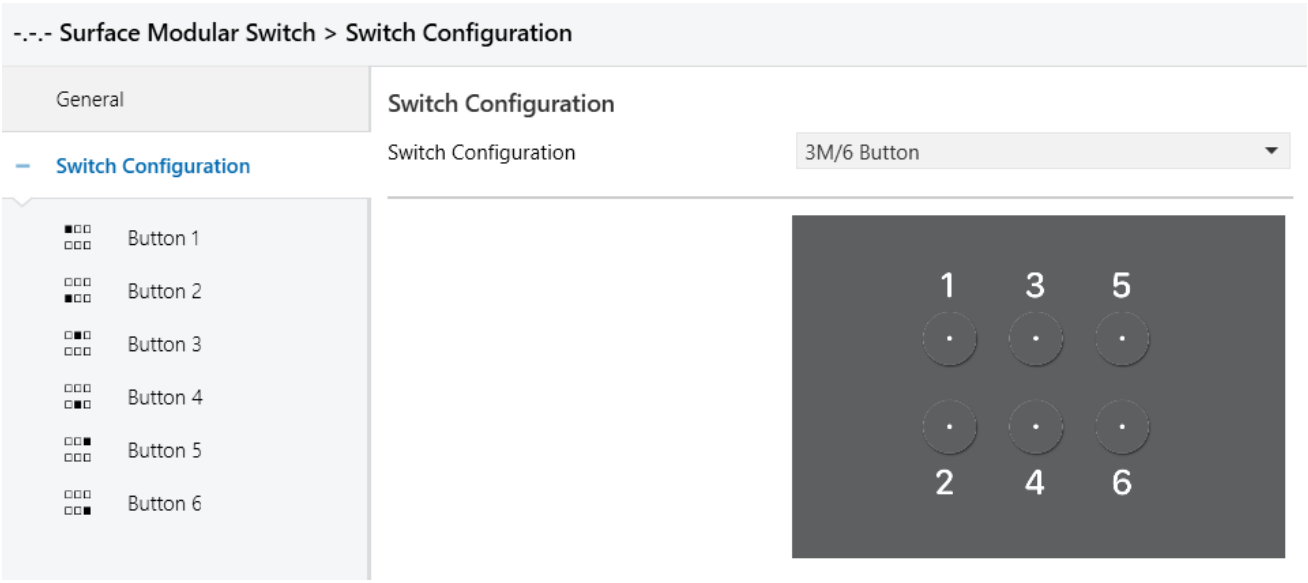


When "day" telegram (0) is received by the object from KNX bus, brightness level of LEDs switches to operation brightness level and when "night" telegram (1) is received by the object from KNX bus brightness level of LEDs switches to standby brightness level. There is no timeout for this function.

3.2. Switch Configuration

Select the model and number of buttons for Surface Modular Switch. Options: 2M/1 Button, 2M/2 Button, 2M/4 Button, 3M/1 Button, 3M/3 Button, 3M/6 Button

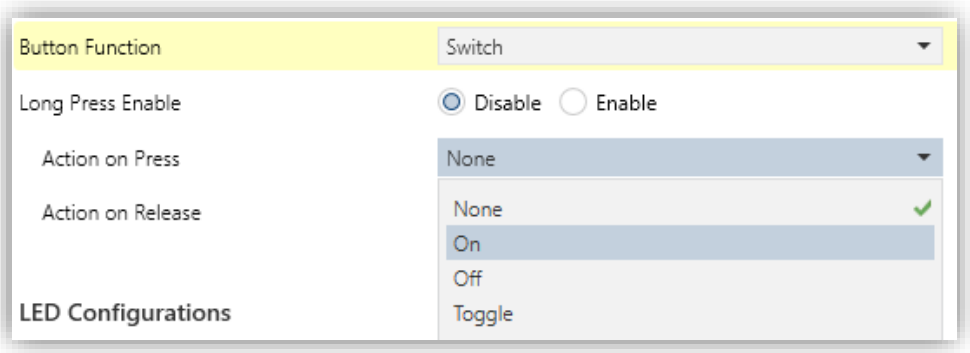




3.2.1. Button Configuration [Switch]

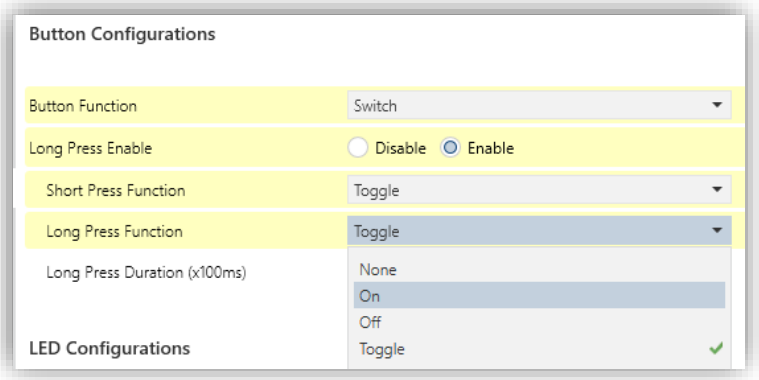
Action on press: [On, Off, Toggle] selected data will be sent to KNX bus for each press of button.

Action on release: [On, Off, Toggle] selected data will be sent to KNX bus for each release of button.



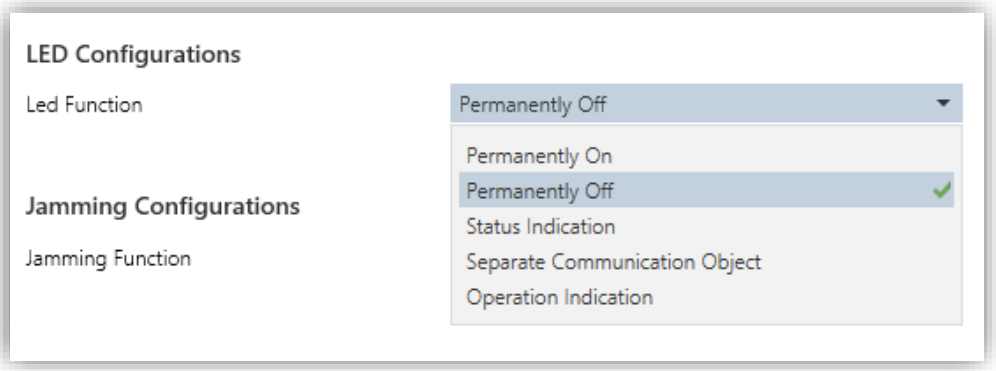
Long press function can be activated. Disabled as default.

ON, Off, Toggle commands can be sent separately using short and long press functions.

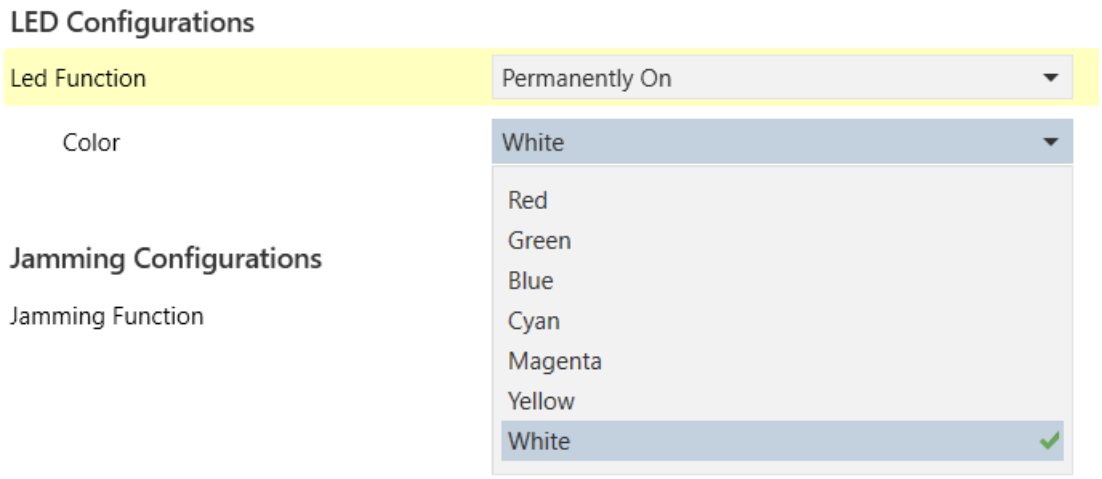


Led configurations:

Available functions: Permanently OFF, Permanently ON, Status Indication, Separate Communication Object and Operation Indication.



Led Function [Permanently ON]: LED is always ON for selected colour. [Red, Green, Blue, Cyan, Magenta, Yellow, White]

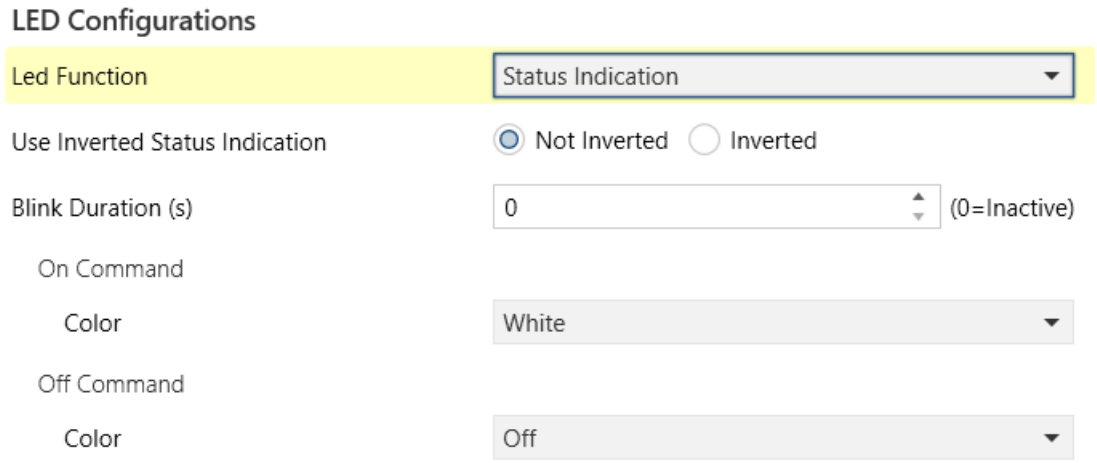


Led Function [Permanently OFF]: LED is always OFF.

