

Push-button sensor module

Ref.-no.: 4008 TSM

Safety instructions

Caution! Electrical devices may only be installed and fitted by electrically skilled persons.

Non-compliance with the installation information could cause damage to the device, fire or other hazards.

Connect the push-button sensor module exclusively to the universal relay or dimming station (no mains potential!).

To fasten radio to the supporting ring, only use the enclosed plastic screws.

These instructions are a component part of the product and must remain with the end customer.

Correct use

- Operation of consumers, e.g. light on/off, dimming, blinds/shutters up/down, calling up and saving light scenes etc.
- Connection to relay station or dimming station
- Installation in appliance box according to DIN 49073

Product characteristics

- 8 channels of the relay and dimming station can be controlled: switching, contact, dimming, blind/shutter.
- 16 channels for stations connected in parallel in conjunction with the push-button sensor expansion module.
- All channels of the stations can be connected in the state as delivered.
- Central function: all selected channels of the stations are controlled centrally
- Light scenes: up to 4 light scenes can be freely configured.
- Buttons can be configured corresponding to the cover kit.
- Programming without additional aids
- Free assignment of the buttons to the channels
- Red LED as status indicator (can be switched off)
- Blue orientation light (can be switched off)
- Feedback of switching states on all connected push-button sensor modules and sensor modules
- Up to 4 push-button sensor modules with up to 4 push-button sensor expansion modules can be connected to a single relay station (application e.g. in two-way circuits or cross connections)
- Cloning of push-button sensor modules: transmitting the button assignment of a push-button sensor module to other push-button sensor modules (application e.g. in changeover or cross connections)
- Push-button sensor modules and push-button sensor modules with expansion module can be cloned
- Easy installation using 2-wire cable
- Covers can be labelled using the laser labelling tool on the Internet under www.jung-lasern.de
- Operation
- Each button can be operated over its entire surface or top/bottom, depending on the programming. The function depends on the setting of the station.
- Switching / momentary contact: press button briefly.
- Move blind/shutter: press and hold button.
- Stop or adjust blind/shutter: press button briefly
- Dimming: press and hold button

Structure of the device

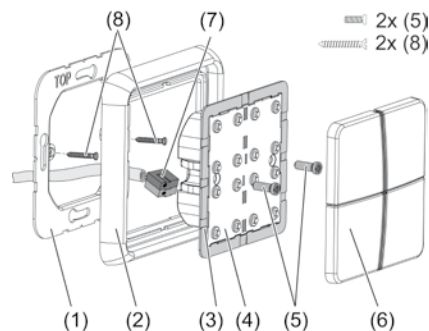


Bild 1: Installation

- (1) Supporting ring
- (2) Frame
- (3) Adapter frame
- (4) Push-button sensor module
- (5) Locking screw
- (6) Button set
- (7) Connecting terminal
- (8) Box screws

Information for electrically skilled persons

Installation and electrical connection

DANGER!

Electric shock from touching live parts in the installation environment.

An electric shock can be fatal.

Before working on the device, disconnect the power and cover live parts in the area!

Snapping on the adapter frame

An adapter frame is required depending on the switch range.

The adapter frame for the series LS is pre-mounted.

- Snap adapter frame (3) in the right orientation from the front onto the module (8) (Figure 2). Observe the label „TOP“.

Connection

Attention!

Connect the push-button sensor module exclusively to the universal stations.

Installing and connecting the device

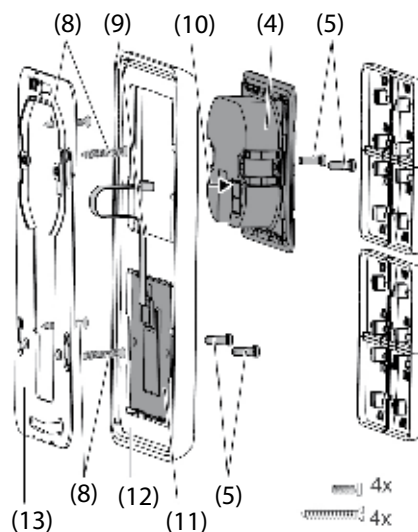


Bild2: Installation with expansion module

- (9) Connecting cable TSEM
- (10) Plug-in position
- (11) Push-button sensor expansion module
- (12) Frame
- (13) Double supporting ring

Supporting ring side A for A range, CD range and flat design.

Supporting ring side B for LS range.

