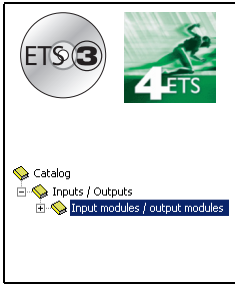
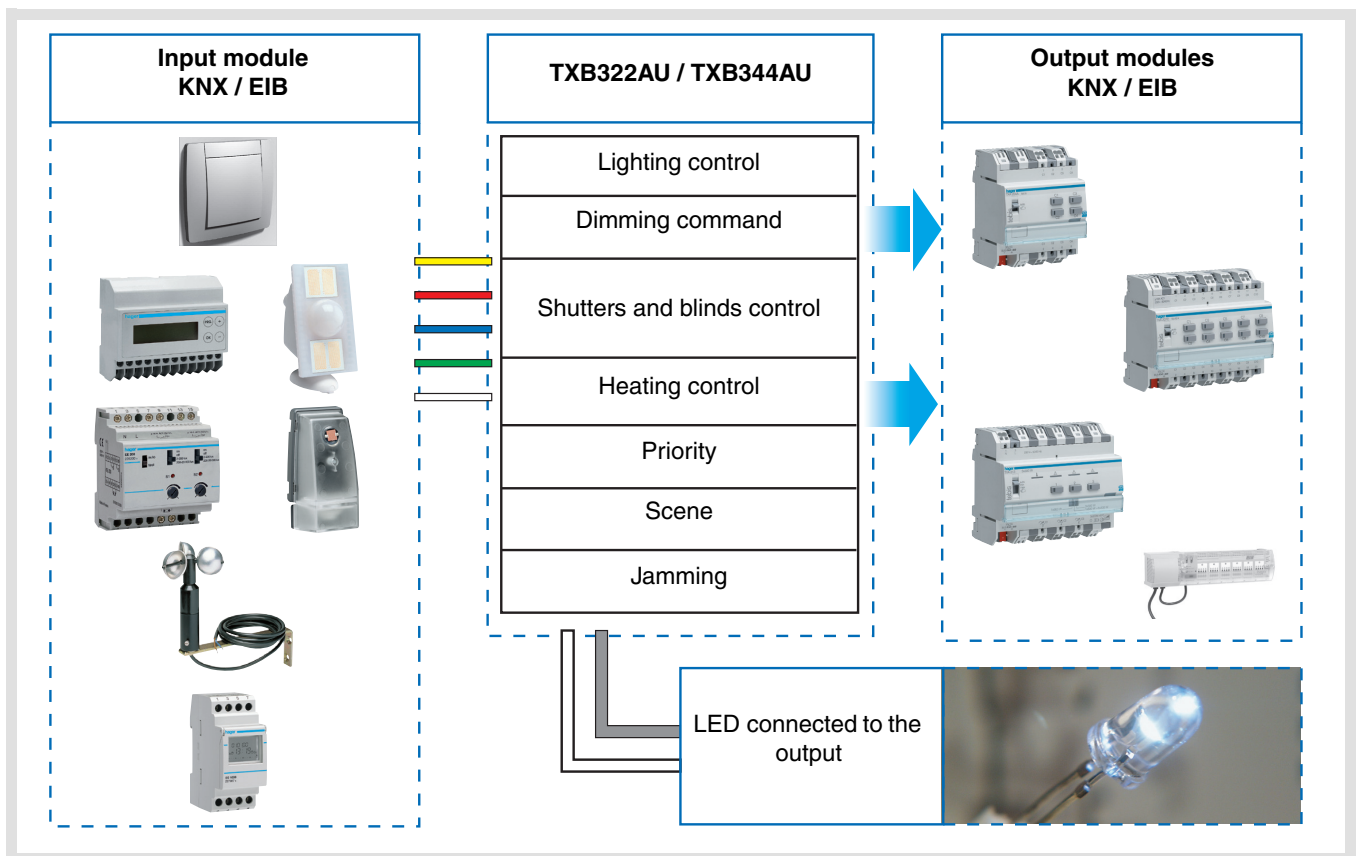


Tebis application software



SXB322AU V 1.x 2 inputs / 2-output module LED
 SXB344AU V 1.x 4 inputs / 4-output module LED

	Product reference	Product designation
	TXB322AU TXB344AU	Embedded module: 2 inputs / 2-output module LED Embedded module: 4 inputs / 4-output module LED



Summary

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1. Presentation of the functions of the SXB322 and SXB344 applications

The SXB322AU and SXB344AU application softwares are used to configure the individual inputs of the TXB322AU and TXB344AU products.

