**Automatic control switch comfort top unit**
Order-No. : 0661 ..

**Operating instructions**

# 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.**

**Danger of electric shock. Always disconnect before carrying out work on the devise or load. At the same time, take into account all circuit breakers that supply dangerous voltage to the device or load.**

**Danger of electric shock. Device is not suitable for disconnection from supply voltage. The load is not electrically isolated from the mains even when the device is switched off.**

**Do not press on the sensor window. Device can be damaged.**

**The device is not suitable for use as a burglar alarm or other alarm.**

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

# 2 Device components

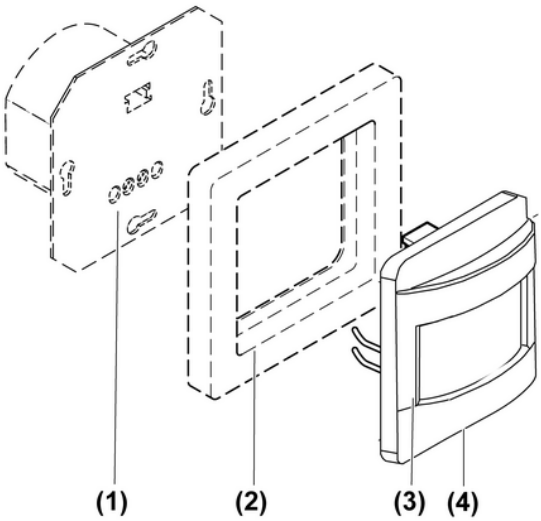


Figure 1

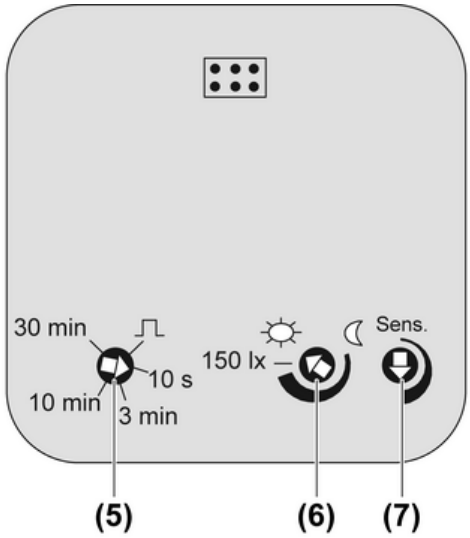


Figure 2: Adjusters on the rear

(1) Flush-mounted insert
(2) Frame
(3) Motion detector cover
(4) Operating mode switch
(5) Adjuster, run-on time
(6) Adjuster, brightness
(7) Adjuster, sensitivity

# 3 Function

### Intended use

- Automatic switching of lighting depending on the heat motion and ambient brightness.
- Operation with concealed insert for dimming, switching or extension insert, 3-wire
- Mounting on concealed insert

### Product characteristics

- Run-on time, sensitivity and brightness threshold settable
- Teach function to adjust the brightness threshold
- Operating mode switch for Automatic operation, Continuous on or Continuous off
- Short-time operation, e.g. to control acoustic signal encoders
- Manual switch-on possible via extension insert, 2-wire, or installation button
- With the dimmer insert, it is possible to change the brightness using a 2-wire extension insert
- Switch-on brightness can be saved with the dimmer insert
- With the dimmer insert, the dim-down function is possible at the end of the run-on time
- 18 lens segments in 2 recording levels
- Extension of the detection area in combination with the 3-wire extension insert
- Detection area can be limited using cover plate
- High protection against ambient light

### Automatic operation

The controller detects heat motions of people, animals and objects.

- The light is switched on if a person enters the monitored detection area and the brightness is below the set threshold.
  Each detected movement restarts the run-on time.
- The light is switched off if no more movement is detected in the detection area and the set run-on time has elapsed.

High protection against ambient light: To prevent the motion detector from switching to Night mode is there is brief shadow or Day mode if there is brief light, the Day/Night and Night/Day switchover takes place only after 10 seconds.