Led Function [Status indication]: LED colour will change according to status information.

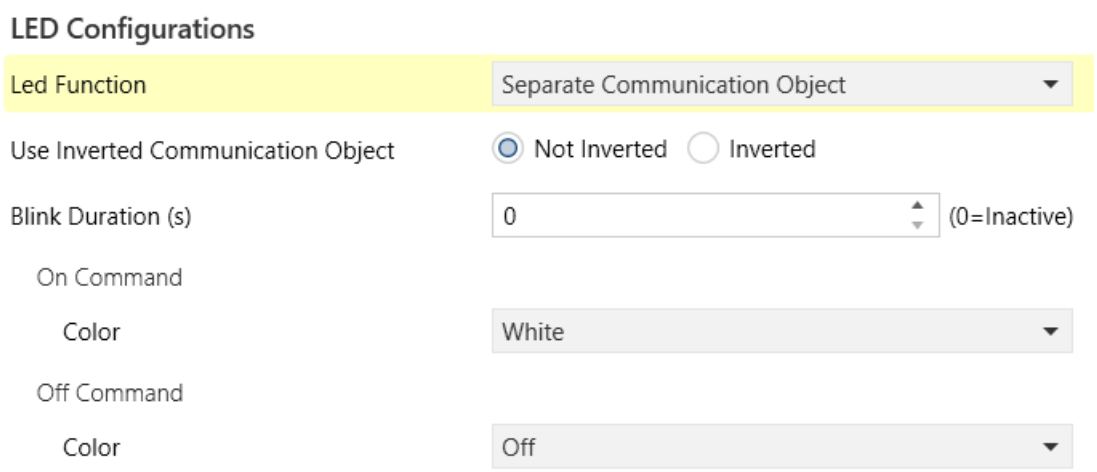
On command [white] – OFF Command [Off]

Blink duration: Status LED of the button will blink for the time period selected at "Blink Duration(s)" parameter when "on command" telegram is received by the object "Switch Status". (Blinking interval is fixed.)



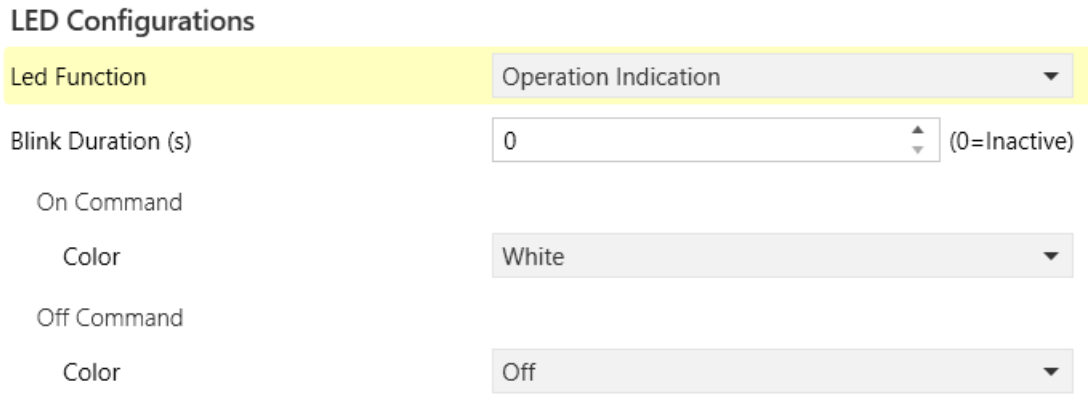
Led Function [Separate Communication Object]: LED colour will change according to value received by LED status object.

Blink duration: Status LED of the button will blink for the time period selected at "Blink Duration(s)" parameter when "on command" telegram is received by the object "LED". (Blinking interval is fixed.)



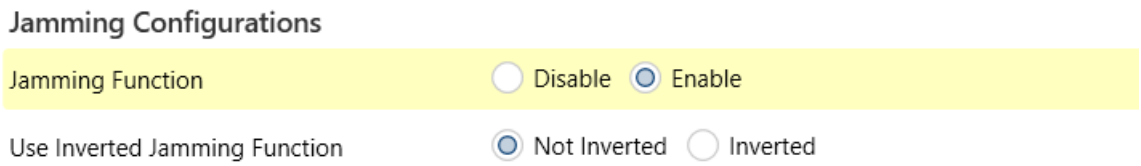
Led Function [Operation indication]: Status LED of rocker button will stay on colour selected for "OFF command" until it is pressed. The pressed button will stay on colour selected for "ON command" until it is released.

Blink duration: Status LED of the pressed button will blink for the time period selected at "Blink Duration(s)" parameter. (Blinking interval is fixed.)



Jamming Configurations

Jamming function is used to block to respective button or rocker via Object Number 9 – "Rocker X - Jamming" by writing "true or false" data from the bus. Button will not work until it is enabled via jamming object.



3.2.2. Button Configuration [Dimming]

"Action on press" can be selected for ON, OFF, TOGGLE commands. Using Long press function, Dim direction is changeable for UP, DOWN, UP/DOWN commands.

Button Function	Dimming
Short Press Function	Toggle
Dim Direction on Long Press	Dim Up/Down
Long Press Duration (x100ms)	10
Dimming Step	12,5%
Step Send Period (x100ms)	8

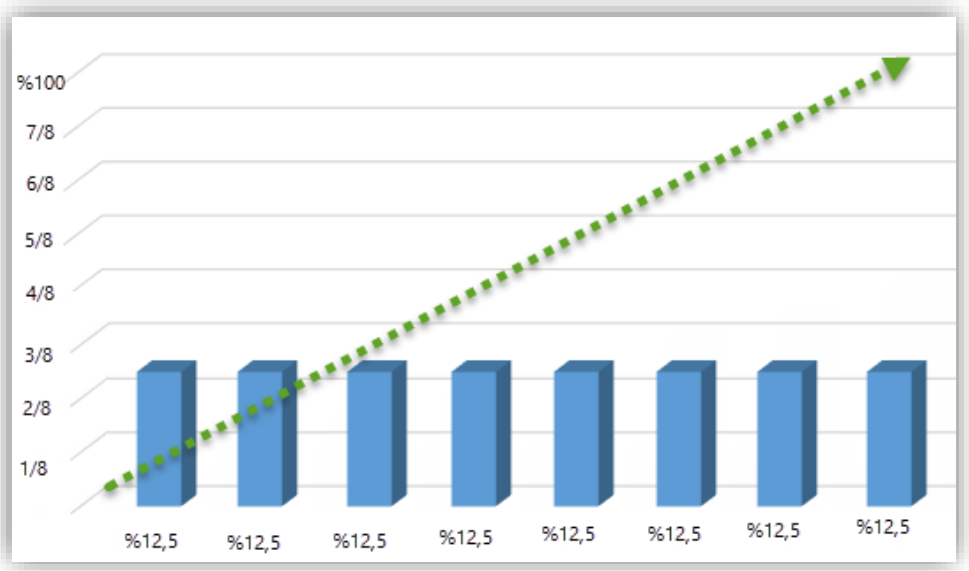
Long Press Duration (x100 ms): Long press duration can be changed. [0…**10**...65535]

As default; 100 ms x 10=1000 ms (1 second)

Switch will start to send dimming up/down commands after each press longer than "1 second".

Dimming Step: Dimming step percentage can be changed to specify the maximum dimming step width of a dimming telegram. With a dimming message, you can dim by a maximum of X %.

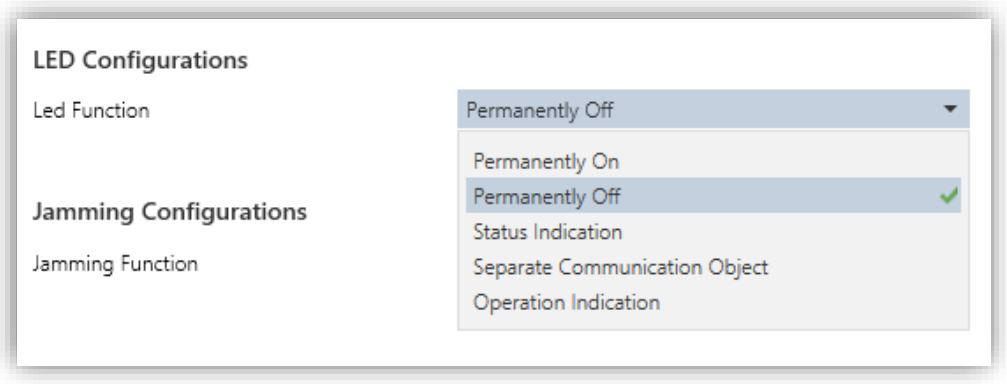
(%100 option represents "Start-stop" dimming function. Other percentage values correspond to "step dimming function")



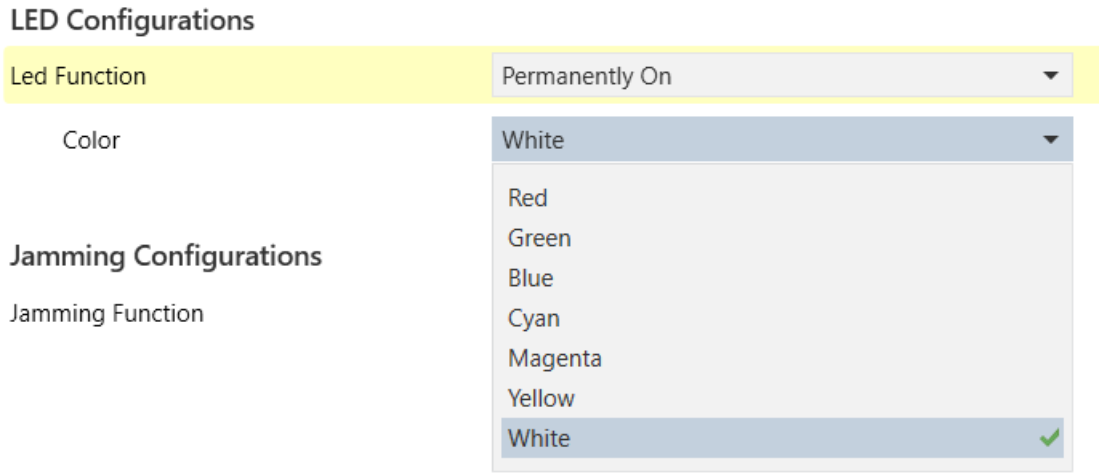
Step Send Period: Defines time interval between two dimming step commands. This interval is another parameter to change dimming speed of the lighting source.

