

## KNX radio motion detector comfort 1.1 m quicklink

Order no. 8534 51 ..

## KNX radio motion detector comfort 2.2 m quicklink

Order no. 8534 61 ..

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Berker GmbH & Co. KG  
Zum Gunterstal  
66440 Blieskastel, Germany  
Tel.: + 49 6842 945 0  
Fax: + 49 6842 945 4625  
e-mail: info@berker.de

www.berker.com



04/2022  
6LE005217D

## Settings

### Setting response brightness via Teach-In function

The response brightness is the brightness value saved in the motion detector; when this value is undershot the motion detector switches the connected load if movements are detected. Via Teach-In function the current ambient brightness is saved as the response brightness.

The load is switched off.

- Keep the button pressed for more than 10 seconds, until the status LED flashes orange (Fig. 3).

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

- Setting of the response brightness via Teach-In function and via the brightness potentiometer has the same priority. Teach-In overwrites the response brightness set on the brightness potentiometer. If the setting is made again via the potentiometer, the Teach-In figure will be overwritten.

### Setting the load

If the switching performance is not satisfactory after commissioning when using the motion detector on universal switch inserts and universal touch dimmers, a load setting must be carried out.

- A load setting is required each time the load is changed.

- Switch off load.
  - Keep the button pressed for more than 25 seconds, until the status LED is slowly flashing orange.
  - Release push-button.
- The connected load flashes once. The device is in selection mode.

- If no further actions are performed within the next 10 seconds, the dimmer switches to normal operation.

- Briefly press the bottom button repeatedly to activate the desired setting mode.
  - See Table 3a / 3b

- Information for electricians:  
For the version labelling of the flush-mounted insert, see packaging label or sticker on the back of the housing.

## Activating/interrupting party function

The party function switches the lighting on for 2 hours. During this time, no extension unit or radio commands are executed.

- Keep the button pressed for more than 5 seconds, until the status LED flashes red (Fig. 3).  
The lighting is switched on for 2 hours. During this time the status LED is flashing red. When the 2 hours have elapsed, the motion detector switches to the **Auto** operating mode.

- Briefly press the button.

The party function is interrupted and the motion detector reverts to the **Auto** operating mode.

## Activating/deactivating the presence simulation

During operation, the motion detector counts the motion detections in one full hour and saves the result. With active presence simulation at the beginning of the hour with the most detections saved, the light will be switched on for the duration of the delay time, even no motion is detected.

During the presence simulation, presence detection, extension unit and radio commands will continue to be executed normally.

- Keep the button pressed for more than 20 seconds, until the status LED slowly flashes red (Figure 3).

The presence simulation is active. During this time the status LED lights orange. The motion detector switches the lighting on at the saved time.

- Briefly press the button.

The presence simulation will be deactivated, the motion detector reverts to the **Auto** operating mode.

## Selecting the operating mode

- Briefly press the button repeatedly until the desired operating mode is selected.

The status LED indicates the selected operating mode (see Table 1).

- Switching the operating mode finishes the party function or presence simulation, if these functions were previously active.

## Disabling/enabling operating mode selection via button

- Keep the button pressed for more than 15 seconds, until the status LED is flashing green (Fig. 3).

Selection of the operating mode via the button is disabled.

or if the button is locked:

- Keep the button pressed for more than 15 seconds, until the status LED is flashing green (Fig. 3).

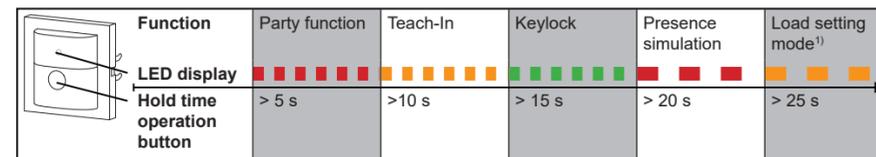
The operating mode can be selected via the button again.

## Switching on the lighting via push-button extension unit or changing the switch-on brightness level

Optionally, the lighting can be switched on via a mechanical push-button extension unit (Table 2).

- For extension unit operation, the lighting is switched on independently of the set brightness threshold.

- When using the dimmer inserts, the last set brightness level will be saved as the switch-on brightness level.