**Behaviour in case of a mains failure**

- Less than 0.2 seconds: the old switching position is restored after mains return.
- 0.2 seconds to approx. 2 seconds: when the power returns, the lighting is switched on again for the run-on time.
- Longer than 2 seconds: when the power returns, the motion detector carries out a self test for approx. 90 seconds. The lighting is switched on during the self test. Then the lighting switches off briefly, and then on again for the length of the run-on time.

i In the Continuous on and Continuous off operating modes, the light is switched on or off after the self test.

i A power failure of longer than 2 seconds causes the loss of the switch-on brightness and the brightness threshold, saved via the Teach function.

# 4 Operation

**Switch on the light via extension**

A 2-wire extension or an installation button is connected.

- Press button for less than 0,4 seconds.

  The Light is switched on independently of the brightness for the run-on time.

i If the run-on time setting dial (5) is set to ⎍, Short-time operation, then the light is switched on for approx. 0.5 seconds, even if the button is pressed for longer.

**Switch light on with minimum brightness**

Motion detector cover is combined with a dimmer insert.

A 2-wire extension is connected.

Light is switched off

- Press button at bottom for longer than 0.4 seconds.

  Light is switched on at minimum brightness and stays at this brightness for as long as motion is detected.

**Operate with 2-wire extension**

Motion detector cover is combined with a dimmer insert.

Light is switched on.

- Press top button for a long time.

  The light gets brighter up to maximum brightness.
- Long press on bottom of button.

  Light gets darker to minimum brightness.

i Manual switch-on is not possible.

**Save switch-on brightness**

The light is switched to this brightness value on each switch-on. In the as-delivered state, the switch-on brightness is set to the maximum brightness.

Motion detector cover is combined with a dimmer insert.

A 2-wire extension is connected.

- Set light to the required brightness.
- Press the extension for at least 3 seconds.

  For confirmation the lighting switches off briefly and then on again to the saved switch-on brightness.

i The saved switch-on brightness is deleted after a power failure.

**Setting the operating modes**

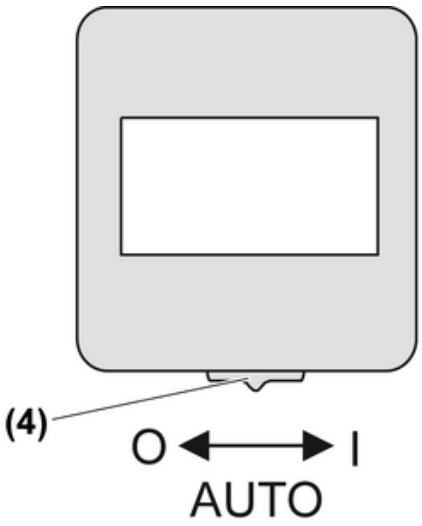


Figure 3: Operating mode switch

Three operating modes can be set using the operating mode switch (4) on the motion detector (Figure 3).

**Setting the Continuous off operating mode**

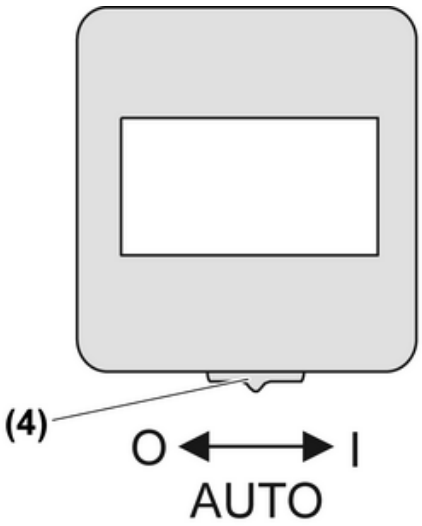


Figure 4: Operating mode switch

Three operating modes can be set using the operating mode switch (4) on the motion detector (Figure 5).

- Switch the operating mode switch to the **O** position.

  The lighting is switched off permanently.

  If a dimmer insert is used, then dimming will take place and the lighting will switch off after approx. 30 seconds.

i With Continuous off, switch-on via the extension is not possible.

