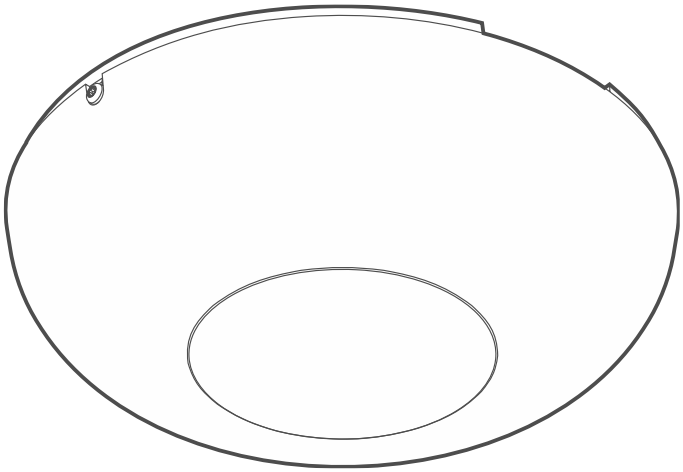
Ceiling dual technology motion detector
for lighting control (surface mount)

SLIM-S-DUAL-AC

Firmware version 1.00

EN



CE

slim-s-dual-ac_en 04/26

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IMPORTANT

The device should be installed by qualified personnel.

Prior to installation, please read carefully this manual.

Changes, modifications or repairs not authorized by the manufacturer shall void your rights under the warranty.

Description of symbols on the device:

 The device meets the requirements of the applicable EU directives.

 The device must not be disposed of with other municipal waste. It should be disposed of in accordance with the existing rules for environment protection (the device was placed on the market after 13 August 2005).

 The device is designed for indoor installation.

 Protection class II (protective insulation).

 Alternating current (AC).

 Switch.

 Prior to installation, please read carefully the manual.

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Signs in this manual

 Caution – information on the safety of users, devices, etc.

 Note – suggestion or additional information.

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The SLIM-S-DUAL-AC ceiling detector is used to turn on 230 VAC lighting after motion is detected. The detector uses infrared and microwaves to detect motion. It is intended for mounting on the surface of the ceiling.

This detector is designed for home automation and should not be used as a motion detector in an alarm system.

1. Features

- Motion detection with passive infrared sensor (PIR) and microwave sensor (MW).
- NO relay output for 230 VAC lighting control.
- Adjustable lighting ON-time.
- Adjustable motion detection sensitivity.
- Digital motion detection algorithm for both sensors.
- Digital temperature compensation.
- Built-in dusk sensor.
- Powered by 230 VAC.
- Mounted on the surface of the ceiling.

2. Description

The detector will turn on the lighting when the infrared sensor (PIR) and the microwave sensor detect motion within a time period shorter than 3 seconds. The lighting ON-time can be set from 2 to 180 seconds. If the lighting is ON and motion is detected again, the countdown starts anew. Thanks to the built-in dusk sensor, the lighting can be turned on only when it is dark.

3. Electronics module

Do not remove the electronics board from the plastic cover to avoid damage to the components on the board.

