



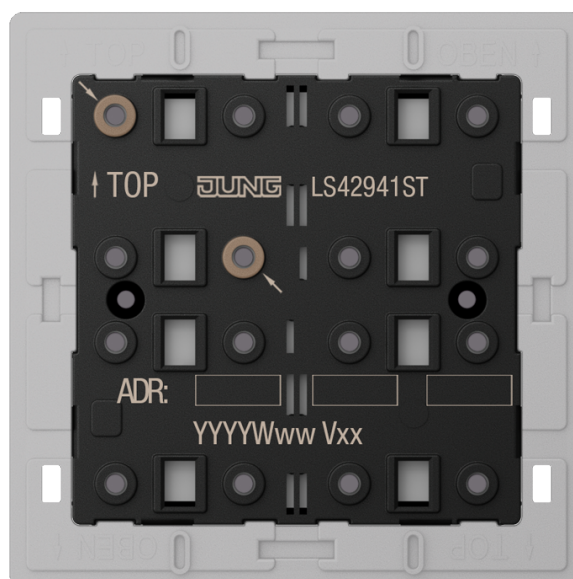
## Operating instructions

**Universal push-button module, 1-gang**  
Art. no. xx 42911 ST

**Universal push-button module, 2-gang**  
Art. no. xx 42921 ST

**Universal push-button module, 3-gang**  
Art. no. xx 42931 ST

**Universal push-button module, 4-gang**  
Art. no. xx 42941 ST



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Product image non-binding

04.10.2024  
32407623 j0082407623

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## 1 Safety instructions



Electrical devices may be mounted and connected only by electrically skilled persons.

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

Use only 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 customer.

## 2 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 for proper understanding.

The function of this device depends upon the software. Detailed information on software versions and the respective scope of functions as well as the software itself can be obtained from the manufacturer's product database.

The device can be updated. Firmware can be easily updated with the Jung ETS Service App (additional software).

The device is KNX Data Secure capable. KNX Data Secure offers protection against manipulation in building automation and can be configured in the ETS project. Detailed technical knowledge is a prerequisite. A device certificate, which is attached to the device, is required for safe commissioning. During mounting, the device certificate must be removed from the device and stored securely.

Planning, installation and commissioning of the device are carried out with the aid of the ETS, version 5.7.7 and higher or 6.0.5.

## 3 Intended use

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

## 4 Product characteristics

- The push-button sensor functions switching, dimming, controlling blinds, value transmitter, calling up moods, etc.
- Measurement of the room temperature
- Temperature measurement optionally with internal device sensor and external sensor connected via communication object
- Completion with set of buttons
- Two red status LEDs per operating element
- A blue operation LED as an orientation light and to indicate the programming status
- Alarm signalling and brightness reduction LED functions can be set separately
- Integrated bus coupling unit
- One, two or three functions per operating element
- Button function or rockers function, vertical or horizontal
- Disable or function switch-over of all or of individual button functions possible with disabling function
- Connection of push-button sensor extension module to expand the universal push-button sensor module to include up to four additional operating areas

## 5 Operation

### Operating a function or load

Depending on the programming, an operating area 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 shading: Long press on button.
- Stop or adjust shading: Short press on button.
- Open scene: Short press on button.
- Save scene: Long press on button.
- Set value, e.g. brightness or temperature setpoint: Short press on button.

## 6 Information for electrically skilled persons

### 6.1 Mounting and electrical connection



#### **DANGER!**

Electric shock when live parts are touched.

Electric shocks can be fatal.

Cover up live parts in the installation environment.

#### Snapping on the adapter frame

- With the adapter frame (3) in the correct orientation, snap it from the front onto the push-button sensor module (4) (see figure 1). Note the marking **TOP**.