Led configurations:

Available functions: Permanently OFF, Permanently ON, Status Indication, Separate Communication Object and Operation Indication.



Led Function [Permanently ON]: LED is always ON for selected colour. [Red, Green, Blue, Cyan, Magenta, Yellow, White]

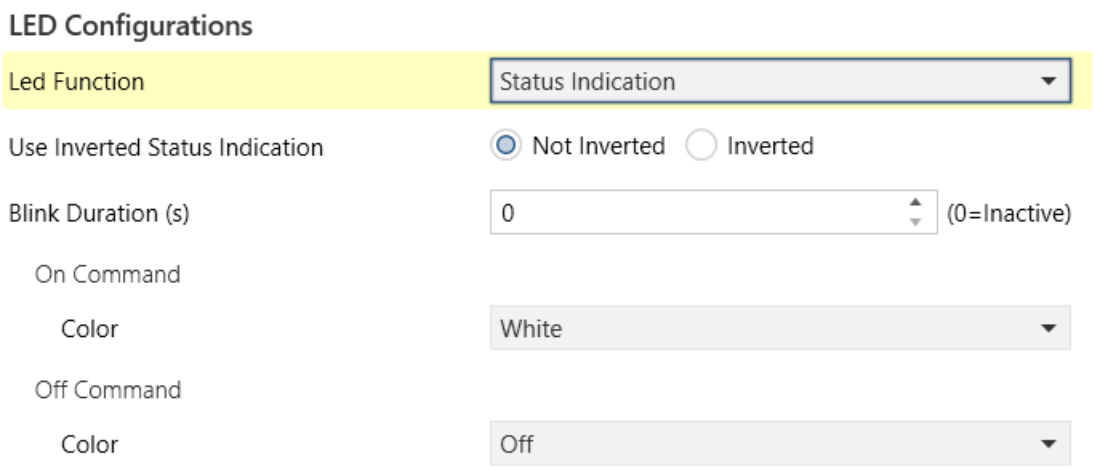


Led Function [Permanently OFF]: LED is always OFF.

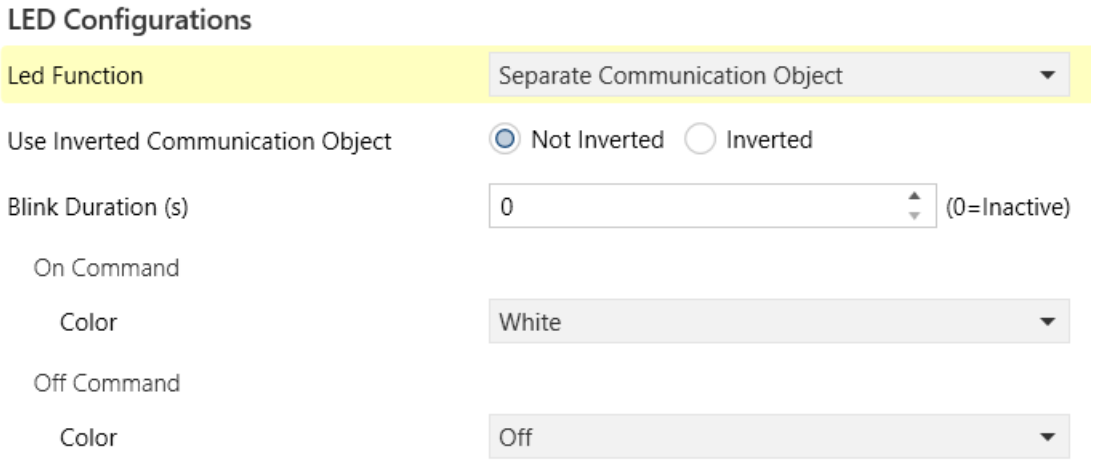
Led Function [Status indication]: LED colour will change according to status information.

On command [white] – OFF Command [Off]

Blink duration: Status LED of the button will blink for the time period selected at "Blink Duration(s)" parameter when "on command" telegram is received by the object "Switch Status". (Blinking interval is fixed.)

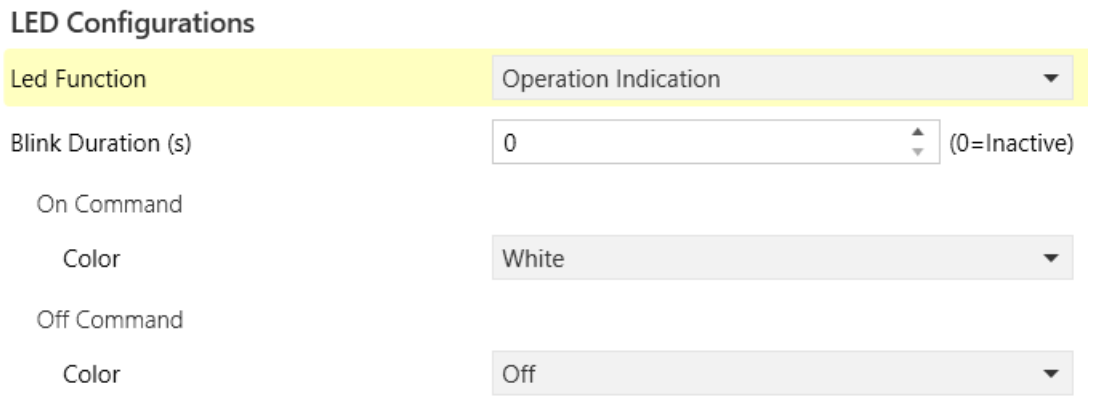


Led Function [Separate Communication Object]: LED colour will change according to value received by LED status object.



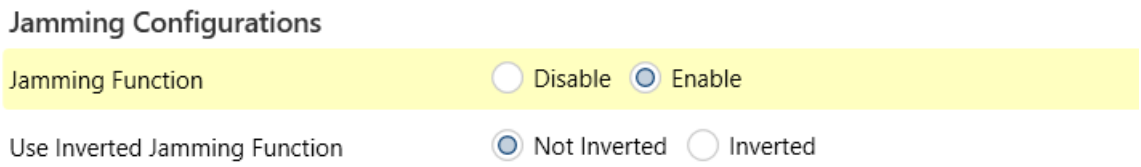
Led Function [Operation indication]: Status LED of rocker button will stay on colour selected for "OFF command" until it is pressed. The pressed button will stay on colour selected for "ON command" until it is released.

Blink duration: Status LED of the button will blink for the time period selected at "Blink Duration(s)" parameter when "on command" telegram is received by the object "LED". (Blinking interval is fixed.)



Jamming Configurations

Jamming function is used to block to respective button or rocker via Object Number 9 – "Rocker X - Jamming" by writing "true or false" data from the bus. Button will not work until it is enabled via jamming object.



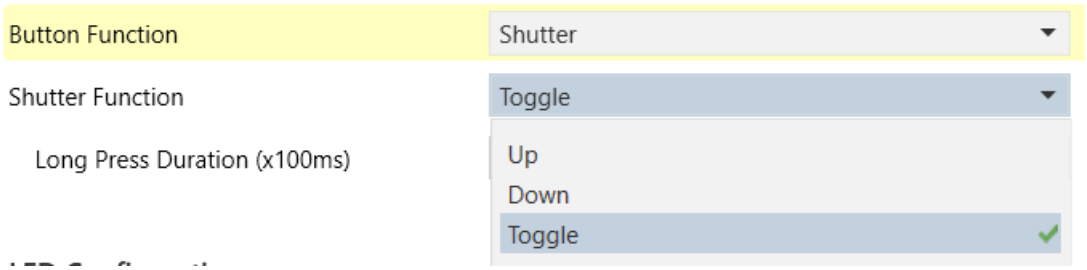
3.2.3. Button Configuration [Shutter]

Shutter command can be selected for each long press [UP, DOWN, TOGGLE].

Switch will start to send [UP, DOWN, TOGGLE] commands after each press longer than "1 second". Switch will send Step/Stop command on each short press,

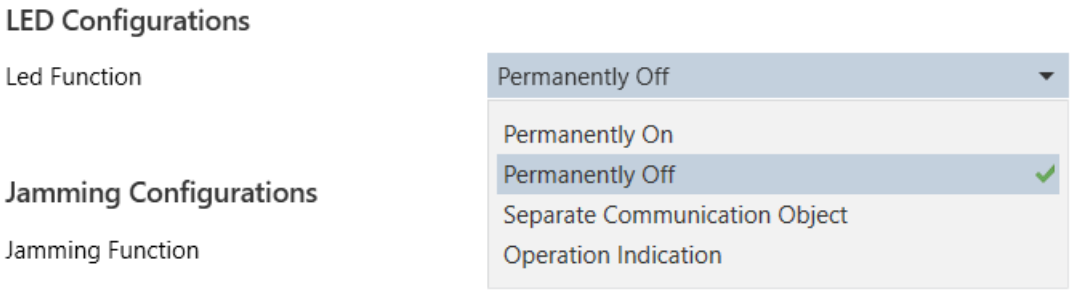
Long Press Duration (x100 ms): Long press duration can be changed. [0…**10**...65535]

As default; 100 ms x 10=1000 ms (1 second)

