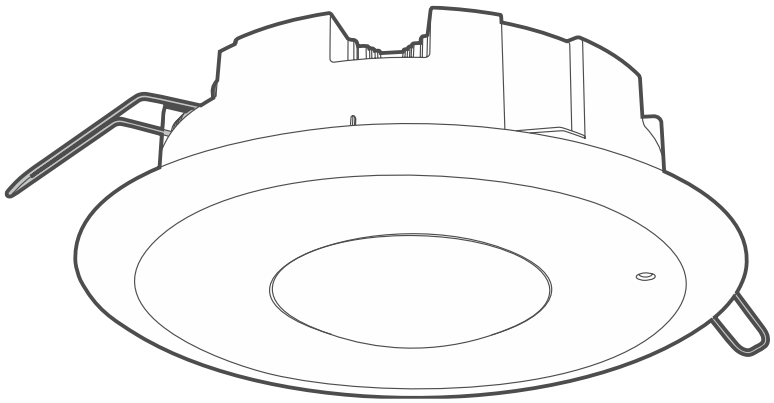
Ceiling PIR motion detector
(recessed)

SLIM-R-PIR

Firmware version 3.00

EN



CE

slim-r-pir_en 04/26

SATEL sp. z o.o. • ul. Budowlanych 66 • 80-298 Gdańsk • POLAND
tel. +48 58 320 94 00
www.satel.pl

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:

⎓ Direct current (DC).

CE The device meets the requirements of the applicable EU directives.

The device is designed for indoor installation.

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).

SATEL aims to continually improve the quality of its products, which may result in changes in their technical specifications and software. Current information about the changes being introduced is available on our website.
Please visit us at:
https://support.satel.pl

The declaration of conformity may be consulted at www.satel.pl/ce

Signs in this manual

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

Note – suggestion or additional information.

CONTENTS

1. Features 2
2. Description 2
   Tamper protection 2
   Supervision features 2
   LED indicator 2
3. Electronics module 3
   Terminals 3
   DIP-switches 4
4. Installation 5
   Tips for installation 5
   Mounting 5
5. Configuring the detector using the buttons 9
   Description of buttons 9
   Starting configuration mode 9
   Configuring the settings 9
   Restoring factory settings 10
   Ending configuration mode 10
6. Walk test 10
7. Specifications 11

The SLIM-R-PIR ceiling detector uses infrared to detect motion. It is designed for mounting in a suspended ceiling. This manual applies to the detector with electronics version D.

1. Features

- Motion detection using passive infrared sensor (PIR).
- Maximum coverage area (see Fig. 19):
  – ø 6 m / 28 m^2 – mounted at 2.4 m,
  – ø 10 m / 79 m^2 – mounted at 3.5 m.
- Digital motion detection algorithm.
- Digital temperature compensation.
- Adjustable detection sensitivity.
- Built-in end-of-line resistors (2EOL: 2 x 1.1 kΩ).
- LED indicator:
  – selectable color for alarm indication (7 colors available).
  – indicator enabled / disabled remotely.
- Supervision of motion detection system.
- Powered by 12 VDC (±15%).
- Supply voltage control.
- Tamper protection against opening the detector enclosure.
- Mounted in a suspended ceiling.

2. Description

The detector will report alarm when the infrared sensor (PIR) detects motion.

Tamper protection

Opening the detector enclosure results in activating the tamper output. The output will remain activated until the end of tamper.

Supervision features

In the event of the voltage drop below 9 V (±5%) for more than 2 seconds or the motion detection system failure, the detector will indicate a trouble. The trouble is indicated by activating the alarm output and turning on the LED indicator. The signaling continues for the duration of the trouble.

LED indicator

The LED indicator indicates:

- warm-up – flashing red for about 30 seconds,
- alarm – ON for 2 seconds (default color: blue),
- trouble – ON for the duration of the trouble (the same color of lighting as in the case of alarm).

You can change the color to be used to indicate alarm / trouble (see *Configuring the detector using the buttons* p. 9).

Enabling the LED indicator using the DIP-switch

If you enable the LED indicator using the switch (set the 8 switch in ON position – Fig. 6), the indicator will indicate events but it will be impossible to enable / disable the indicator remotely. If you disable the LED indicator using the switch (Fig. 7), it will be possible to enable / disable the indicator remotely.

Enabling / disabling the LED indicator remotely

The LED terminal is provided to allow the LED indicator to be controlled remotely. The LED indicator is enabled when the terminal is connected to common ground. The LED indicator is disabled when the terminal is disconnected from common ground.