**Setting the Continuous on operating mode**

- Switch the operating mode switch to the **I** position.

  The lighting remains permanently switched on at the current brightness. If the lighting is switched off, then the switch-on brightness is set.

i With Continuous on, switch-off or dimming via the extension is not possible.

**Setting the Automatic operating mode**

- Switch the operating mode switch to the **AUTO** position.

  The lighting switches automatically, switch-on via an extension is possible.

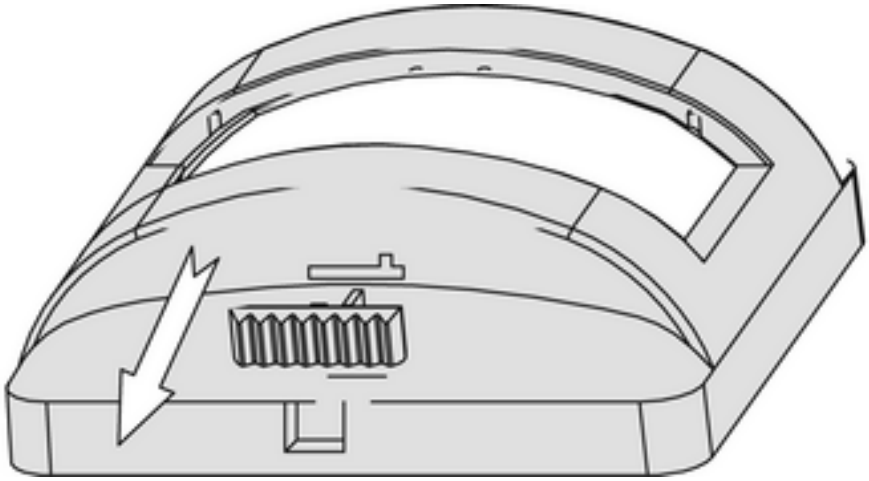

Figure 5: Removing the operating mode switch

The operating mode switch can be locked in the **AUTO** position using a locking clip.

- Carefully remove the switch with a screwdriver (Figure 5).
- Insert the locking clip.

**Changing the brightness threshold with the Teach function**

The Teach function can be used to save the current ambient brightness as a brightness threshold. The value set on the Brightness setter (6) is then no longer evaluated. Additional saving operations overwrite the previous value.

i A power failure of more than 2 seconds or removing the cover from the insert causes the loss of the saved brightness threshold. The brightness threshold set on the adjuster (6) is reactivated.

i If a brightness value of more than 150 lux is saved as the brightness threshold, then the motion detector is in Day mode and switches irrespectively of the brightness.

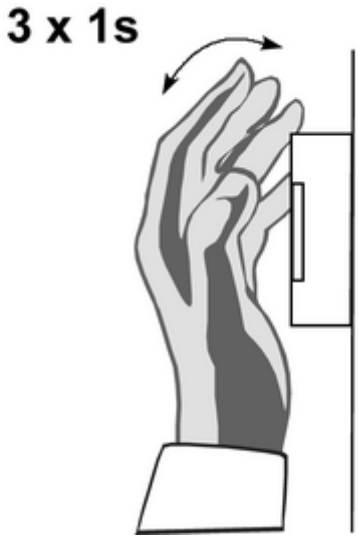


Figure 6: Activating the Teach function

- Activating the Teach function: completely cover the motion detector three times within 9 seconds(Figure 6).

  The Teach function is active. As confirmation, the switched-off lighting is switched on for approx. 3 seconds or switched-on lighting switched off and then switched on for approx. 3 seconds.
- Move away from the motion detector for the next minute, so that it can measure the current brightness without being shaded.

  For confirmation of saving the lighting is switched on for 3 seconds.

  The motion detector then switches to the set operating mode.