1

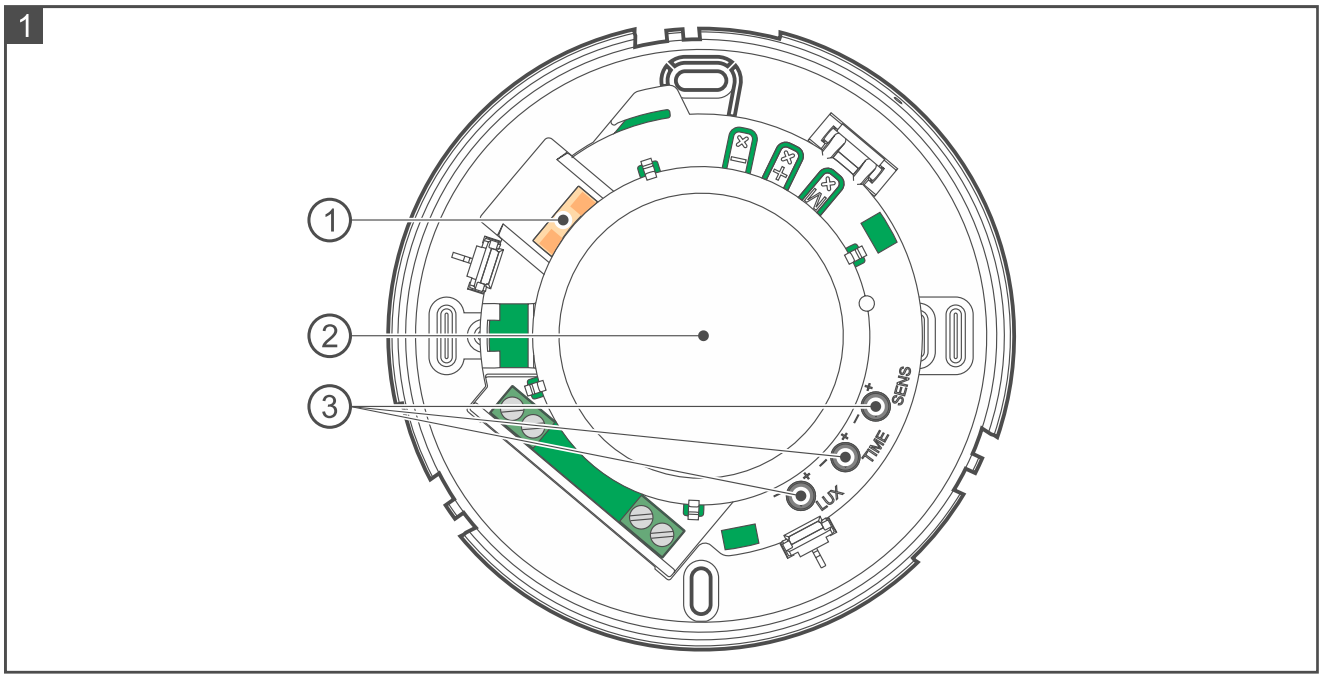


Figure 1 shows the inside of the detector after opening the enclosure.

(1) microwave sensor.

(2) lens. The PIR sensor (dual element pyrosensor) and the dusk sensor are under the lens.

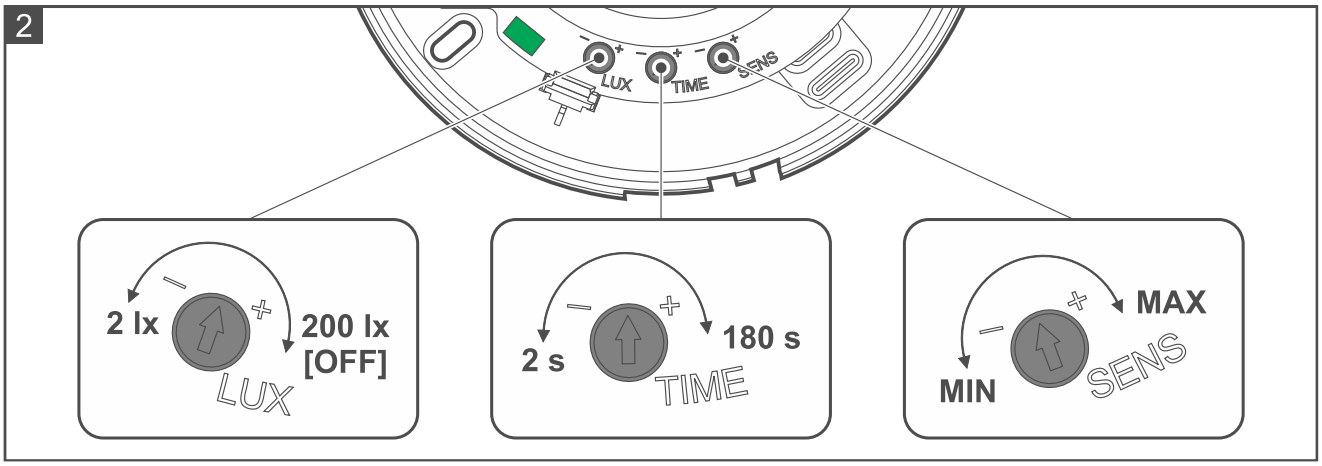
(3) detector configuration potentiometers (Fig. 2):

LUX - setting the dusk sensor detection threshold. Setting range: 2...200 lx. When the light intensity is below the threshold (it is dark), motion detection will turn on the lighting (relay). When the light intensity is above the threshold, motion detection will not turn on the lighting. If the maximum value (200 lx) is set, the dusk sensor is disabled and motion detection will always turn on the lighting.