You can connect to the terminal an OC type alarm control panel output programmed e.g. as:

- INTEGRA / INTEGRA Plus: *Zone test status* or *BI switch*,
- PERFECTA / VERSA: *Controlled*.

3. Electronics module

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

1

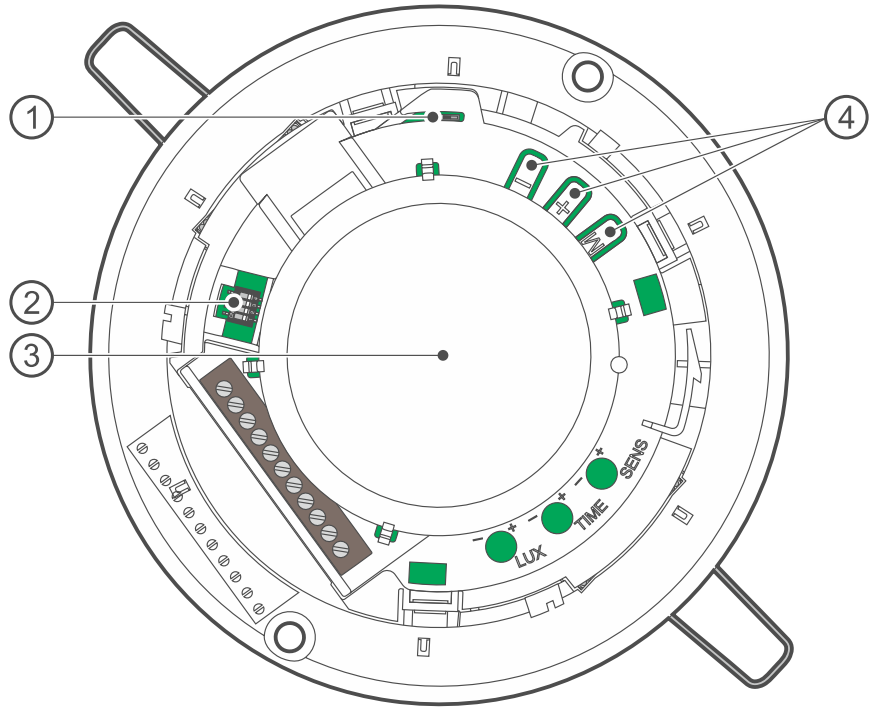


Figure 1 shows the inside of the detector after opening the enclosure.

(1) tamper switch activated by cover removal.

(2) DIP-switches used for configuring the detector (see *DIP-switches* p. 4).

(3) lens.

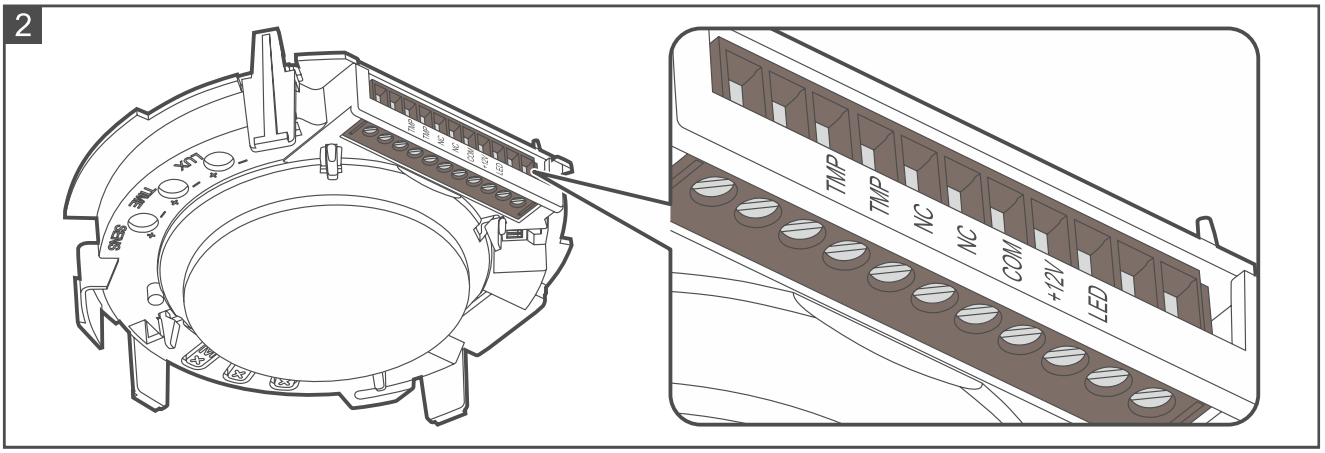
(4) buttons used for configuring the detector (see *Configuring the detector using the buttons* p. 9).

