RF push button sensor, 1-gang
Order No. : 5101 00
RF push button sensor, 3-gang
Order No. : 5103 00

Operating instructions

1 Safety instructions

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

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

Keep button cells out of reach of children! If button cells are swallowed, get medical help immediately.

Risk of explosion! Do not throw batteries into fire.

Risk of explosion! Do not recharge batteries.

The radio communication takes place via a non-exclusively available transmission path, and is therefore not suitable for safety-related applications, such as emergency stop and emergency call.

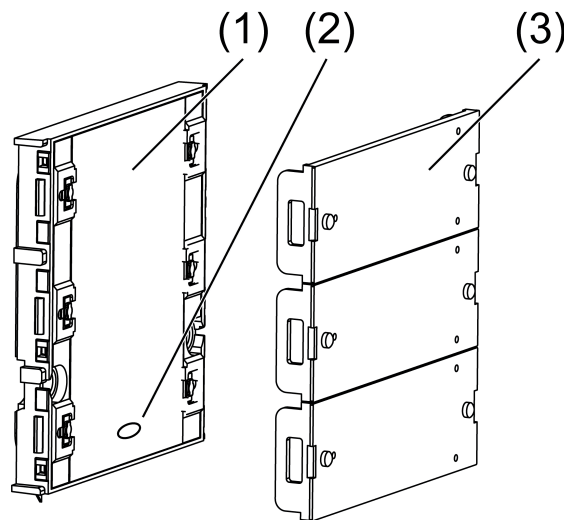**These instructions are an integral part of the product, and must remain with the end customer.**

2 Device components

Figure 1: Radio pushbutton sensor

(1) Radio pushbutton sensor
(2) Programming button, covered
(3) Button covers
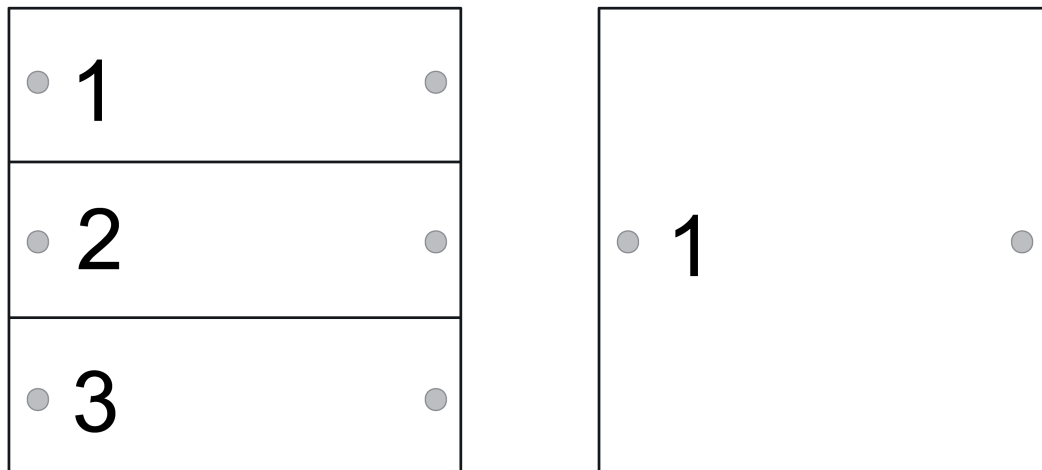
Figure 2: Button allocation

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 range of a radio system depends on various external circumstances. The range can be optimised by the choice of installation location. The product documentation for this device contains application basics for the KNX radio system.

Planning, installation and commissioning are carried out with the aid of KNX-certified software of version ETS5 or higher. You can find the up-to-date product database, technical descriptions and Declaration of Conformity on our Internet site.

Intended use

- Radio operation of loads, e.g. light on/off, dimming, Venetian blinds up/down, brightness values, calling up and saving light scenes.
- Operation in cabled KNX systems via media coupler (see chapter Accessories)

Product characteristics

- Pushbutton functions switching, dimming, Venetian blind control, value transmitter, scene recall, etc.
- One or three button pairs for pushbutton function or rocker function
- Status indicator via two status LEDs per button
- Battery-powered device

Energy saving mode

The device switches to the energy saving mode after a preset time. In energy saving mode, the LEDs remains switched off. During operation, the energy saving mode is exited.