TIME - setting the lighting (relay) ON-time after motion detection. Setting range: 2...180 seconds (2, 4, 6, 8, 10, 12, 14, 20, 30, 40, 60, 80, 100, 120, 150 or 180 s.).

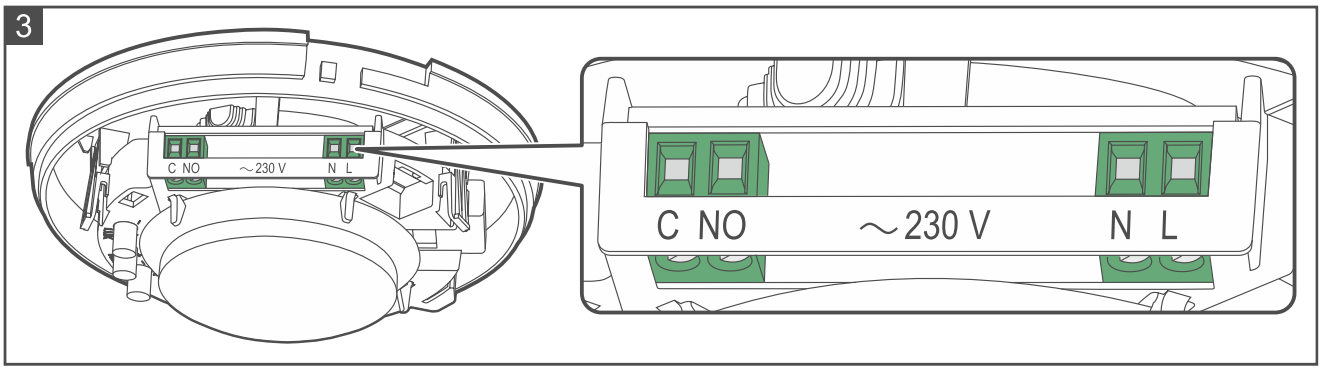
SENS - setting the motion detection sensitivity (infrared sensor (PIR) and microwave sensor (MW)).

2



Terminals

3



C - relay output C contact.

NO - relay output NO contact (normally it is disconnected from the C contact – does not conduct electricity).

N - for connecting the neutral wire of 230 VAC power.

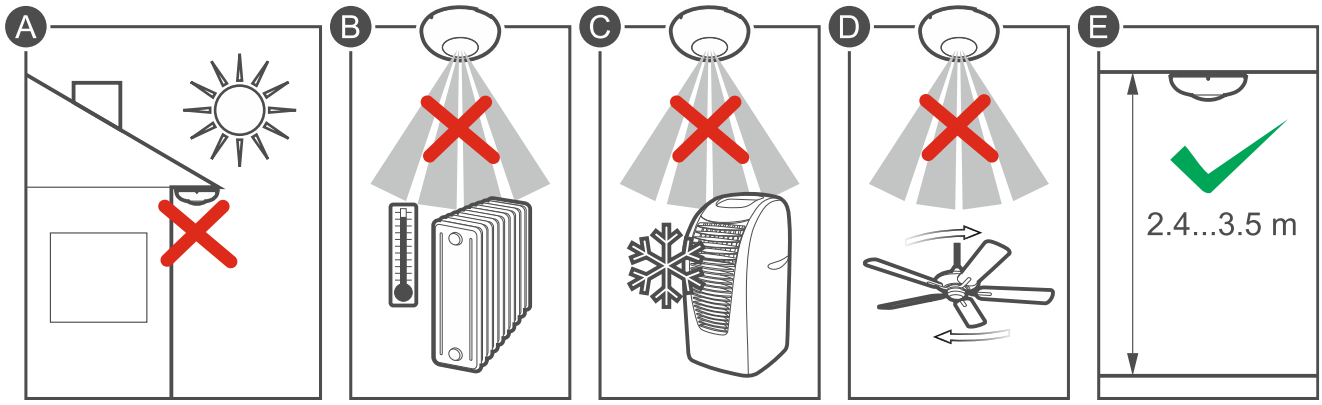
L - for connecting the phase wire of 230 VAC power.

4. Installation

Disconnect power before making any electrical connections.

Connect the detector to a single-phase network according to the applicable standards.

