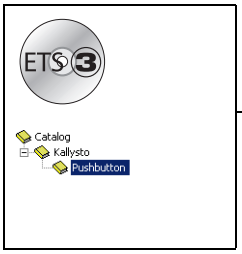
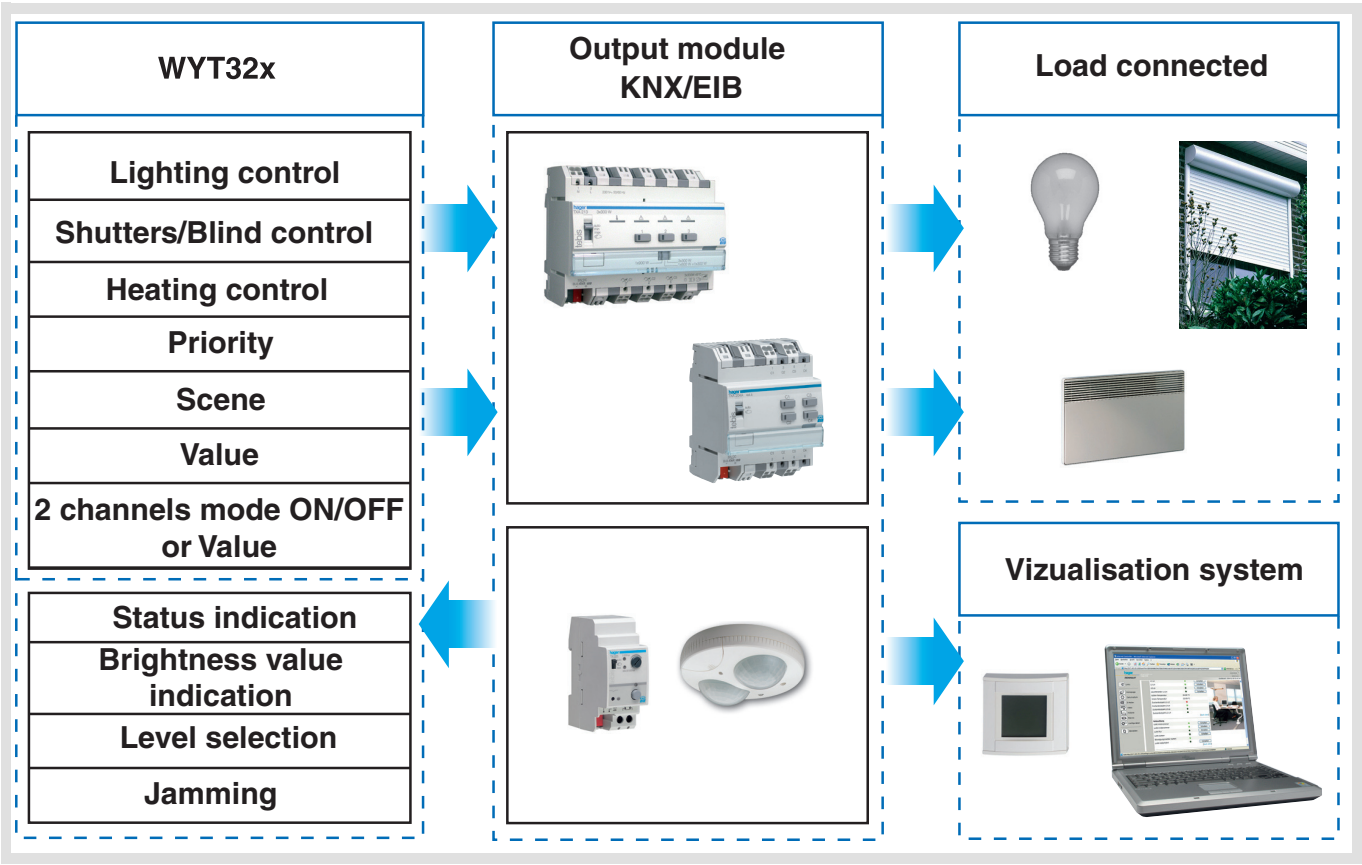


Tebis application software

WDL320A V 1.X Tebis KNX pushbuttons
KNX Tebis universal 2-keys pushbutton with indicator
Electrical/Mechanical characteristics: see user's instructions

	Product reference	Product designation
	WYT32x	KNX Tebis universal 2-keys pushbutton with indicator



Summary

1. Presentation of the functions

The WDL320A application software allows the pushbuttons and the indicators to be individually configured for WYT32x products.

Its main functions are::

Sending commands and values

The pushbuttons are used to send commands for lighting, blinds and shutters, heating setpoints or scenes. They send commands (e.g.: ON/OFF, up/down) or values (percentage, temperature, brightness, dimming or value coded as 2 bytes).

Sending commands:

- Lighting control
  Toggle (ON=toggle), Toggle (Time-limited toggle switch), ON, OFF, ON/OFF, Timer.
  1-button or 2-button dimmer.
- Blinds / shutters control
  Up, Down, Stop, Blind slat angle, Security down.
  1-button or 2-button control
- Setpoint selection (Thermostat)
  Comfort (Day), Economy (Absence), Reduced (night), Frost-free.

Priority

The priority function sends priority-start or priority-stop commands.
The Priority action depends on the type of application controlled: lighting, roller shutters, heating, etc.

Scene

The Scene function sends group controls to different kinds of outputs to create ambiences or scenarios.
Example of scene 1: Leaving the house (with centralised lighting control OFF, shutters on South side lowered to 3/4, the other shutters open, heating set to Economy (Absence)).

Status indication by indicator

Each pushbutton is equipped with an indicator to confirm pressing or to indicate the statuses of the controlled outputs. The indicator (brightness, colour, flashing) and its operation mode (always ON, always OFF, status indication or status confirmation) are settable.

Using the keys

Key operation can be defined.

- Linked pushbuttons: Key operation is linked (e.g. left key = shutter lowering and right key = shutter raising)
- Independent pushbuttons: Key operation is not linked (e.g. left key = shutter raising/lowering/stop and right key = light dimming).

Jamming

The Jamming function locks the pushbutton via a bus object. No commands or values can be sent to the bus.

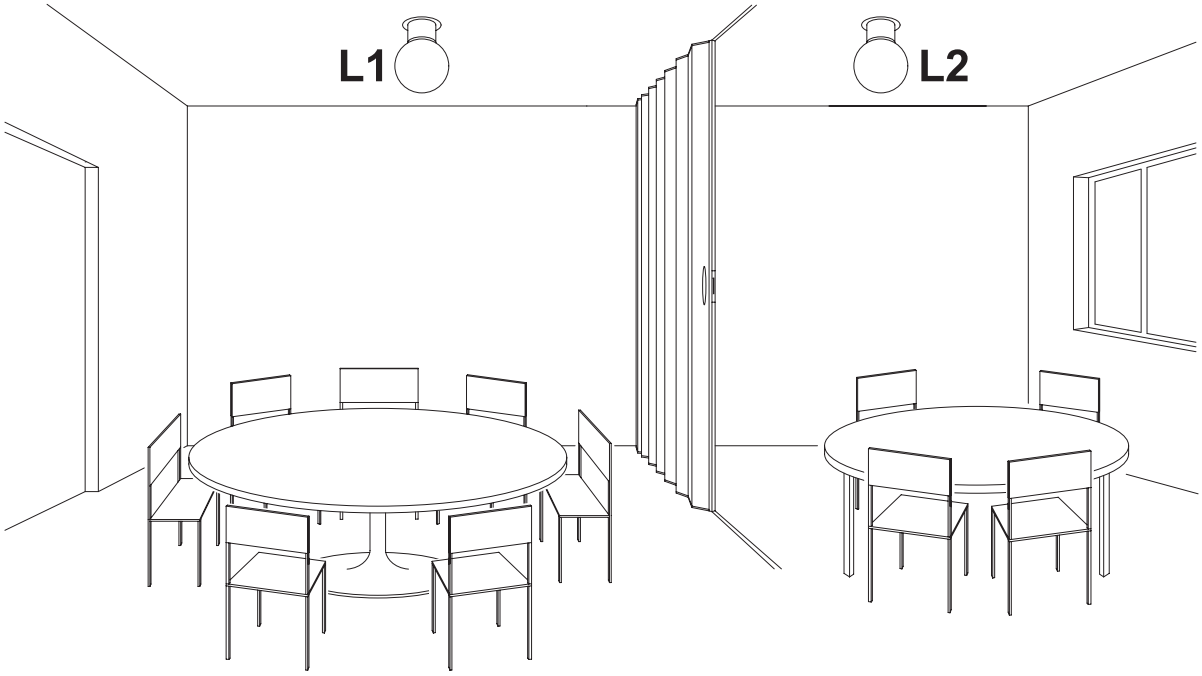
2-channel mode

The 2-channel mode is used to perform two different functions using the same pushbutton. The distinction between the two functions is between a short key-press and a long key-press (the duration of the long key-press is settable).

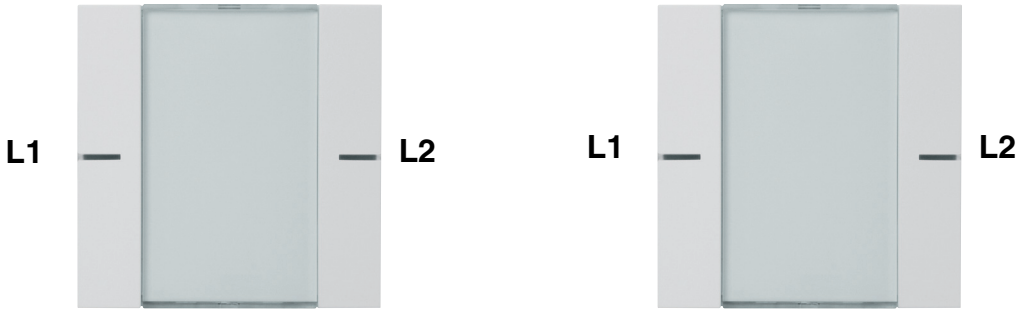
Level selection

The second level (activated by the Level selection object) can be used to either deactivate the key's function or to change it. An additional function cannot be defined. Infrared channels or linked pushbuttons are not concerned by this level selection function.

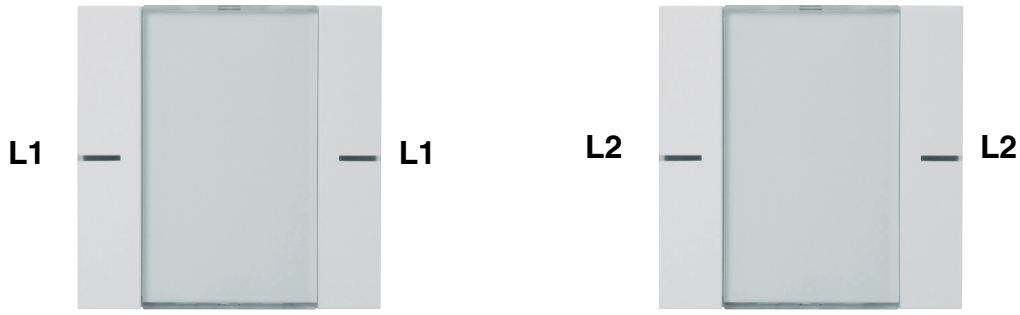
Example of level selection:
Room with separation wall: Pushbuttons configured as ON/OFF



- Situation: Separation wall open



- Situation: Separation wall closed (The "divided wall open/closed" information can come from, for example, a control switch).



