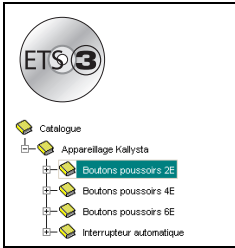
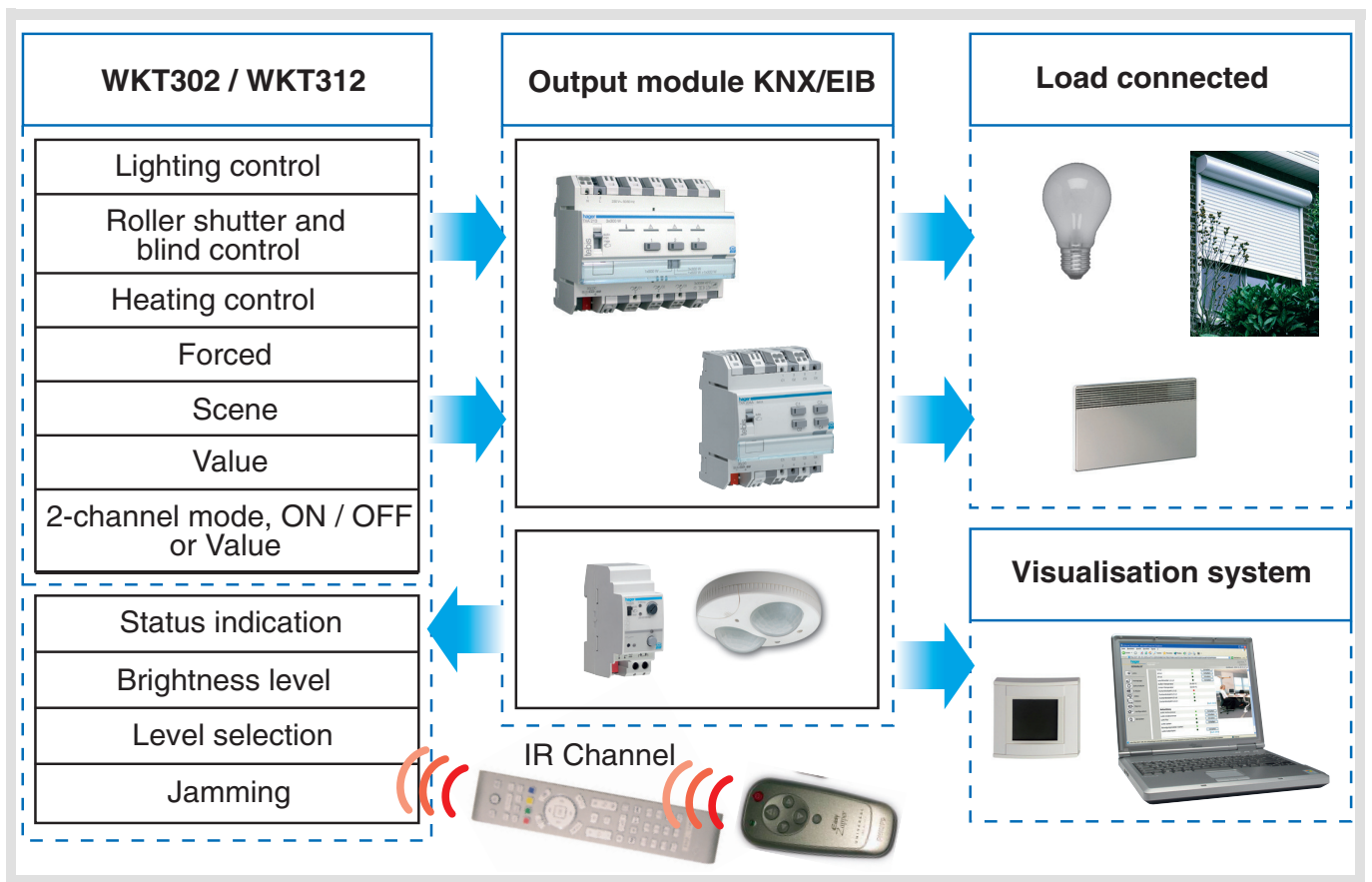


Tebis application software



WFL302A Kallysta KNX Tebis pushbutton range equipment
2-keys pushbutton

	Product reference	Product designation
	WKT302	2-keys pushbutton
	WKT312	2-keys pushbutton with indicator



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1. Presentation of the functions

The WFL302A application software allows the pushbuttons to be individually configured on products WKT302/WKT312. The main functions are the following:

■ 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, Absence, Reduced, Frost-free, Auto.