<sup>1)</sup> Only on universal switch insert and universal dimmer insert

Fig. 3: Selection of special functions and LED display

LED display	Operating mode	Description
--	Auto	Motion and brightness-dependent switching on/switching off of the load
Green	Permanent ON	Load is permanently switched-on/switched-off.
Red	Permanent OFF	Extension unit signals, as well as radio signals, will not be evaluated

Table 1: Display of operating modes

Dimming status	Operation button	Performance of the insert
Motion detector applied on switch insert		
OFF	Short press	Load is switched on for the set delay time
ON	Short press	Extension of switch-on time by the set delay time
Motion detector applied on push-button dimmer comfort 1gang		
OFF	Short press	Load is switched on to the switch-on brightness level for the set delay time
ON	Short press	Extension of switch-on time by the set delay time at the same brightness
OFF	Long press	Load is switched on to switch-on brightness-level, subsequent dimming in the opposite direction of the last dimming process. Thereafter the load remains switched on for the delay time
ON	Long press	Changes the current brightness. Dimming takes place in the opposite direction of the last dimming operation until maximum or minimum brightness. Subsequently the load remains switched on at the set brightness for the set delay time.

Table 2: Operation via push-button extension unit

On dimmer insert configured with time function (see configuration instructions):

- The light will be switched on for the delay time, if movements are detected in the detection area and the set brightness threshold is undershot. Each additional movement in the detection area restarts the delay time.
- After the delay time elapses, the lighting will be dimmed to 50% of the switch-on brightness level and will remain at this brightness level for 30 s (switch-off pre-warning). Any motion detected during the switch-off pre-warning restarts the delay time and restores the switch-on brightness level.
- The light will be switched off if no motion is detected any longer in the detection area and the set delay time and the switch-off pre-warning have elapsed.

## Performance after mains breakdown/return of mains supply

- Mains breakdown shorter than 0.2 s:  
The function is not impaired.
- Mains breakdown longer than 0.2 s:  
There is no function during the mains breakdown. The current configuration is saved in non-volatile memory.
- Return of mains supply:  
The application module executes an initialisation for approx. 5 s, during which the lighting will be switched on. Motion detection starts thereafter. If no motion is detected during the first 5 s, the lighting is switched off. The saved configuration is loaded from memory. During this period, local operation via the button or extension unit can be used.

## Operation

### Operating concept

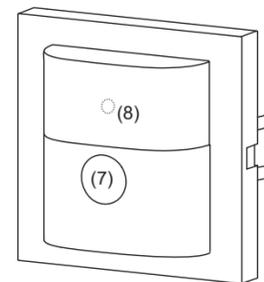


Fig. 2: Display and operating elements

(7) Button

(8) Status LED

Operation is executed by pushing the button (7) on the motion detector:

- A short press of the button switches the operating modes. The operating mode is displayed via the status LED behind the optics cover of the motion detector.
- Keeping the button pressed activates special functions. Selection of the special functions is supported by the LED display (Fig. 3).

## Function

### System information

This device is a product of the quicklink system, in which installation devices communicate via radio signals.

quicklink stands for a configuration mode, in which the function-related connection between transmitters and receivers is set on the device through buttons and displays without further tools.

All devices configurable by quicklink can be operated together in one system.

- See configuration instructions.

This device complies with EU Directive 2014/53/EU. The declaration of conformity and further system information can be accessed at hager.com.

The device may be operated in all EU and EFTA states (excluding Switzerland and Liechtenstein).

### Correct use

- Automatic switching of lighting depending on heat motion and ambient brightness
- Application module for switch insert, dimmer insert or power supply for KNX radio application module
- The device has been designed for smaller applications, in which a maximum of 20 devices are allocated
- Only suitable for use in indoor areas with no drip and no spray of water

### Product characteristics

- quicklink functions to extend the detection area, scenes, control circuits
  - See configuration instructions
- Remote control via quicklink transmitter
- Integrated button for selecting operating modes and special functions
- Lockable integrated button
- The operating modes Automatic, Permanent ON, Permanent OFF can be selected
- Display operating mode via LED
- Potentiometer for setting the response brightness and detection sensitivity
- Adjustable detection angle for adapting the detection area
- Additional adjustment of the response brightness via Teach-In function
- Party function
- Presence simulation
- Optional extension unit operation via installation button

### Automatic mode

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

On switch insert and dimmer insert with factory setting:

- The light will be switched on for a fixed delay time of 3 minutes if movements are detected in the detection area and the set brightness threshold is undershot. Each additional movement in the detection area restarts the delay time.
- The light will be switched off after 3 minutes if no additional movements are detected.