Antitheft Alarm

The Antitheft Alarm function sends information to the bus if the pushbutton has been removed.

Label holder backlight

The WYT36x pushbutton equipment has a backlit label holder. The label holder backlight can be switched ON/OFF remotely via an object.

2. Configuration and parameters

2.1 Objects list

2.1.1 List of objects operated by independent pushbuttons

Object name \ Function	Not used	ON/OFF	Toggle	Time-limited toggle switch	Timer	1-button dimmer	2-button dimmer	1-button shutters/blinds	2-button shutters/blinds	Setpoint selection	Priority	Scene	Value	2-channel mode, ON/OFF (ON or OFF)	2-channel mode, ON/OFF (Toggle)	2-channel mode, Value
ON/OFF		X	X			X	X									
Status indication			X	X		X		X								
Time-limited toggle switch				X												
Timer					X											
Dim						X	X									
Stop/Angle								X	X							
Up/Down								X	X							
Setpoint selection										X						
Priority											X					
Scene												X				
Value													X			
ON/OFF Channel A														X	X	
ON/OFF Channel B														X	X	
Status indication, channel A															X	
Status indication, channel B															X	
Value, Channel A																X
Value, Channel B																X
Jamming	$X_{1)}$	$X_{1)}$	$X_{1)}$	$X_{1)}$	$X_{1)}$	$X_{1)}$	$X_{1)}$	$X_{1)}$	$X_{1)}$	$X_{1)}$	$X_{1)}$	$X_{1)}$	$X_{1)}$	$X_{1)}$	$X_{1)}$	$X_{1)}$
Indicator brightness selection	$X_{2)}$	$X_{2)}$	$X_{2)}$	$X_{2)}$	$X_{2)}$	$X_{2)}$	$X_{2)}$	$X_{2)}$	$X_{2)}$	$X_{2)}$	$X_{2)}$	$X_{2)}$	$X_{2)}$	$X_{2)}$	$X_{2)}$	$X_{2)}$
Level selection	$X_{3)}$	$X_{3)}$	$X_{3)}$	$X_{3)}$	$X_{3)}$	$X_{3)}$	$X_{3)}$	$X_{3)}$	$X_{3)}$	$X_{3)}$	$X_{3)}$	$X_{3)}$	$X_{3)}$	$X_{3)}$	$X_{3)}$	$X_{3)}$
Label holder backlight	$X_{4)}$	$X_{4)}$	$X_{4)}$	$X_{4)}$	$X_{4)}$	$X_{4)}$	$X_{4)}$	$X_{4)}$	$X_{4)}$	$X_{4)}$	$X_{4)}$	$X_{4)}$	$X_{4)}$	$X_{4)}$	$X_{4)}$	$X_{4)}$
8-bit antitheft alarm	$X_{5)}$	$X_{5)}$	$X_{5)}$	$X_{5)}$	$X_{5)}$	$X_{5)}$	$X_{5)}$	$X_{5)}$	$X_{5)}$	$X_{5)}$	$X_{5)}$	$X_{5)}$	$X_{5)}$	$X_{5)}$	$X_{5)}$	$X_{5)}$
Signalling	$X_{6)}$	$X_{6)}$	$X_{6)}$	$X_{6)}$	$X_{6)}$	$X_{6)}$	$X_{6)}$	$X_{6)}$	$X_{6)}$	$X_{6)}$	$X_{6)}$	$X_{6)}$	$X_{6)}$	$X_{6)}$	$X_{6)}$	$X_{6)}$

1) The Jamming object can be activated or deactivated for each pushbutton. It is nevertheless always visible.
2) The Indicator brightness selection object defines the indicator brightness and is always visible.
3) For level selection, the function can be defined for each of the keys.
4) The Label holder backlight object appears when this light is defined as object-controlled.
5) The Antitheft alarm object only appears when the Antitheft alarm function is activated.
6) The Signalling indicator object is visible when the indicator is used for status indication.

2.1.2 List of objects operated by linked pushbuttons

Function / Object name	Not used	ON/OFF	Toggle	1-button dimmer	Dim (Increase/Decrease or Decrease/Increase)	Dim (Increase (Toggle) / Decrease (Toggle) or Decrease (Toggle) / Increase (Toggle))	1-button shutters/blinds	2-button shutters/blinds	Setpoint selection	Priority	2-channel mode, ON/OFF (ON or OFF)
ON/OFF		X	X	X	X						
Status indication			X	X		X	X				
Dim				X	X	X					
Stop/Angle							X	X			
Up/Down							X	X			
Setpoint selection									X		
Priority										X	
ON/OFF Channel A											X
ON/OFF Channel B											X
Jamming	X1)	X1)	X1)	X1)	X1)	X1)	X1)	X1)	X1)	X1)	X1)
Indicator brightness selection	X2)	X2)	X2)	X2)	X2)	X2)	X2)	X2)	X2)	X2)	X2)
Level selection	X3)	X3)	X3)	X3)	X3)	X3)	X3)	X3)	X3)	X3)	X3)
Label holder backlight	X4)	X4)	X4)	X4)	X4)	X4)	X4)	X4)	X4)	X4)	X4)
8-bit antitheft alarm	X5)	X5)	X5)	X5)	X5)	X5)	X5)	X5)	X5)	X5)	X5)
Signalling	X6)	X6)	X6)	X6)	X6)	X6)	X6)	X6)	X6)	X6)	X6)

1) The Jamming object can be activated or deactivated for each pair of linked pushbuttons. It is nevertheless always visible.
2) The Indicator brightness selection object defines the indicator brightness and is always visible.
3) The Level selection function is not available for linked pushbuttons. The object is always visible.
4) The Label holder backlight object appears when this light is defined as object-controlled.
5) The Antitheft alarm object only appears when the Antitheft alarm function is activated.
6) The Signalling indicator object is visible when the indicator is used for status indication.

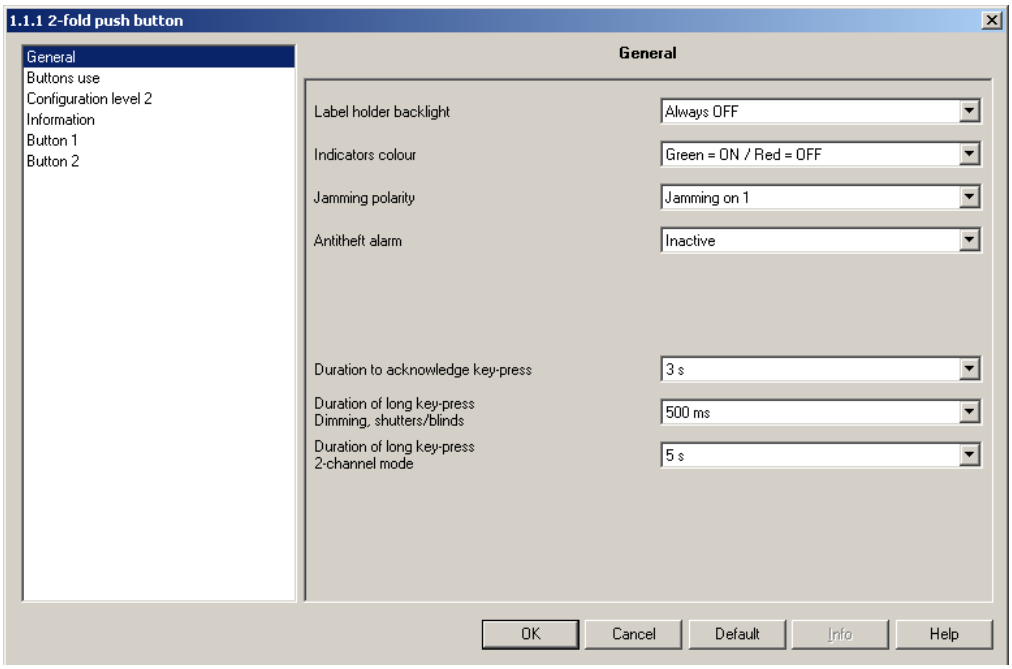
2.2 General parameters

2.2.1 Label holder backlight and indicator colours

The label holder backlight can be defined as always OFF, always ON or controlled by the bus via the Label holder backlight object. The functions of each of the 2 indicators can be individually controlled and configured. When the indicator's function is status indication, a Signalling object is available for controlling the indicator.

The indicator brightness level can be defined by the Indicator brightness selection object.
The Indicator brightness selection object defines two brightness levels: standard (=0)or reduced (=1).

➜ Parameters



Screen 1

Designation	Description	Values
Label holder backlight	This parameter defines how the label holder backlight should operate.	Linked with object, Always OFF, Always ON. Default value: Always OFF.
Indicator colour	This parameter defines the colour of the indicators associated to each pushbutton.	Green=ON/Red=OFF, Red=ON/Green=OFF, Green= ON, Red=ON. Default value: Green= ON/Red=OFF.

2.2.2 Key jamming and Antitheft alarm

Key locking can be individually defined for each key. Pushbutton locking is activated by the Jamming object.
When the theft protection function is used, the BCU detects that the pushbutton mechanism has been removed and emits an alarm signal via the Antitheft Alarm object.
The information is transmitted via the 1-bit antitheft alarm object or the 8-bit antitheft alarm object.

➜ Parameters
Settings: see "Screen 1".

Designation	Description	Values
Jamming polarity	The Jamming function authorizes product locking. Jamming forbids sending commands. This parameter defines the level at which jamming is active.	Jamming set to 1, Jamming set to 0. Default value: Jamming set to 1.
Antitheft Alarm	This parameter defines the type of object sent upon pushbutton removal. In the case of removal,: - In 1-bit configuration, a "1" will be sent regularly. If the mechanism is removed, a "0" will be sent regularly. - In 1-byte configuration, the defined value will be sent regularly. If the mechanism is removed, value sending is stopped.	Not used, 1-bit alarm, 8-bit alarm. Default value: Not used.
Alarm emission period*	This parameter defines the emission periodicity of the Antitheft alarm object.	1 min, 5 min, 10 min, 30 min. Default value: 10 min.
Alarm value**	This parameter defines the value sent if the 8-bit alarm is active.	0 up to 255 in 1 steps. Default value: 0.

* These parameters are only visible if the Antitheft Alarm parameter has the value: 1-bit alarm or 8-bit alarm.
** This parameter is only visible if the "Antitheft alarm upon dismantling" parameter has the value: 1-byte alarm.