# 5 Information for electrically skilled persons

## 5.1 Fitting and electrical connection

**DANGER!**

**Electrical shock when live parts are touched.**

**Electrical shocks can be fatal.**

**Before carrying out work on the device or load, disengage all the corresponding circuit breakers. Cover up live parts in the working environment.**

**Selecting the installation location**

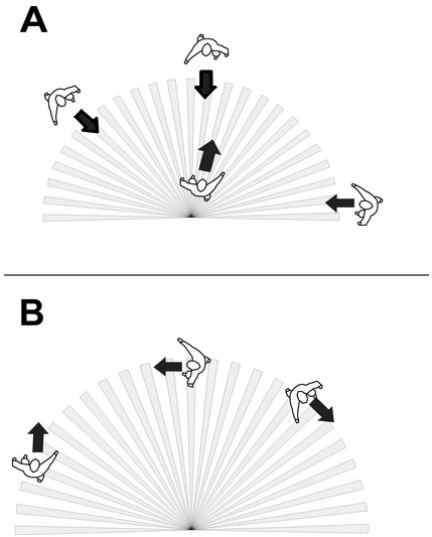


Figure 7: Detection area dependent on the direction of movement

i Observe the direction of movement: A distinction is made between Approach A and Transverse B (Figure 7). Motions that are transverse to the motion detector can be detected more better than motions towards or away from the motion detector.

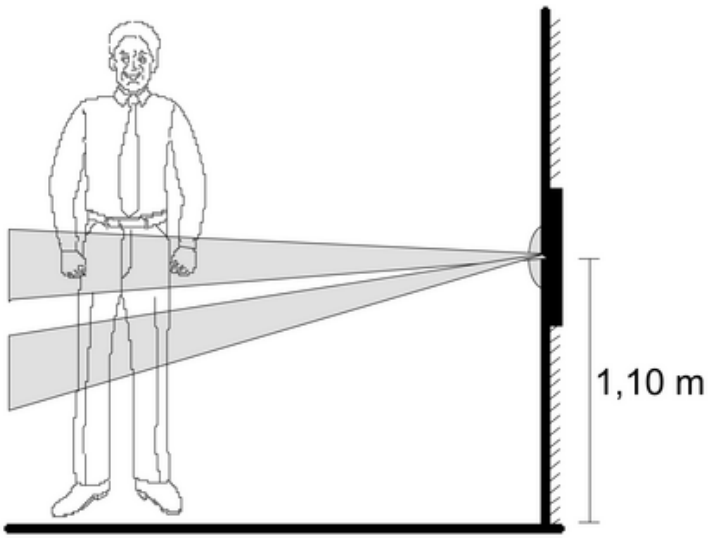


Figure 8: Detection planes

- Select a vibration-free installation location. Vibrations can lead to unwanted switching.
- Avoid interference sources in the detection area. Interference sources, e.g. heaters, ventilation, air conditioners, and cooling light bulbs can lead to unwanted switching.

i If necessary, the detection area can be limited using the push-on top (see Limiting the detection area).

**Installing the motion detector cover**

The concealed insert is connected and installed correctly (see Concealed insert instructions).

i Use a surface-mounted housing for surface installation.

i Use a wind-tight connector socket for cavity wall mounting.

- Attach the motion detector cover and frame to the concealed insert.

**Expanding the detection area**

To expand the detection area, connect a 3-wire extension insert with motion detector cover (see instructions for 3-wire extension insert).
The motion detector of the main unit also evaluated recorded motions of the extension and, if necessary, switches the lighting on.

- Using the adjuster (7), adjust the sensitivity to the ambient conditions.
- Attach the motion detector cover and frame to the extension concealed insert.

i Only the sensitivity of motion detectors on extensions can be set individually. The adjuster for run-on time, brightness threshold and the operating mode switch do not have a function.

i Do not connect any main units in parallel.

i When operating an extension with motion detector tops, it should be noted that, after switching the lighting off, a locking time of approx. 3 seconds must elapse, before the lighting can be switched on using the extension.