Tips for installation



- The detector should be installed indoors, in spaces with normal air humidity.
- Do not install the detector outdoors (A).
- Do not point the detector towards heat sources (B), air conditioners (C) or fans (D).
- No object should obstruct the detector's field of view.
- Install the detector on the surface of the ceiling, at a height of 2.4...3.5 m (E).
- The electrical circuit to which the detector is to be connected must have suitable protection. Instruct the owner / user of the system on how to disconnect the detector from the mains supply (e.g. indicate the fuse or circuit breaker protecting the detector supply circuit).
- To connect the detector, use flexible wires with a cross-section of 0.5-0.75 mm^2.
- To the detector relay output you can connect a 230 VAC appliance with current consumption up to 8 A.

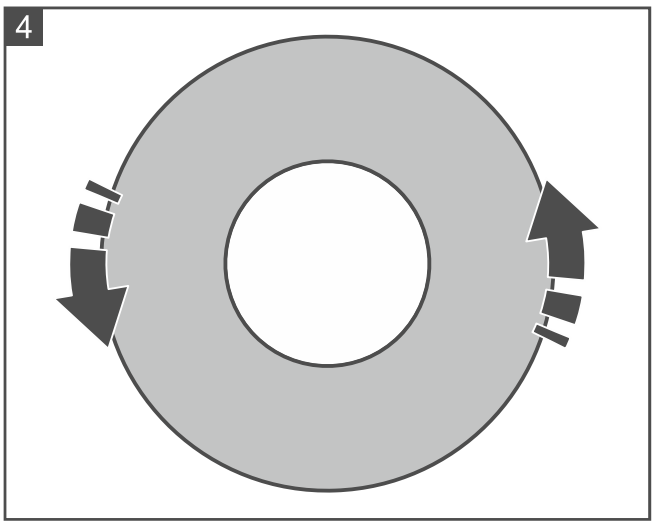
Mounting

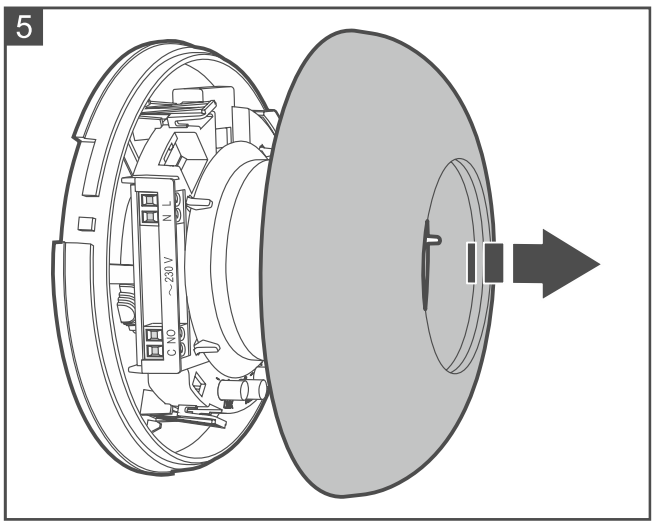
1. Turn the enclosure cover counter-clockwise (Fig. 4) and remove it (Fig. 5).
2. Place the enclosure base against the ceiling and mark the location of the mounting holes (Fig. 6).