The main functions are the following:

■ Sending commands

The products allow to control lighting, blinds, shutters, heating and scenes.

- Lighting control
 - Toggle switch, ON, OFF, ON / OFF, Timer.
 - 1 or 2 button dimmer.
- Shutters / Blinds control
 - Up, Down, Stop, Blind slat angle, Secured Down.
- Heating control
 - Comfort, Night set-point, Frost protection, Standby, Auto.

■ Priority

The Priority function sends priority-start or priority-stop commands.

The Priority action depends on the type of application controlled: lighting, blinds, heating, etc.

■ Scene

The Scene function sends group controls to different kinds of outputs to create ambiances or scenarios (leaving home scenario, reading ambience, etc.).

■ Jamming

The Jamming function authorizes product locking. Jamming forbids sending commands.

■ 2-channel mode

The 2-channel mode function allows controlling, with the same pushbutton, 2 independent circuits having different functions.

■ Output LED

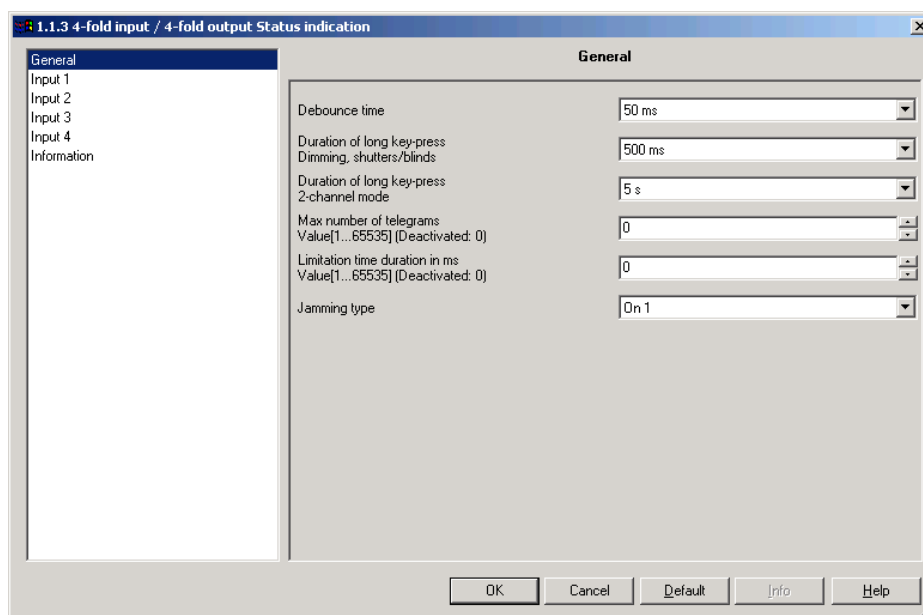
LED outputs control the lighting of standard LED signal lamps and display the status of the circuit controlled by the input.

The LED 1 output reflects the status of the circuit controlled by the 1 input, The LED 2 output reflects the status of the circuit controlled by the 2 input,...

2. LED input and output configuration and parameters

2.1 Common settings

→ Parameter



Screen 1

Parameter	Description	Values
Debounce time	This parameter defines for the contacts connected to inputs the minimum closing time before taking into account.	50 ms, 100 ms, 150 ms Default value: 50 ms
Duration of long key-press Dimming, shutters / blinds	This parameter defines for the Dimmer and Shutter / Blind functions the detection time for a hold-down pressure.	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 duration of detection of a long press for the 2 channel value function and 2 channels ON / OFF.	500 ms, 1 s, 2 s, 3 s, 4 s, 5 s, 6 s, 7 s, 8 s, 9 s, 10 s, 30 s, 1 min, 2 min, 5 min, 10 min Default value: 5 s
Max number of telegrams Value [1...65535] (Deactivated: 0)	This parameter defines the maximum number of telegrams which can be transmitted on the bus during the limitation period.	1 - 65535 Default value: 0
Limitation time duration in ms Value [1...65535] (Deactivated: 0)	This parameter defines the period during which the the limitation of the maximum number of telegrams takes effect.	1 - 65535 Default value: 0

