

**Universal push-button module, 1-gang**

Art. No. 5091 TSM

**Universal push-button module, 2-gang**

Art. No. 5092 TSM

**Universal push-button module, 3-gang**

Art. No. 5093 TSM

**Universal push-button module, 4-gang**

Art. No. 5094 TSM

**Operating instructions**
**1 Safety instructions**

Electrical equipment may only be installed and fitted by electrically skilled persons.

Serious injuries, fire or property damage possible. Please read and follow manual fully.

Use only the enclosed plastic screws for fastening to the supporting frame! Otherwise safe operation cannot be ensured. Electrostatic discharges can cause defects in the device.

These instructions are an integral part of the product, and must remain with the end customer.

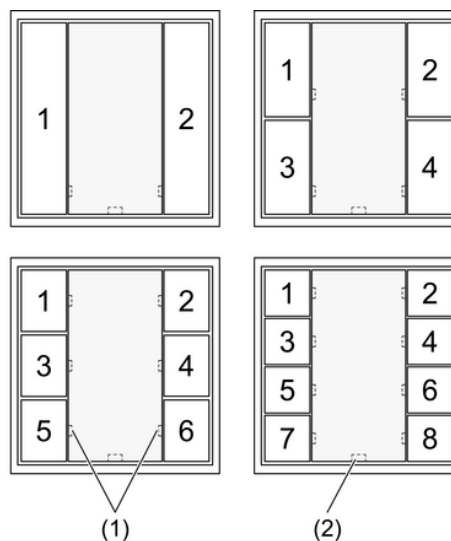
**2 Device components**


Figure 1: Push button modules Universal – front view

(1) Status LED

(2) Operation LED

**3 Function**
**System information**

This device is a product of the KNX system and complies with the KNX directives. Detailed technical knowledge obtained in KNX training courses is a prerequisite to proper understanding.

The function of this device depends upon the software. Detailed information on loadable software and attainable functionality as well as the software itself can be obtained from the manufacturer's product database. Planning, installation and commissioning of the device are carried out with the aid of KNX-certified software. The latest versions of product database and the technical descriptions are available on our website.

**Intended use**

- Operation of loads, e.g. light on/off, dimming, blinds up/down, brightness values, temperatures, calling up and saving light scenes, etc.
- Installation in appliance box according to DIN 49073

**Product characteristics**

- The pushbutton functions switching, dimming, controlling blinds, value transmitter, calling up moods, etc.
- One or two functions per button
- Completion with set of buttons (Accessory)
- Illuminable inscription panel
- One red status LED per button – red, green or blue adjustable
- One operation LED as an orientation light and to indicate the programming status – red, green or blue adjustable
- Brightness of status LED, operation LED and labelling field adjustable; switchable while in operation, e.g. during the night
- Measurement of the room temperature
- Extension for room temperature controller
- Disabling function: Disable or function switch-over of all or of individual push-button functions
- Alarm function, optionally with confirmation by pressing any button
- Energy saving mode
- Integrated bus coupling unit
- Connection for a pushbutton extension module, for expansion with up to four additional buttons

**Energy saving mode**

The device switches to the energy saving mode after a preset time or by an external telegram. In energy saving mode all LED functions are switched off.

The device leaves the energy saving mode – depending on programming – on operation or by an external telegram.

-  Operations from the energy saving mode are executed immediately.


**4 Operation**

The operation of functions or electrical consumers can be set individual for each device. Two operating modes are used:

- Single button operation:  
Switching on or off or dimming brighter/darker, e.g. of lighting, takes place alternately when the button is pressed repeatedly.
- Two button operation:  
Two buttons next to each other form a function pair. Pressing the left button, for example, switches or dims lighting on or brighter, pressing the right one switches it off or makes it darker.

**Operating a function or load**

- Switch: Short press on button.
- Dim: Long press on the button.
- Move Venetian blind: Long press on button.
- Stop or adjust Venetian blind: Short press on button.
- Call up light scene: Short press on button.
- Save light scene: Long press on button.
- Set value, e.g. brightness or temperature setpoint: Short press on button.
- Adjusting value: Press button for a long time.

-  Depending on programming, a button triggers several functions after a longer press or triggers another function if opposite buttons are pressed simultaneously.

## 5 Information for electrically skilled persons



### DANGER!

Electrical shock on contact with live parts in the installation environment.  
Electrical shocks can be fatal.

Before working on the device, disconnect the power supply and cover up live parts in the working environment.