The PIR sensor (dual element pyrosensor) and the LED indicator are under the lens.

Terminals

To access the terminals for connecting the wires, remove the electronics module from the base (Fig. 10 and 11).

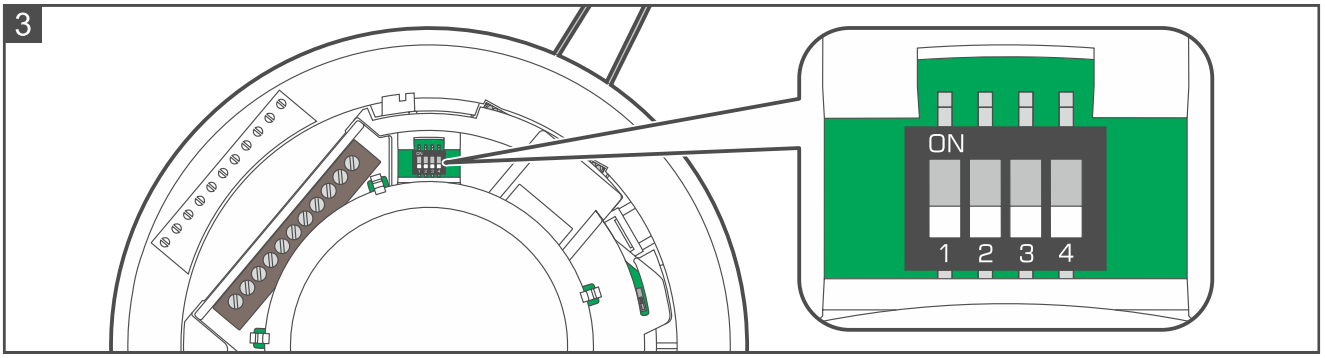
2



TMP - tamper output (NC).
NC - alarm output (NC relay).
COM - common ground.
+12V - power input.
LED - enabling / disabling the LED.

DIP-switches

3



Using the DIP-switches, you can:

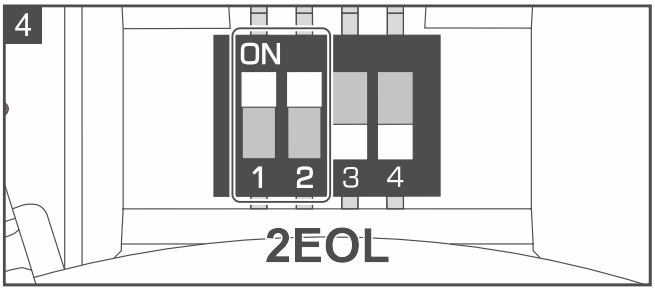
- configure the detector outputs – switches 1 and 2 (Fig. 4 and 5),
- enable / disable the LED indicator – switch 4 (Fig. 6 and 7).

Configuring the detector outputs

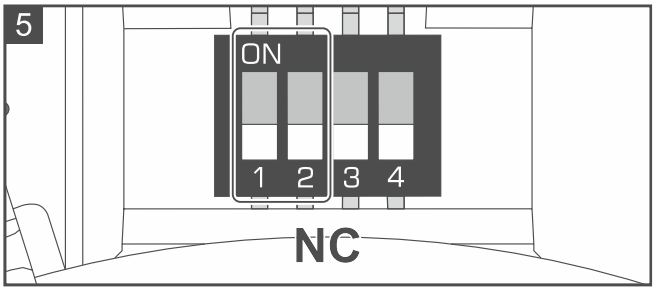
Available settings are shown in the figures:

4 – built-in resistors are used – connect the detector outputs as in Fig. 18,
5 – built-in resistors are not used – connect the detector outputs as in Fig. 17.

