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KNX Controller Module Comfort
Best.-Nr.: 7524 20 60

Operating and assembly instructions

1. Safety instructions

Electrical equipment may only be installed and assembled by a qualified electrician in accordance with the relevant installation standards, regulations, directives and safety accident prevention directives of the country.

Failure to comply with these installation instructions may result in damage to the device, fire or other hazards.

These instructions are an integral component of the product and must be retained by the end user.

2. Design and layout of the device

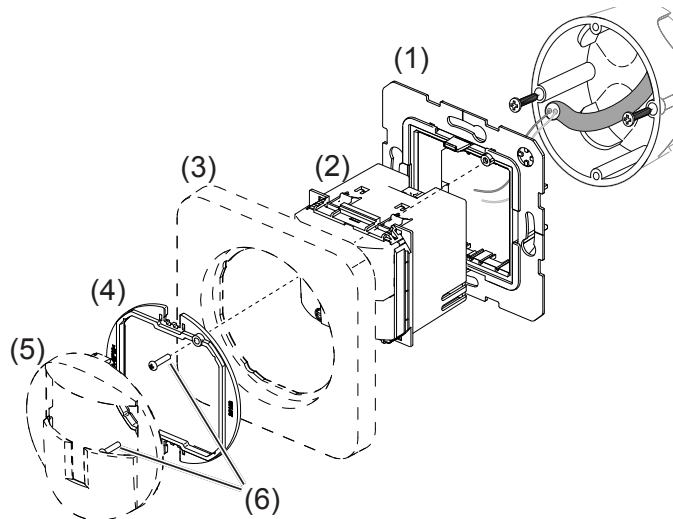
Figure 1: Design and layout of the device

(1)   Supporting ring

(2)   Controller module

(3)   Frame (not in scope of delivery)

(4)   Fixing element

(5)   Cover for controller module (not in scope of delivery)

(6)   Fixing screw

3. Function

System information

This device is a product of KNX system and corresponds to the KNX guidelines. Detailed specialised knowledge obtained from KNX training courses
is required for comprehension.

The planning, installation and commissioning of the device is carried out with the help of KNX-certified software. The function of the device is software-dependent. Detailed information

describing the software versions and the appropriate range of functions as well as the software itself can be found in the product database of the manufacturer.

You can find the latest version of the product database, technical descriptions and if required conversion and additional support programmes on our website.

Correct use

– Automatic transmission of switching commands for lighting and scene control via the KNX bus dependent on heat motion and ambient brightness

– Manual control of KNX functions via integrated button

– Only suitable for use in indoor areas with no drip and no spray water.

Product characteristics

– Adjustable detection angle for adaptation of the detection area

– Integrated button for selecting the operating modes Automatic/ON/OFF or as KNX button

– Display operating mode via LED

– Potentiometer for adjusting the response brightness and delay time

– Test mode

– Master-slave operation

– Signalling mode via separate channel

– Configurable as KNX button switching functions, dimming functions, blind control functions, value transmitter functions, forced control functions, scene functions and set point presetting for subplate

– Dismantling protection

Automatic mode

The controller module detects heat motion caused by people, animals, or objects.

Channel lighting:

A presence command is triggered if movements are detected in the detection area and the set brightness threshold is undershot. Each detected movement restarts the set delay time. After the delay time has elapsed, a presence command is transmitted.

Channel monitoring signal mode:

A presence command is triggered independent of the brightness if motions are detected in the detection area. Each detected movement restarts the delay time. After the delay time has elapsed, a presence command is transmitted. The delay time is 1 minute and can be changed exclusively via the application software in the ETS.
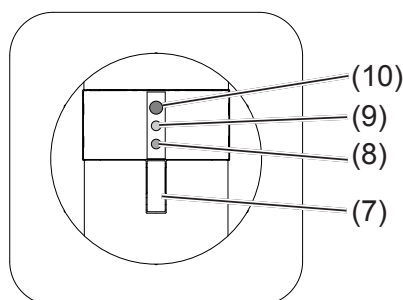
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4. Operation

Operating concept

Figure 2: Display and operating elements

(7) Button

(8) Status LED green

(9) Status LED yellow

(10) Status LED red

The button (7) can be used for selecting the operating mode of the controller module (factory setting) or as a KNX button for triggering programmed functions via the bus. The function as a KNX button is dependent on the programming.

Selecting controller module operating mode via button

The button is not programmed as a KNX button.

■ Press button (7) as described (Table 1) to select the desired operating mode.

The corresponding status LED (8, 9, 10) indicates the selected operating mode.