■ 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 ambiances 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 Absence).

■ 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).

■ Status indication by indicator

Each pushbutton of the device WKT312 is equipped with an indicator to confirm pressing or to indicate the status of the controlled outputs.

■ Label holder backlight

The WKT312 product has a backlit label holder. The backlight can be remotely activated.

2. Configuration and parameters

2.1 Objects list

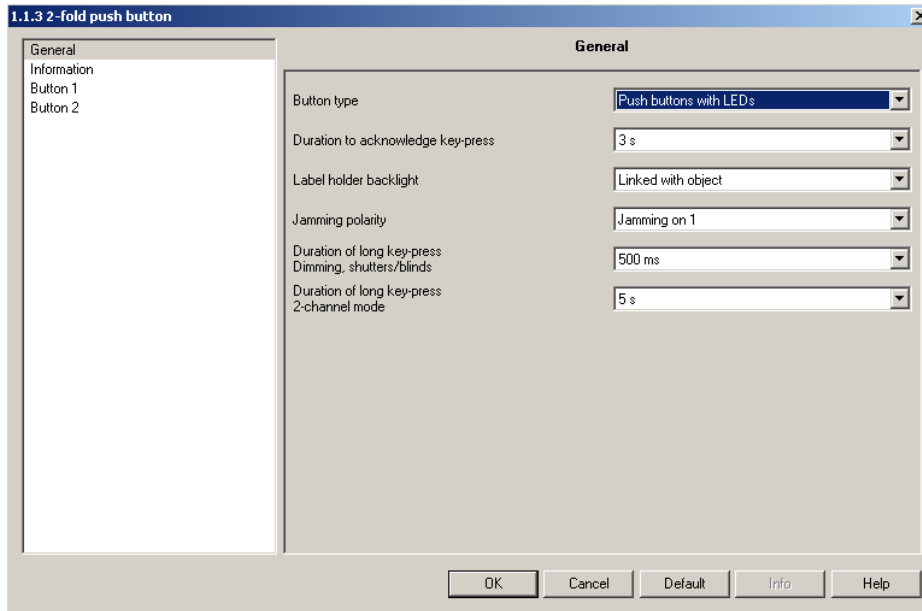
Function \ Object name	ON/OFF	Toggle	Time-limited toggle switch	Timer	1-button dimmer	2-button dimmer	1-button shutters/blinds	2-button shutters/blinds	Heating	Priority	Scene	Value	2-channel mode, ON/OFF (ON or OFF)	2-channel mode, ON/OFF (Toggle)	General functions
ON/OFF	X	X			X	X									
Status display		X	X		X		X								
Time-limited toggle switch			X												
Timer				X											
Dim					X	X									
Stop/Angle							X	X							
Shutters/Blinds							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
Jamming	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Label holder backlight															X
Signalling															X

2.2 General parameters

2.2.1 Button type, Indicators and label holder

The lighting of the label holder can be switched on/off by the object Label holder backlight.
The lighting of the indicators can be switched on/off by the object Signalling.

→ Parameters



Screen 1

Designation	Description	Values
Button type	This parameter defines the button type.	Push buttons without LEDs, Push buttons with LEDs. Default value: Push buttons without LEDs.
Label holder backlight*	This parameter defines the label holder backlight operation.	Linked with object, Always OFF, Always ON. Default value: Linked with object.

* This parameter is only visible when the Button type parameter has the value: Push buttons with LEDs.

2.2.2 Key jamming

Key locking can be individually defined for each key. Pushbutton locking is activated by the Jamming 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.