When using the push-button sensor expansion module (Figure 2): vertical installation is preferred. Use the double supporting ring (13). For installation to a flush-mounted box only, countersink the lower screws in the wall, e.g. with bore $\varnothing 6 \times 10$ mm. Use supporting ring as template.

DANGER!

When installing with 230 V devices under a common cover, e.g. socket outlets, there is a danger of electric shock in the event of an error!

An electric shock can be fatal.

Do not install any 230 V devices in combination with a push-button sensor expansion module under a common cover!

- Install supporting ring (1) or (13) in the right orientation on an appliance box. Observe the label „TOP“; label A or B forwards. Use only the supplied box screws (8).
- Insert frame (2) onto the supporting ring.
- Preferred installation position of push-button sensor expansion module (15) is below. Guide connecting cable (16) between supporting ring and intermediate web.
- Push-button sensor expansion module: insert connecting cable (16) in the right orientation in the plug-in position (17) in the push-button sensor module.
- Do not pinch the connecting cable.
- Connect push-button sensor module (4) with connecting terminal (7) to the station and insert onto the supporting ring.
- Fasten the push-button sensor module(s) to the supporting ring using the enclosed plastic screws (5). Only tighten the plastic screws lightly.

Start-up

The push-button sensor module is ready for operation immediately after it is connected to the stations (initial commissioning).

Push-button sensor module	Relay station	Dimming station
Button 1 top	Output 1	Output 1 on/ brighter
Button 1 bottom	Output 2	Output 1 off/ darker
Button 2 top	Output 3	Output 2 on/brighter
etc...		

When a push-button sensor module is operated with a push-button sensor expansion module on a single station, the push-button sensor expansion module does not have any function in the state as delivered.

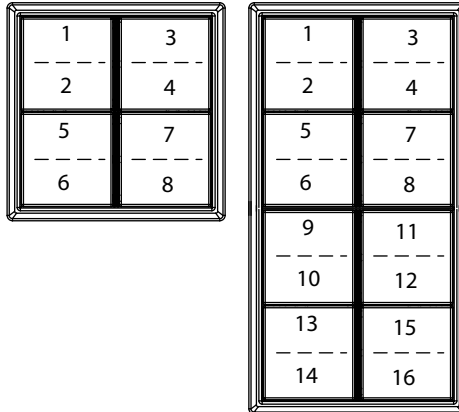


Bild3: Button assignment in state as delivered without and with push-button sensor expansion module.

Grouping

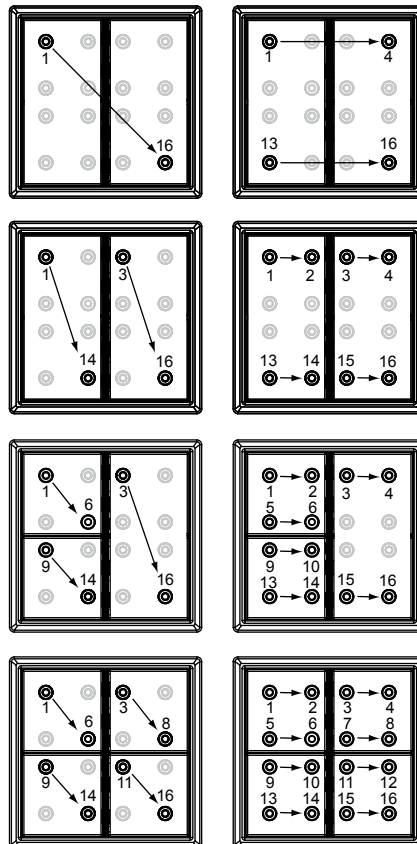


Bild4: Button configuration for entire surface or top/bottom mode, for 1gang, 2gang, 3gang and 4gang covers.

Preliminary remark to programming

The program is called up by entering a 4-digit button combination twice. LEDs 1 - 4 + 6 light up.

Preliminary remark to grouping (button 1)

The push-button sensor module can be operated with 1gang, 2gang, 3gang and 4gang button sets. The push-button sensor module and the push-button sensor expansion module have to be re-grouped depending on the cover and the channels being switched. Assignment is performed without the cover.

Configuring the buttons

Each button can be configured for its entire surface or divided top/bottom. This is done by assigning the buttons as follows. For example configuration, see Figure 4.

1gang button

Entire surface:

Press micro button 1 and then 16.