### 5.1 Fitting and electrical connection

#### Mounting and connecting the device

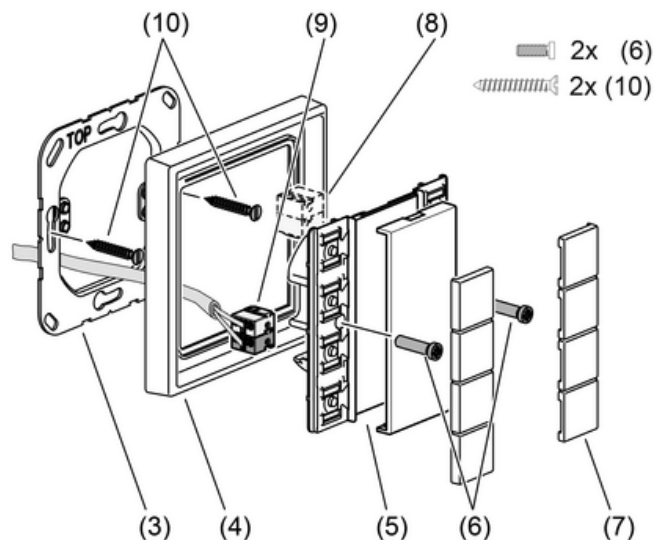


Figure 2: Installation of pushbutton module Universal

- (3) Supporting frame
- (4) Frame
- (5) Push-button module
- (6) Fastening screws, plastic
- (7) Buttons
- (8) Connection terminal for extension module (optional)
- (9) KNX connection terminal
- (10) Box screws



### DANGER!

**Danger of electrical shock!**

**When mounting with 230 V socket outlets under a common cover there is a danger of electrical shocks in the event of a fault!**

**Use only the enclosed plastic screws for fastening to the supporting frame!**

- Mount supporting ring (3) in the right orientation on an appliance box. Note marking **TOP**. Use only the enclosed box screws (10).
- Push frame (4) onto supporting frame.
- Connect push-button module (5) to the KNX using KNX connecting terminal (9) and push onto the supporting frame.
- Fix pushbutton module to supporting frame using the enclosed plastic screws (6). Tighten the plastic screws only lightly.

- Before mounting the buttons (7), load the physical address into the device.

## 5.2 Commissioning

### Loading the physical address and application software

Configuration and commissioning with ETS3.0d Patch A or more recent.

The device is connected and ready for operation.

- i** If the device does not receive any application software, or the wrong application software, then the labelling field and operation LED flash slowly.

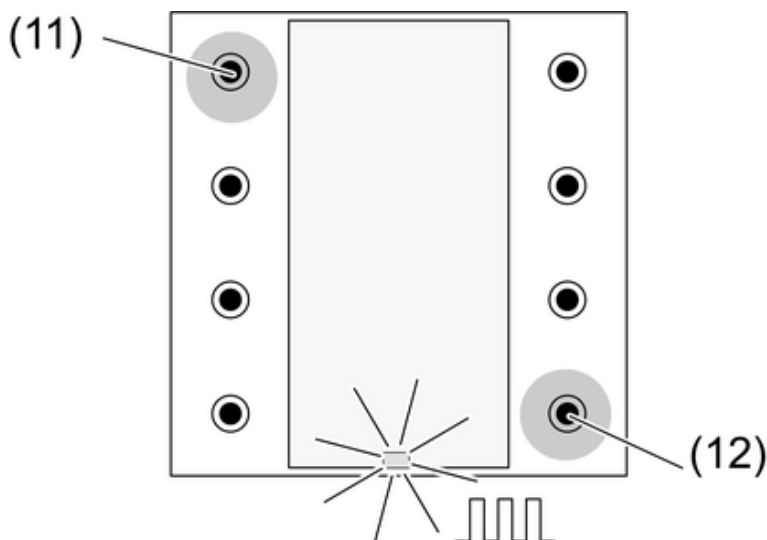


Figure 3: Activating programming mode

- Activate programming mode: Press and hold push-button at the upper left (11). Then press push-button at the lower right (12).  
The operation LED flashes quickly.
- Load physical address into the device.  
The operation LED returns to its previous state – off, on, or flashing slowly.
- Write the physical address on the device label.
- Load the application software into the device.

### Installing the buttons

The buttons are available as a complete set of buttons (see accessories).

- Place the buttons on the device in the correct orientation and snap in with a short push.

## 6 Appendix

### 6.1 Technical data

KNX medium	TP 1
Commissioning mode	S-mode
Rated voltage KNX	DC 21 ... 32 V SELV
Current consumption KNX without TSEM	max. 12 mA
with TSEM	max. 20 mA
Connection mode KNX	Connection terminal
Ambient temperature	-5 ... +45 °C
Storage/transport temperature	-25 ... +70 °C
Protection class	III
Connection of the extension module	

Number	1
Cable length	max. 30 m
Cable type	J-Y(St)Y 2 x 2 x 0.8 mm

## 6.2 Accessories

Cover kit 1-gang, complete	Art. No. ..501 TSA..
Cover kit 2-gang, complete	Art. No. ..502 TSA..
Cover kit 3-gang, complete	Art. No. ..503 TSA..
Cover kit 4-gang, complete	Art. No. ..504 TSA..
Push-button extension module, 1-gang	Art. No. 5091 TSEM
Push-button extension module, 2-gang	Art. No. 5092 TSEM
Push-button extension module, 3-gang	Art. No. 5093 TSEM
Push-button extension module, 4-gang	Art. No. 5094 TSEM

## 6.3 Warranty

We reserve the right to make technical and formal changes to the product in the interest of technical progress.

We provide a warranty as provided for by law.

Please send the unit postage-free with a description of the defect to our central customer service office.

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