2.2 Objects List

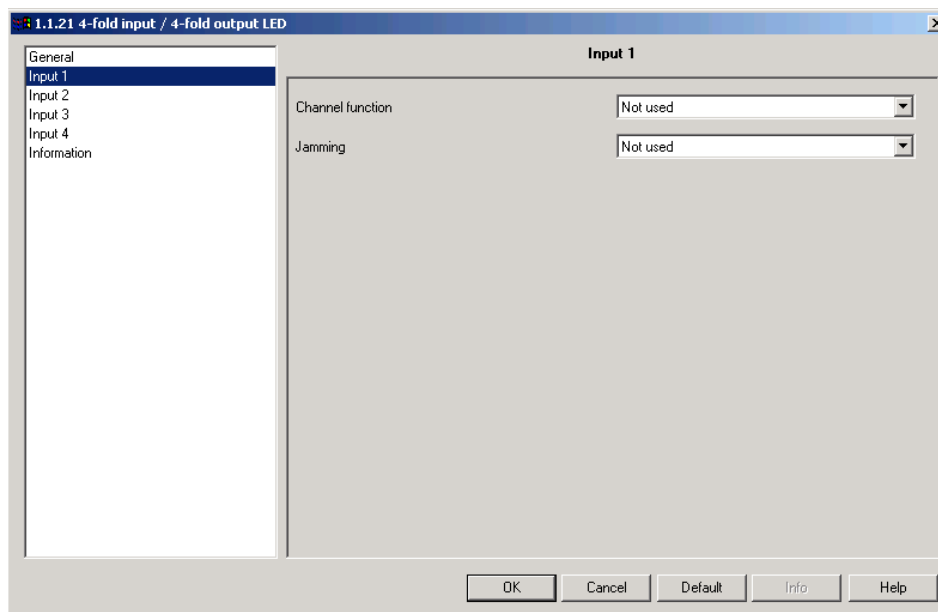
Function \ Object	Object														
	None	ON / OFF	Toggle switch	Timer	1-button dimmer	2-button dimmer	1-button shutters / blinds	2-button shutters / blinds	Shutters / Blinds by automatic control	Heating set point	Heating ON / OFF	Priority	Scene	Alarm 1	Alarm 2
Not used	X														
ON / OFF		X	X		X	X					X				
Timer				X											
Dimming					X	X									
Status indication (Input X)				X	X	X	X								
Status indication (Output LED X)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Slat angle / Stop							X	X							
Up / Down							X	X	X						
Set point selection									X						
Priority											X				
Scene												X			
Alarm 1														X	
Alarm 2															X

2.3 Function Description

■ Product function

The product allows to control lighting, blinds, shutters, heating and scenes.

→ Parameter



Screen 2

2.3.1 Description of the ON / OFF, Toggle switch, Time-limited toggle switch and Timer functions

ON / OFF:

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

Description: After pressing the push button, 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) can be defined in the parameters.

Furthermore, it can be specified whether the command must be sent when the push button is pressed or released (see parameter settings).

Toggle switch:

The Toggle switch function (Toggle Switch / - or - / Toggle Switch) consists of inverting the status of the output after each key-press. Each new key-press modifies the output status.

Description: After pressing the connected 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 opposite of the previous command (previous command: ON -> OFF command sent; OFF -> ON command sent).

Time limited toggle switch:

A short push button press. The output status is inverted. The status changes after each short key press. If there is no short key-press, the output will be switched OFF once the delay time has elapsed. A long push button 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 press on the pushbutton transmits an ON command via the **Time-limited toggle switch** object.

Upon reception of an ON command from the object **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. An ON command received while the output is still ON resets the delay time.

Timer:

A short push button press: The output contact switches to ON for the set time.