4



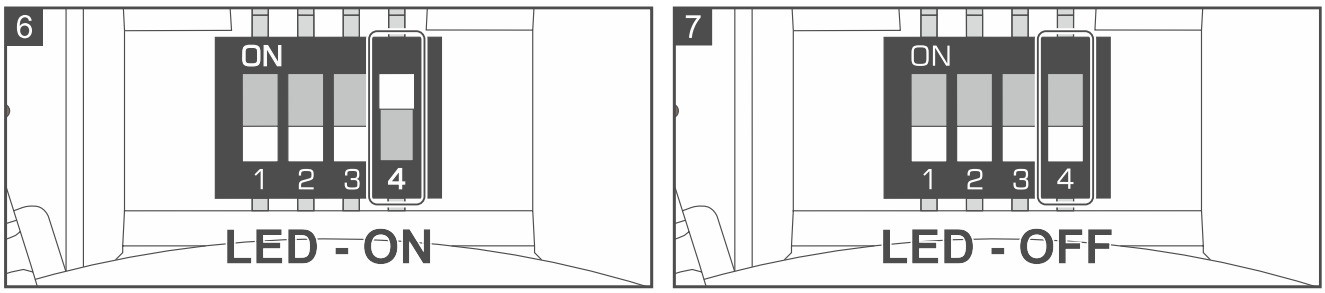
5



Enabling / disabling the LED indicator

Available settings are shown in the figures:

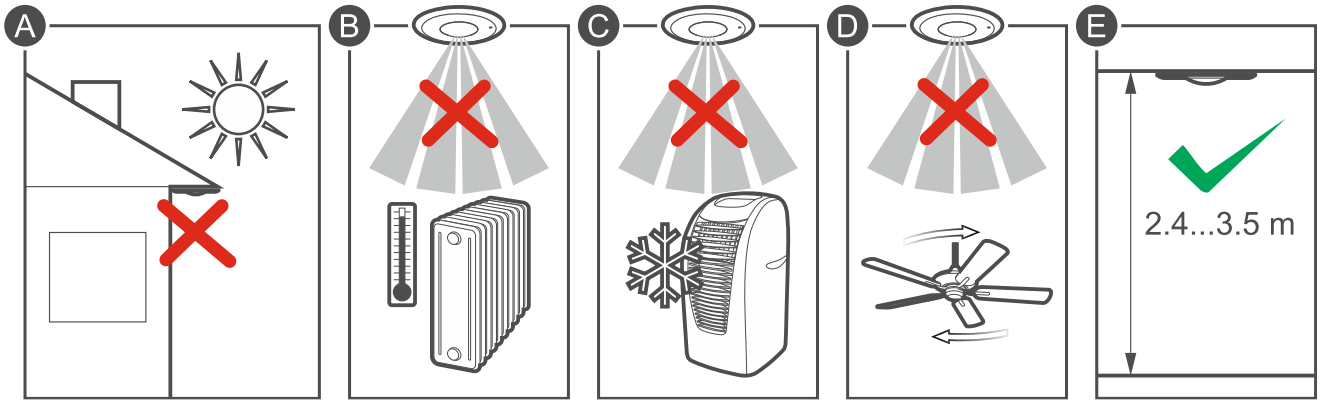
6 – LED indicator is enabled,
7 – LED indicator is disabled.



4. Installation

Disconnect power before making any electrical connections.

Tips for installation



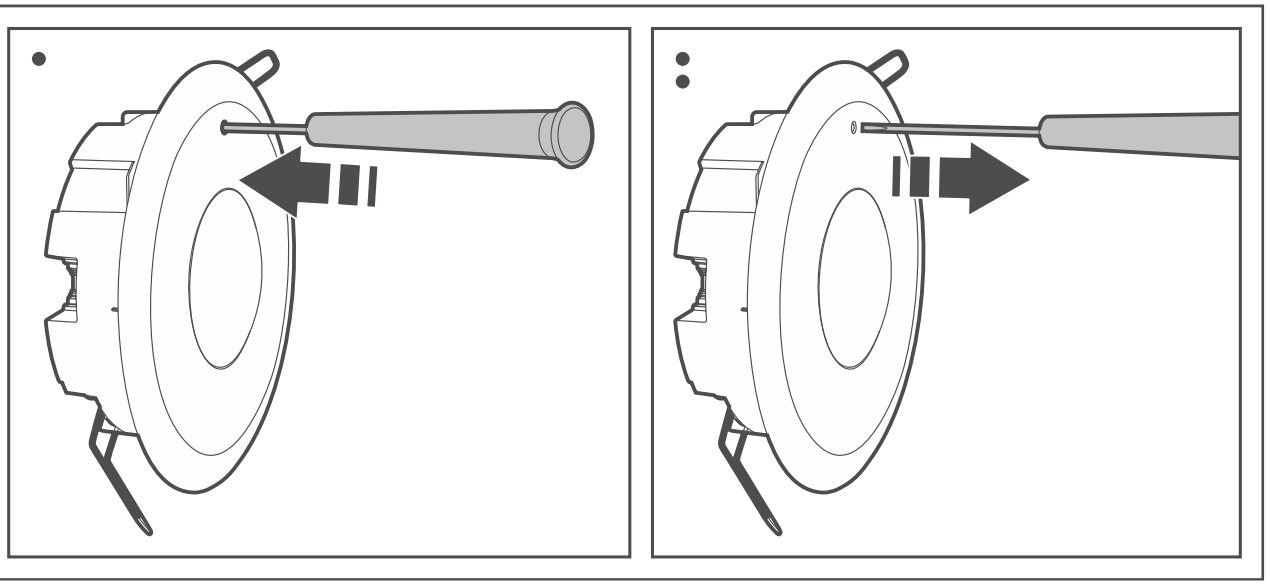
- The detector should be installed indoors, in spaces with normal air humidity.
- Do not install the detector outdoors (A).
- Do not point the detector towards heat sources (B), air conditioners (C) or fans (D).
- No object should obstruct the detector's field of view.
- Install the detector in a suspended ceiling, at a height of 2.4...3.5 m (E).