## KNX radio motion detector comfort 1.1 m quicklink

## KNX radio motion detector comfort 2.2 m quicklink

## Safety instructions

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

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

The radio transmission is not suitable for safety or alarm applications.

Due to its detection behaviour the device is not suitable for use in burglary detection or alarm systems.

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

## Design and layout of the device

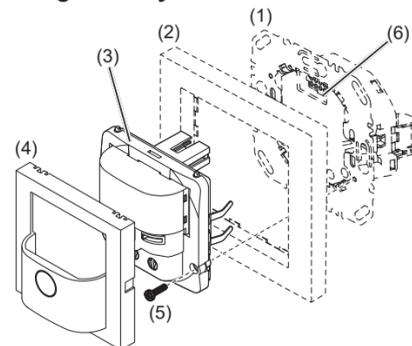


Fig. 1: Design and layout of the device

- Insert  
(see "Accessories", not in scope of delivery)
- Frame (not included)
- Application module
- Motion detector design cover
- Module retaining screw  
(not for Berker R.1/R.3/R.8)
- Interface between insert/application module

**Setting the load on a universal switch or dimmer insert from Version R1.2**

Briefly press the button	Setting mode	Duration and confirmation of the load setting	Information for use
1 x	Load factory setting	Settings duration: approx. 30 sec. ⓘ The light to confirm the load flashes at 50% brightness. ⓘ Load switching/dimming phases may occur during the automatic settings process. The load flashes one last time as a confirmation and then goes out. The device returns to normal operation.	Factory setting with automatic load recognition. If the switching behaviour is unsatisfactory after that, restart selection mode and select the best option.
2 x	LED mode 1 (phase cut-on)	After approx. 5 sec., the load flashes twice as a confirmation and then goes out. The device returns to normal operation.	Recommended for lower 230 V LED loads up to max. 60 W if the switching/dimming behaviour is unsatisfactory after automatic load setting.
3 x	LED mode 2 (phase cut-on)	Settings duration: ≤ 50 sec. ⓘ Load switching/dimming phases may occur during the automatic settings process. Finally, the load flashes three times as a confirmation and then goes out. The device returns to normal operation.	Recommended for higher 230 V LED loads from 50 W, which can be operated in the phase cut-on. Observe manufacturer's data!
4 x	Fine setting of minimum brightness	5 predefined minimum brightness levels for 2.5 sec. each, run through repeatedly (3 runs). ■ As soon as the connected load shows a satisfactory minimum brightness, confirm by quickly pressing the bottom button. After approx. 5 sec., the load flashes four times as a confirmation and remains switched on (50% brightness). The device returns to normal operation.	To optimise the switch-on behaviour, or if the load flickers in the lower dimming range, the minimum brightness setting can be manually adjusted here.

Table 3a

**Setting the load on a universal switch or dimmer insert up to Version R1.1**

Briefly press the button	Setting mode	Confirmation of the load setting	Information for use
1 x	Load fine-setting	Load flashes 1 x after approx. 30 s and changes to normal operation	Not suitable for ohmic loads (e.g. incandescent, HV halogen lamps); use factory load setting. If the load fine-setting does not bring any improvement for energy-saving lamps or 230 V LED lamps, select the energy-saving lamp fine-setting or 230 V LED lamp universal setting.
2 x	Load factory setting	Load flashes 2 x after approx. 6 s and changes to normal operation	
3 x	Energy-saving lamp fine-setting in phase cut-on	Load flashes 3 x after approx. 30 s and changes to normal operation	Energy-saving lamps are switched on at a brightness level of at least 50% in order to ensure an ignition process.
4 x	230 V LED lamps Universal setting in phase cut-on or phase cut-off	Load flashes 4 x after approx. 5 s and changes to normal operation	For connected dimmable 230 V LED lamps the dimming principle and the optimal switch-on brightness level is set automatically.
	For all setting modes	Load flashes 5 x	The selected setting mode is not supported by the insert.