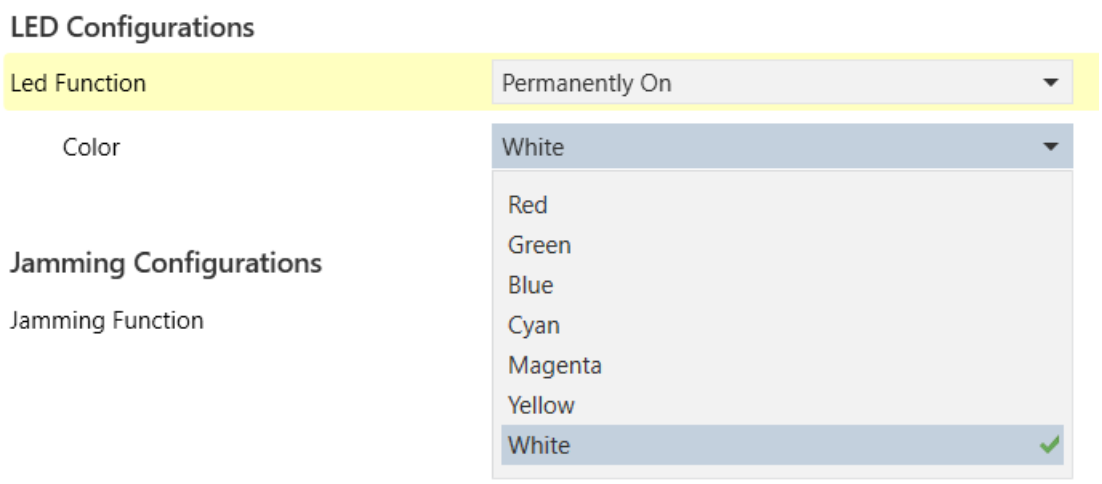


Led configurations:

Available functions: Permanently OFF, Permanently ON, Separate Communication Object and Operation Indication.



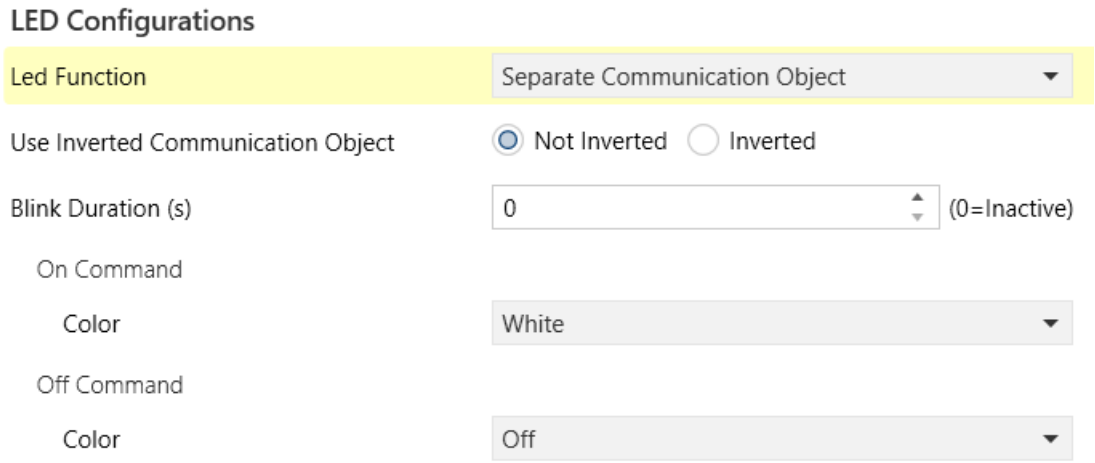
Led Function [Permanently ON]: LED is always ON for selected colour. [Red, Green, Blue, Cyan, Magenta, Yellow, White]



Led Function [Permanently OFF]: LED is always OFF.

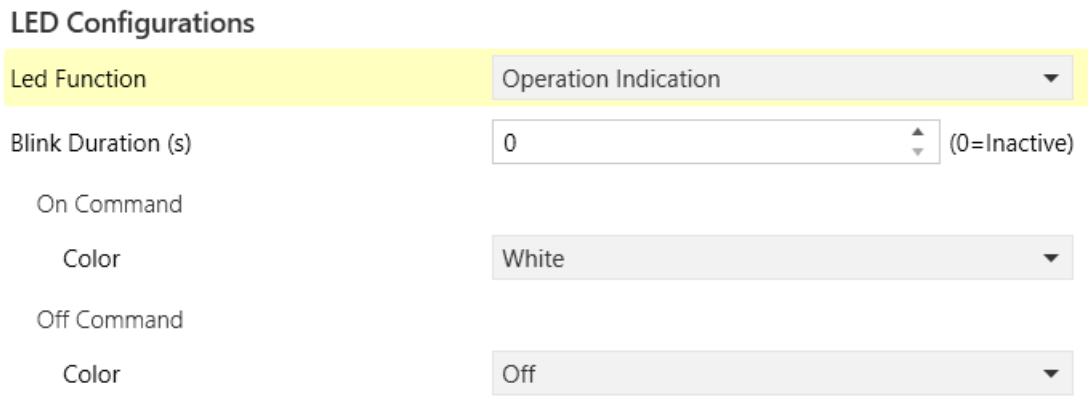
Led Function [Separate Communication Object]: LED colour will change according to value received by LED status object.

Blink duration: Status LED of the button will blink for the time period selected at "Blink Duration(s)" parameter when "on command" telegram is received by the object "LED". (Blinking interval is fixed.)



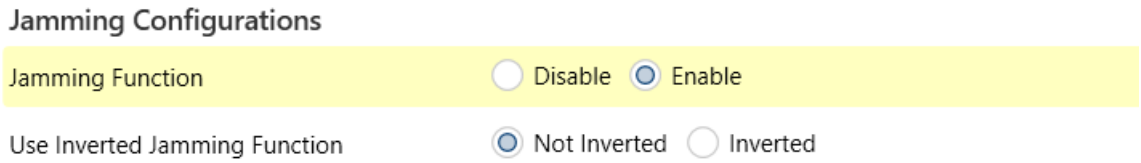
Led Function [Operation indication]: Status LED of rocker button will stay on colour selected for "OFF command" until it is pressed. The pressed button will stay on colour selected for "ON command" until it is released.

Blink duration: Status LED of the pressed button will blink for the time period selected at "Blink Duration(s)" parameter. (Blinking interval is fixed.)



Jamming Configurations

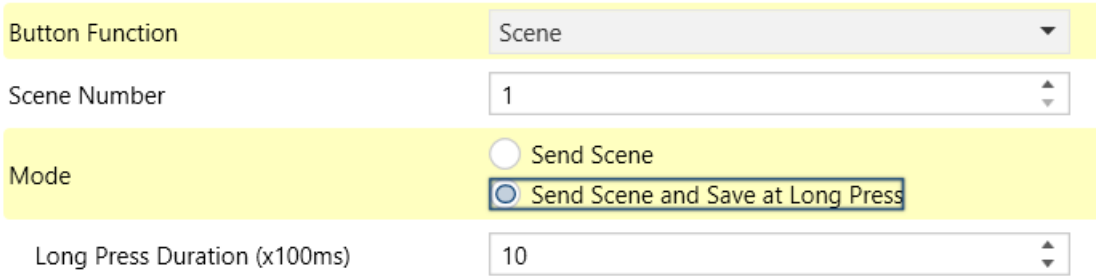
Jamming function is used to block to respective button or rocker via Object Number 9 – "Rocker X - Jamming" by writing "true or false" data from the bus. Button will not work until it is enabled via jamming object.



3.2.4. Button Configuration [Scene]

Scene number determines which scene (1…64) is to be recalled and stored. 64 different scenes can be managed by using single group address on different buttons.

Each short press will call the selected scene. Storing of the current scene can be triggered by long press action. Please check example group monitor record.



Example: Short press -> Button 1 is calling scene number 1.

Long press ->Button 1 is sending the "store scene command" for scene number 1.

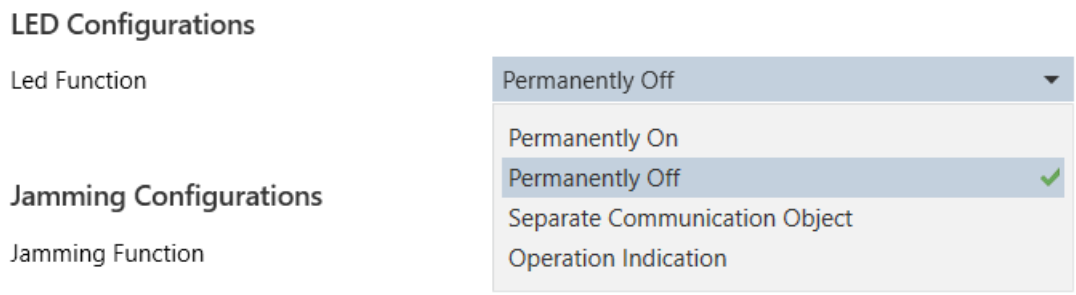
#	Time	Destination A	Destinatior	Info	Type	DPT
1	10/03/2023 11:35:32.962	0/7/7	Scene	$00 | Activate #1	GroupValue_Write	18.001 scene control
2	10/03/2023 11:35:34.704	0/7/7	Scene	$80 | Learn #1	GroupValue_Write	18.001 scene control

Long Press Duration (x100 ms): Long press duration can be changed. [0…**10**...65535]

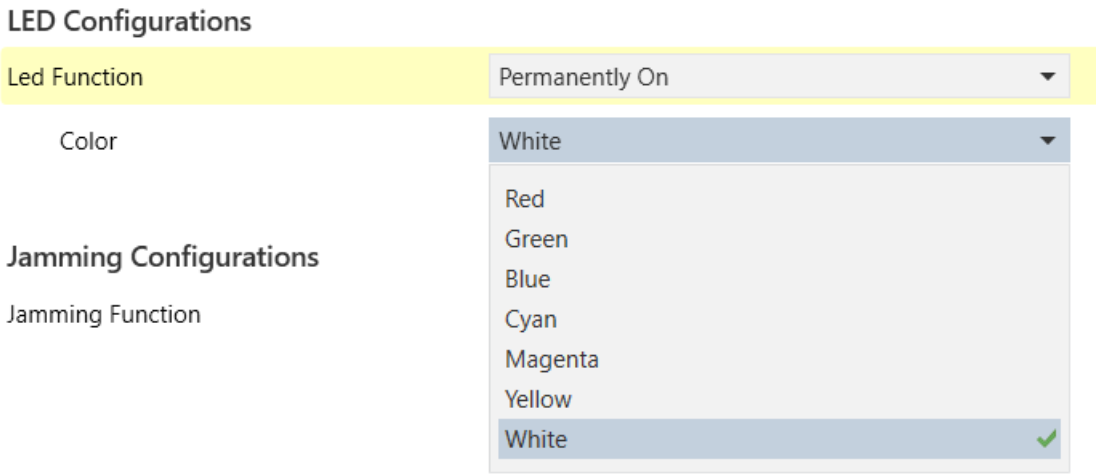
As default; 100 ms x 10=1000 ms (1 second)

Led configurations:

Available functions: Permanently OFF, Permanently ON, Separate Communication Object and Operation Indication.