If you want to install the detector at a height other than the recommended, make sure the coverage area of the detector mounted at that height is optimal. The maximum coverage area of the detector mounted at a height of 4.5 m is ø 8 m [50 m^2].

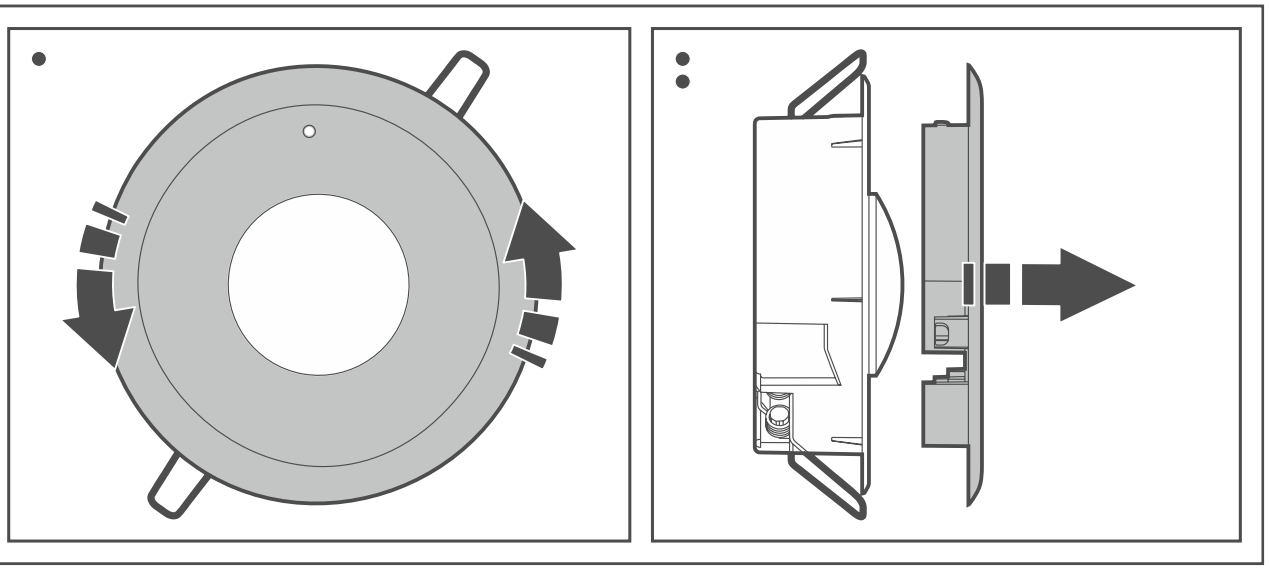
Mounting

1. Unlock the enclosure cover (Fig. 8). To unlock the cover, you can use a 1.8 mm flathead screwdriver.
2. Turn the cover counter-clockwise and remove it (Fig. 9).
3. Release the mounting catches one by one to unlock the electronics module (Fig. 10). To release the catches, you can use a flathead screwdriver.
4. Remove the electronics module from the base (Fig. 11).