#### Mounting and connecting the device

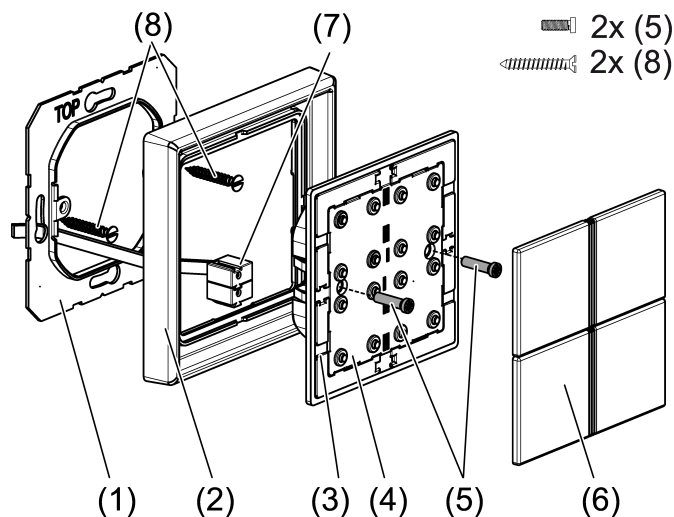


Figure 1: Mounting the push-button sensor module

- (1) Supporting frame
- (2) Design frame
- (3) Adapter frame
- (4) Push-button sensor module
- (5) Fastening screws
- (6) Buttons
- (7) KNX device 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 sensor extension module is used (see figure 2): preferably mounted vertically. Use large supporting frame (14). When mounting on only one appliance 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!

Electric shocks can be fatal.

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

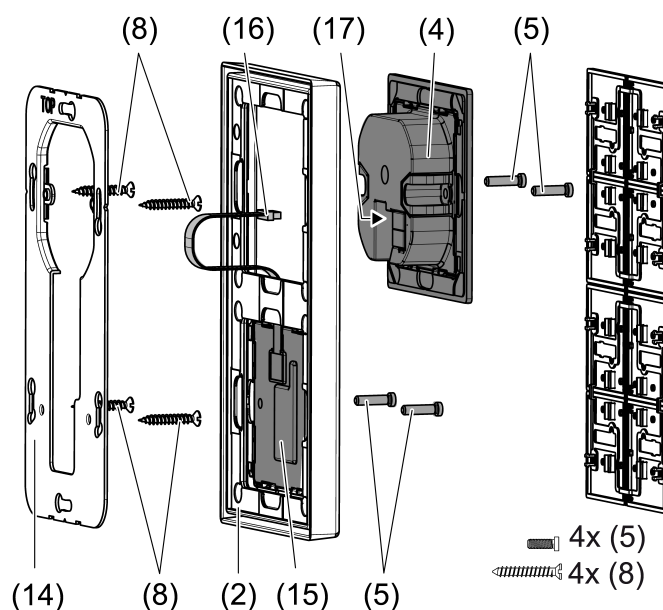


Figure 2: Mounting with push-button sensor extension module

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

- i** The device should be used in an air-tight appliance box. Drafts cause incorrect temperature values to be measured.

## 6.2 Commissioning

### Preconditions in secure operation

- Secure commissioning has been activated in the ETS.
- Device certificate entered/scanned or added to the ETS project. A high resolution camera should be used to scan the QR code.
- Document all passwords and keep them safe.

### Programming the physical address and application program

- i** Project design and commissioning with ETS version 5.7.7 and higher or 6.0.5.

The device is connected and ready for operation.

The buttons are not mounted yet.

If the device contains no – or an incorrect – application program, the blue operation LED flashes slowly.

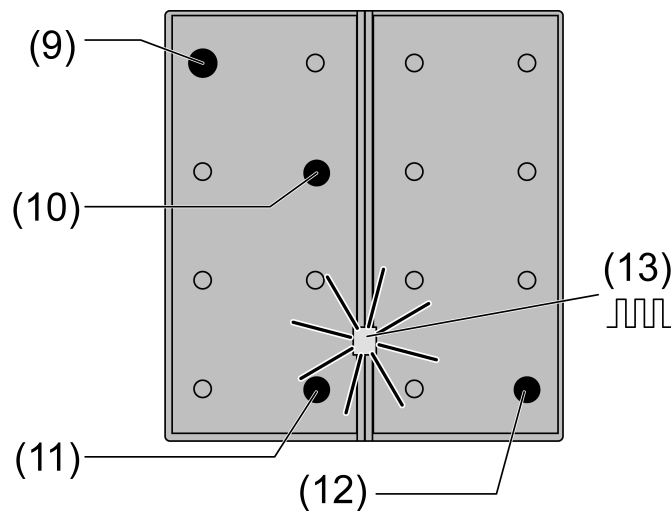


Figure 3: Activating programming mode

### Activating programming mode

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

- Press the push-button at the top left (9) and keep it pressed. Then press push-button at the lower right (10, 11 or 12):

The operation LED (13) flashes quickly.

- Programming the physical address.  
The operation LED (13) returns to its previous state – off, on, or flashing slowly.
- Programming the application program.  
The operation LED flashes slowly (approx. 0.75 Hz) while the application program is programmed.

### 6.2.1 Safe-state mode

The safe-state mode stops the execution of the loaded application program.