Top/bottom:

Top: press micro button 1 and then 4

Bottom: press micro button 13 and then 16

2gang button

Entire surface, left

Press micro button 1 and then 14.

Entire surface, right

Press micro button 3 and then 16.

Top/bottom left:

Top: press micro button 1 and then 2

Bottom: Press micro button 13 and then 14

etc.

Assigning the relay or dimming station outputs to the buttons on the push-button module.

- Relay station: toggle mode. The output is switched on or off through the same button. In blind/shutter mode, one channel for moving up and one channel for moving down are assigned.
- Dimming station: 2 channels are assigned to each output. Example output 1: channel 1 switches on and dims brighter, channel 2 switches off and dims darker.

Preliminary remark to central function (button 2)

Central OFF and central ON can be assigned independently of each other.

Channels which should respond to the central function are set at the stations. In the state as delivered, all channels respond to the central function.

Preliminary remark to light scene (button 3)

① Before setting the light scene, the station must be set through button 6.

Switching several outputs with one button.

Switching states are assigned to the outputs.

4 light scenes per control point are available.

Preliminary remark to status LED on/off (button 4)

The button next to the respective LED switches the LED on or off.

When switched on, the LED indicates the status of the channel.

Switched-off LEDs are always off.

The blue orientation light is switched on/off through button 9.

Preliminary remark to stations (button 6)

Setting which stations, relay or dimming station, are connected.

Programming mode from state as delivered or after reset

No change on the push-button sensor module has taken place yet.

When grouping, central function or light scene are selected, all pre-set assignments are deleted. All surfaces can be reassigned.

When status LED on/off is selected, the preset links are retained even when no changes have been made and the area is left directly through button 16. Existing links are retained and can be changed.

Changing the links

A push-button sensor module which no longer corresponds to the state as delivered can be changed to the respective mode. Links and settings are retained.

Programming

Entering a 4-digit button combination brings you to the programming level.

The push-button sensor module must be connected to the station.

Programming level

No switching commands are executed in the assignment mode.

Cover is not installed.

- Press buttons 6 – 3 – 5 – 5 in sequence (Figure 5).
All LEDs flash 2x
- Press buttons 6 – 3 – 5 – 5 in sequence once again.
All LEDs flash 2x.
LEDs 1 - 4 + 6 light up.
The selection level is active.

Button 1: grouping

Button 2: central function

Button 3: light scene

Button 4: status LED on/off

Button 6: stations

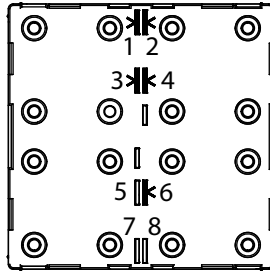


Bild 5: LEDs 1 - 4 + 6 light up

Button 1: Setting or changing the grouping

When links are assigned, first a load output (1 - 8 or 1 - 16) is selected, then the button which should switch the load output. Each button can be configured for its entire surface or divided. The dimming stations are assigned 2 channels for each load output.

Example: Load 1 switches on and dims brighter, channel 2 switches off and dims darker.

LEDs 1 - 4 + 6 light up.

- Press button 1 (grouping).
The link mode **Grouping** is active.
LEDs of switch outputs that have not yet been assigned flash; assigned LEDs light continuously.
- ① For operation with 2 stations, LEDs 9 - 16 are displayed on the expansion module. Programming is also possible without the expansion module.
- Select switch output by pressing a button (1 - 8 or 1 - 16).
- Select the button that should switch the load output.
Selection according to Figure 4.
- ① If an entry is faulty (e.g. button 1 then 3), all LEDs flash. Select button once again (e.g. button 1 then 2).
- ① Assigned buttons are overwritten without query.
- ① Back to switch output selection.
- ① LEDs of switch outputs that have not yet been assigned flash; assigned LEDs light continuously.
- ① For additional links, select switch output by pressing a button (1 - 8 or 1 - 16).
- Back to programming level: press and hold button 16 approx. 3 seconds.
LEDs 1 - 4 + 6 light up
Make additional settings or end programming.
- End programming: press and hold button 16 approx. 3 seconds.
Operating level is active.

Button 2: Setting or changing the central function

When assigning the central function, button 1 for central ON or button 2 for central OFF is selected, then the buttons which should switch the central function. It is also possible to assign only central ON or central OFF.