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

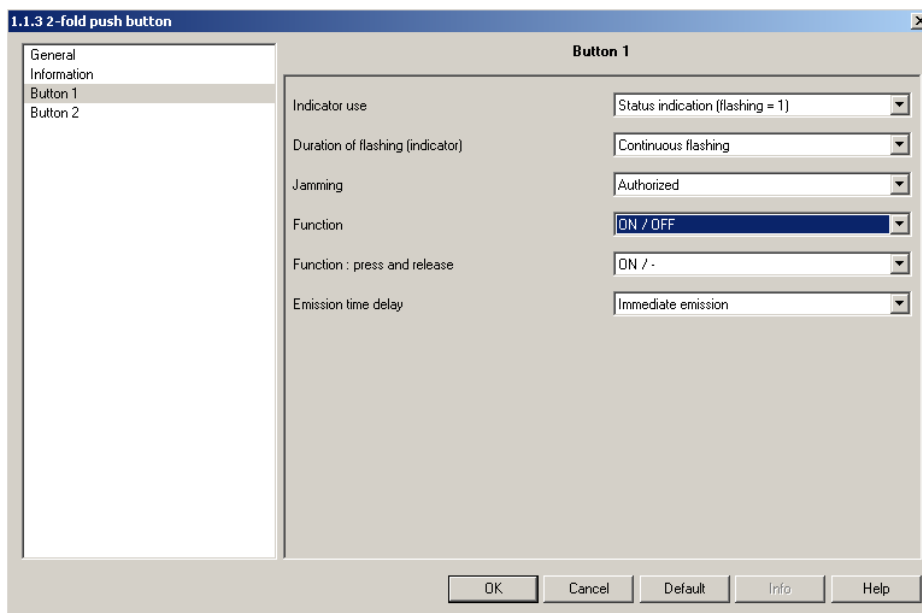
→ Parameters
Settings: See "Screen 1".

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, Shutters/Blinds	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 General setting of Pushbuttons parameters

2.3.1 Indicator

→ Parameters



Screen 2

Designation	Description	Values
Indicator use*	This parameter defines indicator utilization. 3 types of utilization are possible: <ul style="list-style-type: none"> - Permanently OFF or ON. - Status indication associated to the Signaling object. - Key-press confirmation. 	Always OFF, Always ON. Status display (ON=1) Status display (ON=0) Status display (Blinking=1) Status display (Blinking=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.

* This parameter is only visible when the Button type parameter has the value: Push buttons with LEDs.

** This parameter is only visible if the Indicator utilization parameter has the value: Status indication (flashing=1) or Status indication (flashing=0).

2.3.2 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 (red) 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.

2.3.3 Function descriptions ON/OFF, toggle, Time delayed remote switch, Timer

ON/OFF:

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

Description: After pressing the 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, it can be specified whether the command must be sent when the pushbutton is pressed or released (see parameter settings).

Toggle:

The toggle function (Toggle/- or -/Toggle) will after each key press invert the status of the output circuit. Each new key-press modifies the output's status.

Description: After pressing the pushbutton, 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; OFF -> ON command sent).

Time-limited toggle switch:

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. Outputs switch to OFF upon receipt of an OFF command on the object time delayed remote switch. An ON command received while the output is still ON will reset the time delay.

Timer:

A short pushbutton press: The output contact switches to ON for the output's set time.

