

**Universal push-button module with integrated BCU, 1-gang**

Art.-No.: 4091 TSM

**Universal push-button module with integrated BCU, 2-gang**

Art.-No.: 4092 TSM

**Universal push-button module with integrated BCU, 3-gang**

Art.-No.: 4093 TSM

**Universal push-button module with integrated BCU, 4-gang**

Art.-No.: 4094 TSM

## Operationsmanual

### 1 Safety instructions

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

**Failure to observe the instructions may cause damage to the device and result in fire and other hazards.**

**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 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 to DIN 49073

#### Product characteristics

- The pushbutton functions switching, dimming, controlling blinds, valuator, calling up moods, etc.
- Completion with keyset
- Two red status LEDs for each button
- A blue operation LED as an orientation light and to indicate the programming status
- Integrated bus coupling unit
- One, two or three functions per button
- Push-button function or rockers function, vertical or horizontal
- Connection of pushbutton expansion module to expand the universal pushbutton sensor module to include four additional buttons

### 3 Operation

#### Operating a function or load

Depending on the programming, a button can have up to three functions assigned to it – upper/left, lower/right, entire surface. Operation depends on the specific function.

- Switch: Short press on button.
- Dim: Long press on button. The dimming process ends when the button is released.
- 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.

## 4 Information for electrically skilled persons

### 4.1 Fitting and electrical connection



#### **DANGER!**

**Electrical shock on contact with live parts in the installation environment.**

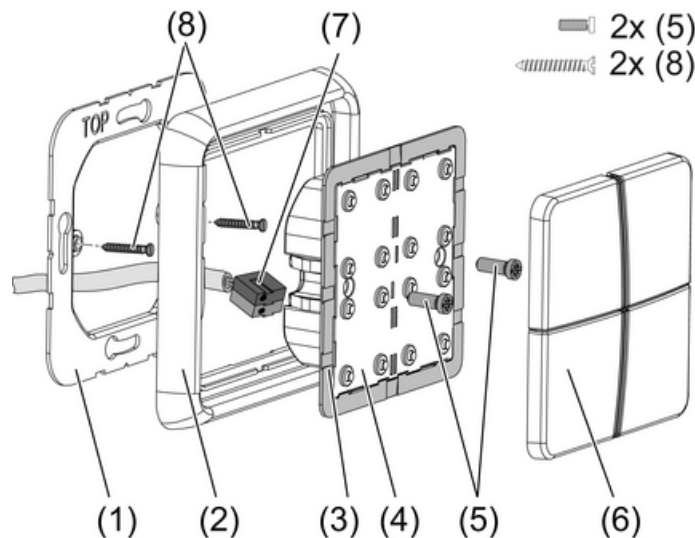
**Electrical shocks can be fatal.**

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

#### **Snapping on the adapter frame**

- With the adapter frame (3) in the correct orientation, snap it from the front onto the pushbutton module (4) (picture 1). Note marking **TOP**.

#### **Fitting and connecting the device**



picture 1: Mounting the push-button module

- (1) Supporting frame
- (2) Design frame
- (3) Adapter frame
- (4) Push-button module
- (5) Fastening screws
- (6) Buttons
- (7) KNX connection terminal
- (8) Box screws

Supporting frame side **A** for A design ranges, CD design ranges and FD design. Supporting frame side **B** for LS design ranges.

When the push-button expansion module is used (picture 2): Preferably mounted vertically. Use large supporting frame (14). When mounting on only one flush-mounted box, countersink the lower screws into the wall, e.g. with a  $\varnothing 6 \times 10$  mm hole. Use supporting frame as template.



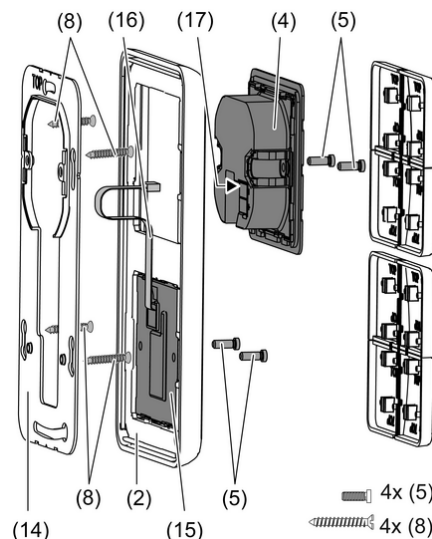
### DANGER!

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

**Electrical shocks can be fatal.**

**Do not install any 230 V devices in combination with a pushbutton expansion module under a common cover!**

- Mount supporting frame (1) or (14) in the correct orientation on an appliance box. Note marking **TOP**; marking **A** or **B** in front. Use only the enclosed box screws (8).
- Push frame (2) onto supporting frame.
- Mount push-button sensor expansion module (15) preferably below. Route connecting cable (16) between supporting frame and intermediate web.
- Push-button expansion module: Insert connecting cable (16) in the correct orientation into slot (17) in the push-button module. Do not crimp the connecting cable .
- Connect push-button module (4) to the KNX using KNX connecting terminal (7) and push onto the supporting frame.
- Fasten pushbutton module(s) to supporting frame using the enclosed plastic screws (5). Tighten the plastic screws only lightly.
- Before mounting the buttons (6), load the physical address into the device (see chapter 4.2. Commissioning).