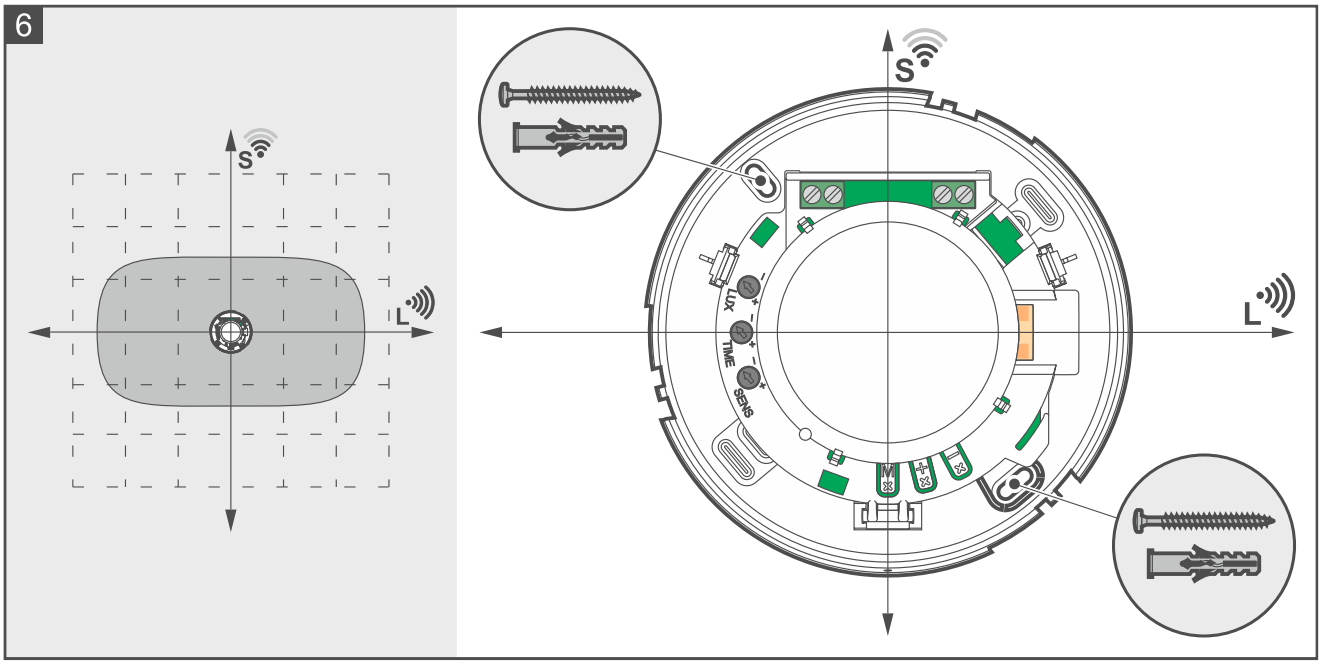
*Figure 6 shows how the base position affects the detector coverage area. The detector has a greater coverage area along the **L** axis (passing through the TIME potentiometer) than along the **S** axis (passing through the M button). Figure 14 shows the exact dimensions of the coverage area.*

Figure 9 shows the places where additional mounting holes can be made. They are visible after you lift up the electronics module (see Fig. 7).

3. Drill the holes in the ceiling for wall plugs (anchors). The wall plugs provided with the detector are intended for concrete or brick. For other types of surface (drywall, styrofoam), use other appropriately selected wall plugs.