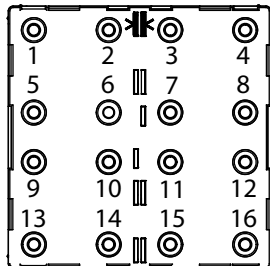


Bild 6: LED 1: central ON, LED 2: central OFF

- Press button 2 (central function)
The link mode **Central function** is active.
Button 1: central ON
Button 2: central OFF
Free central function lights up.
Assigned central function flashes
- Select central function, press button 1 or 2.
- Select free buttons which should switch the central function.
Selection according to Figure 4.
Back to central function selection.
Free central function lights up.
Assigned central function flashes.
- For additional links, select lit button.
- For changes, select flashing button.
- Back to programming level: press and hold button 16 approx. 3 seconds
LEDs 1 - 4 + 6 light up
- End programming level: press and hold button 16 approx. 3 seconds.
Operating level is active.

Button 3: Setting or changing the light scene

- ① Before the light scene is set, the stations must be set through button 6.
- ① Status feedback to the stations must be active.

When the light scene is assigned, first one of the total of 4 light scenes is selected. Next assign the switching state of the load outputs, then the buttons which should switch the scene.

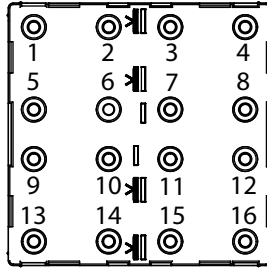


Bild 7: Light scene link mode

- Press button 3 (light scene).
The link mode **Light scene** is active.
LEDs 1 - 3 - 5 - 7 represent the light scenes 1 - 4.
Free light scenes flash, assigned light scenes light continuously.
- Select a light scene with buttons 1 - 4.
A red LED lights up for each connected load output (1 - 8 or 1 - 16).
- ① For operation with 2 stations, LEDs 9 - 16 are displayed on the expansion module. However, programming is also possible without the expansion module. The settings for outputs 9 - 16 are accepted; there is no LED feedback.
- ① The switching state of the respective load output is set by buttons.
- Press the button of the respective output (1 - 8 or 1 - 16) repeatedly until the desired function is set.

LED channel	Load
LED ON:	Current status is retained.
LED flashes slowly:	Channel switches on (switch channels on relay station and switching-on brightness on dimming station).
LED flashes quickly:	Duration command for blind/shutter and dim function. Move blind/shutter to end position; dimmer dims to max. or min. brightness.
LED OFF:	Channel switches off.

The dimming station switches the load at output 1 with channel 1 on and channel 2 off. For light scenes, the following settings for output 1 apply:

LED channel 1	LED channel 2	Light
ON	ON	Current status is retained
LED flashes slowly	ON	Switching-on brightness
LED flashes quickly	ON	Maximum brightness
ON	LED flashes quickly	Minimum brightness
ON	OFF	off

- ① During display of the light scene, the outputs at the stations correspondingly switch with delay.
- ① At blind/shutter outputs, the channels for moving up and down cannot be switched simultaneously.
- ① Light scenes must not be assigned to button outputs.

All load outputs have been set.

- Press and hold button 16.
The LED of the set scene flashes quickly.
- Select the button that should switch the light scene.
Selection according to Figure 4.
LEDs 1 - 3 - 5 - 7: free light scenes flash, assigned light scenes light continuously.
- ① For additional light scenes, select flashing button. To change an existing light scene, select lit button.
- Back to programming level: press and hold button 16 approx. 3 seconds
LEDs 1 - 4 light up
- End programming level: press and hold button 16 or wait 2 minutes.
Operating level is active.

Button 4: Status LED on/off

All LEDs are set by the adjacent buttons.

Button 2 = LED 1, button 3 = LED 2, button 6 = LED 3 etc. The blue orientation LED is switched on/off through button 9.

- Press button 4 (status LED on/off).
The link mode **Status LED on/off** is active.

- Assigned status LEDs light up.
- Set the LEDs by pressing the button next to the respective LED.
The LED switches on/off.

Switching the blue orientation light on/off.

- Press 9 button.
Blue LED switches on/off

All LEDs have been set

- Back to programming level: press and hold button 16 approx. 3 seconds.
LEDs 1 - 4 light up.
- End programming level: press and hold button 16.
Operating level is active.

Button 6: Stations

Before light scenes are set, which station is connected with which device address must be entered here.

- The push-button sensor module recognises whether one or two stations are connected. When one station is connected, only LED 1 lights up.