picture 2: Mounting with push-button expansion module

## 4.2 Commissioning

### Loading the physical address and application software

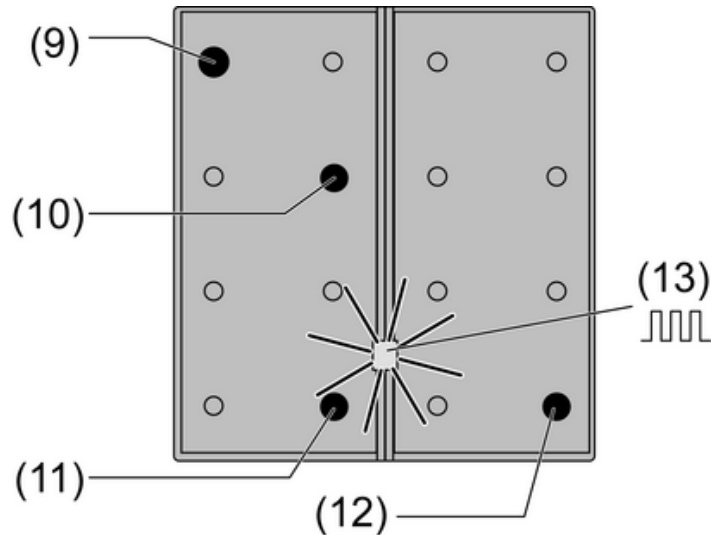
Configuration and commissioning with ETS3.0d Patch A or more recent.

The device is connected and ready for operation.

The buttons are not mounted yet.



If the device does not receive any application software, or the wrong application software, then the blue operation LED flashes slowly.



picture 3: Activating programming mode

- Activate programming mode: Press and hold push-button at the upper left (9). Then press push-button at the lower right (10, 11 or 12):

Push-button module	Prog. push-button
– 4gang, 3gang	(9) + (10)
– 2gang	(9) + (11)
– 1gang	(9) + (12)

The operation LED (13) flashes quickly.

- Load physical address into the device.  
The operation LED (13) 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.

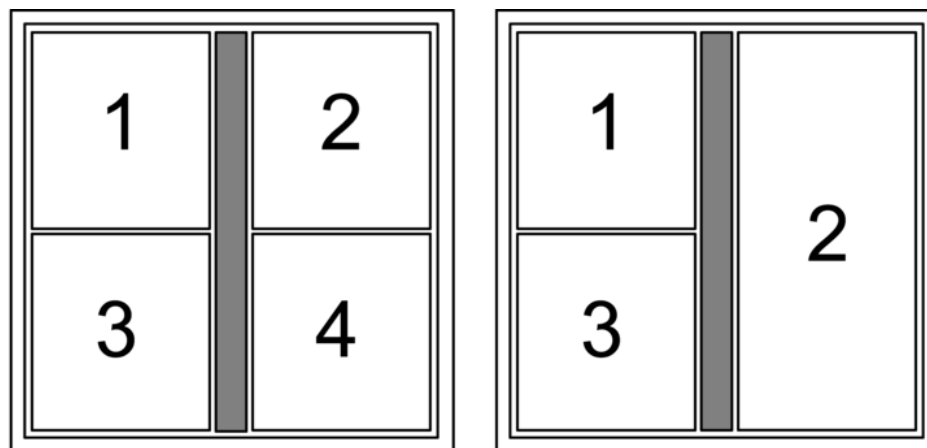
### Installing the buttons

The buttons are available as a complete set of buttons. Individual buttons or the complete set of buttons can be replaced using buttons with symbols.

**i** The mounting spider is not required to mount the buttons.

The physical address is loaded into the device.

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



picture 4: Button assignment

## 5 Appendix

### 5.1 Technical data

KNX medium  
Commissioning mode  
Rated voltage KNX  
Power consumption KNX  
Connection mode KNX  
Safety class  
Ambient temperature  
Storage/transport temperature

TP 1  
S mode  
DC 21 V ... 32 V SELV  
typical 150 mW  
Connection terminal  
III  
-5 ... +45 °C  
-25 ... +70 °C

### 5.2 Accessories

Cover kit 1-gang, complete  
Cover kit 2-gang, complete  
Cover kit 3-gang, complete  
Cover kit 4-gang, complete  
Push-button extension module, 1-gang  
Push-button extension module, 2-gang  
Push-button extension module, 3-gang  
Push-button extension module, 4gang

Art.-No.: ..401 TSA..  
Art.-No.: ..402 TSA..  
Art.-No.: ..403 TSA..  
Art.-No.: ..404 TSA..  
Art.-No.: 4091 TSEM  
Art.-No.: 4092 TSEM  
Art.-No.: 4093 TSEM  
Art.-No.: 4094 TSEM



### 5.3 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:

#### **ALBRECHT JUNG GMBH & CO. KG**

Service Center  
Kupferstr. 17-19  
D-44532 Lünen  
Service-Line: +49 (0) 23 55 . 80 65 51  
Telefax: +49 (0) 23 55 . 80 61 89  
mail.vka@jung.de

#### **General equipment**

Service-Line: +49 (0) 23 55 . 80 65 55  
Telefax: +49 (0) 23 55 . 80 62 55  
mail.vkm@jung.de

#### **KNX equipment**

Service-Line: +49 (0) 23 55 . 80 65 56  
Telefax: +49 (0) 23 55 . 80 62 55  
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