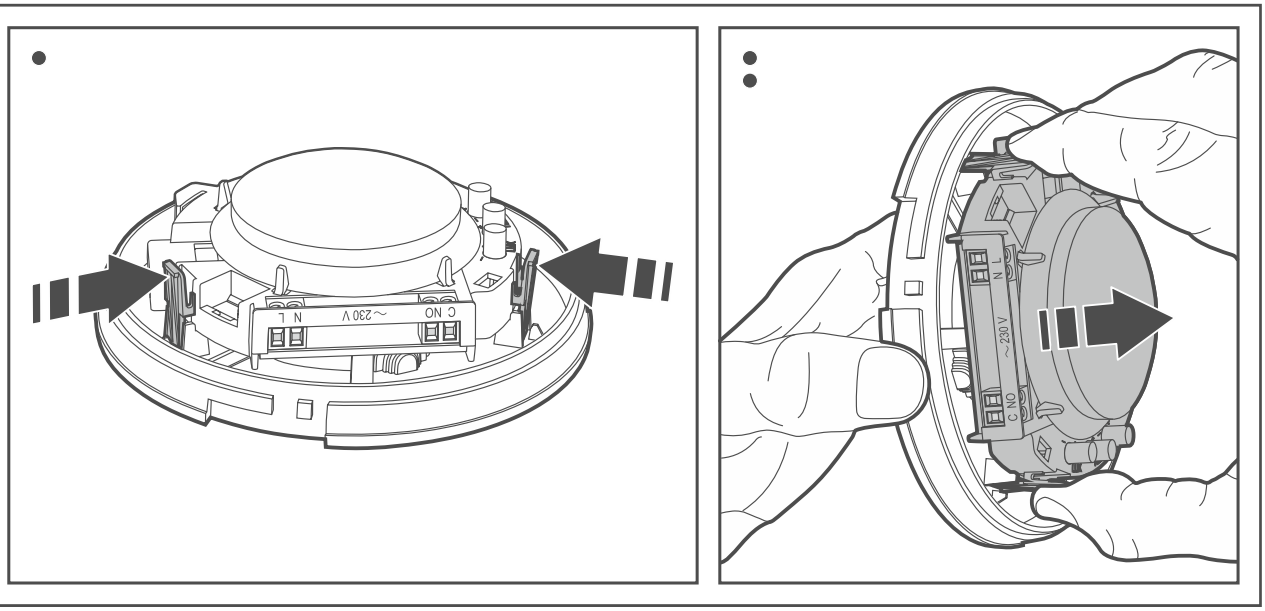




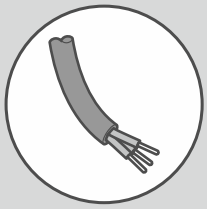


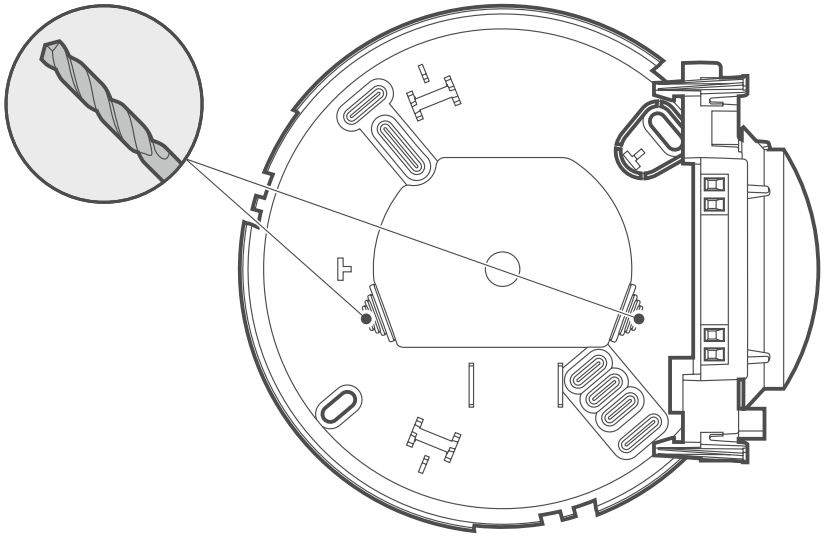
4. Press the catches and lift up the electronics module (Fig. 7).
5. Make the opening for a cable in the enclosure base (Fig. 8).
6. Run the cable inside the detector enclosure.
7. Secure the enclosure base to the ceiling with screws (Fig. 6 and 9).
8. Screw the wires to the detector terminals (Fig. 10).
9. Press the electronics module down onto the base to lock it in place.
10. Power on the detector. The detector will take 30 seconds to warm up. During this time, the relay (the lighting controlled by the detector) will be turned on.
11. Configure the detector settings.
12. Place the enclosure cover in the base (Fig. 11). Note the position of the cover locking screw holes.
13. Turn the cover clockwise until you feel resistance (Fig. 12).
14. Lock the cover in place with a screw (Fig. 13). The screw is in the bag provided with the detector. Use a Torx T6H screwdriver.

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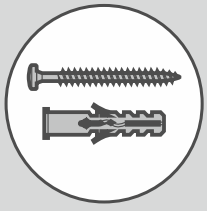