## 5.2 Commissioning

**DANGER!**
**Electrical shock when live parts are touched.**
**Electrical shocks can be fatal.**
**Before carrying out work on the device or load, disengage all the corresponding circuit breakers. Cover up live parts in the working environment.**

**Testing the detection area**

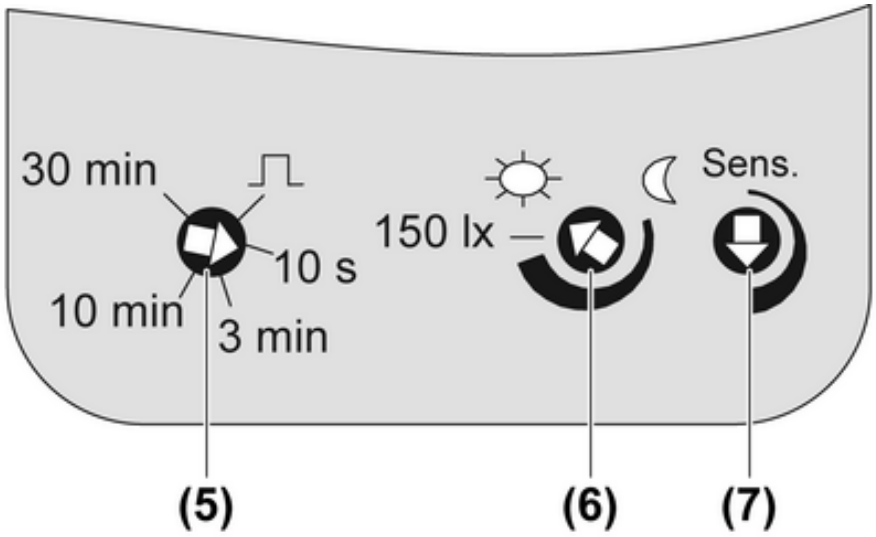


Figure 9: Adjusters on the rear

The insert is installed correctly. Mains voltage not yet switched on.

- Make the test settings (Figure 9). Run-on time adjuster: 10 s; Brightness adjuster on ☼ icon; Adjuster **Sens.** to max.
- Attach the motion detector cover and frame to the concealed insert.
- Switch on mains voltage

  The motion detector carries out a self test for approx. 90 seconds.
- Leave the detection area and observe the switching behaviour.

  If the motion detector switches on, then sources of interference must be hidden (see Limiting the detection area) or the sensitivity reduced.
- Measure the detection area.

  If the detection area is too large, limit the detection area (see Limiting the detection area).

If the detection area is too small, expand the detection area using an extension.

- Make the operating settings for the run-on time, sensitivity and brightness threshold.

### Setting the brightness threshold

The brightness threshold is infinitely adjustable in a range from approx. 0 to 150 lux and day operation ☼. In so doing, the ☼ symbol stands for brightness-independent switching and the ☾ symbol for switching in case of darkness.

- Remove the motion detector cover from the concealed insert.
- Turn the adjuster (6) to the required position (Figure 9).

i Should the motion detector no longer react to detected movements in Night mode, ☾ setting, turn the adjuster back somewhat towards ☼.

- Attach the motion detector cover and frame to the concealed insert.

i To make the setting for stairwells according to DIN EN12464-1, 2003-3, turn the adjuster (6) to the **150 Lux** mark.

### Setting the sensitivity

The motion detector possess automatic adjustment to the ambient conditions. Normally, the adjuster **Sens.** should be set to maximum sensitivity.

- Remove the motion detector cover from the concealed insert.
- Set the sensitivity using the adjuster **Sens.** (7).
- If there are unwanted switching operations, reduce the sensitivity.
- Attach the motion detector cover and frame to the concealed insert.

### Set follow-up time

The run-on time can be set in a range from approx. 10 seconds to approx. 30 minutes. The setting is non-linear, longer times are specified in a more rough framework.

- Remove the motion detector cover from the concealed insert.
- Set the required run-on time using the run-on time adjuster (5).
- Attach the motion detector cover and frame to the concealed insert.

i If a dimmer insert is used, then dimming will take place after the run-on time has elapsed and the lighting will switch off after approx. 30 seconds. If, during dimming, movement is detected, then the motion detector switches back to switch-on brightness.