If the device does not work properly - for instance as a result of errors in the project design or during commissioning - the execution of the loaded application program can be halted by activating the safe-state mode. The device remains passive in safe-state mode, since the application program is not being executed (state of execution: terminated).

Only the system software of the device is still functional. ETS diagnosis functions and programming of the device are possible.

#### Activating safe-state mode

- Switch off the bus voltage.
- Press and hold the button at the bottom left and the button at the bottom right (see figure 3), depending on the device version (1 ... 4-gang).
- Switch on the bus voltage.

Safe-state mode is activated. The operation LED flashes slowly (approx. 1 Hz).

 Do not release the buttons until the operation LED flashes.

#### Deactivating safe-state mode

- Switch off the voltage or carry out ETS programming.

### 6.2.2 Master reset

The master reset restores the basic device settings (physical address 15.15.255, firmware remains in place). The device must then be recommissioned with the ETS.

In secure operation: A master reset deactivates device security. The device can then be recommissioned with the device certificate.

If the device - for instance as a result of errors in the project design or during commissioning - does not work properly, the loaded application program can be deleted from the device by performing a master reset. The master reset resets the device to delivery state. Afterwards, the device can be put into operation again by programming the physical address and application program.



## Performing a master reset

Prerequisite: The safe-state mode is activated.

- Press and hold the button at the top left and the button at the bottom right (see figure 3) for more than five seconds until the operation LED flashes quickly (approx. 4 Hz), depending on the device version (1 ... 4-gang).
- Release the buttons.

The device performs a master reset.

The device restarts. The operation LED flashes slowly.

## Resetting the device to its default settings

Devices can be reset to factory settings with the ETS Service App. This function uses the firmware contained in the device that was active at the time of delivery (delivered state). Restoring the factory settings causes the devices to lose their physical address and configuration.

## 7 Mounting operating areas, mounting buttons

The buttons are available as a complete set of buttons (see figure 4). Individual buttons or the complete set of buttons can be replaced by buttons with icons.

The physical address is programmed in the device.

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

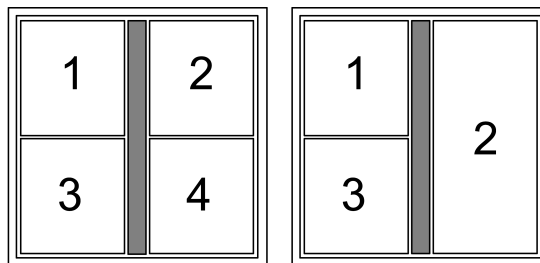


Figure 4: Button assignment

## 8 Flashing frequencies of the LEDs

State of operation	Operation LED	Status LED
Application discharged	Approx. 0.75 Hz	With On button pressed
Safe-state mode	Approx. 1 Hz	---
Flashing status	Approx. 2 Hz	Approx. 2 Hz
Alarm signal	Approx. 2 Hz	Approx. 2 Hz
Master reset	Approx. 4 Hz	---
Programming mode	Approx. 8 Hz	---

State of operation	Operation LED	Status LED
Full-surface operation	Approx. 8 Hz	Approx. 8 Hz

**9      Technical data**

**KNX**

KNX medium	TP256
Safety	KNX Data Secure (X-mode)
Commissioning mode	S mode
Rated voltage KNX	DC 21 ... 32 V SELV

Current consumption KNX	
Without extension module	5 ... 8 mA
With extension module	5 ... 11 mA

Connection mode KNX	Device connection terminal
Connecting cable KNX	EIB-Y (St)Y 2x2x0.8
Protection class	III
Temperature measuring range	-5 ... +45 °C
Ambient temperature	+5 ... +45 °C
Storage/transport temperature	-25 ... +70 °C

**10     Accessories**

Cover kit 1-gang	Art. no. ..401 TSA..
Cover kit 2-gang	Art. no. ..402 TSA..
Cover kit 3-gang	Art. no. ..403 TSA..
Cover kit 4-gang	Art. no. ..404 TSA..
Push-button extension module, 1-gang	Art. no. 4091 TSEM
Push-button extension module, 2-gang	Art. no. 4092 TSEM
Push-button extension module, 3-gang	Art. no. 4093 TSEM
Push-button extension module, 4-gang	Art. no. 4094 TSEM
Screw assortment sensors	Art. no. S-BOXTSMRTZN
Screws sensor module	Art. no. S-NFBTSMRT
Screws supporting frame	Art. no. S-NFBTSMZN

**11     Warranty**

The warranty is provided by the specialist trade in accordance with statutory requirements.

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