Table 3b

**Information for electricians  
Installation and electrical connection**

**Selecting installation location**  
 A minimum distance between the transmitter and corresponding receiver of about 1 m must be maintained.  
 A minimum distance to electronic devices which emit high frequency signals such as computers, electronic transformers or microwave devices of approx. 0.5 m must be maintained.

Material	Degree of material penetration
Wood, plaster, plaster-board, uncoated glass	approx. 90 %
Brick, press boards	approx. 70 %
Reinforced concrete, underfloor heating	approx. 30 %
Metal, metal grids, aluminium laminates, coated glass	approx. 10 %
Rain, snow	approx. 1 ... 40 %

Table 4: Material penetration

Mounting on or close to metal surfaces may cause impairment of the radio transmission.  
 Take material penetration into account. The range of the system can be optimised by selecting the best possible mounting location:  
 ⓘ 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 (Figure 4).  
 ■ Select an installation location that is free of vibration. Vibrations can cause undesired switching.

■ Avoid sources of interference in the detection area (Fig. 6 and 7). Sources of interference, e.g. heating elements, ventilation systems, air conditioners and lamps that are cooling down can cause undesired switching (Fig. 4).  
 ⓘ To avoid disturbing influences, the detection angle can be restricted (see Restriction of the detection area).

**Assembly of the device (Figure 1)**

ⓘ Information on electrical connection are to be taken from the operating instructions of the insert.  
 ■ Attach the application module (3) together with frame (2) to a suitable insert (1) and establish a connection between insert and the application module via the plug-in interface (6).  
 As soon as voltage is supplied to the application module, the status LED indicates the compatibility with the insert used.

Status LED display	Meaning
LED flashes green (approx. 5 s until motion detection is active)	Compatible
LED flashes red for 5 s	Not compatible.
LED flashes orange for 5 s	Compatible, but not configured to each other. For a new configuration, the application module must be reset to the factory setting.

- If available, fix dismantling protection with screw (5).
- After radio configuration (see configuration instructions) and commissioning, snap the design cover (4) onto the application module (3).

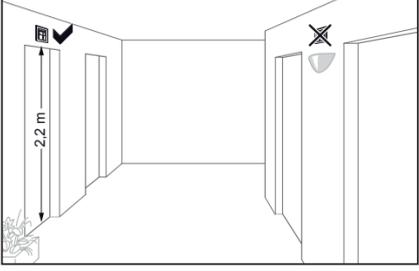
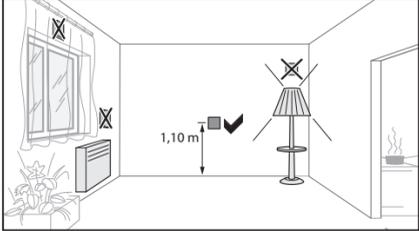
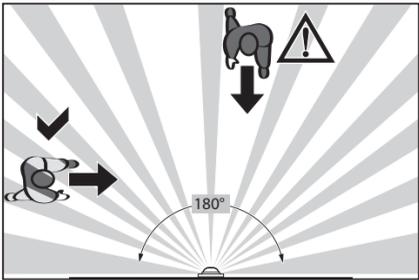