2.2.3 Indicator ON period and length of (long/short) key-presses

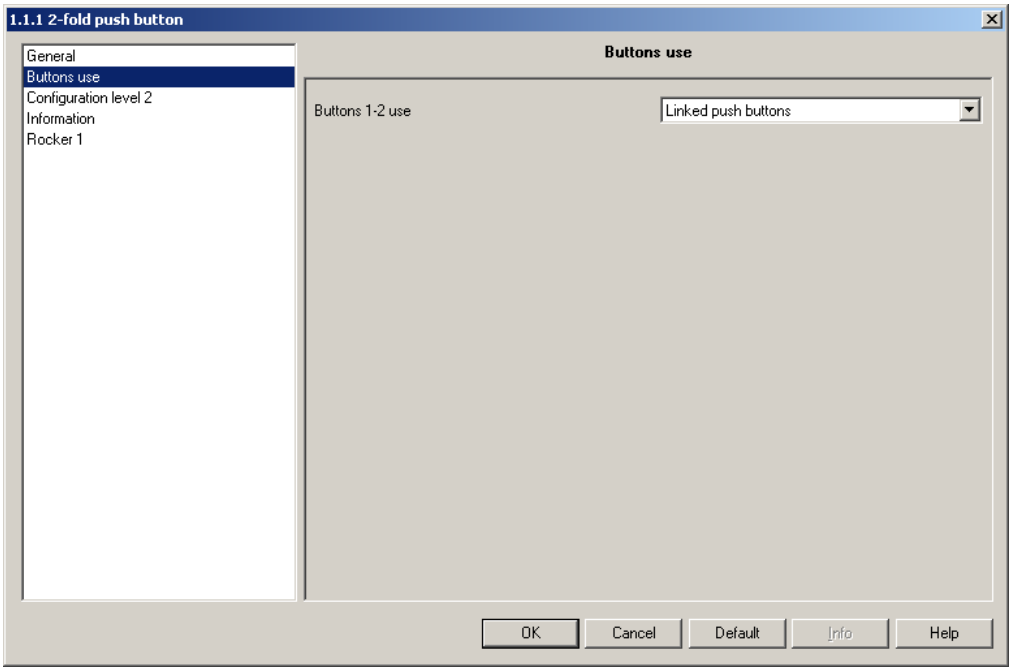
➜ Parameters
Settings: see "Screen 1".

Designation	Description	Values
Duration to acknowledge key press	This parameter defines the indicator ON period for confirming pushbutton presses.	0.5 s, 1 s, 2 s, 3 s. Default value: 3 s.
Duration of long key-press (Dim and Up/Down)	This parameter defines the duration of a long pushbutton press for sending Dimming or Up/Down commands. In Timer mode, the length of this long key-press will be used to take account of a timer interruption.	400 ms, 500 ms, 600 ms, 700 ms, 800 ms, 900 ms, 1 s. Default value: 500 ms.
Duration of long key-press 2-channel mode	This parameter defines the length of a long pushbutton press for activating 2-channel mode.	500 ms, 1 s, 2 s, 3 s, 4 s, 5 s, 6 s, 7 s, 8 s, 9 s, 10 s. Default value: 5 s.

2.3 "Buttons use" parameters

These parameters define whether the pushbuttons are independent or linked by groups of 2 to form a key.

➜ Parameters



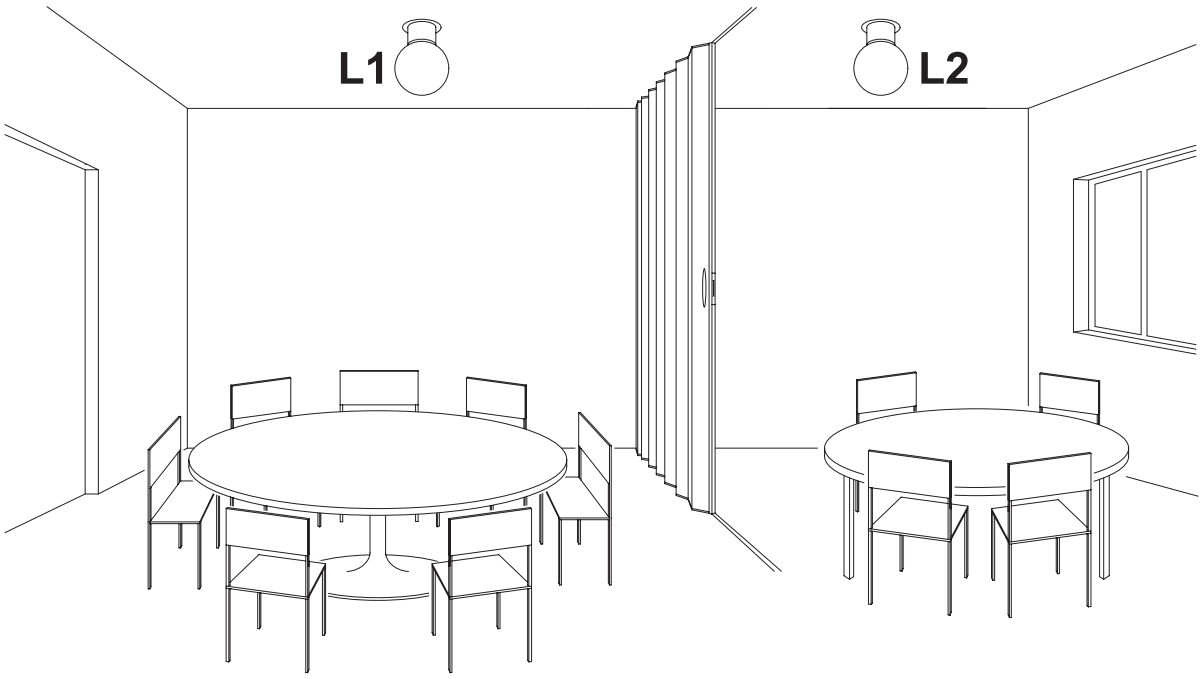
Screen 2

Designation	Description	Values
Buttons 1-2 use	This parameter defines pushbutton operation.	Independent pushbuttons, Linked pushbuttons. Default value: Independent pushbuttons.

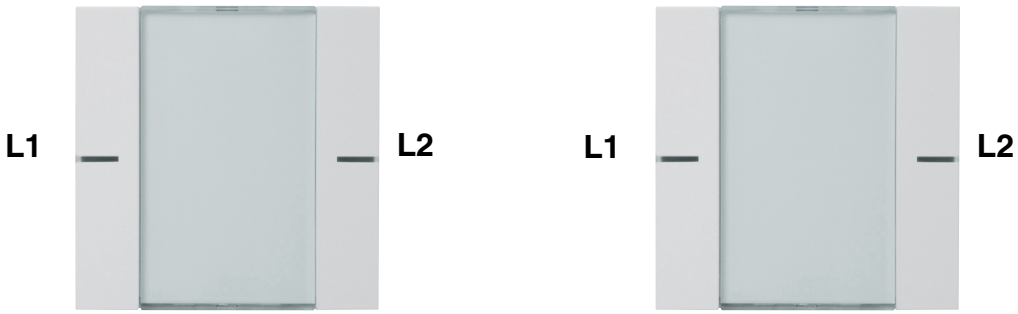
2.4 Level selection parameters

The second level (activated by the Level selection object) can be used to either deactivate the key's function or to change it. An additional function cannot be defined..

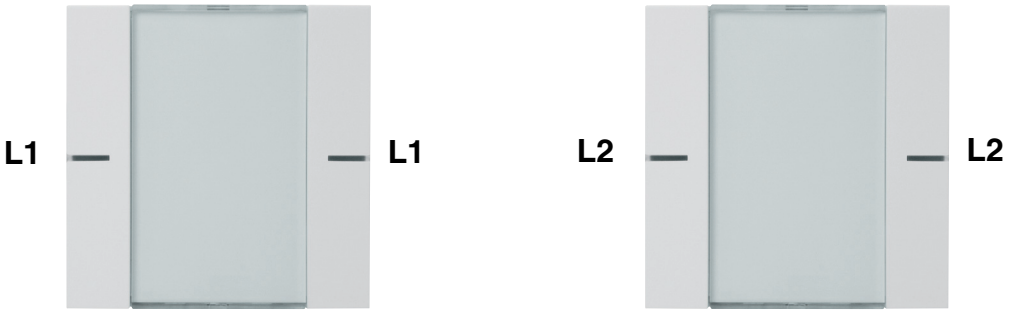
For example:
Room with separation wall: Pushbuttons configured as ON/OFF

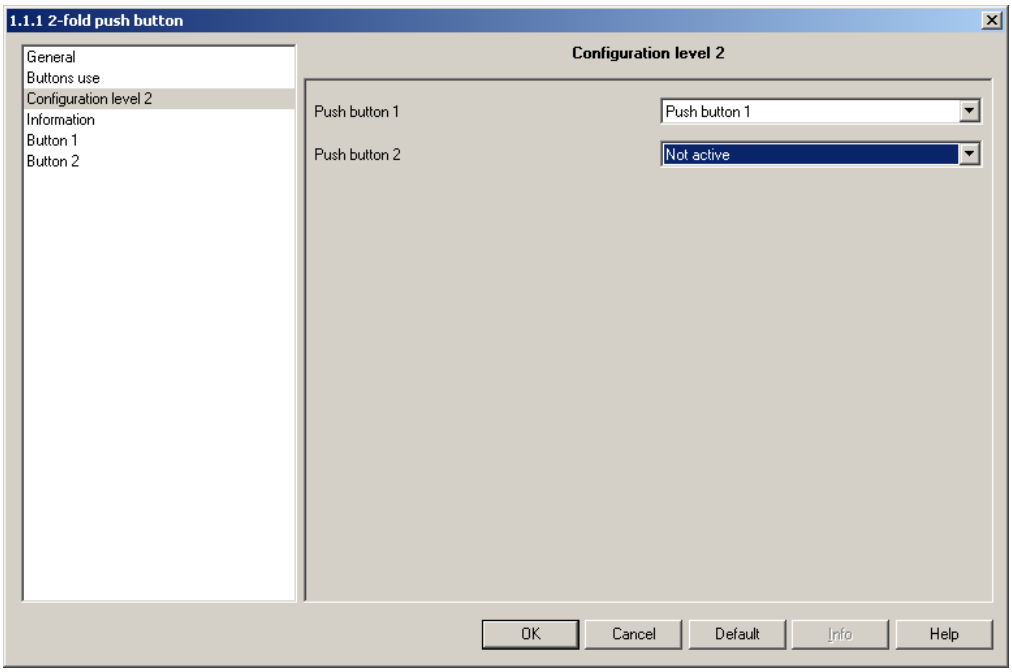


- Situation: Separation wall open



- Situation: Separation wall closed (The "divided wall open/closed" information can come from, for example, a control switch).