Button operation	LED display	Operating mode
■ Repeated short press on button	green lights up	Permanent ON
	yellow lights up	Automatic
	red lights up	Permanent OFF
■ Long press on button (> 3 sec.), release when red LED (9) flashes	green flashes	ON for 2 hours, then return to operating mode Automatic

Locking/unlocking button

The selection of the operating mode via the button can be locked, e.g. for operation in public buildings.

ℹ Alternatively, the selection can be locked via the application software. The button does not have any function then.

■ Keep button (7) pressed for more than 15 seconds until the green status LED (8) is flashing.

The button is locked.

or if the button is locked:

■ Keep the button pressed for more than 15 seconds, until the green status LED (8) is flashing.

Selection of the operating mode via the button is possible again.

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5.   Information for electricians

5.1 Installation and electrical connection

Selecting installation location

- ■ Observe recommended installation height of 1.2 m.

- ■ Observe the motion orientation: a distinction is made between „direct approach" and „transverse motion". Motions transverse to the motion detector can be detected better than motions toward the motion detector (Fig. 3).

- ■ Select an installation location that is free of vibration. Vibrations can cause undesired switching.

- ■ Avoid sources of interference in the detection area (Fig. 4). Sources of interference, e.g. heating elements, ventilation systems, air conditioners and illuminants that are cooling down can cause undesired switching (Fig. 3).

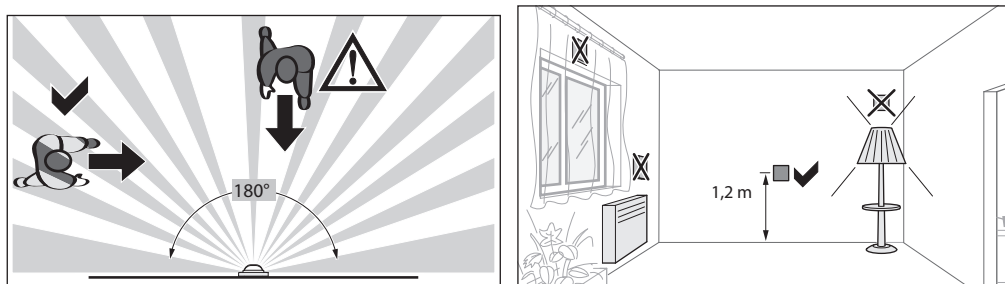- 🛈 To avoid disturbing influences, the detection angle can be restricted (see Restriction of the detection area).

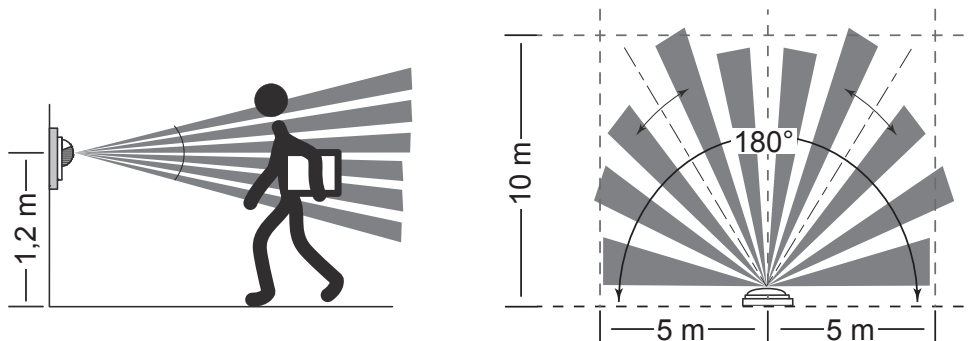Fig 3: Installation location of the motion detectors

Fig. 4: Detection area

Connecting and installing the device

- ■ Mount the supporting ring (1) to a wall box in the correct position.

- ■ Connect bus cable to the controller module (2) with the connecting terminal.

- ■ Run the controller module (2) through the supporting ring and snap into place.

- ■ Fit frame (3) and place fixing element (4) onto the controller module and fasten with the screws (6).