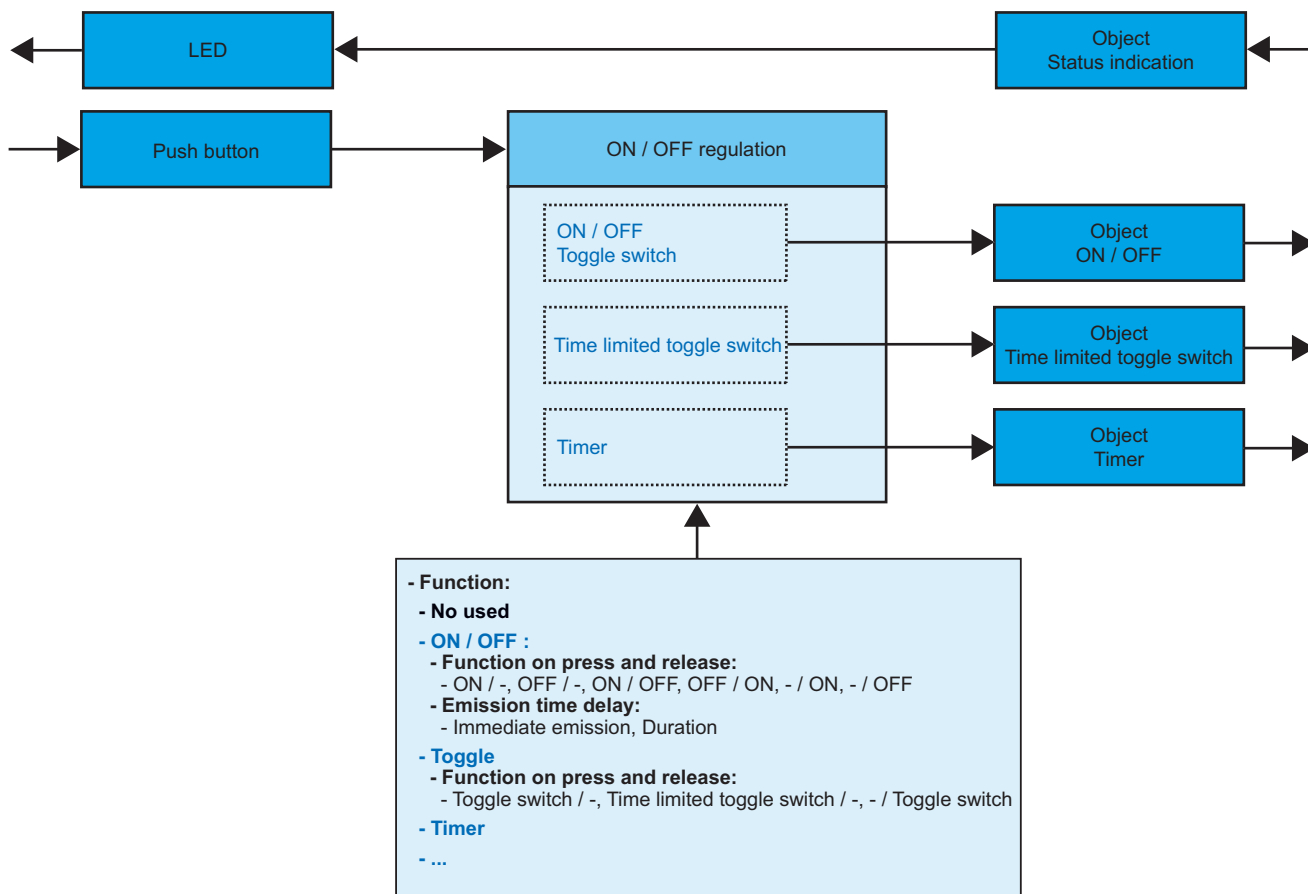
A long push button press: Timer interruption and output stopped.

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.. Additional ON commands on the **Timer** object within 10 s. increase the output's delay time period (for our TXA products) as follows:

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

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



- Function ON / OFF

Designation	Description	Values
Function on press and release	This parameter defines the commands sent when the push button 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.

- Function Toggle switch

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

2.3.2 Description of the Dimmer function

Channel function: Dimming

This function is used to control lighting circuits using one or two buttons.

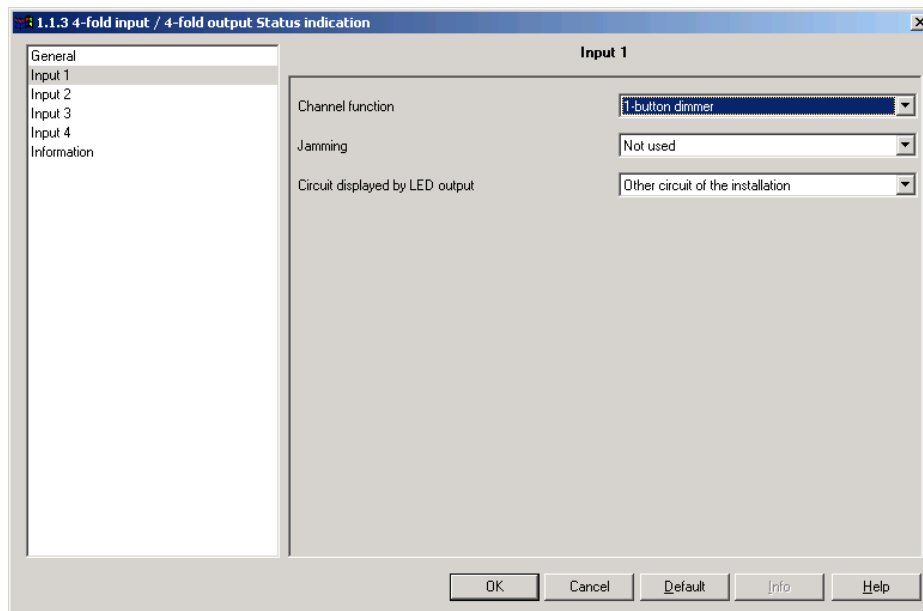
The 1 button dimmer and 2-buttons dimmer functions send the **ON / OFF** object after a short press.