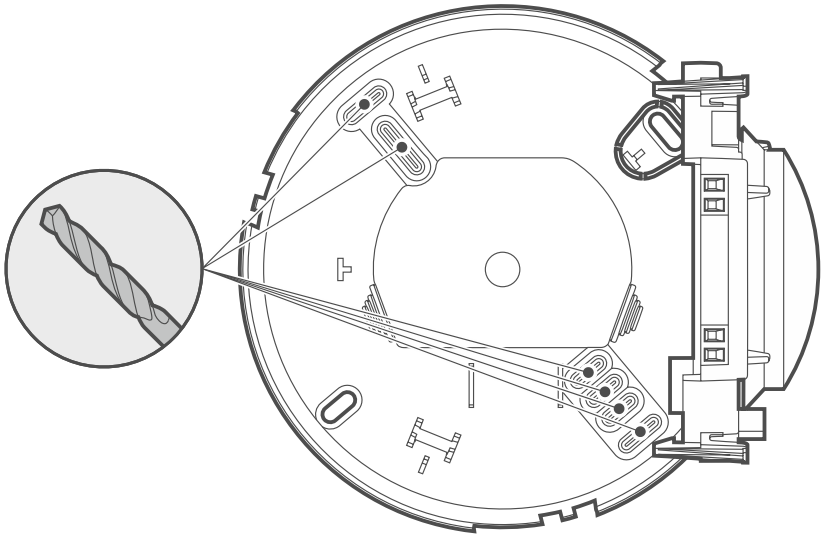
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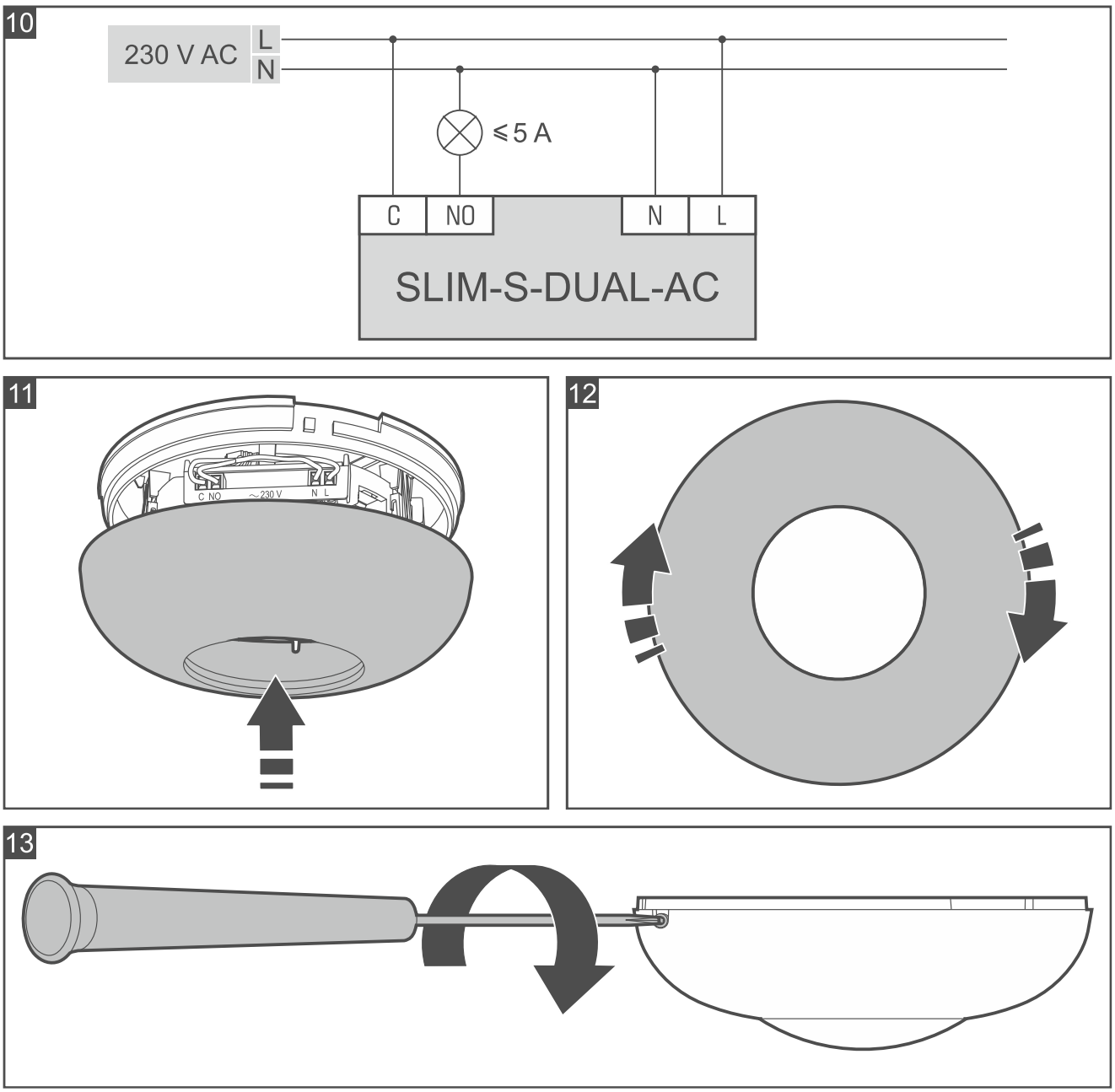




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5. Walk test

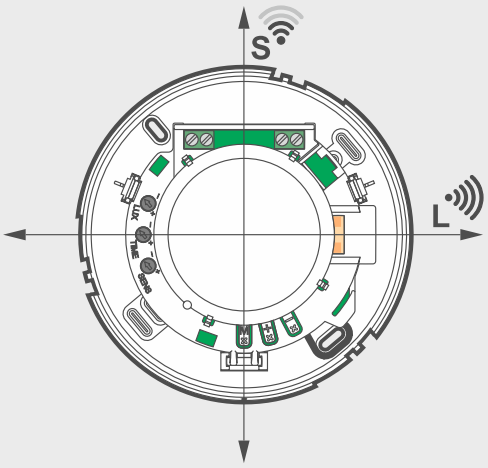
Check if moving within the detector coverage area will make the lighting turn ON. Figure 14 shows the maximum coverage area of the detector. Change the sensitivity settings if necessary.