ℹ️ Operations from the energy saving mode are executed immediately.

Semi-bidirectional mode

Battery-operated KNX RF devices work in semi-bidirectional mode. If this device is not the only control panel, we recommend the use of the "Rocker function", as otherwise two button-presses may be necessary for operation.

4 Operation

Operating a function or load

- Switching: Short press on button.
- Dimming: 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: Press button for longer than 5 seconds.
- Set value: Press button briefly.

LED function

The two-colour LED on each button indicates actuations, the transmission status and actuator feedback. The colour assignment may deviate or the function may sometimes be invisible, depending on the programming.
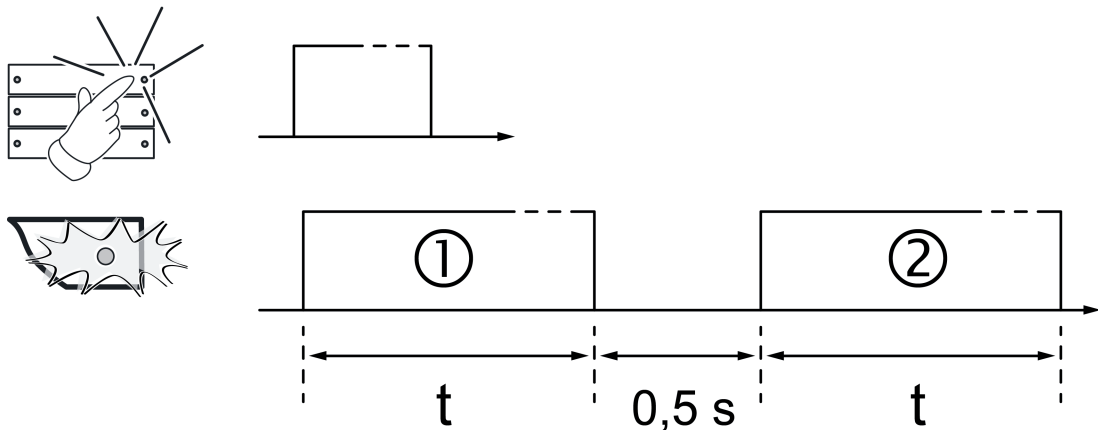

Figure 3: LED function

Phase 1: Actuation/sending display (red) or low battery level (flashing)

Phase 2: Actuator feedback (red/green) or transmission error (flashing)

5 Information for electrically skilled persons

5.1 Fitting and electrical connection

Connecting and fitting the device

To ensure good transmission quality, keep a sufficient distance from any possible sources of interference, e.g. metallic surfaces, microwave ovens, hi-fi and TV systems, ballasts or transformers.

- ⓘ Perform commissioning procedures before installation (see chapter Commissioning).
- ⓘ Mount the wall transmitter in the correct position, programming button (2) at bottom.
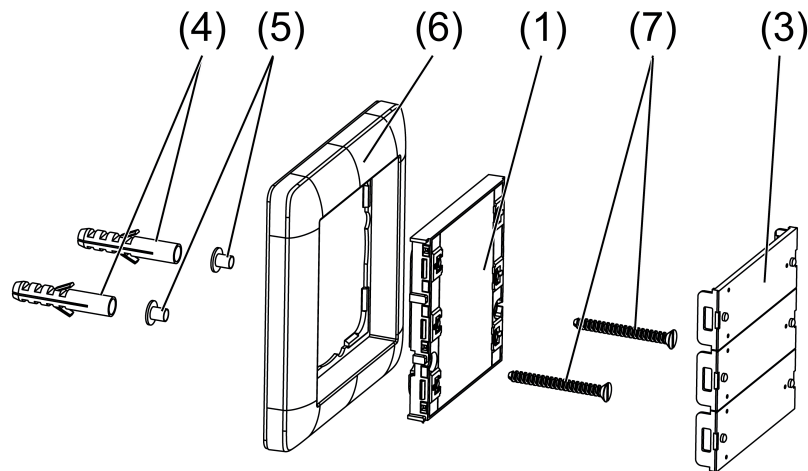
Screw mounting