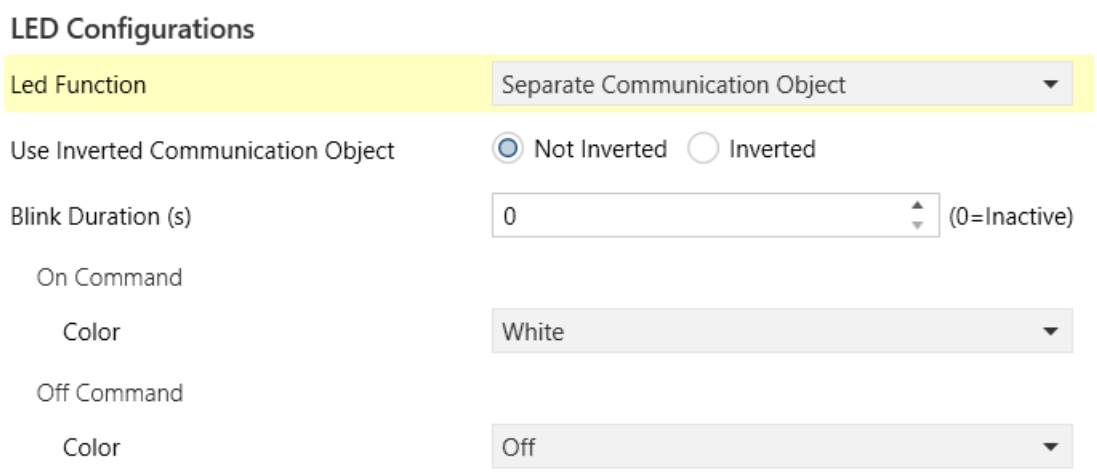
Led Function [Permanently ON]: LED is always ON for selected colour. [Red, Green, Blue, Cyan, Magenta, Yellow, White]



Led Function [Permanently OFF]: LED is always OFF.

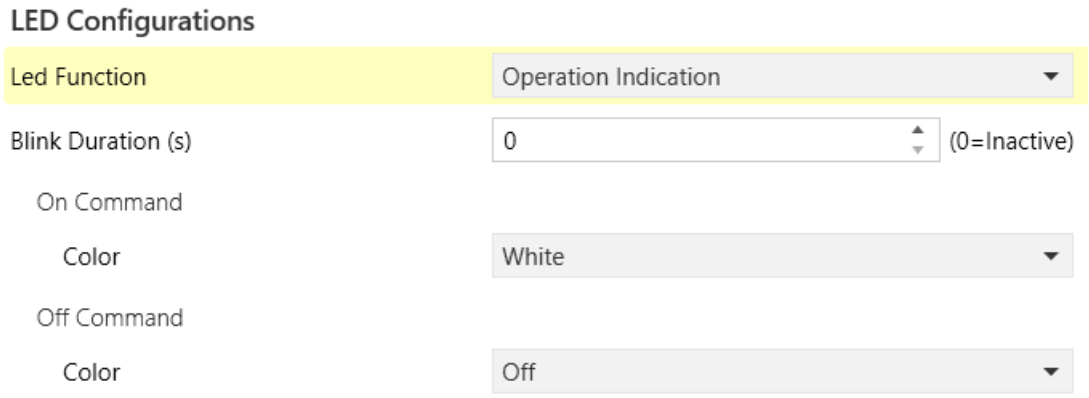
Led Function [Separate Communication Object]: LED colour will change according to value received by LED status object.

Blink duration: Status LED of the button will blink for the time period selected at "Blink Duration(s)" parameter when "on command" telegram is received by the object "LED". (Blinking interval is fixed.)



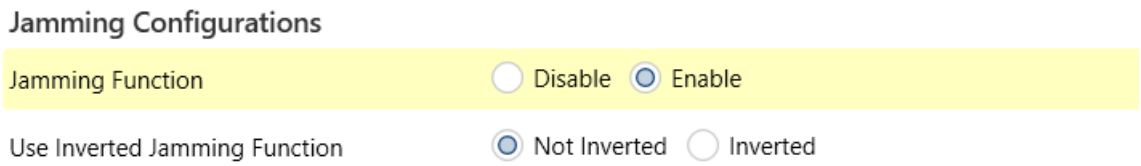
Led Function [Operation indication]: Status LED of rocker button will stay on colour selected for "OFF command" until it is pressed. The pressed button will stay on colour selected for "ON command" until it is released.

Blink duration: Status LED of the pressed button will blink for the time period selected at "Blink Duration(s)" parameter. (Blinking interval is fixed.)



Jamming Configurations

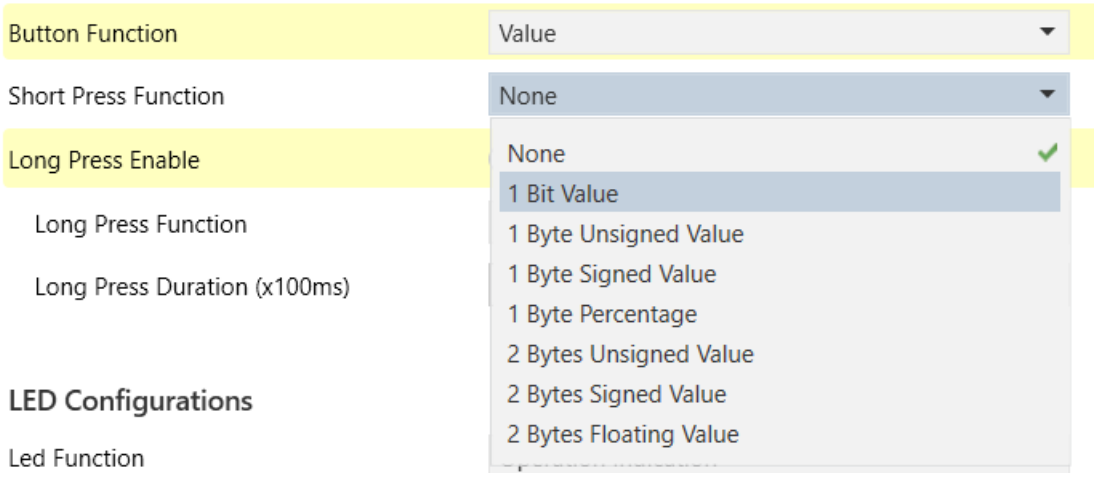
Jamming function is used to block to respective button or rocker via Object Number 9 – "Rocker X - Jamming" by writing "true or false" data from the bus. Button will not work until it is enabled via jamming object.



3.2.5. Button Configuration [Value]

"Short Press Function" determines the data type for the short press. When button is pressed, this type of data will be sent KNX bus via respective communication object.

Long press function can be enabled to send another data type by pressing longer to the same button.

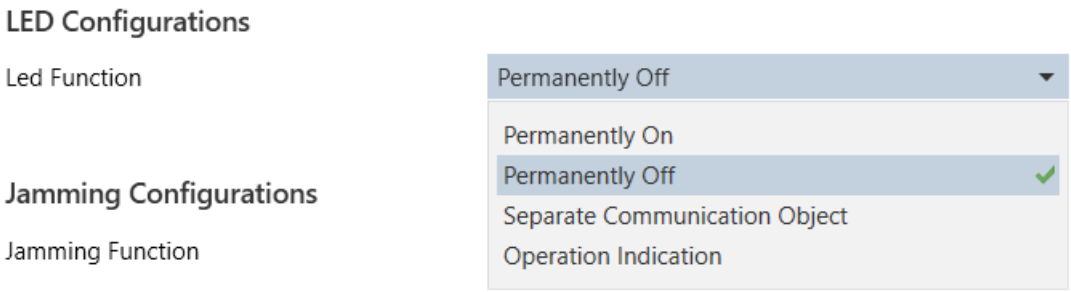


Long Press Duration (x100 ms): Long press duration can be changed. [0…**10**...65535]

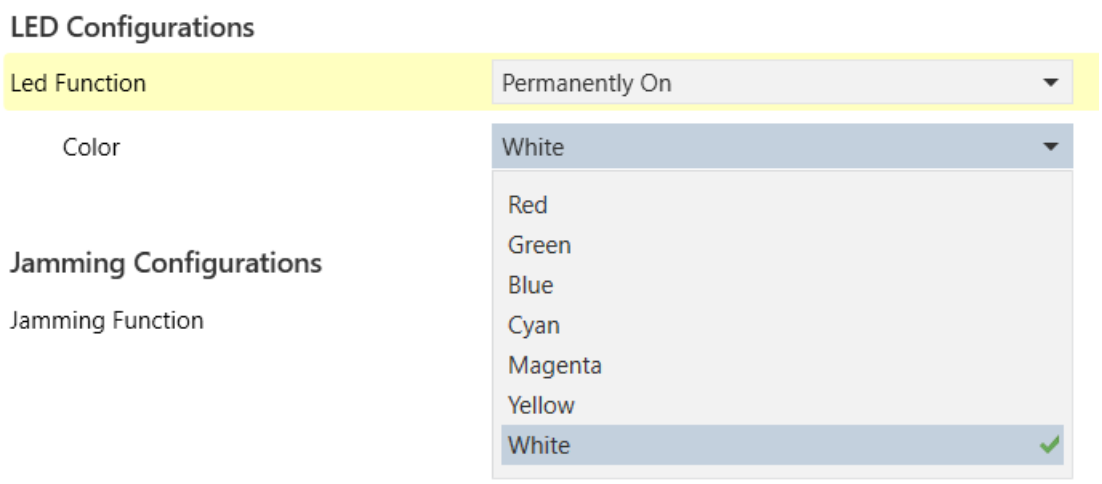
As default; 100 ms x 10=1000 ms (1 second)

Led configurations:

Available functions: Permanently OFF, Permanently ON, Separate Communication Object and Operation Indication.