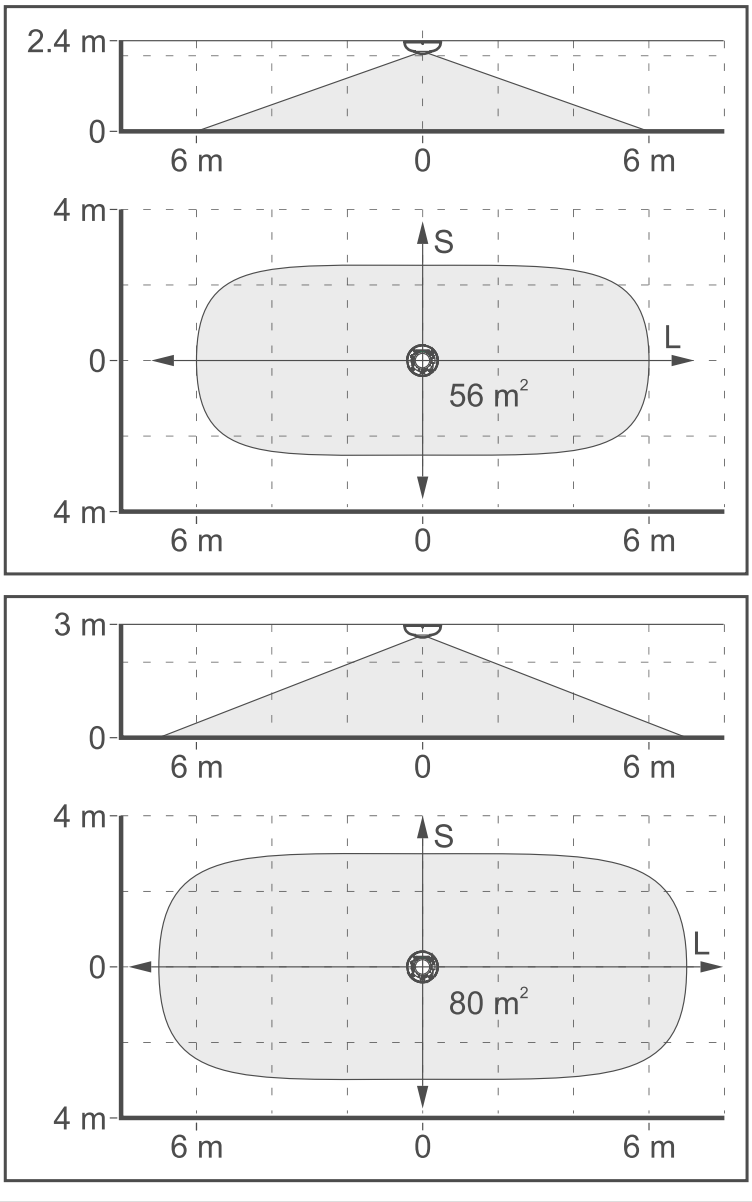
6. Specifications

Supply voltage ..... 230 VAC, 50 Hz
Standby power consumption ..... 0.2 W
Maximum power consumption ..... 0.5 W
Control output (NO relay) ..... 8 A / 250 VAC
Contact resistance ..... ≤ 100 mΩ
Microwave frequency ..... 24.125 GHz
Detectable speed ..... 0.3...3 m/s
Lighting ON-time ..... 2...180 s

Recommended installation height ..... 2.4...3.5 m
Maximum coverage area
mounted at 2.4 m ..... 12 m x 5 m [56 m^2]
mounted at 3 m ..... 14 m x 6 m [80 m^2]
Environmental class according to EN 50130-5 II
Operating temperature range ..... -10°C...+55°C
Maximum humidity ..... 93±3%
Dimensions ..... ø 120 x 37 mm
Weight ..... 121 g

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5 year warranty from date of manufacture