Figure 4: Screw mounting

- Using a screwdriver, carefully remove the button covers (3).
- Insert supplied threaded sleeves (5) through the screw holes from the rear.
- Mount the wall transmitter (1) and frame (6) directly to the wall using the screws (7) and anchors (4).
- Attach the button covers.

Glue mounting

In order to glue the wall transmitter directly to an even surface, e.g. glass, a base plate (9) is available (see accessories).
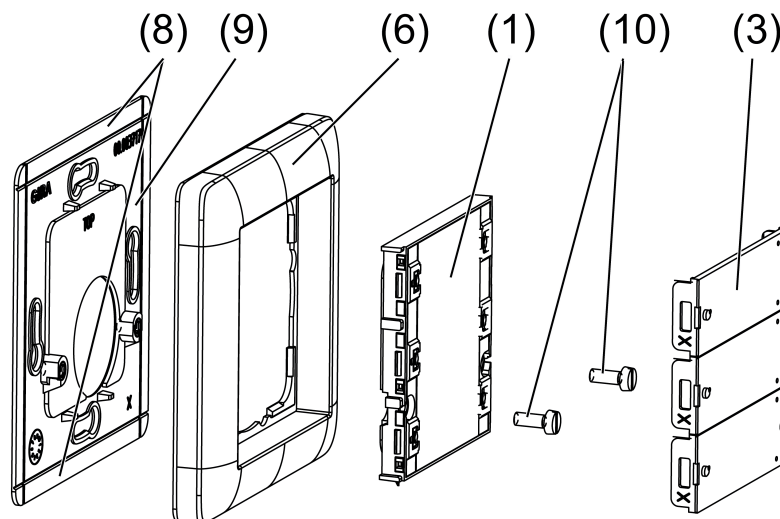

Figure 5: Glue mounting

☐ For multiple combinations with glue mounting, the edge pieces (8) of neighbouring base plates have to be broken off at the predetermined breaking points.

To ensure good adhesion, the substrate must be flat and free of dust and grease.

- Glue base plate (9) directly to the surface.
- Using a screwdriver, carefully remove the button covers (3).

■ Fix the wall transmitter (1) and frame (6) with the screws (10).

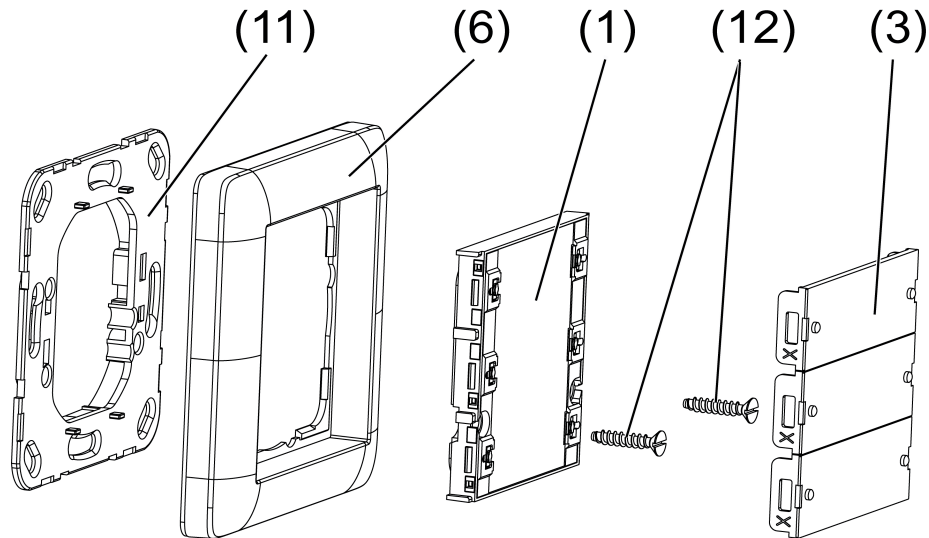■ Attach the button covers.