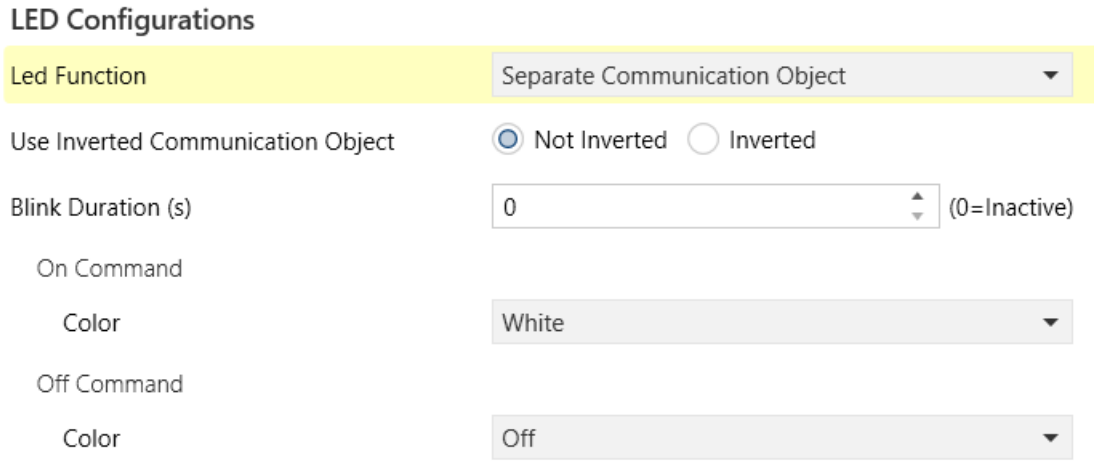
Led Function [Permanently ON]: LED is always ON for selected colour. [Red, Green, Blue, Cyan, Magenta, Yellow, White]



Led Function [Permanently OFF]: LED is always OFF.

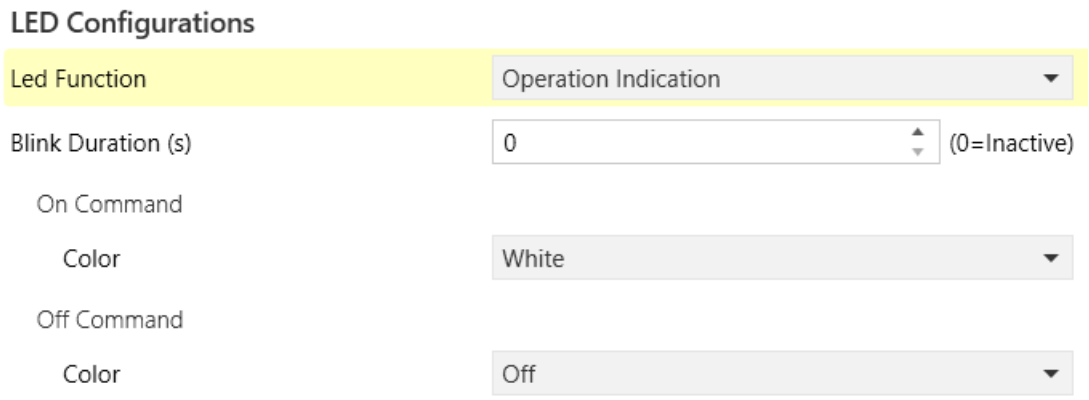
Led Function [Separate Communication Object]: LED colour will change according to value received by LED status object.

Blink duration: Status LED of the button will blink for the time period selected at "Blink Duration(s)" parameter when "on command" telegram is received by the object "LED". (Blinking interval is fixed.)



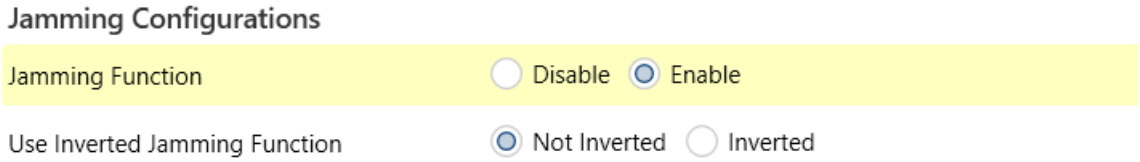
Led Function [Operation indication]: Status LED of rocker button will stay on colour selected for "OFF command" until it is pressed. The pressed button will stay on colour selected for "ON command" until it is released.

Blink duration: Status LED of the pressed button will blink for the time period selected at "Blink Duration(s)" parameter. (Blinking interval is fixed.)



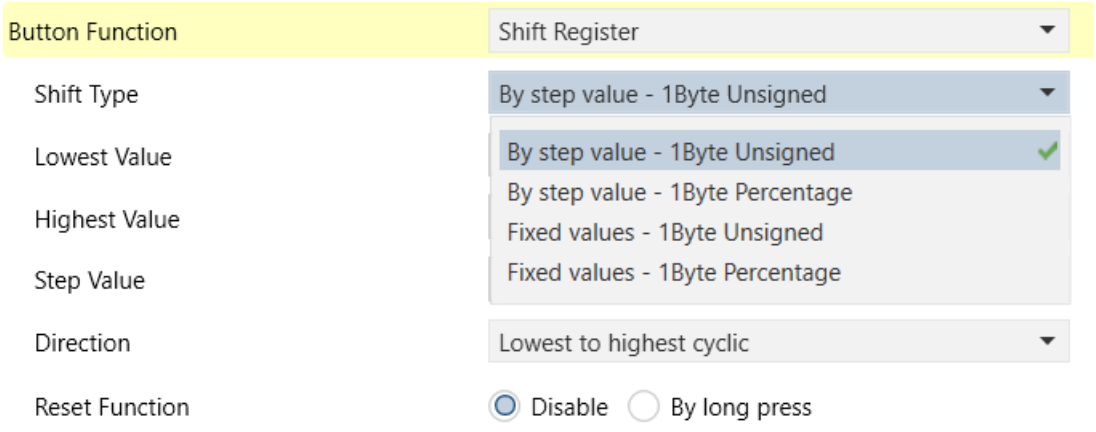
Jamming Configurations

Jamming function is used to block to respective button or rocker via Object Number 9 – "Rocker X - Jamming" by writing "true or false" data from the bus. Button will not work until it is enabled via jamming object.

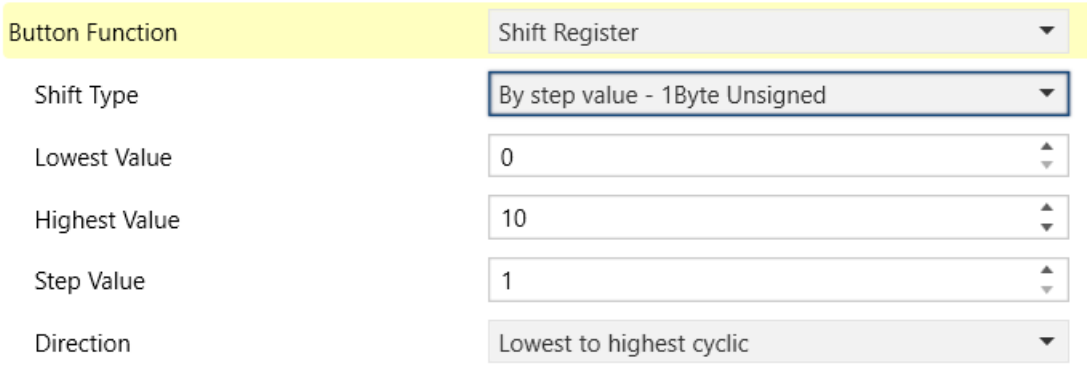


3.2.6. Button Configuration [Shift Register]

"Shift Type" parameter determines the data type and if the shifting is with step value or without step value.