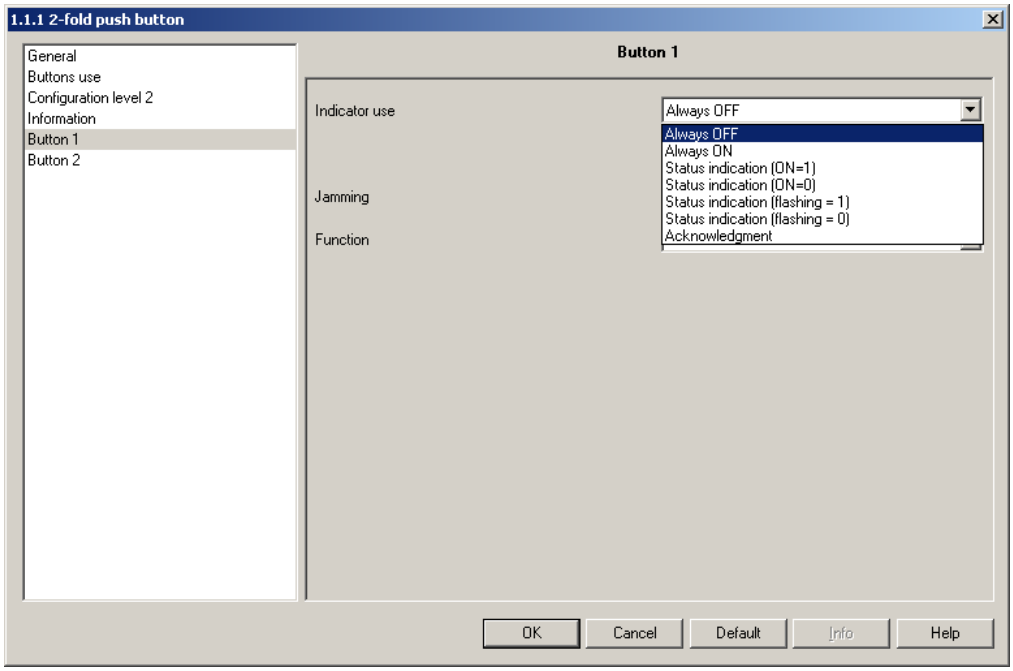
Screen 3

Designation	Description	Values
Push button n (n= 1, 2)*	This parameter defines the key order for a Situation 2 / Situation 1 level selection (Key 1 in Situation 2 = Key 2 in Situation 1), for ex., if each key must have the same function as Key 1 for use in public buildings.	Not used, Push button 1, Push button 2. Default value: Push button n=Push button n.

*The key number only appears when the key is defined as an independent pushbutton.

2.5 Linked or independent pushbutton parameters

2.5.1 Indicator parameters



Screen 4

Designation	Description	Values
Indicator use	This parameter defines indicator utilization. 3 types of utilization are possible: - Permanently OFF or ON. - Status indication associated to the Signalling object. - Key-press confirmation*.	Always OFF, Always ON. Status indication (ON=1), Status indication (ON=0), Status indication (flashing=1), Status indication (flashing=0). Key-press confirmation. Default value: Always OFF.
Duration of flashing (indicator)**	This parameter defines the duration of flashing (flashing at a 1 Hz frequency).	Continuous flashing, 1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 25 s, 30 s, 35 s, 40 s, 45 s, 50 s, 55 s, 60 s. Default value: Continuous flashing.

* When used to confirm pressing, the indicator ON period can be defined on the General Parameters screen.
** This parameter is only visible if the Indicator utilization parameter has the value: Status indication (flashing=1) or Status indication (flashing=0).

2.5.2 Jamming function parameters

The Jamming function authorizes pushbutton locking. Jamming forbids sending commands. This function is started by the General - Jamming object. Jamming is indicated by the indicator flashing for 5 seconds when the pushbutton is pressed.

Designation	Description	Values
Jamming	This parameter defines whether pushbutton jamming by a distinct object is permitted.	Not authorized, Authorized. Default value: Not authorized.

2.5.3 Parameters for linked or independent pushbuttons

Keys 1 and 2 or Linked keys 1 parameters will be available depending on the type of operation defined for the keys (linked or independent). These parameters define the functions of the keys or linked keys. The functionalities available for independent or linked keys are not exactly identical.

2.5.3.1 Description of the ON/OFF, toggle switch, time-limited toggle switch and timer functions

ON/OFF:
Pressing the independent pushbutton or the linked pushbutton switches the circuit ON or OFF (no change after pressing again).

Description: After pressing the independent pushbutton or a side of the linked pushbutton, an ON or OFF command will be sent to the bus via the ON/OFF object. The command sent is not linked to the output's previous status. The command to be sent (ON or OFF) must be defined in the parameters.

Furthermore, in independent pushbutton operation, it can be specified whether the command must be sent when the pushbutton is pressed or released (see parameter settings).

Toggle switch:
In independent pushbutton operation, the toggle switch's function consists in inverting the output's status. Each new key-press modifies the output's status.

In linked pushbutton operation, the toggle switch's function consists in inverting the output's status when a side of the button has been pressed. Each new key-press modifies the output's status.

Description: When the independent pushbutton or a side of the linked pushbutton is pressed, depending on the Status indication object, an ON or OFF command will be sent to the bus via the ON/OFF object. The command sent to the bus is the inverse of the previous command (previous command: ON ➜ OFF command sent; previous command: OFF ➜ ON command sent).

Time-limited toggle switch:
This function is only available for an independent pushbutton.

A short pushbutton press: The output's status is inverted. The status changes after each new short key-press. If there is no short key-press, the output will be switched OFF once the delay time has elapsed. A long pushbutton press restarts the delay time.

Description: A short key-press sends the Time-limited toggle switch object to the bus with the value of the inverse of the Status indication object. A long pushbutton press sends an ON command via the Time-limited toggle switch object.

Upon reception of an ON command from the time-limited toggle switch, TXA-type products switch the output to ON for the set time. Upon reception of an OFF command from the time-limited toggle switch, the outputs switch to OFF. Reception of an ON command while the output is still set to ON restarts the delay time.

Timer:
This function is only available for an independent pushbutton.

A short pushbutton press: The output contact switches to ON for the output's set time.
A long pushbutton press: Timer interruption and output stopped.

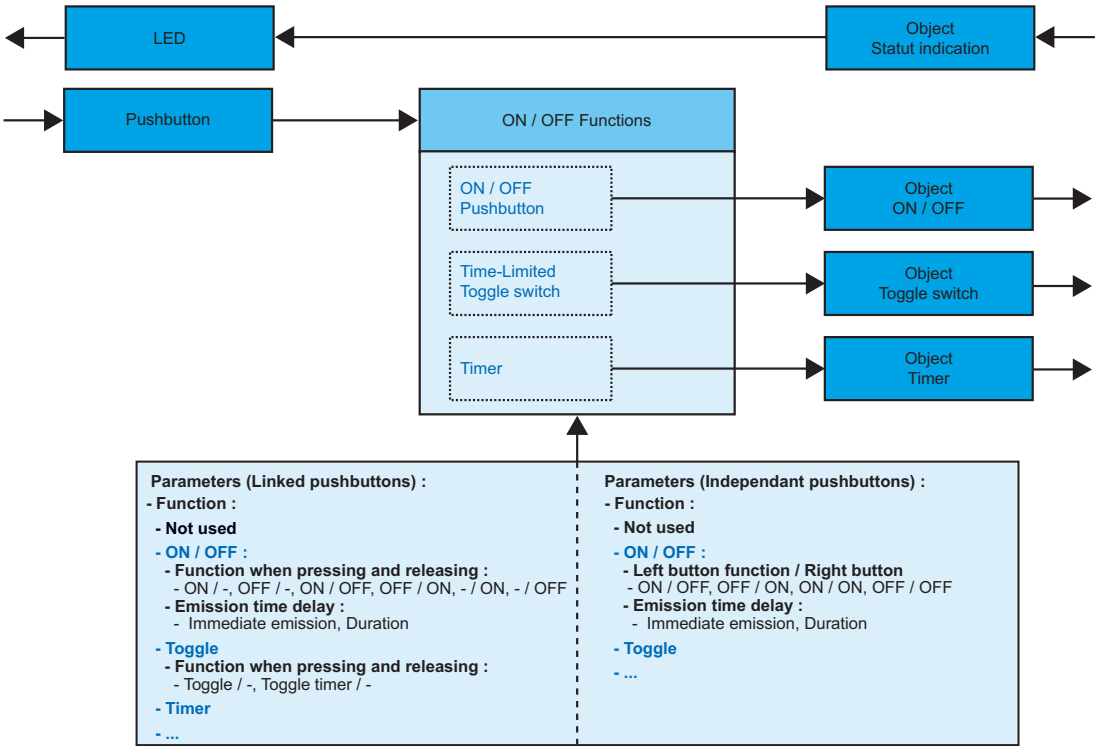
Description: A short key-press sends an ON command to the bus via the Timer object. A long key-press sends an OFF command to the bus via the Timer object.

Upon reception of an ON command from the Timer object, TXA-type products switch the output to ON for the set time.
An ON command on the Timer object repeated within 10 sec. increases the output's delay time period (for TXA-type products) as follows::

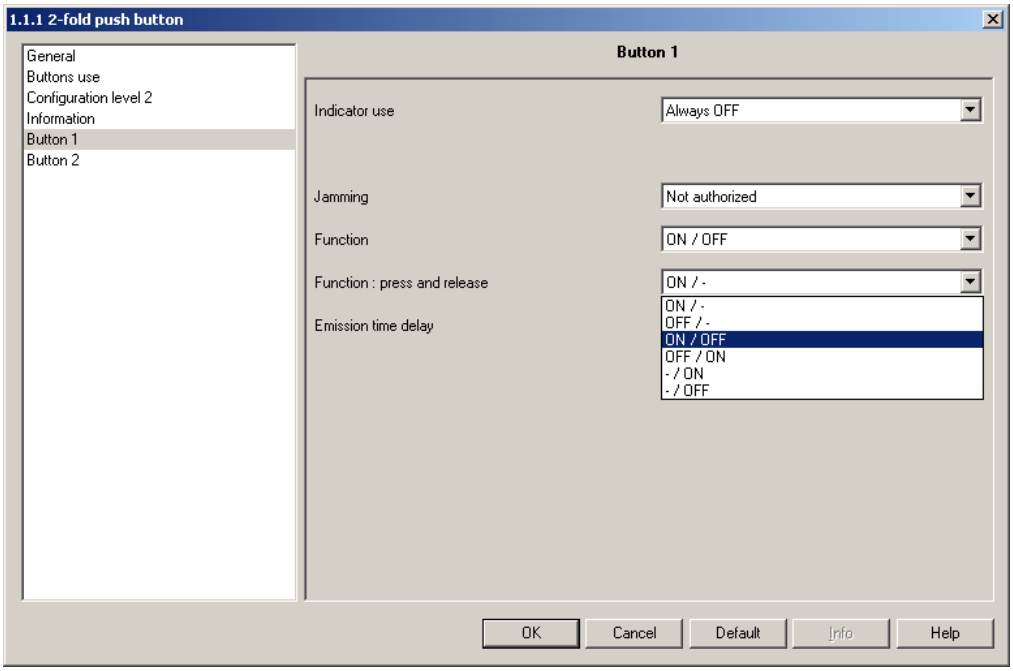
ON-switching time = (1 + Number of repeated key-presses) * Set time.