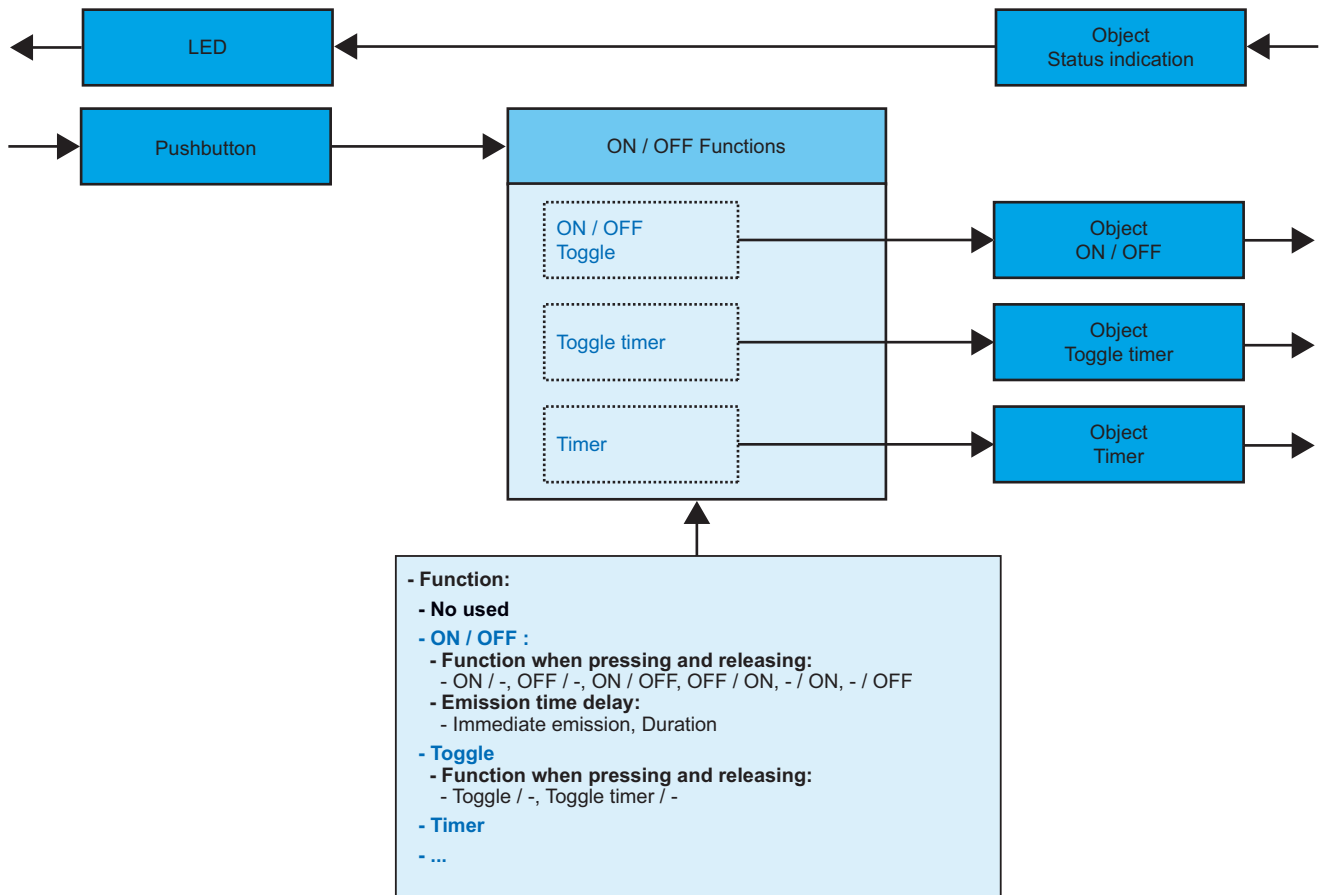
A long pushbutton press: Timer interruption and output stopped.

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 time defined.. An ON command on the Timer object repeated within 10 sec. increases the output's delay time period (for TXA-type products) as follows: :

$\text{ON-switching time} = (1 + \text{Number of repeated key-presses}) * \text{time set.}$

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



- ON/OFF function

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 button is pressed / Command when the button is released ("-" = 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.

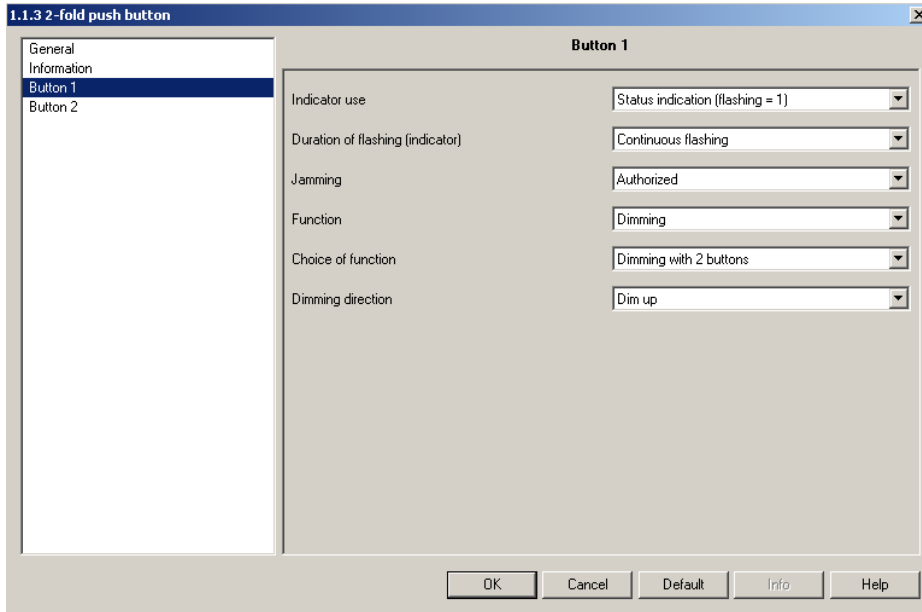
* The emission time delay is not available for the ON/OFF or OFF/ON functions.