Fig. 4: Installation location of the motion detectors

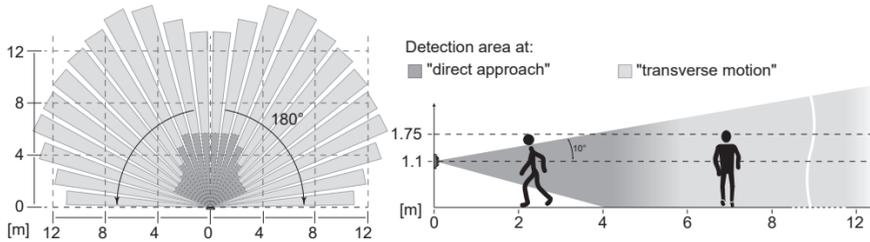


Fig. 6: Detection area of the motion detector for installation height 1.1 m

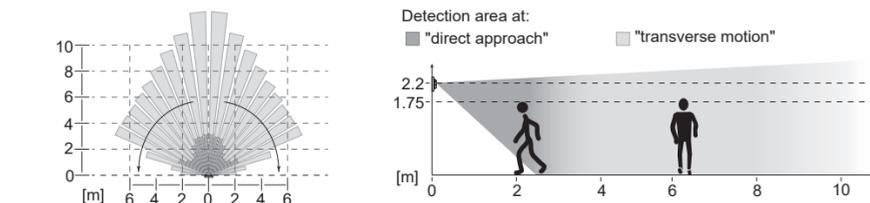


Fig. 7: Detection area of the motion detector for installation height 2.2 m

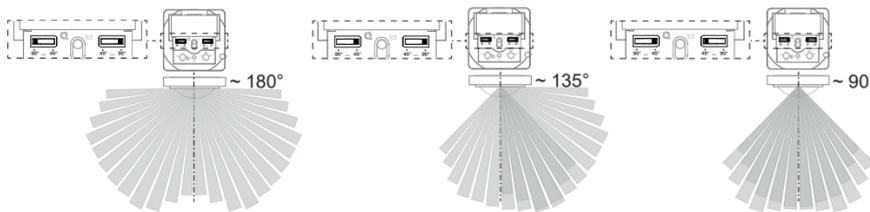


Fig. 8: Setting the detection angle

**Commissioning**

**Overview of operation and adjustment elements**

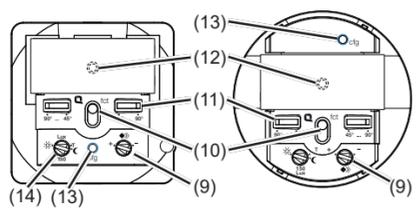


Fig. 5: Operating and adjustment elements of the bottom part of the application module

- (9) Potentiometer for sensitivity
- (10) fct button
- (11) Detection angle adjuster
- (12) Status/fct LED
- (13) cfg button/LED
- (14) Potentiometer for response brightness

**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° and 90° for each adjuster. This can be carried out on the device.  
 The detection angle can therefore be between 90° and 180° (Fig. 8).

- 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 and the status LED on for 3 seconds. The motion detection will then be deactivated for 2 seconds.

The motion detector is connected and ready for operation.

- Setting the test mode. To do this, set the response brightness potentiometer (Fig. 5, 13) to the T position.
- Leave the detection area and observe the switching behaviour.

If the motion detector switches on without motion in the detection field, then sources of interference (see Mounting 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.

ⓘ If the detection area is too small, it can be extended via motion detector extension units or per radio via a master-slave configuration.  
 ▶ See configuration instructions.

**Setting the response brightness**

The response brightness is the brightness value saved in the motion detector; when this value is undershot the motion detector switches the connected load if movements are detected. The response brightness can be set between approx. 5 (C) through 150 Lux (factory setting) to daytime operation (⊙). The ⊙ symbol stands for independent of brightness switching. The response brightness can be variably adjusted in the intermediate areas.

ⓘ In order to control the lighting in stairwells in accordance with DIN EN 12464-1, 2003-3, select the 150 Lux potentiometer setting.

- Turn the response brightness potentiometer (Fig. 5, 14) to the desired position.

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

**Setting the sensitivity**

Detection is factory-set to maximum sensitivity. If there are frequent incorrect detections, the sensitivity can be reduced.

- Turn the sensitivity potentiometer (Fig. 5, 9) to the desired position.

**Technical data**

Connection	Attachment to suitable insert (see Accessories)
Power supply	via insert
Response brightness	approx. 5 ... 1000 Lux (⊙)
Sensitivity	approx. 10 ... 100 %
Detection angle	approx. 90 ... 180°
Detection area (1.1 m)	approx. 12 x 16 m
Detection area (2.2 m)	approx. 8 x 12 m
Transmission frequency	868-870 MHz
Transmission power	25 mW
Radio protocol	KNX Radio RF1.M
quicklink logic functions	max. 20 transmitters/receivers
Receiver category	2
Transmitter duty cycle	< 0.1 %
Degree of protection	IP 20
Relative humidity	0 ... 65 % (no condensation)
Ambient temperature	-5 ... +45 °C
Storage/transport temperature	-20 ... +60 °C
Mounting orientation	Interface between application and power module at top

**Accessories**

Relay insert	8512 12 xx
Universal switch insert 1gang	8512 11 xx
Push-button dimmer 1gang	8542 11 xx
Push-button dimmer comfort 1gang	8542 12 xx
Power supply for KNX radio application module	8502 01 xx

**Warranty**

We reserve the right to realise 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.