The delay time starts after the last key-press. An ON command received after the 10s resets the set delay time. An OFF command immediately switches the output to OFF.

Description of the ON/OFF, toggle switch, time-limited toggle switch and timer functions



2.5.3.2 ON/OFF function parameters for independent pushbuttons



Screen 5

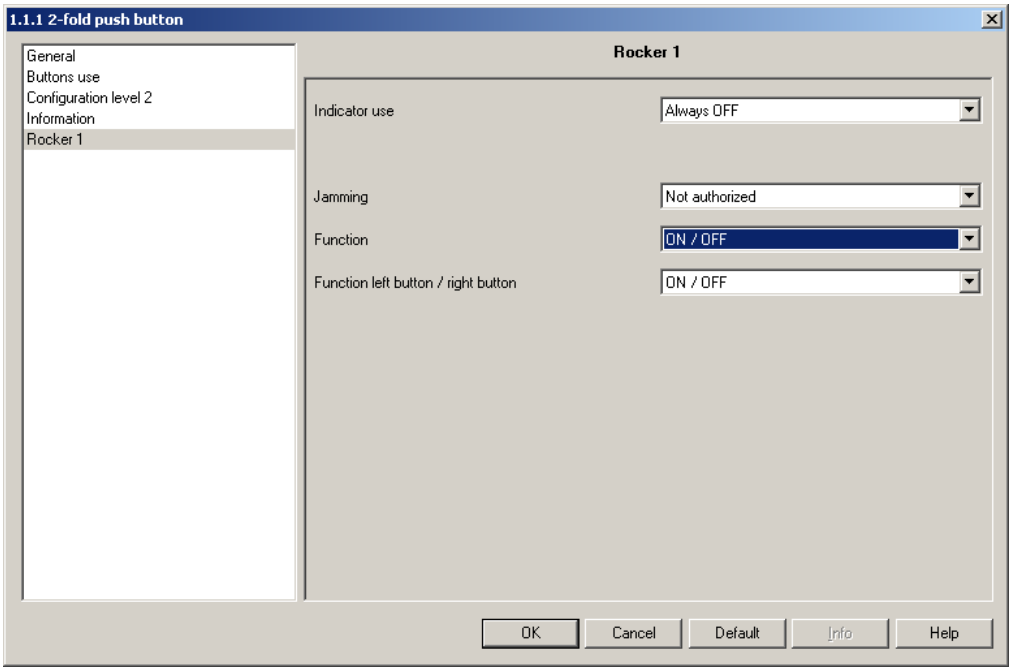
Designation	Description	Values
Function : press and release	This parameter defines the commands sent when the pushbutton is pressed and released.	ON/-, OFF/-, ON/OFF, OFF/ON, -/ON, -/OFF. Default value: ON/-. Command when pressing/Command when releasing (" - " = No action).
Emission time delay*	This parameter sends commands with a set delay in relation to pressing or releasing.	Immediate emission, 1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 25 s, 30 s, 40 s, 50 s, 1 min, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 3 min 30 s, 4 min, 4 min 30 s, 5 min. Default value: Immediate emission.

* The emission time delay is not available for the ON/OFF or OFF/ON functions.

2.5.3.3 Toggle switch function parameters for independent pushbuttons

Designation	Description	Values
Function : press and release	This parameter defines the commands sent when the pushbutton is pressed and released.	Toggle / -, Time-limited toggle switch, -/Toggle. Default value: Toggle / -. Command when pressing/Command when releasing (" - " = No action).

2.5.3.4 ON/OFF function parameters for linked pushbuttons



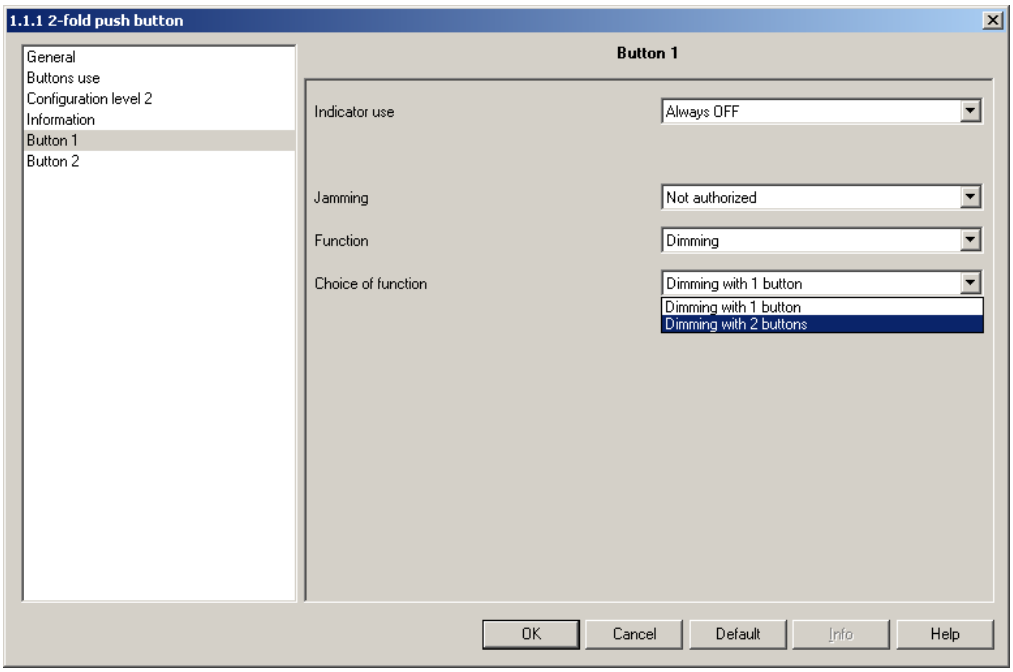
Screen 6

Designation	Description	Values
Function left button / right button	This parameter defines the commands sent when the left button and the right button are pressed.	ON/OFF, OFF/ON, ON/ON, OFF/OFF. Default value: ON/OFF.

2.5.3.5 Dimming function

This function dims/switches a lighting circuit using one or two pushbuttons.
A short key-press sends ON/OFF commands to the bus via the ON/OFF object.
A long key-press sends a dimming command (increase or decrease) to the bus via the Dimming object.

•Dimming function parameters for independent pushbuttons

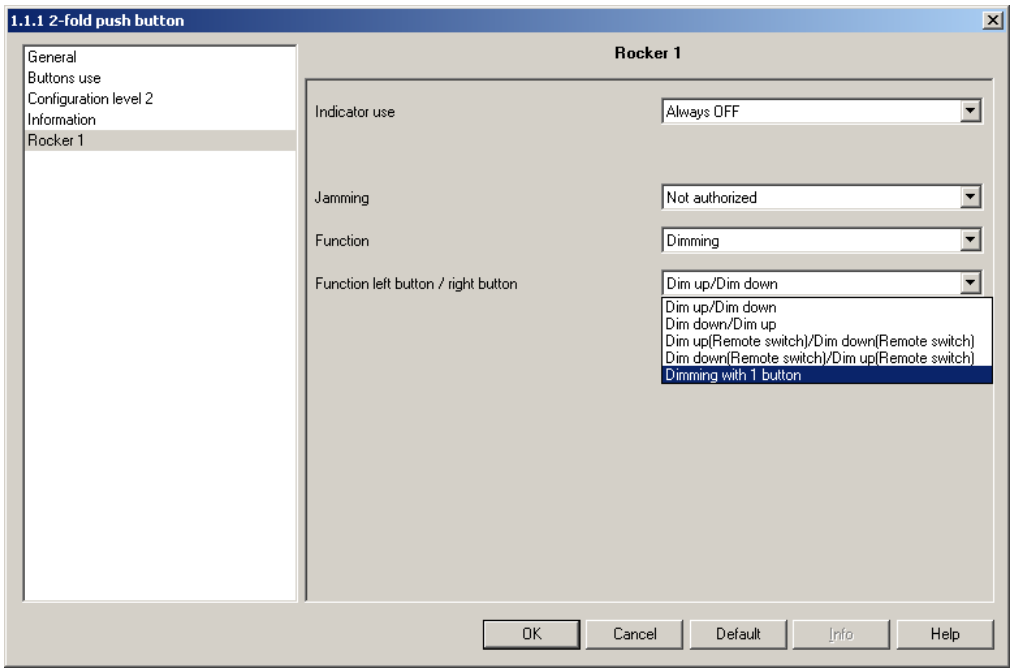


Screen 7

Designation	Description	Values
Choice of function	This parameter selects the utilization mode: 1-button dimmer or 2-button dimmer.	1-button dimmer, 2-button dimmer. Default value: 1-button dimmer.
Dimming direction*	This parameter defines the dimming direction associated to the button.	Increase, Decrease. Default value: Increase.

*This parameter only appears when the Function parameter has the value 2-button dimmer.

•Dimming function parameters for linked pushbuttons



Screen 8

Designation	Description	Values
Function left button / right button	This parameter selects the utilization mode: 1-button dimmer or 2-button dimmer.	1-button dimmer *Increase (ON)/Decrease (OFF), Decrease (OFF)/Increase (ON) *Increase (Toggle) / Decrease (Toggle), Decrease (Toggle) / Increase (Toggle). Default value: Increase (ON)/Decrease (OFF).

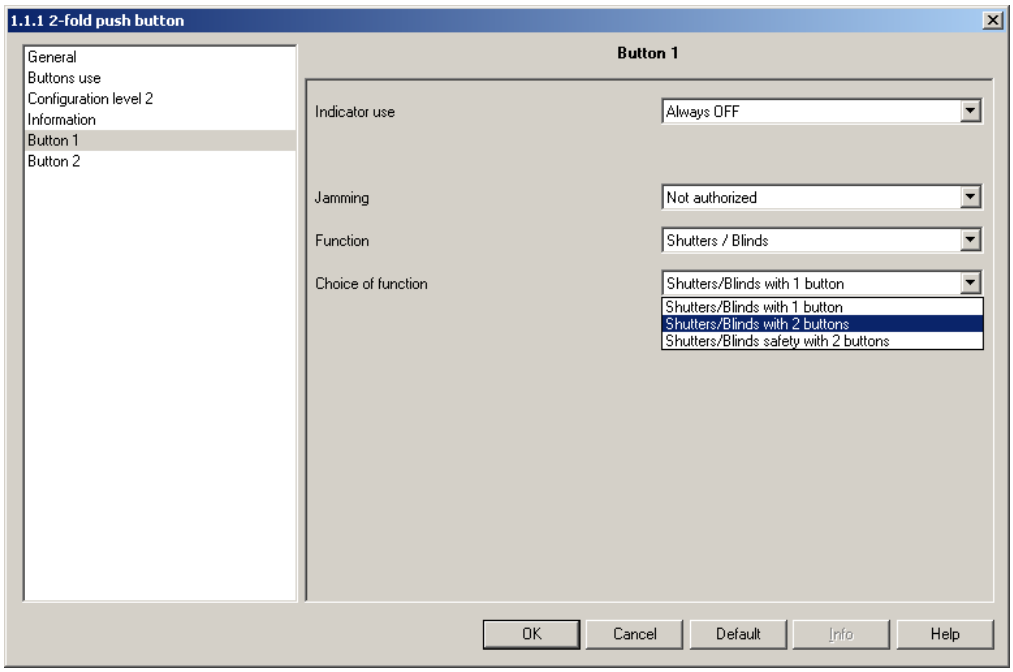
*For example:
Increase/Decrease
➜ Left key increase and switching ON / Right key, decrease and switching OFF.