- Pushbutton function

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

2.3.4 Description of the 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.



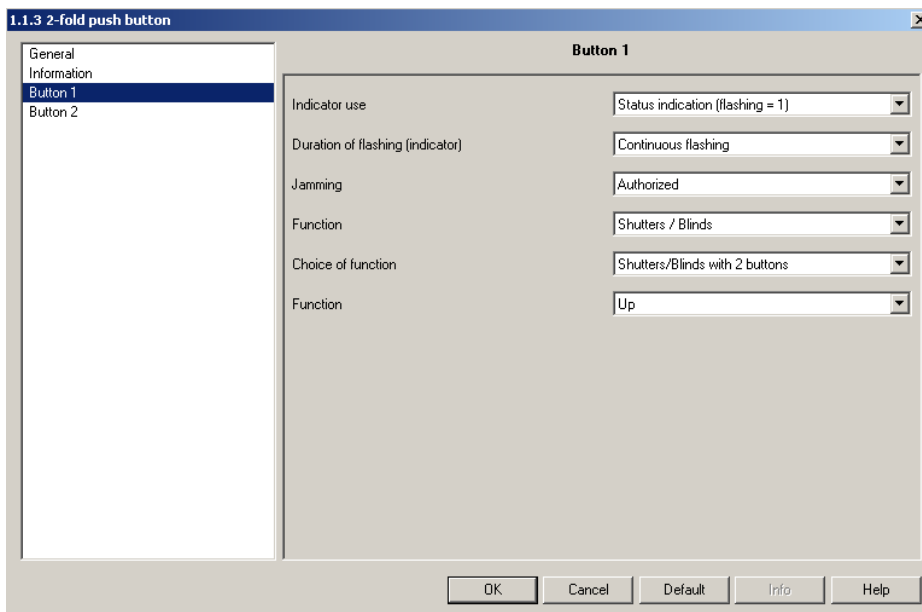
Screen 3

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 is only visible if the parameter "Function" has the value: 2-button dimmer.

2.3.5 Description of the Shutters/Blinds 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.



Screen 4

Designation	Description	Values
Choice of function	This parameter selects the utilization mode.	1-button shutters/blinds 2-button shutters/blinds 2-buttons Safety Shutters / Blinds Default value: 1-button shutters/blinds
Command**	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.

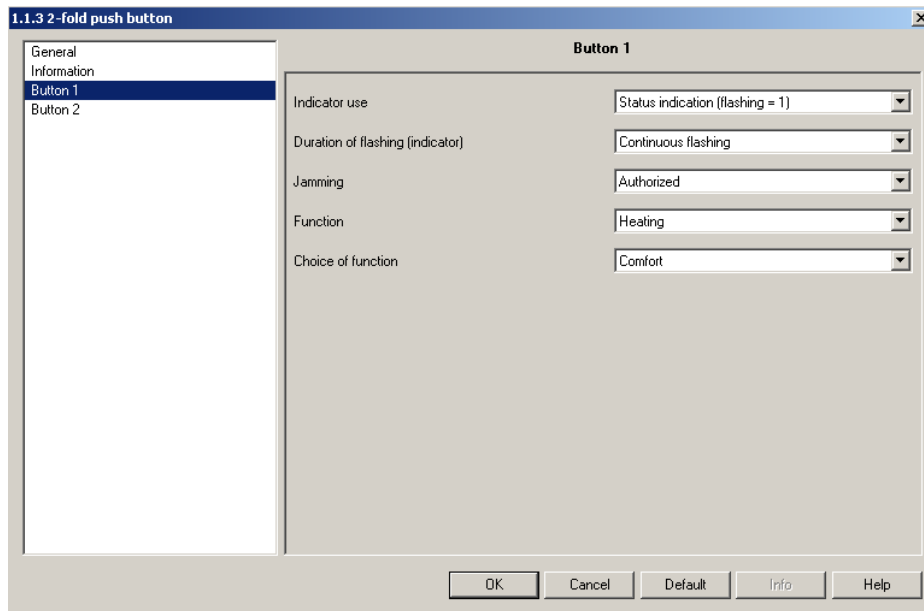
** This parameter is only visible if the parameter "Function" has the value: 2-button shutters/blinds (or with safety function)

2.3.6 Description of the Heating function

This function is used to select the setpoint for heating/air-conditioning.