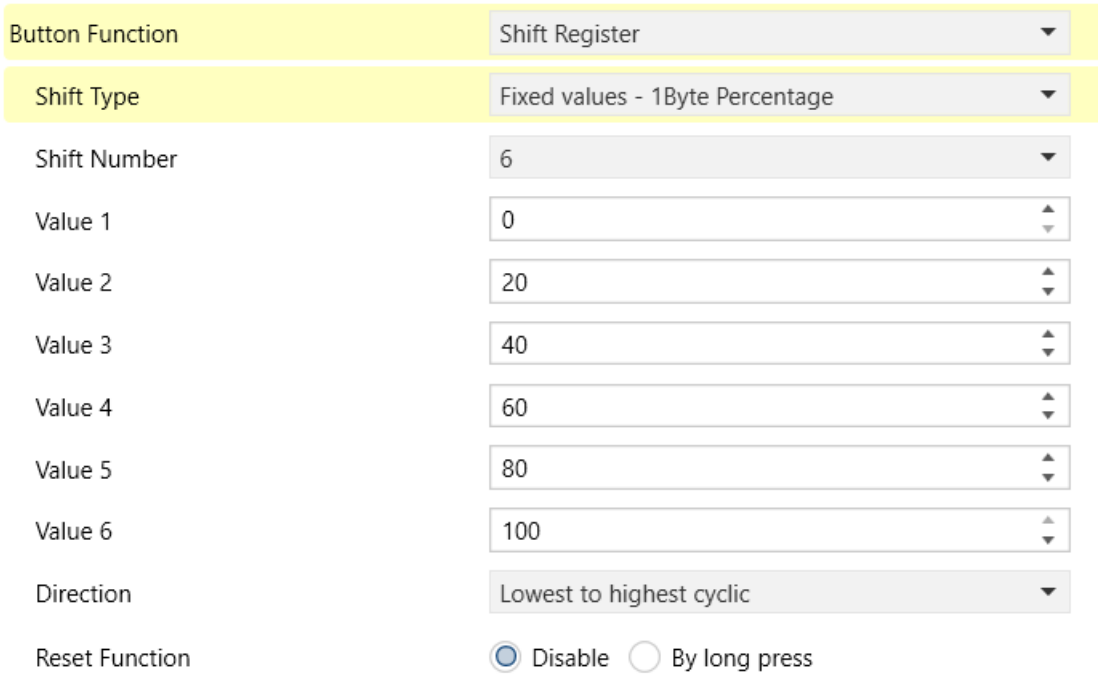


By step value



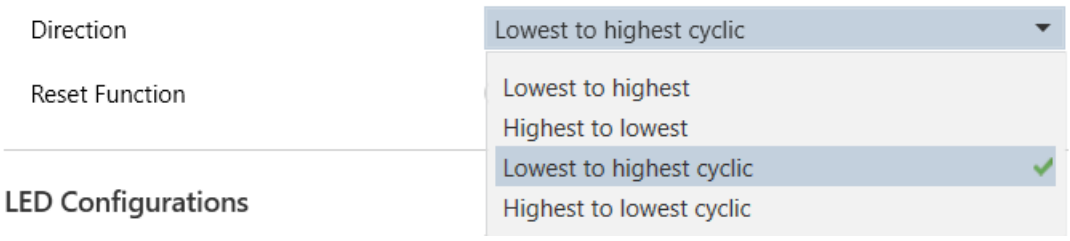
The lowest value and the highest value of shift can be set, the value increased (from lowest to highest) or decreased (from highest to lowest) from every shift can also be set by step value

Fixed values



When there is no step value, the actual value sent by each shift can be set (max 6 value), in every operation one value will be sent.

Direction



Lowest to highest: Shift from low to high and shifting stops when the value reaches to highest

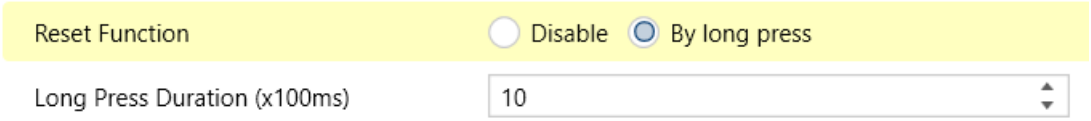
Highest to lowest: Shift from high to low and shifting stops when the value reaches to lowest

Lowest to highest cyclic: Once to the highest value, shift direction starts over again and constantly cycling from low to high operation.

Highest to lowest cyclic: Once to the lowest value, shift direction starts over again and constantly cycling from high to low operation.

Reset Function

This parameter is for setting whether to enable shift reset function.



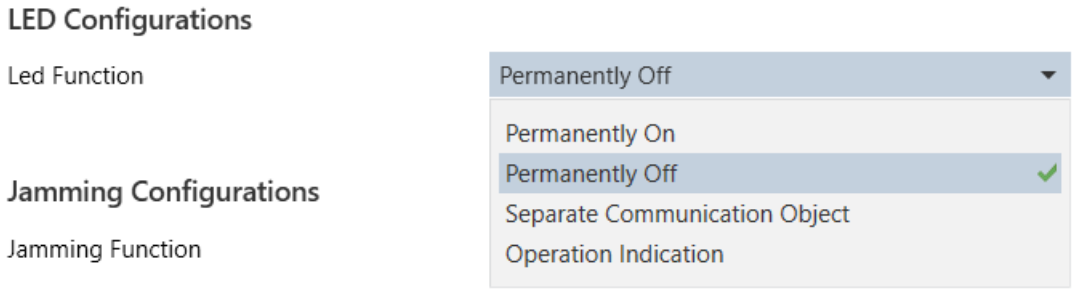
When enabled by long press, it is possible to reset shifting. When reset shift will start from the first value

Long Press Duration (x100 ms): Long press duration can be changed. [0…**10**...65535]

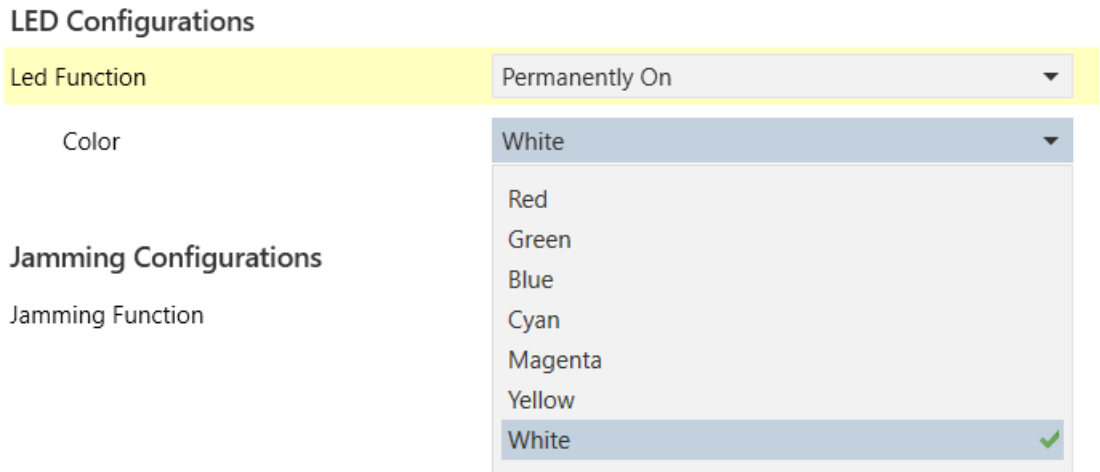
As default; 100 ms x 10=1000 ms (1 second)

Led configurations:

Available functions: Permanently OFF, Permanently ON, Separate Communication Object and Operation Indication.



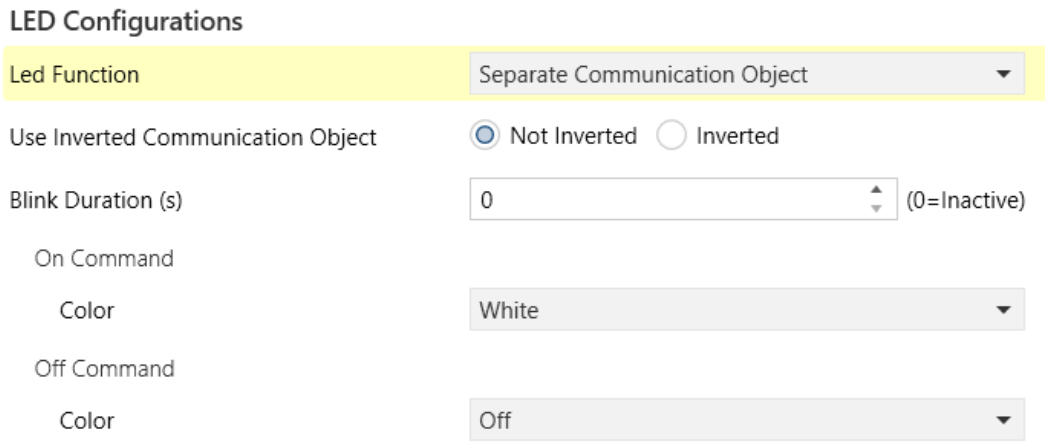
Led Function [Permanently ON]: LED is always ON for selected colour. [Red, Green, Blue, Cyan, Magenta, Yellow, White]



Led Function [Permanently OFF]: LED is always OFF.

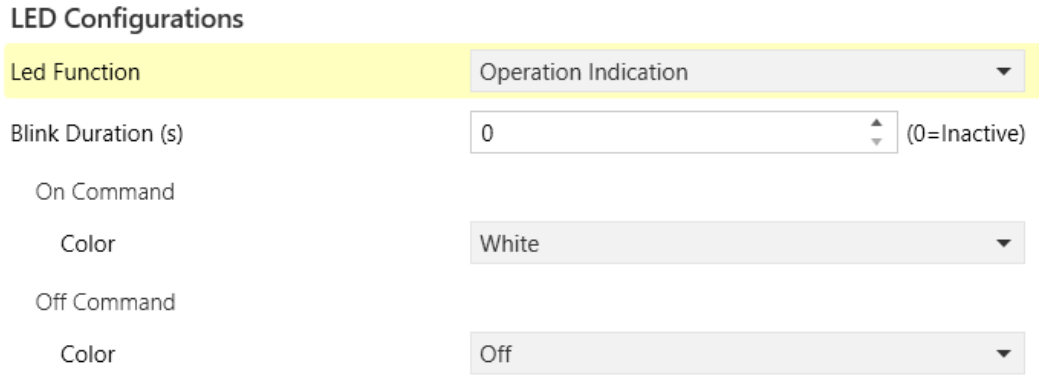
Led Function [Separate Communication Object]: LED colour will change according to value received by LED status object.

Blink duration: Status LED of the button will blink for the time period selected at "Blink Duration(s)" parameter when "on command" telegram is received by the object "LED". (Blinking interval is fixed.)



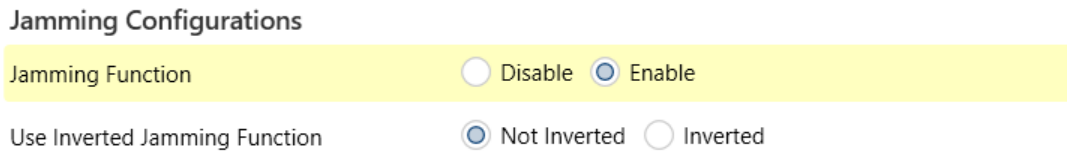
Led Function [Operation indication]: Status LED of rocker button will stay on colour selected for "OFF command" until it is pressed. The pressed button will stay on colour selected for "ON command" until it is released.

Blink duration: Status LED of the pressed button will blink for the time period selected at "Blink Duration(s)" parameter. (Blinking interval is fixed.)



Jamming Configurations

Jamming function is used to block to respective button or rocker via Object Number 9 – "Rocker X - Jamming" by writing "true or false" data from the bus. Button will not work until it is enabled via jamming object.