Increase (Toggle) / Decrease (Toggle)
➜ Left key, increase / Right key, decrease, and the two keys allow switching ON or OFF.

2.5.3.6 Up/Down function

This function controls shutters or a blind using one or two pushbuttons.
A long key-press sends raising or lowering commands to the bus via the Up/Down object.
A short key-press sends stop or slat angle value commands to the bus via the Stop/Angle object.

•Up/Down function parameters for independent pushbuttons

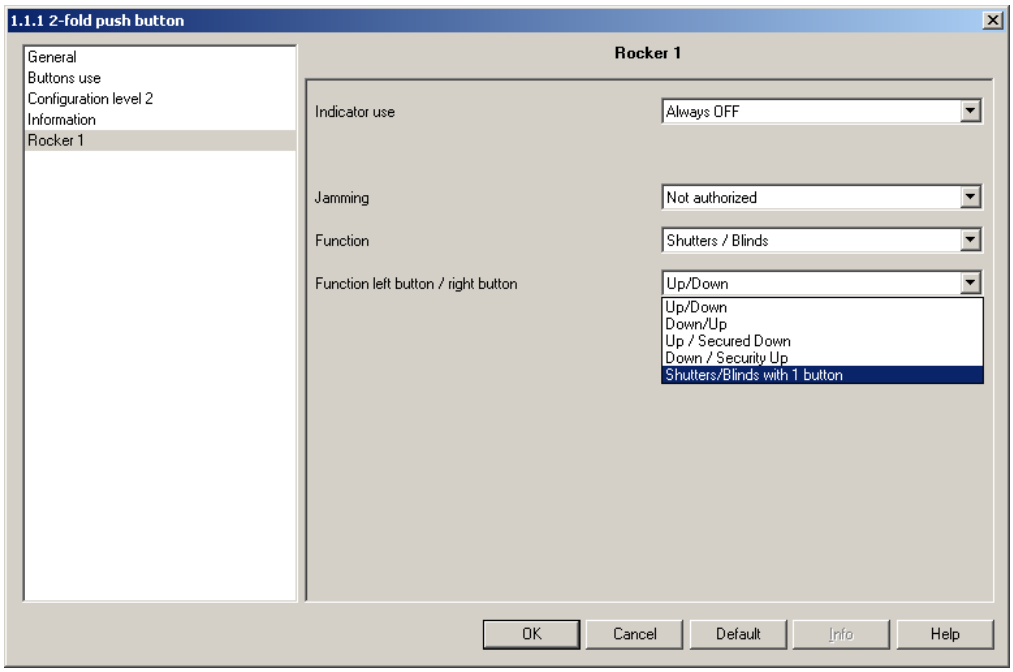


Screen 9

Designation	Description	Values
Choice of function	This parameter selects the utilization mode.	1-button shutters/blinds (up/stop/down/stop) *Security function (dead man), Default value: Shutters/blinds with 1 button (up/stop/down/stop)
Function**	This parameter defines the movement direction associated to the button.	Up, Down. Default value: Up.

* Pressing the pushbutton sends Up or Down commands to the bus via the Up/Down object. When the pushbutton is released, a Stop command is sent via the Stop/Angle object.
**This parameter is only visible if the Function parameter has the value: 2-button shutters/blinds or 2-button shutters/blinds with security function.

•Up/Down function parameters for linked pushbuttons



Screen 10

Designation	Description	Values
Function left button / right button	Selects the Shutters/Blinds operating mode.	Up/Down Down/Up *Up/Down, with security function *Down/Up with security function **1-button shutters Default value: Down/Up with security function.

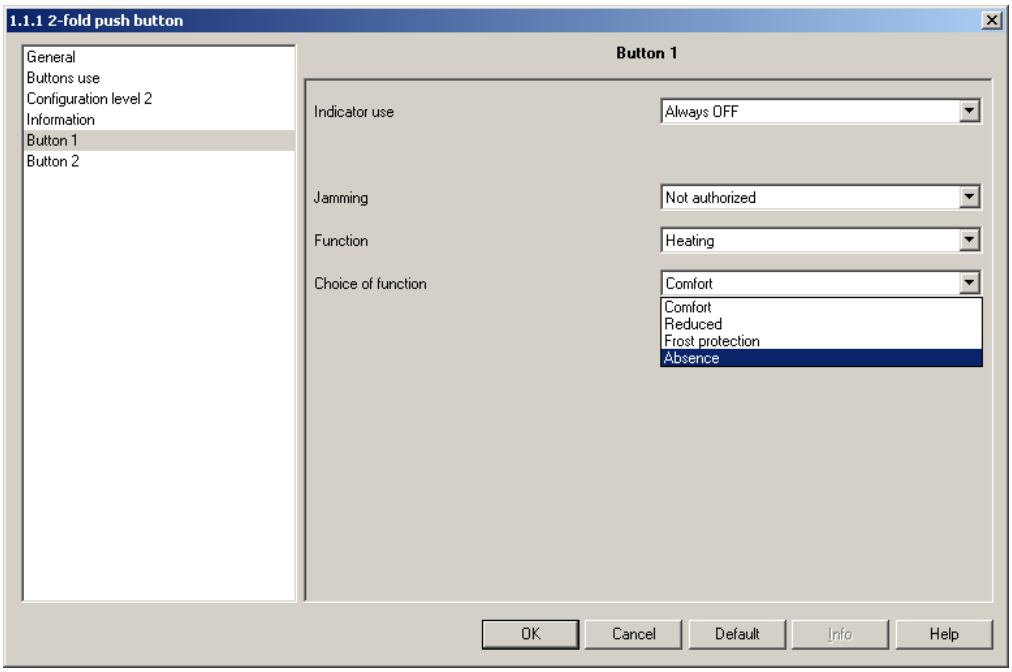
*Pressing the linked pushbuttons (left or right) sends movement commands to the bus via the Up/Down object. When the linked pushbutton is released, a Stop command is sent via the Stop/Angle object.
**The left key and the right key have the same functions in this operation mode. In both cases, the Up/Stop/Down/Stop function is linked to the type of key-press (short key-press or long key-press).

2.5.3.7 Heating setpoint selection function

This function is used to select the setpoint for heating/air-conditioning.
The 1-octet heating setpoint object sends the following values:

Values	Product designation	Icon
0	Auto	
1	Comfort	
2	Economy	
3	Reduced (night)	
4	Frost-free	

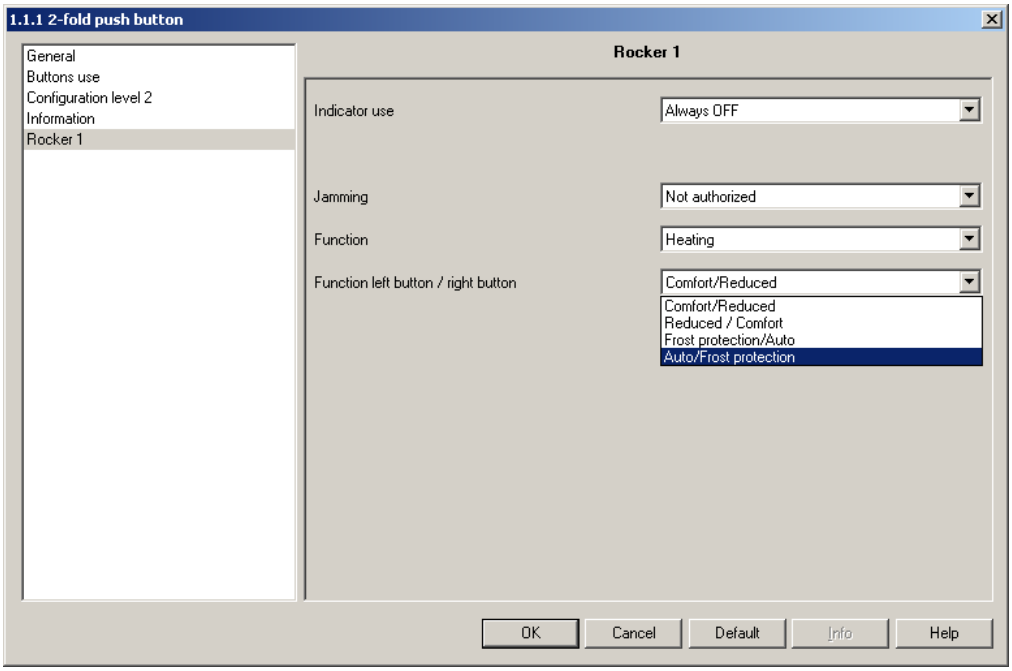
•Heating setpoint function parameters for independent pushbuttons



Screen 11

Designation	Description	Values
Choice of function	This parameter selects the setpoint associated to the button.	Comfort, Reduced (night), Frost-free, Economy. Default value: Comfort.