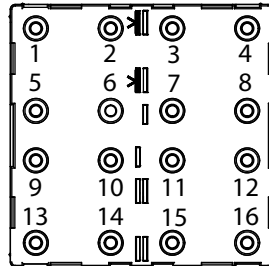


Bild 8: Relay station presetting

Presetting:

Relay station to device addresses 1 and 2

	Relay station	Dimming station
Device address 1	Button 1 LED 1	Button 2 LED 2
Device address 2	Button 5 LED 3	Button 6 LED 4

- Press button 6 (**stations**).
The mode **Stations** is active.
- To set the stations, press buttons as indicated in the table.
Example:
Device address 1 dimming station: **button 2**
Device address 2 relay station: **button 5**
- Back to programming level: press and hold button 16 approx. 3 seconds.
LEDs 1 - 6 light up.
- End programming level: press and hold button 16.
Operating level is active.

Reset

Reset push-button sensor module to the state as delivered. All settings are overwritten.

The push-button sensor module is in normal mode.

- Press micro buttons 12 – 9 – 7 – 9 in sequence.
All LEDs flash 2x
- Press micro buttons 12 – 9 – 7 – 9 in sequence once again
All LEDs flash 2x
The state as delivered has been restored.
Push-button sensor module is ready for operation.

Installing buttons

- The buttons are available as a complete button set. Individual buttons or the complete button set can be replaced using buttons with symbols.
- The installation spider is not necessary to install the buttons.
- Place buttons on the device in the right orientation and push briefly to snap in.
Observe the label TOP.
- Laser-print buttons at www.jung-lasern.de

Cloning push-button sensor modules

„Cloning“ means transmitting the button assignment of a push-button sensor module to other push-button sensor modules. No operation of the stations is possible during an ongoing cloning operation. Only push-button sensor modules with the same release status can be cloned with each other.

Several push-button sensor modules are connected to the station.

- Press the MODE and Central Switching Mode buttons of the relay station or the MODE and Prog. button of the dimming station simultaneously until the LEDs ON/▲ and OFF/▼ flash. Stations and push-button sensor modules are in cloning mode.
All of the red LEDs on the push-button sensor modules are flashing.
- Press a button on the push-button sensor module being cloned within approx. 2 minutes.
All of the red LEDs on the push-button sensor module flash rapidly.
All of the red LEDs on all of the other push-button sensor modules continue to flash.
- Press a button on another push-button sensor module within approx. 2 minutes.

All of the red LEDs on both push-button sensor modules flash rapidly.

The button assignment has been applied to the push-button sensor module, and cloning mode is terminated.

- For further push-button sensor modules, repeat the steps described above.
- ① It is not possible to clone devices with different release statuses. Push-button modules register a fault by flashing quickly.
- ① Cloning mode cannot be ended manually. In order to abort an ongoing cloning mode, do not actuate any push-button sensor module for 2 minutes.
- ① If cloning mode was activated at the relay station without any push-button sensor modules being connected, cloning mode is terminated automatically after 2 minutes.

Appendix

Technical data

Power supply	
via universal stations	DC 24 V SELV
Min. current TSM	approx. 3 mA
Max. current TSM	approx. 12 mA
Min. current TSM + TSEM	approx. 3 mA
Max. current TSM + TSEM	approx. 19 mA
Safety class	III
Ambient temperature	+5 ... +45 °C
Storage temperature	-25 ... +70° C
Connection type	connection terminal
Cable length	max. 100 m
Cable type	J-Y(St)4 2 x 2 x 0.8

Help in case of problems

Push-button sensor module does not respond

Two stations are connected in parallel

Device address of the second station was not converted.

Change device address

Push-button sensor module does not display the switching state correctly

Switch on status feedback to the station (see relay and dimming station instructions).

Accessories

Universal relay station Art. No.: RS 8 REG HE

Universal dimming station Art. No.: UDS 4 REG HE

Warranty

We reserve the right to modify technical and formal characteristics of the product insofar as this supports technical progress.

Our products are under guarantee within the scope of the statutory provisions.

Please send the device, postage paid, to our central Customer Service Centre, with a description of the error.

ALBRECHT JUNG GMBH & CO. KG

Service Centre
Kupferstr. 17-19
44532 Lünen
Germany

The CE mark is a free trade symbol intended solely for the authorities, and does not carry any guarantee of properties.