A long press send the **Dimmer** object.

There are 2 different function types: **1-button dimmer** or **2-button dimmer**.

Channel function: 1-button dimmer

This function allows ON / OFF or Increase / Decrease controls using one push button.

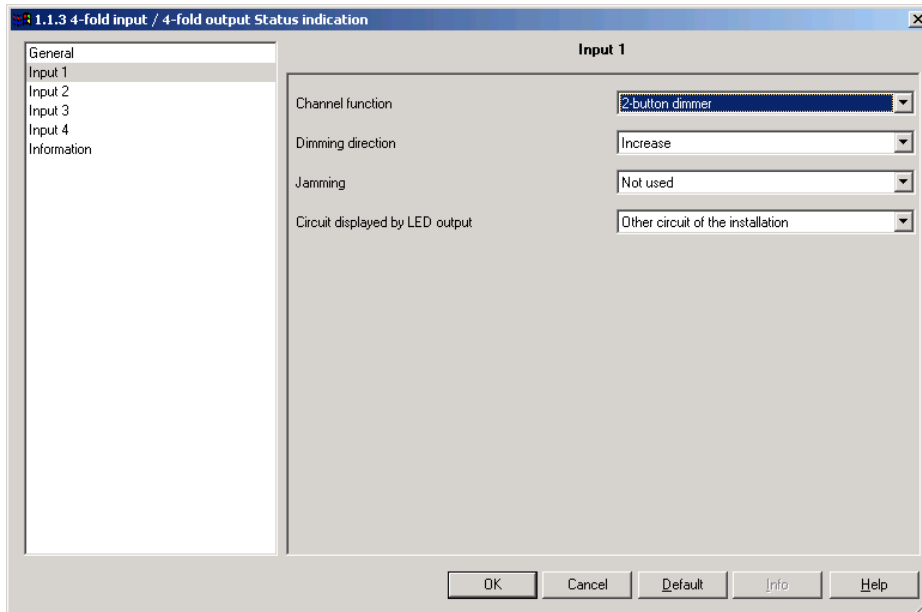


Screen 3

Channel function: 2-button dimmer

This function allows ON or Increase controls using one push button, and OFF or decrease controls using a second push button.

→ Parameter Setting screen



Screen 4

→ Parameter

Designation	Description	Values
Channel function	This parameter defines the function types.	1-button dimmer, 2-button dimmer
Dimming direction*	This parameter defines the dimming direction associated to the button.	Increase, Decrease Default value: Increase
Jamming	This parameter is used to prevent the input from being used. Jamming forbids sending commands.	Used, Not used Default value: Not used

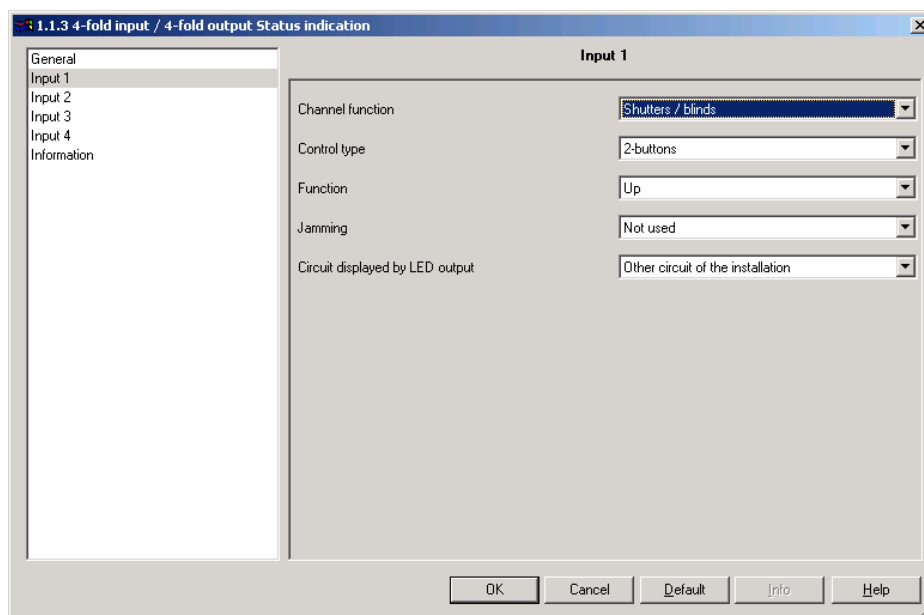
* This parameter is only visible if the **Channel Function** parameter has the following value: 2-button dimmer.