•Heating setpoint function parameters for linked pushbuttons



Screen 12

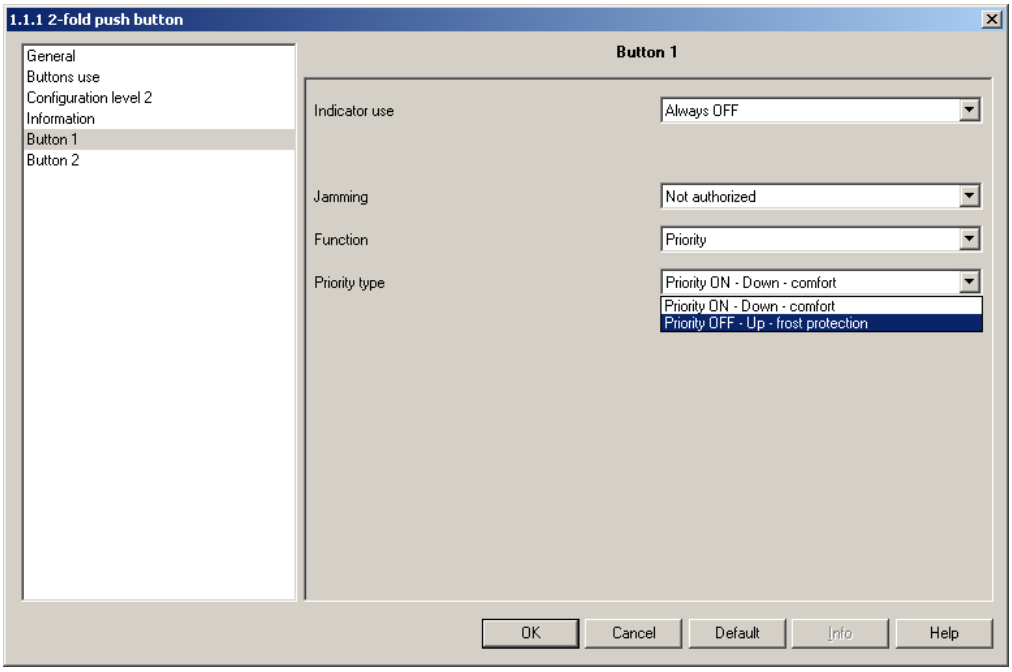
Designation	Description	Values
Function left button / right button	This parameter defines the commands associated to the left button and the right button.	Comfort/Reduced (night), Reduced (night)/Comfort, Frost-free/Auto, Auto/Frost-free. Default value: Comfort/Reduced (night).

2.5.3.8 Priority function

The Priority function sends priority-start or priority-stop commands. The Priority object is sent when the pushbutton is pressed.
The Priority action depends on the type of application controlled: Lighting, shutters/blinds, heating, etc..
The 2-bit priority object sends the following values

Values		Output behaviour
Bit 1	Bit 0	
0	0/1	Priority-end
1	0	Priority OFF - Up - Frost protection
1	1	Priority ON - Down - Comfort

•Priority function parameters for independent pushbuttons

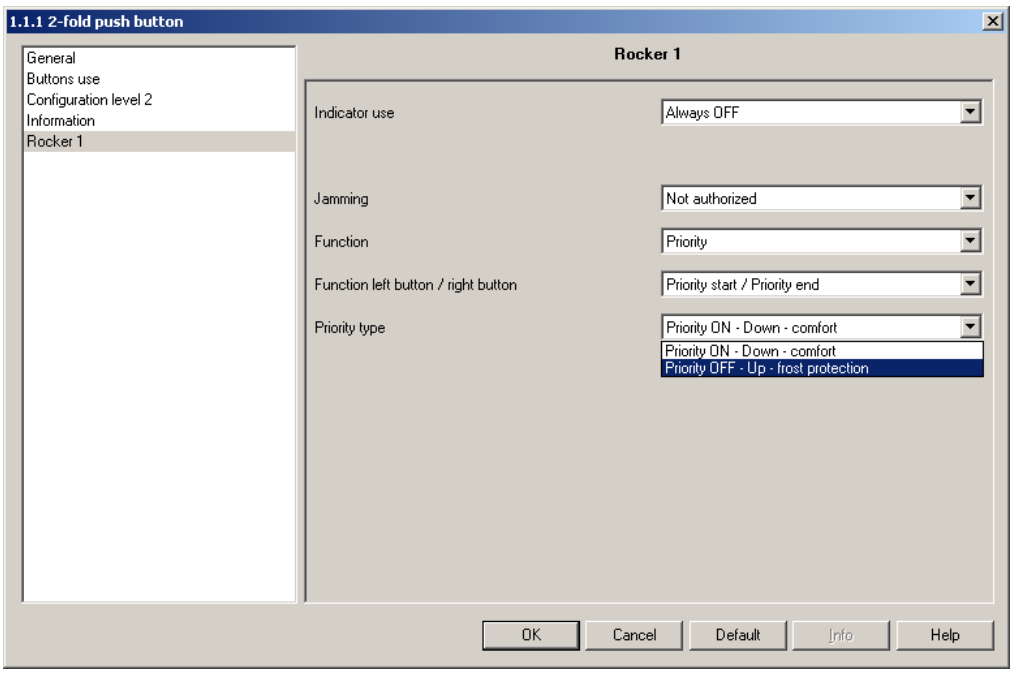


Screen 13

Designation	Description	Values
Priority type	This parameter selects a Priority type.	Priority ON - Down - Comfort * Priority OFF - Up - Frost protection * Default value: Priority ON - Down - Comfort

* Pressing the pushbutton sends alternatively a priority-start request and a priority-end request.

•Priority function parameters for linked pushbuttons



Screen 14

Designation	Description	Values
Function left button / right button	This parameter defines the commands associated to the left button and the right button.	Priority start / priority end Priority end / Priority start Default value: Priority start / priority end
Priority type	This parameter selects a Priority type.	Priority ON - Down - Comfort Priority OFF - Up - Frost protection Default value: Priority ON - Down - Comfort

2.5.3.9 Scene function

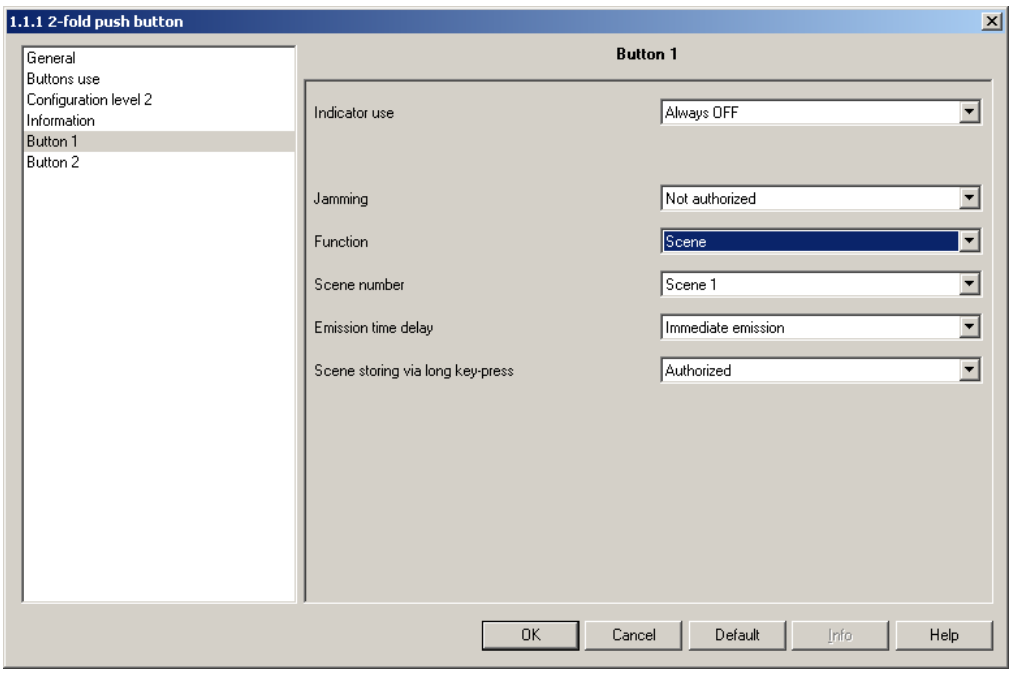
The Scene function sends group controls sent to different kinds of outputs to create ambiences or scenarios. Pressing the pushbutton activates or stores a scene from 1 to 32. This function is only available in independent pushbutton operation. A short key-press sends a Scene object with a value of between 0 and 31 (value 0 = scene 1, value 31 = scene 32) to the bus. The command is sent when the pushbutton is released. If the Scene modification via long key-press parameter has the permitted value, pressing the pusbutton for longer than 5 sec. sends a Scene object with a value of between 128 and 159 [(Scene no.-1) + 128] to the bus.

Construction of the 1-octet scene object:

Bit no.							
7	6	5	4	3	2	1	0
Store	X	Scene number (0 means Scene 1)					

X = Not significant

•Scene function parameters for independent pushbuttons



Screen 15

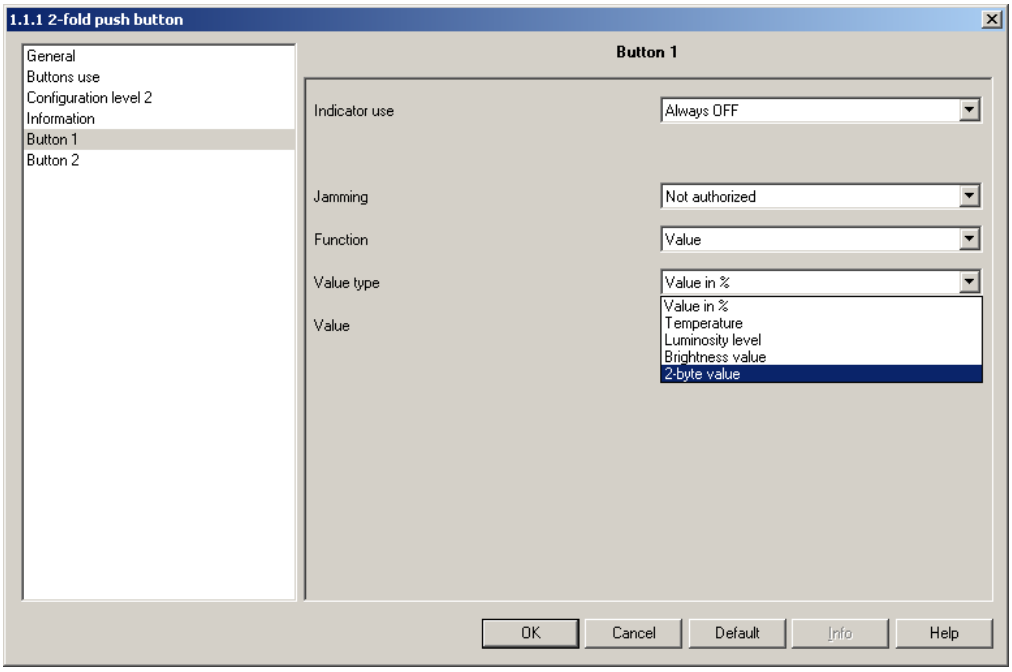
Designation	Description	Values
Scene number	This parameter defines the scene number to be activated.	Scene 1 to Scene 32. Default value: Scene 1.
Emission time delay	This parameter defines if scene activation must be immediate or time-delayed*	Not used, 1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 40 s, 50 s, 1 min, 1 min 30 s, 2 min, 2 min 30 s, 3 min, 3 min 30 s, 4 min, 4 min 30 s, 5 min. Default value: Not used.
Scene storing via long key-press (> 5s)**	This parameter authorizes or not storage of a scene via a long pushbutton press.	Authorized, Not used Default value: Authorized

*The scene storing command is not concerned by this parameter.
**Scene learning is confirmed by the pushbutton indicator flashing (1 second).