- ■ Snap on cover (5)

5.2 Start-up

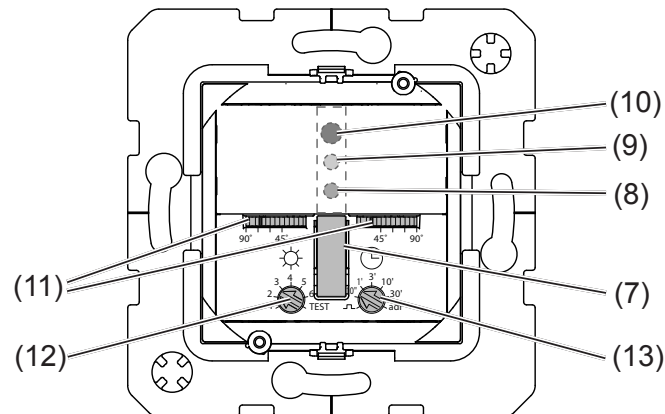**Overview of operation and adjustment elements**

Figure 5

(7) Button

(8) Status LED green

(9) Status LED yellow

(10) Status LED red

(11) Detection angle adjuster

(12) Response brightness potentiometer

(13) Potentiometer for delay time

Setting the detection area

The detection angle can be restricted for the right side and for the left side via each adjuster (Fig. 5, 10) between 45° ... 90°. Thus, the detection angle can be between 90° and 180° (Fig. 6).

■　Use the adjusters to set the detection angle for each side.

Setting the detection performance

Test mode must be used to test the detection performance. In test mode, the motion detector works independent of brightness. Each detection switches the lighting on for the set time. After that, the motion detection is deactivated for a short time.

The motion detector is connected and ready for operation.

■　Set potentiometer response brightness (fig 5, 14) to position TEST and set potentiometer delay time to a short time interval e.g. **10"**.

■　Leave the detection area and observe the switching behaviour.

　　If the motion detector switches on without motion in the detection area, then sources of interference (see Installation location) are present or the sensitivity is set too high.

■　Reduce the sensitivity if necessary and blank out sources of interference by adjusting the detection angle or removing them.

■　Check the detection area using a detection test and adjust if necessary.

ℹ　If the detection area is too small, it can be extended by using several controller modules with Master-slave programming.

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Setting the response brightness

The response brightness is the brightness value saved in the motion detector; when this value is undershot the motion detector transmits a presence command if movements are detected. The setting can be adjusted continuously within the range from 5 to 1000 Lux, **Test** stands for brightness-independent triggering.

■ Turn the response brightness potentiometer (12) to the desired position.

ℹ To save the current ambient brightness as response brightness, use the Teach-In function (see Setting the response brightness automatically).

Setting response brightness automatically (Teach-In function)

The Teach-In function saves the current ambient brightness automatically as the response brightness.

■ Keep the button (7) pressed for more than 6 seconds, until the green status LED is flashing (8).

The motion detector detects the current ambient brightness and saves it as response brightness.

ℹ The brightness saved via Teach-In is active until a change occurs via the potentiometer or application software.?

Setting the delay time or pulse encoder mode

The delay time is the period of time saved in the motion detector which is the shortest time that the lighting is switched on for when the response brightness is undershot and motion is detected. The delay time can be set to pulse encoder ⌐⌐ (see Using pulse encoder) or to the defined values 10 s, 1 min., 3 min. (factory setting), 10 min. and 30 min. The setting is setting is infinitely variable between the intermediate areas.

The pulse encoder mode ⌐⌐ is used to actuate the timer function of actuators, for example. Here, the lighting channel is switched on briefly when the response brightness is undershot and a motion is detected. Afterwards, the motion detection is locked in the basic setting for 10 s.

■ Turn the delay time potentiometer (Figure 5, 13) to the desired position.

ℹ The pulse encoder mode and locking duration can also be set via the application software in the ETS (timer mode).

ℹ Note that lights can be worn down due to frequent switching with very short delay times..

Loading the physical address and application software

Project planning and start-up with ETS3.0d with Path A or newer.

The device is connected and ready for operation.

■ Remove cover (5) if there is one.

■ Set delay time potentiometer (13) to **adr** and press button (7).

■ All 3 status LEDs are lighting.

■ Load the physical address into the device.

■ Label the device with the physical address.

■ Load the application software into the device.

■ After completion of the loading process or to cancel, reset a delay time.

■ Snap on cover

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6. Appendix

6.1 Technical data

KNX Medium	TP 1
Start-up mode	S-Mode
Rated voltage KNX	DC 21 ... 32 V SELV
Current consumption KNX	typ. 10 mA
Connection mode	KNX connecting terminal
Response brightness	approx. 5 ... 1000 lux (∞)
Delay time	approx. 10 s ... 30 min
Detection angle	approx. 90 ... 180°
Detection area (1.2 m)	approx. 10 x 10 m
Ambient temperature	+5 ... +45°C
Storage/transport temperature	-20 ... +70 °C

6.2 Accessories

Cover for KNX controller module	
polar white glossy	7596 28 69
black glossy	7596 28 65

6.3 Warranty

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

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

If you have a warranty claim, please contact the point of sale or ship the device postage free with a description of the fault to the appropriate regional representative.

6.4 Adress of manufacturer

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