2.3.3 Description of the Shutters / Blinds function

This function controls a shutter or a blind using one or two push buttons.

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 5

Designation	Description	Values
Control type	This parameter selects the utilization mode.	1-button 2-buttons On 2 Safety buttons Automatic controls Default value: 2-buttons
Function**	This parameter defines the movement direction associated to the button.	Up, Down Default value: Up

* Pressing the push button sends Up or Down commands to the bus via the **Up / Down** object.

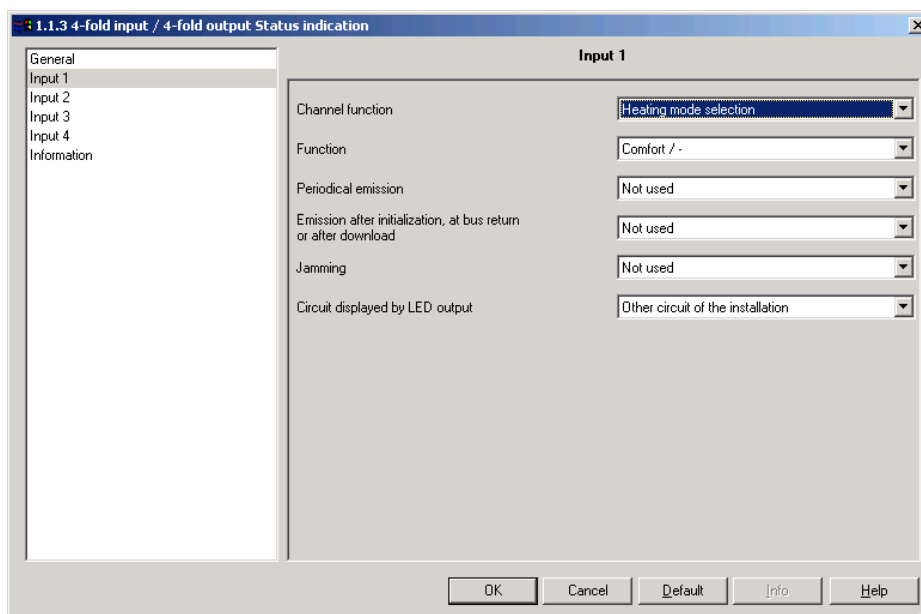
When the push button is released, a Stop command is sent via the **Stop / Angle** object.

** This parameter is only visible if the **Choice of function** parameter has the value: 2 buttons Shutters / Blinds (or with safety function).

2.3.4 Description of the Heating function

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

Values	Designation	Icon
1	Comfort	
2	Standby	
3	Night set-point	
4	Frost protection	



Screen 6

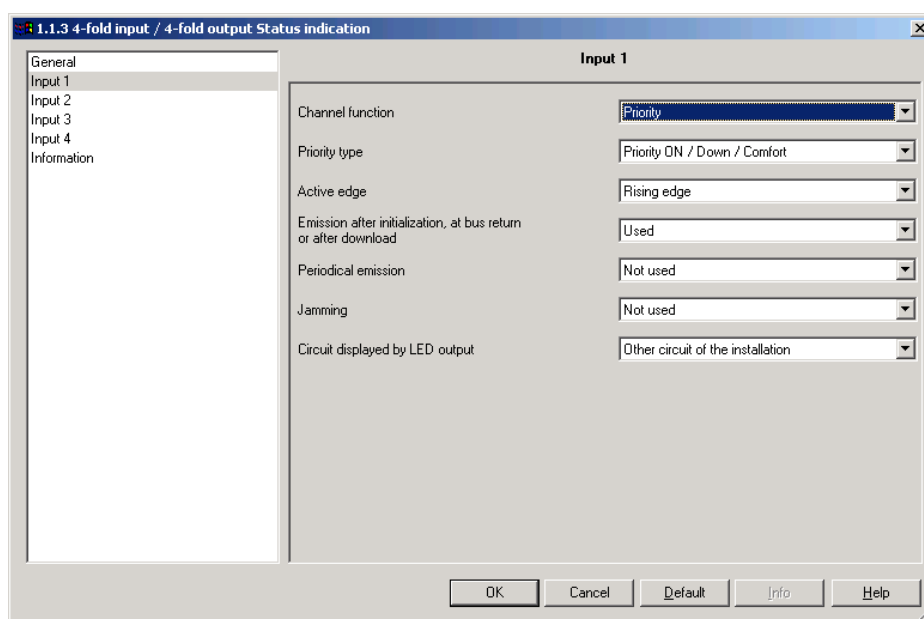
Designation	Description	Values
Function	This parameter selects the setpoint associated to the button.	Comfort / Night set-point, Comfort / -, Night set-point / -, Frost protection / Auto, Standby / -, Comfort / Standby, Frost protection / -, Night set-point / Comfort, - / Comfort, - / Night set-point, Auto / Frost protection, - / Standby, Standby / Comfort, - / Frost protection. Default value: Comfort / -

2.3.5 Description of the Priority function

The Priority function sends priority-start or priority-stop commands. The **Priority** object is sent when the push button is pressed. The forcing action depends on the type of application controlled: Lighting, Shutters / blinds, Heating etc.