2.5.3.10 Value function

The Value function sends a value in %, a temperature, a brightness level, an illumination value or a 2-bit absolute value.
The Value function is only available for an independent pushbutton. Pressing the pushbutton sends the Value object to the bus; the object is in 1-octet or 2-octet format, depending on the value type to be sent.

•Value function parameters for independent pushbuttons



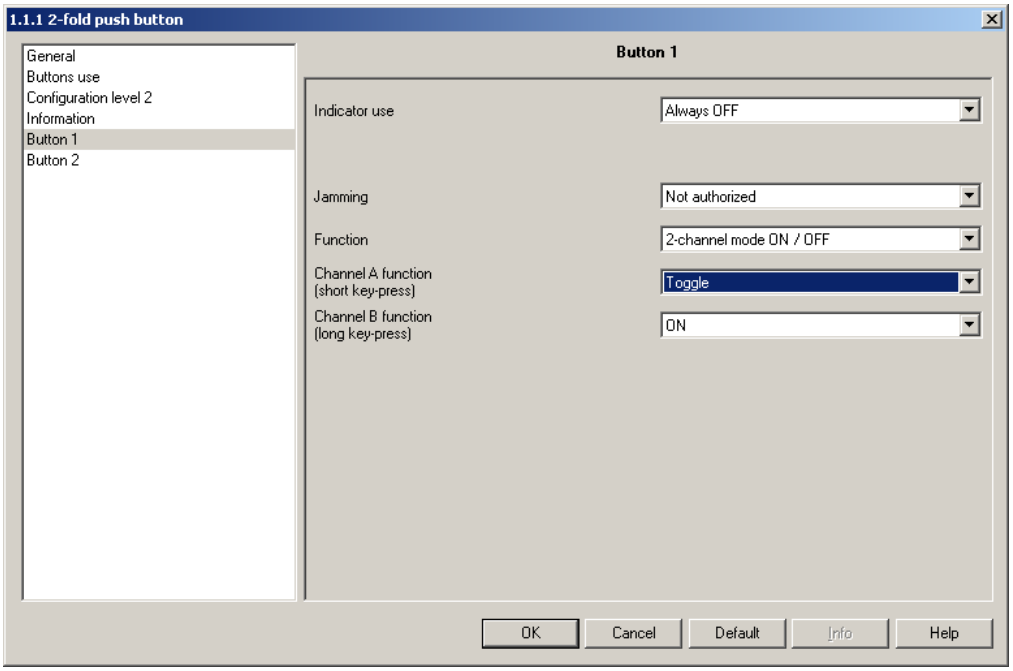
Screen 16

Designation	Description	Values
Value type	This parameter defines the type of value sent.	Value in %, Temperature, Brightness level, Illumination value, 2-octet value. Default value: Value in %.
Value	This parameter defines the value to be sent to the bus.	Value in % 0% to 100% in 1% steps. Default value: 0%. Temperature 0°C to 40°C in 0.5°C steps. Default value: 20°C. Brightness level 0 lux to 1000 lux in 50 lux steps. Default value: 300 lux. Illumination value 0% to 100% in 1% steps. Default value: 0%. 2-octet value 0 to 65535 in 1 steps. Default value: 0.

2.5.3.11 2-channel ON/OFF function

The 2-channel ON/OFF mode is used to perform two different functions using the same pushbutton. The distinction between the two functions is made by a short key-press or a long key-press (the length of the long key press can be set on the General Parameters screen, via the Length of long key-press for 2-channel mode parameter. Only the ON, OFF and toggle switch functions are available in 2-channel mode. A short key-press sends ON or OFF commands to the bus via the Channel A ON/OFF object. A long key-press sends ON or OFF commands to the bus via the Channel B ON/OFF object.

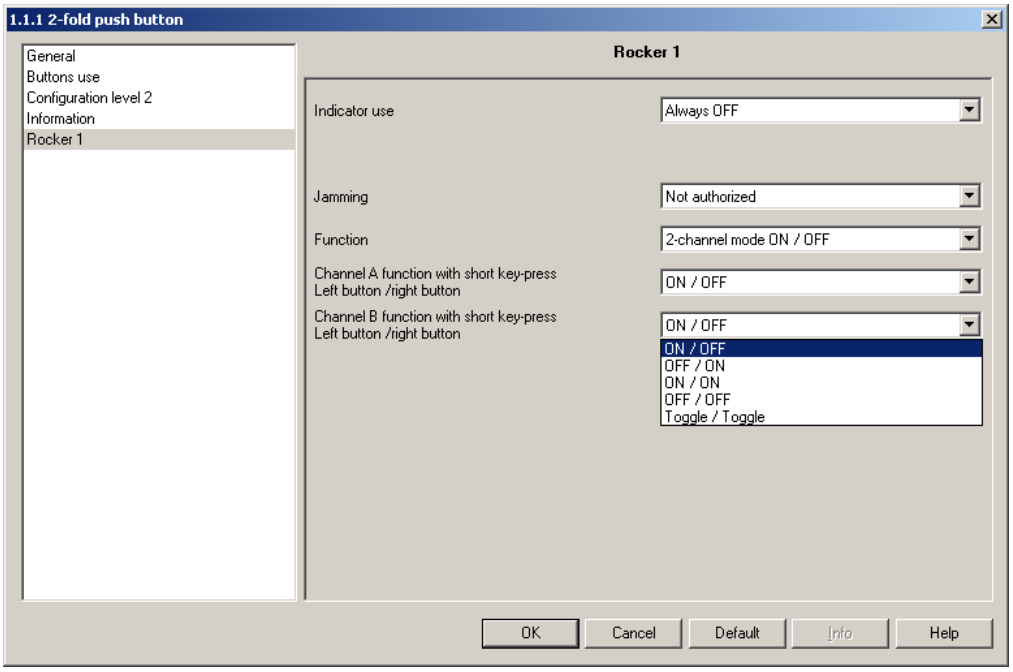
•2-channel ON/OFF mode function parameters for independent pushbuttons



Screen 17

Designation	Description	Values
Choice of function (Channel A = short key-press)	This parameter defines the command sent by a short key-press.	ON, OFF, Toggle. Default value: Toggle.
Choice of function (Channel B = Duration of long key-press)	This parameter defines the command sent by a long key-press.	ON, OFF, Toggle. Default value: ON.

•2-channel ON/OFF mode function parameters for linked pushbuttons



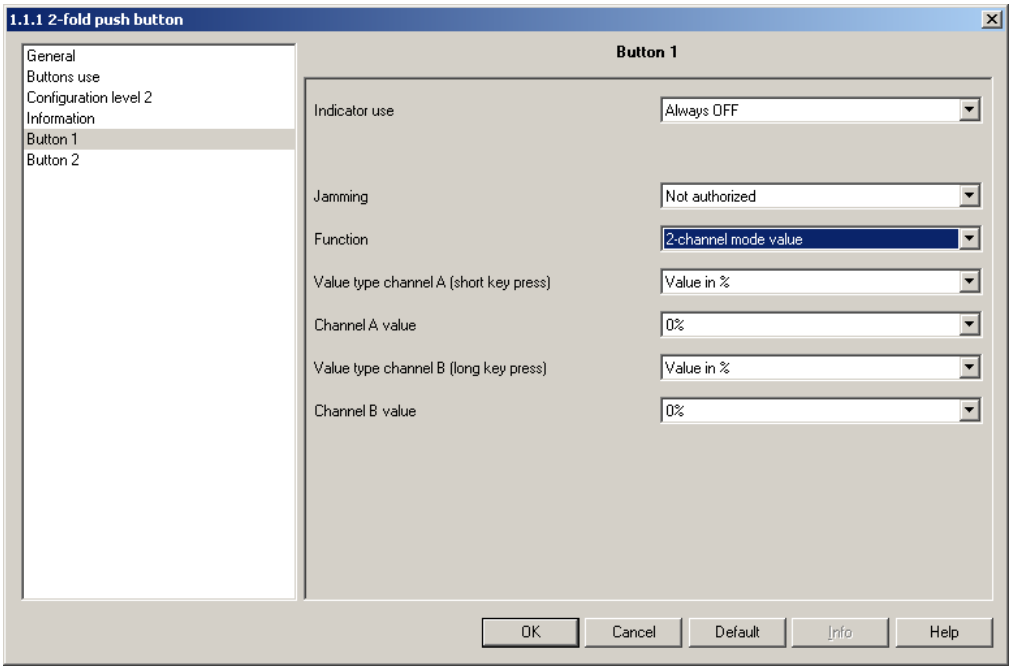
Screen 18

Designation	Description	Values
Channel A function with short key-press Left button / Right button	This parameter defines the command sent by a short key-press on the left button and on the right button.	ON/OFF, OFF/ON, ON/ON, OFF/OFF. Default value: ON/OFF.
Channel B function with long key-press Left button / Right button	This parameter defines the command sent by a long key-press on the left button and on the right button.	ON/OFF, OFF/ON, ON/ON, OFF/OFF. Default value: ON/OFF.

2.5.3.12 2-channel mode value function

The 2-channel value mode sends two different value commands using the same pushbutton. The Value function is only available for an independent pushbutton. The distinction between the two functions is made by a short key-press or a long key-press (the length of the long key-press is adjustable). A short key-press sends a value command to the bus via the Channel A Value object. A long key-press sends a value control to the bus via the Channel B Value object.

•2-channel value mode function parameters for independent pushbuttons



Screen 19

Designation	Description	Values
Value type Channel A (short key-press)	This parameter defines the nature of the value sent on Channel A.	Value in %, Temperature, Brightness level, Illumination value, 2-octet value. Default value: Illumination value.
Value, Channel A	This parameter defines the value to be sent to the bus.	Possible values: Value in % 0% to 100% in 1% steps. Default value: 0%. Temperature 0°C to 40°C in 0.5°C steps. Default value: 20°C. Brightness level 0 lux to 1000 lux in 50 lux steps. Default value: 300 lux. Illumination value 0% to 100% in 1% steps. Default value: 0%. 2-octet value 0 to 65535 in 1 steps. Default value: 0.

Designation	Description	Values
Value type Channel B (Duration of long key-press)	This parameter defines the nature of the value sent on Channel B.	Value in %, Temperature, Brightness level, Illumination value, 2-octet value. Default value: Illumination value.
Value, Channel B	This parameter defines the value to be sent to the bus.	Possible values: Value in % 0% to 100% in 1% steps. Default value: 0%. Temperature 0°C to 40°C in 0.5°C steps. Default value: 20°C. Brightness level 0 lux to 1000 lux in 50 lux steps. Default value: 300 lux. Illumination value 0% to 100% in 1% steps. Default value: 0%. 2-octet value 0 to 65535 in 1 steps. Default value: 0.

3. Main characteristics

Max. number of group addresses	252
Max. number of links	254
Objects	27

4. Physical addressing

To perform physical addressing or to check for the presence of the bus, press the pushbutton located on the mechanism: indicator ON = Bus presence and physical addressing active.
Caution: Press the pushbutton again and the indicator will turn off. This is essential in order to be able to select the product's function.