The 1-octet heating setpoint object sends the following values:

Valeurs	Désignation produit	Icône
1	Comfort	
2	Absence	
3	Reduced	
4	Frost-free	



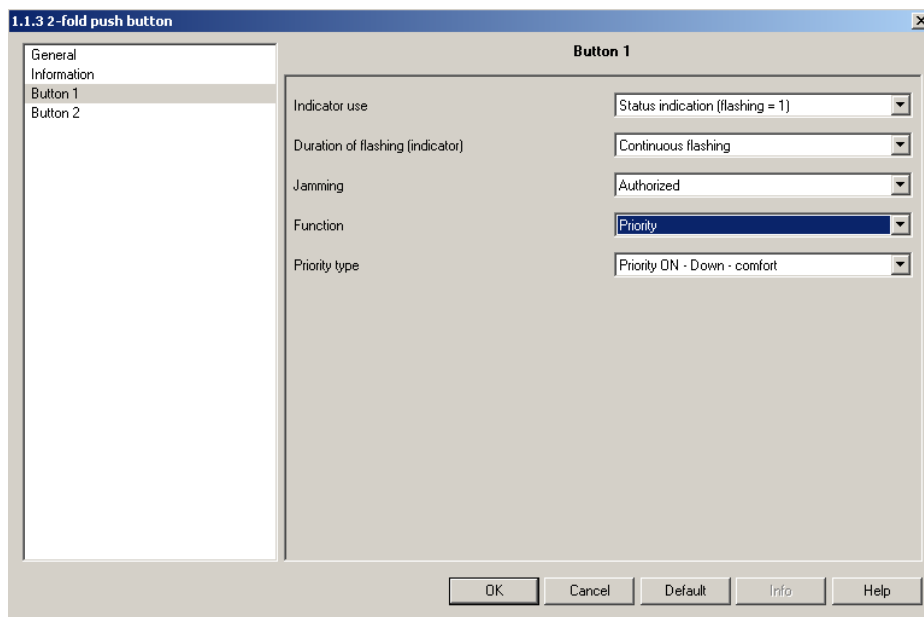
Screen 5

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

2.3.7 Description of the 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, Blinds / shutters, 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-free
1	1	Priority ON - Down - Comfort



Screen 6

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.

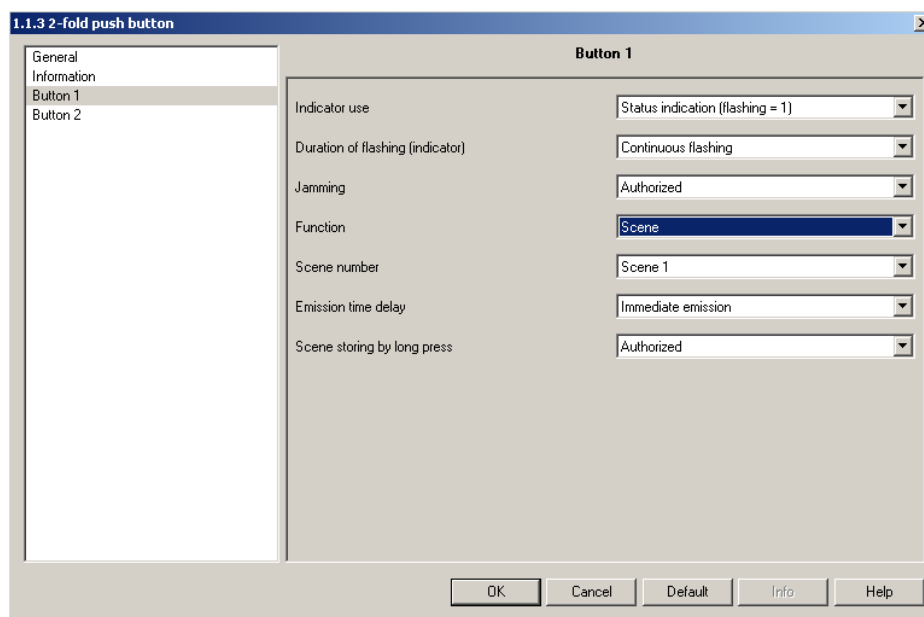
2.3.8 Description of the Scene function

The Scene function sends group controls to different kinds of outputs to create ambiances 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 pushbutton 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