4. Commissioning

For commissioning the device, the following activities are required:

- Make electrical connections
- Turn on the bus power supply
- Switch the device operation to programming mode
- Download into device the physical address and the configuration with ETS program
- At the end of the download operation of the device returns to normal mode
- Now the device is programmed and ready to use

Configuration and commissioning of the device require the use of ETS4 or later releases. These activities must be carried out according to the design of the building automation system done by a qualified planner.

5. Communication Objects

No	Text	Function Text	Object Size	Flags	Datapoint Type
1	General	Alive Beacon	1 Bit	R-CT--	[1.17] DPT_Trigger
2	Button 1	Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
3	Button 1	Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
4	Button 1	Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
5	Button 1	Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
6	Button 1	Long Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
7	Button 1	Long Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
8	Button 1	LED	1 Bit	-WCTU-	[1.1] DPT_Switch
9	Button 1	Jamming	1 Bit	RWCTU-	[1.3] DPT_Enable
10	Button 1	Up/Down	1 Bit	R-CT--	[1.8] DPT_UpDown
11	Button 1	Step/Stop	1 Bit	R-CT--	[1.7] DPT_Step
12	Button 1	Dimming	4 Bit	R-CT--	[3.7] DPT_Control_Dimming
13	Button 1	Scene	1 Byte	R-CT--	[18.1] DPT_SceneControl
14	Button 1	Value (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch
15	Button 1	Value (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
16	Button 1	Value (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount
17	Button 1	Long Value (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch

18	Button 1	Long Value (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
19	Button 1	Long Value (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount
20	Button 2	Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
21	Button 2	Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
22	Button 2	Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
23	Button 2	Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
24	Button 2	Long Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
25	Button 2	Long Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
26	Button 2	LED	1 Bit	-WCTU-	[1.1] DPT_Switch
27	Button 2	Jamming	1 Bit	RWCTU-	[1.3] DPT_Enable
28	Button 2	Up/Down	1 Bit	R-CT--	[1.8] DPT_UpDown
29	Button 2	Step/Stop	1 Bit	R-CT--	[1.7] DPT_Step
30	Button 2	Dimming	4 Bit	R-CT--	[3.7] DPT_Control_Dimming
31	Button 2	Scene	1 Byte	R-CT--	[18.1] DPT_SceneControl
32	Button 2	Value (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch
33	Button 2	Value (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
34	Button 2	Value (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount
35	Button 2	Long Value (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch
36	Button 2	Long Value (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
37	Button 2	Long Value (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount
38	Button 3	Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
39	Button 3	Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
40	Button 3	Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
41	Button 3	Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
42	Button 3	Long Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
43	Button 3	Long Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
44	Button 3	LED	1 Bit	-WCTU-	[1.1] DPT_Switch
45	Button 3	Jamming	1 Bit	RWCTU-	[1.3] DPT_Enable
46	Button 3	Up/Down	1 Bit	R-CT--	[1.8] DPT_UpDown
47	Button 3	Step/Stop	1 Bit	R-CT--	[1.7] DPT_Step
48	Button 3	Dimming	4 Bit	R-CT--	[3.7] DPT_Control_Dimming

49	Button 3	Scene	1 Byte	R-CT--	[18.1] DPT_SceneControl
50	Button 3	Value (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch
51	Button 3	Value (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
52	Button 3	Value (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount
53	Button 3	Long Value (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch
54	Button 3	Long Value (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
55	Button 3	Long Value (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount
56	Button 4	Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
57	Button 4	Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
58	Button 4	Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
59	Button 4	Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
60	Button 4	Long Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
61	Button 4	Long Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
62	Button 4	LED	1 Bit	-WCTU-	[1.1] DPT_Switch
63	Button 4	Jamming	1 Bit	RWCTU-	[1.3] DPT_Enable
64	Button 4	Up/Down	1 Bit	R-CT--	[1.8] DPT_UpDown
65	Button 4	Step/Stop	1 Bit	R-CT--	[1.7] DPT_Step
66	Button 4	Dimming	4 Bit	R-CT--	[3.7] DPT_Control_Dimming
67	Button 4	Scene	1 Byte	R-CT--	[18.1] DPT_SceneControl
68	Button 4	Value (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch
69	Button 4	Value (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
70	Button 4	Value (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount
71	Button 4	Long Value (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch
72	Button 4	Long Value (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
73	Button 4	Long Value (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount
74	Button 5	Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
75	Button 5	Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
76	Button 5	Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
77	Button 5	Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
78	Button 5	Long Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
79	Button 5	Long Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch

80	Button 5	LED	1 Bit	-WCTU-	[1.1] DPT_Switch
81	Button 5	Jamming	1 Bit	RWCTU-	[1.3] DPT_Enable
82	Button 5	Up/Down	1 Bit	R-CT--	[1.8] DPT_UpDown
83	Button 5	Step/Stop	1 Bit	R-CT--	[1.7] DPT_Step
84	Button 5	Dimming	4 Bit	R-CT--	[3.7] DPT_Control_Dimming
85	Button 5	Scene	1 Byte	R-CT--	[18.1] DPT_SceneControl
86	Button 5	Value (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch
87	Button 5	Value (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
88	Button 5	Value (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount
89	Button 5	Long Value (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch
90	Button 5	Long Value (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
91	Button 5	Long Value (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount
92	Button 6	Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
93	Button 6	Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
94	Button 6	Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
95	Button 6	Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
96	Button 6	Long Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
97	Button 6	Long Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
98	Button 6	LED	1 Bit	-WCTU-	[1.1] DPT_Switch
99	Button 6	Jamming	1 Bit	RWCTU-	[1.3] DPT_Enable
100	Button 6	Up/Down	1 Bit	R-CT--	[1.8] DPT_UpDown
101	Button 6	Step/Stop	1 Bit	R-CT--	[1.7] DPT_Step
102	Button 6	Dimming	4 Bit	R-CT--	[3.7] DPT_Control_Dimming
103	Button 6	Scene	1 Byte	R-CT--	[18.1] DPT_SceneControl
104	Button 6	Value (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch
105	Button 6	Value (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
106	Button 6	Value (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount
107	Button 6	Long Value (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch
108	Button 6	Long Value (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
109	Button 6	Long Value (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount

110	Button 7	Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
111	Button 7	Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
112	Button 7	Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
113	Button 7	Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
114	Button 7	Long Switch Status	1 Bit	-WCTU-	[1.1] DPT_Switch
115	Button 7	Long Switch On/Off	1 Bit	R-CT--	[1.1] DPT_Switch
116	Button 7	LED	1 Bit	-WCTU-	[1.1] DPT_Switch
117	Button 7	Jamming	1 Bit	RWCTU-	[1.3] DPT_Enable
118	Button 7	Up/Down	1 Bit	R-CT--	[1.8] DPT_UpDown
119	Button 7	Step/Stop	1 Bit	R-CT--	[1.7] DPT_Step
120	Button 7	Dimming	4 Bit	R-CT--	[3.7] DPT_Control_Dimming
121	Button 7	Scene	1 Byte	R-CT--	[18.1] DPT_SceneControl
122	Button 7	Value (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch
123	Button 7	Value (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
124	Button 7	Value (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount
125	Button 7	Long Value (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch
126	Button 7	Long Value (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
127	Button 7	Long Value (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount
128	Logic 1	Output (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch
129	Logic 1	Output (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
130	Logic 1	Output (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount
131	Logic 3	Output (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch
132	Logic 1	Input 1	1 Bit	RWCTU-	[1.2] DPT_Bool
133	Logic 1	Input 2	1 Bit	RWCTU-	[1.2] DPT_Bool
134	Logic 1	Input 3	1 Bit	RWCTU-	[1.2] DPT_Bool
135	Logic 1	Input 4	1 Bit	RWCTU-	[1.2] DPT_Bool
136	Logic 2	Output (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch
137	Logic 2	Output (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
138	Logic 2	Output (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount
139	Logic 2	Input 1	1 Bit	RWCTU-	[1.2] DPT_Bool

140	Logic 2	Input 2	1 Bit	RWCTU-	[1.2] DPT_Bool
141	Logic 2	Input 3	1 Bit	RWCTU-	[1.2] DPT_Bool
142	Logic 2	Input 4	1 Bit	RWCTU-	[1.2] DPT_Bool
143	Logic 3	Output (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
144	Logic 3	Output (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount
145	Logic 3	Input 1	1 Bit	RWCTU-	[1.2] DPT_Bool
146	Logic 3	Input 2	1 Bit	RWCTU-	[1.2] DPT_Bool
147	Logic 3	Input 3	1 Bit	RWCTU-	[1.2] DPT_Bool
148	Logic 3	Input 4	1 Bit	RWCTU-	[1.2] DPT_Bool
149	Logic 4	Output (1 bit)	1 Bit	R-CT--	[1.1] DPT_Switch
150	Logic 4	Output (1 Byte)	1 Byte	R-CT--	[5.10] DPT_Value_1_Ucount
151	Logic 4	Output (2 Bytes)	2 Bytes	R-CT--	[7.1] DPT_Value_2_Ucount
152	Logic 4	Input 1	1 Bit	RWCTU-	[1.2] DPT_Bool
153	Logic 4	Input 2	1 Bit	RWCTU-	[1.2] DPT_Bool
154	Logic 4	Input 3	1 Bit	RWCTU-	[1.2] DPT_Bool
155	Logic 4	Input 4	1 Bit	RWCTU-	[1.2] DPT_Bool
156	Operation Brightness Adjustment	Operation Brightness Adjustment	1 Byte	RWCTU-	[5.1] DPT_Scaling
157	Operation Brightness Status	Operation Brightness Status	1 Byte	R-CT--	[5.1] DPT_Scaling
158	Standby Brightness Adjustment	Standby Brightness Adjustment	1 Byte	RWCTU-	[5.1] DPT_Scaling
159	Standby Brightness Status	Standby Brightness Status	1 Byte	R-CT--	[5.1] DPT_Scaling
160	Standby Mode Enable/Disable	Standby Mode Enable/Disable	1 Bit	RWCTU-	[1.3] DPT_Enable