The **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



Screen 7

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 push button sends alternatively a priority-start request and a priority-end request.

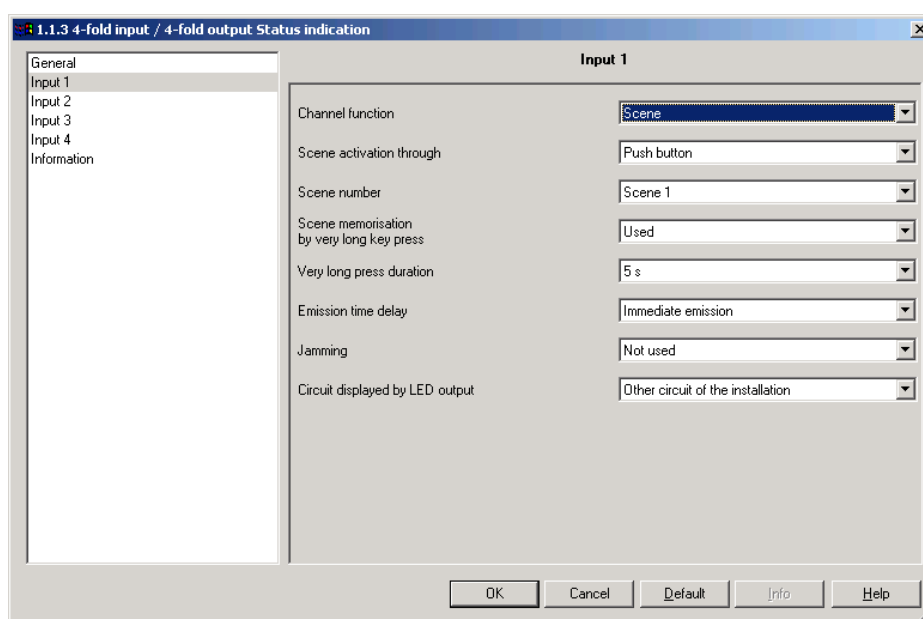
2.3.6 Description of the Scene function

The Scene function sends group controls to different kinds of outputs to create ambiences or scenarios. Pressing the push-button sensor activates or stores a scene from 1 to 32. This function is only available in independent push button operation. With a short key-press, the push-button sensor 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 push button is released. If the **Scene storing via extra long key-press** parameter has the permitted value, pressing the push-button for longer than **5 s** sends 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 8

Designation	Description	Values
Scene number	This parameter defines the scene number to be activated.	Scene 1 - Scene 32 Default value: Scene 1
Emission time delay	This parameter defines if scene activation must be immediate or time-delayed.*	Immediate emission, 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: Immediate emission
Scene memorisation by very long key press**	This parameter authorizes or not storage of a scene via a long push button press.	Used, Not used Default value: Used

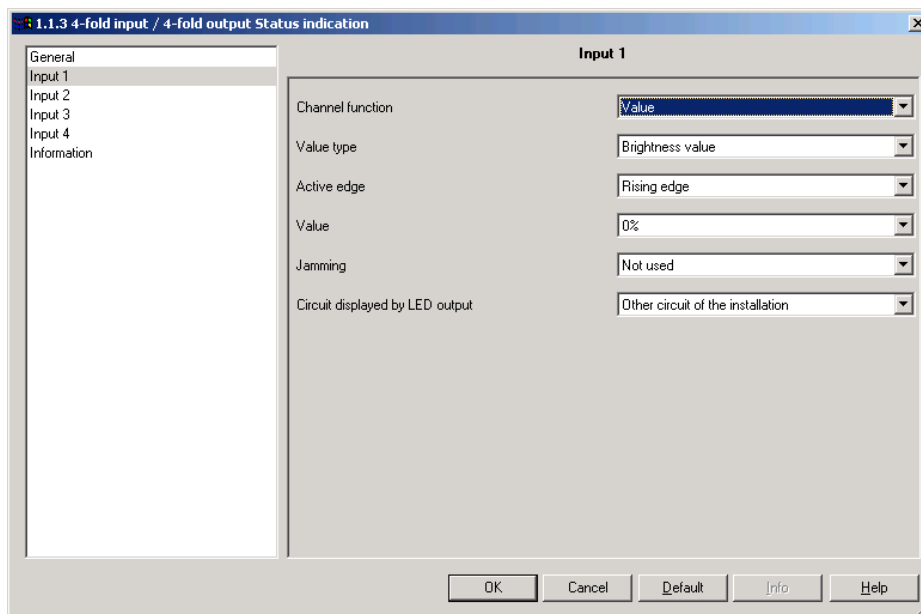
* The scene storing command is not concerned by this parameter.