### Presetting the short time operation

In conjunction with a switching insert, short-time operation can be set, e.g. to control an acoustic signal encoder. Short-time operation operates independently of the brightness.

- Remove the motion detector cover from the concealed insert.
- Set the run-on time adjuster (5) to the ⎍ symbol.

  If motion is detected, the motion detector switches on for approx. 0.5 seconds. If further movement is detected, the switch-on will take place again after an immunity period of 3 seconds.
- Attach the motion detector cover and frame to the concealed insert.

i No short-time operation is possible with the dimmer inserts.

**Limiting the detection area**

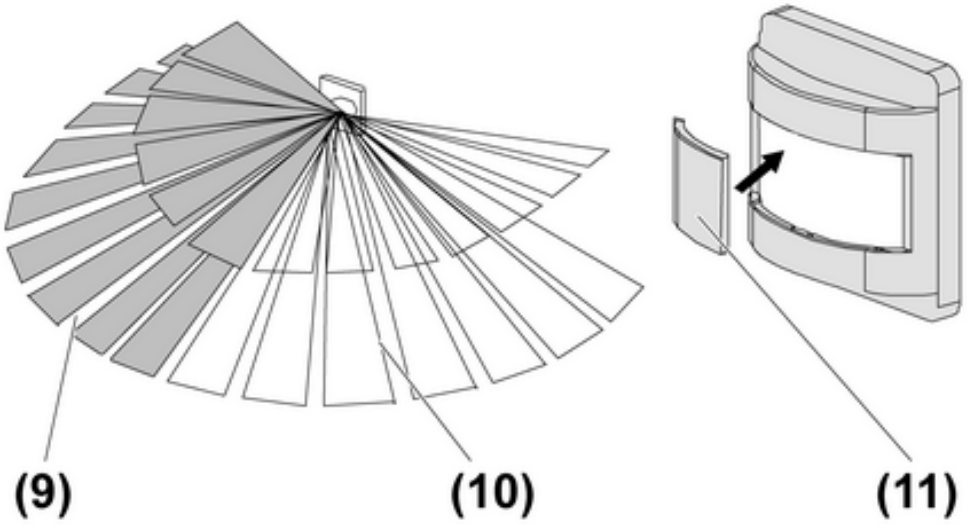


Figure 10: Using a cover plate

The supplied cover plate (11) can cover up the left (9) or right half (10) of the detection fields, 90° in each case.

i Always use the entire cover plate. Shortening the cover plate to a smaller angle will result in malfunctions.

- Fit cover plate on sensor window.

# 6 Appendix

## 6.1 Technical data

| | |
|---|---|
| Ambient temperature | -20 ... +45 °C |
| Brightness setting | 0 ... 150 lx (and day operation) |
| run-on time | approx. 10 s ... 30 min |
| Sensitivity | 20 ... 100 % |
| Installation height | 1.10 m |
| Detection angle | 180 ° |
| Detection area | approx. 10 x 12 m |

## 6.2 Troubleshooting

**The lighting does not switch on.**

Cause 1: The ambient brightness is greater than the set brightness threshold.

Increase the brightness threshold using the adjuster (6).

Cause 2: Continuous off mode is set.

Switch the operating mode switch to the **AUTO** position.

Cause 3: Sensitivity is set too low.

Increase the sensitivity with the adjuster **Sens**.

**Light switches on, although no-one is in the detection area.**

Cause: Interference sources in the detection area, e.g. heating, ventilation, cooling light bulbs.

Reduce the detection area with a cover panel or reduce the sensitivity with the **Sens** adjuster.

## 6.3 Warranty

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

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.

**Gira**
**Giersiepen GmbH & Co. KG**
Elektro-Installations-
Systeme

Industriegebiet Mermbach
Dahlienstraße
42477 Radevormwald

Postfach 12 20
42461 Radevormwald

Deutschland

Tel +49(0)21 95 - 602-0
Fax +49(0)21 95 - 602-191

www.gira.de
info@gira.de