Screen 7

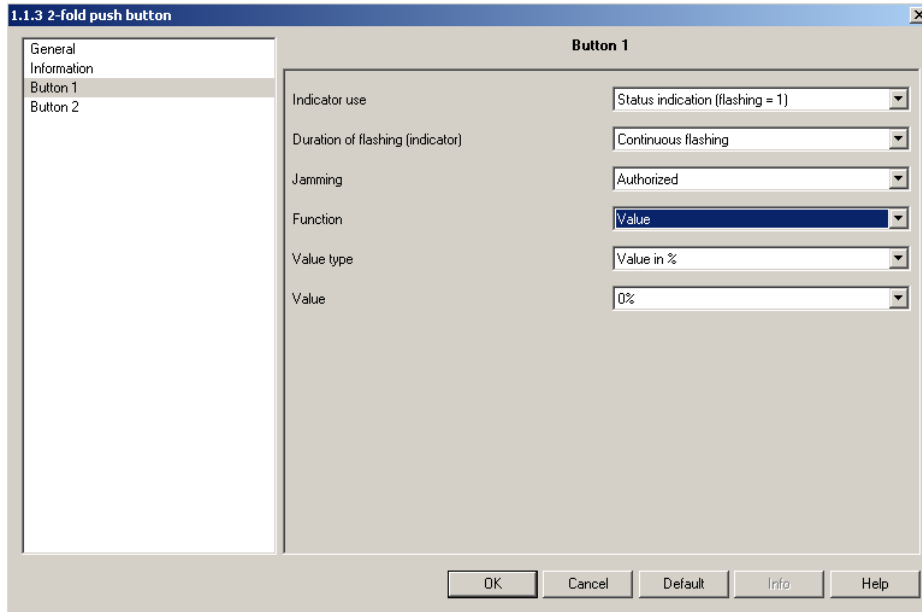
Designation	Description	Values
Scene number	This parameter defines the scene number to be activated.	Scene 1 to Scene 32. Default value: Scene 1
Emission time delay	This parameter defines if scene activation must be immediate or time-delayed*.	Not used, 1 s, 2 s, 3 s, 5 s, 10 s, 15 s, 20 s, 30 s, 40 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 modification via long key-press (> 5 seconds)**	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).

2.3.9 Description of the 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.

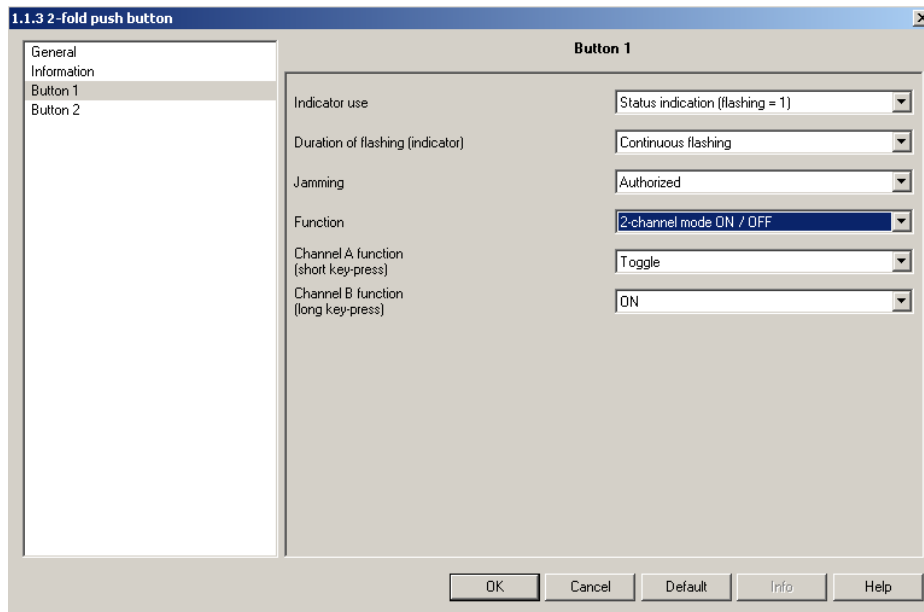


Screen 8

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

2.3.10 Description of 2 channels mode 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.



Screen 9

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

3. Main characteristics

Max. number of group addresses	252
Max. number of links	254
Objects	239

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 product in physical addressing. The product remains in physical addressing until the physical address has been transmitted by ETS. Press again to exit physical addressing mode.