** Scene storing is confirmed by the push-button indicator flashing (1 second).

2.3.7 Description of the Value function

The Value function allows to send percentage values, temperature values, brightness levels, illumination values or a 2-byte values.

The Value function is only available for an independent push button. Pressing the push button sends the **Value** object to the bus; the object is in 1-byte or 2-byte format, depending on the value type to be sent.

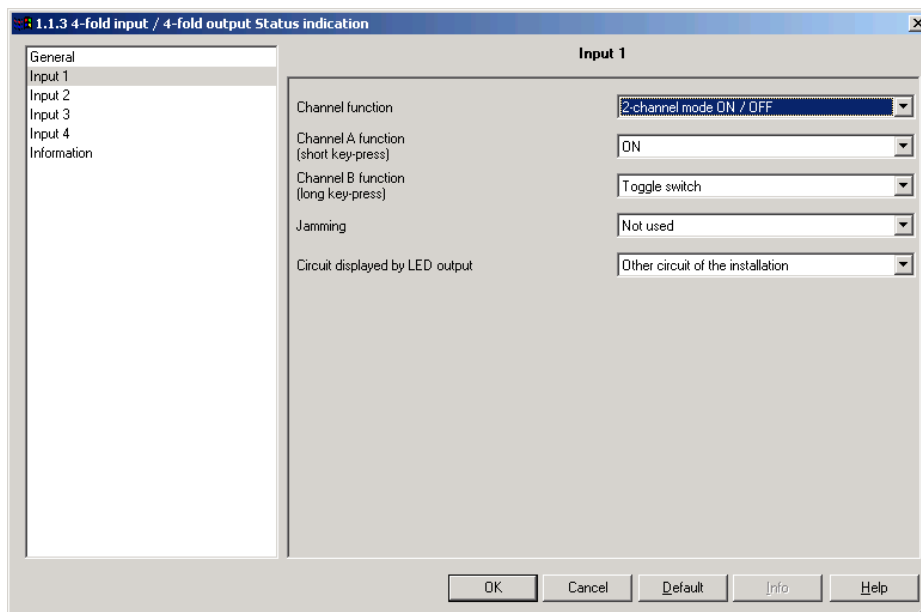


Screen 9

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

2.3.8 Description of the Mode 2 channels ON / OFF function

The 2-channel ON / OFF mode is used to perform two different functions using the same push button. 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 in the general parameters screen, via the **Length of long key-press 2 channels Mode** parameter). The 2-channel mode is only available for the ON, OFF and Toggle Switch functions. With a short key-press, the push-button sensor sends an ON or OFF command to the bus via the **Channel A ON / OFF** object. With a long key-press, the push-button sensor sends an ON or OFF command to the bus via the **Channel B ON / OFF** object.



Screen 10

Designation	Description	Values
Channel A function (short key-press)	This parameter defines the command sent by a short key-press.	Not used, ON, OFF, Toggle switch Default value: ON
Channel B function (long key-press)	This parameter defines the command sent by a long key-press.	ON, OFF, Toggle switch Default value: Toggle switch

2.3.9 Jamming function parameters

The Jamming function authorizes product locking. Jamming forbids sending commands. This function is started by the **General - Jamming** object. Jamming is indicated by the indicator flashing (5 seconds) when the push button is pressed.

Designation	Description	Values
Jamming	This parameter defines whether push button jamming by a distinct object is permitted.	Not used, Used Default value: Not used

3. Main characteristics

Max. number of group addresses	254
Max. number of links	255
Parameters	29 per input, 11 global
Objects	26 in total

4. Physical addressing

To perform physical addressing or check for the presence of the bus, press the illuminated pushbutton located on the top right of the device above the label holder.

In the event of a status change, the respective input(s) is/are re-emitted:

Programming LED ON = Bus present and the product is in programming mode.

The product remains in programming mode until the physical address has been transmitted by ETS. Press again to exit programming mode. The indicator goes out.