Installation in appliance box

Figure 6: Installation in appliance box

■ Use screws to fasten the supporting frame (11) (see Chapter 'Accessories') to the appliance box.

■ Using a screwdriver, carefully remove the button covers (3).

■ Use screws (12) to mount the wall transmitter (1) and frame (6) to the supporting frame).

■ Attach the button covers.

5.2 Commissioning

Insert battery

> ⚠ **WARNING!**
> **Risk of chemical burns.**
> **Batteries can burst and leak.**
> **Replace batteries only with an identical or equivalent type.**

The battery holder is located on the rear side.

■ Using a screwdriver, carefully remove the button covers and unscrew the device.

ℹ Keep contacts of batteries and device free of grease.

■ Apply battery to the positive contact of the battery holder. Observe polarity: the positive pole of the battery must be at the top.

■ Press gently on battery to snap it in.

The pushbutton is ready for operation.

Loading the physical address and application software

Project design and commissioning with ETS5 or a more recent version.

The programming button (2) is located under the bottom button cover.

The bottom button cover is dismantled.

ℹ If the device does not contain any application software, or the wrong application software, then the right LED flashes slowly in red and green for 3 seconds after a button-press.

■ Press the Programming button (2).

The right red LED lights up.
- Load the physical address and domain address into the device.
  The LED goes out.
- Write the physical address and domain address on the device label.
- Load the application software into the device.
- Mount the button cover (3).

ⓘ Before updating the system software or changing the application software, replace a battery with a new, unused battery.

6 Appendix

Remove empty batteries immediately and dispose of in an environmentally friendly manner. Do not throw batteries into household waste. Consult your local authorities about environmentally friendly disposal. According to statutory provisions, the end consumer is obligated to return used batteries.

6.1 Technical data

KNX medium	RF1.R
Commissioning mode	S-mode
Rated voltage	DC 3 V
Battery type	1×Lithium CR 2450N
Ambient temperature	-5 ... +45 °C
Degree of protection	IP 20
Protection class	III
Radio frequency	868.0 ... 868.6 MHz
Transmission capacity	max. 20 mW
Transmitting range in free field	typ. 100 m
Receiver category	2

6.2 Troubleshooting

After a button has been pressed, the LED flashes red slowly for 3 seconds.
Cause: Battery in the pushbutton is almost empty.
   Change the battery (see chapter Commissioning - Inserting the battery).

Receiver does not respond, LED flashes rapidly for 3 seconds.
Cause: The pushbutton could not send the telegram due to incorrect programming, e.g. due to an incorrect group address.
   Correct the programming.

Receiver does not react, actuator feedback is not displayed.
Cause 1: Radio range exceeded. Structural obstacles reduce the range.
   Use of the media coupler as a radio repeater.
Cause 2: Receiver or media coupler is not ready for operation.
   Check the receiver, mains voltage or media coupler.
Cause 3: There are radio faults, e.g. through outside radio.
   Eliminate radio interference.

6.3 Accessories

Mounting plate set	Order No. 5339 00
RF/TP media coupler or RF repeater	Order No. 5110 00
KNX RF USB data interface (USB stick)	Order No. 5120 00

6.4 Conformity

Gira Giersiepen GmbH & Co. KG hereby declares that the radio system type
 Order No. 5101 00 / 5103 00
corresponds to the directive 2014/53/EU. You can find the full article number on the device. The

complete text of the EU Declaration of Conformity is available under the Internet address: www.gira.de/konformitaet

6.5 Warranty

The warranty follows about the specialty store in between the legal framework as provided for by law

Please submit or send faulty devices postage paid together with an error description to your responsible salesperson (specialist trade/installation company/electrical specialist trade). They will forward the devices to the Gira Service Center.

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