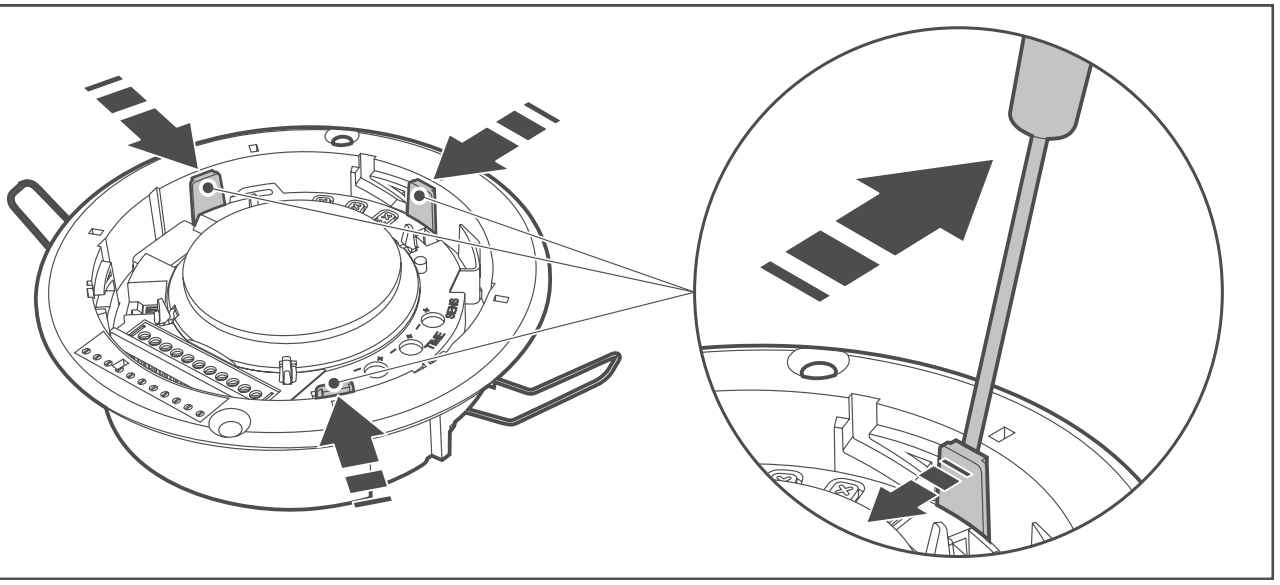
8



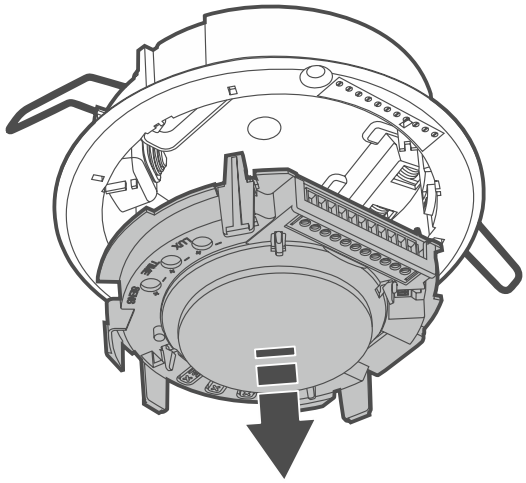
9



10

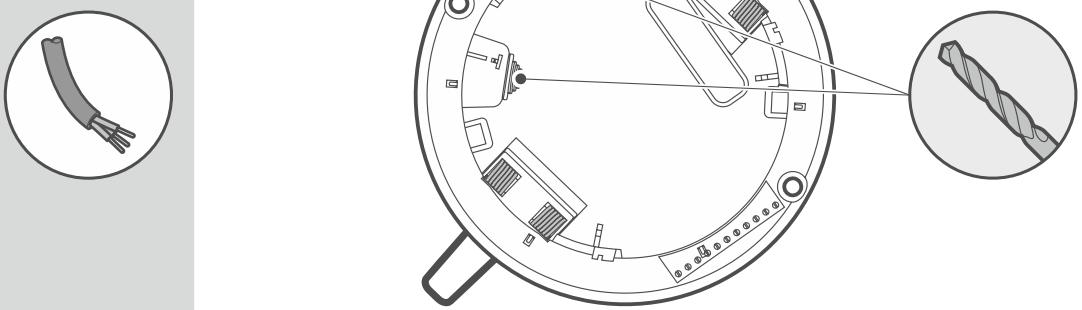


11



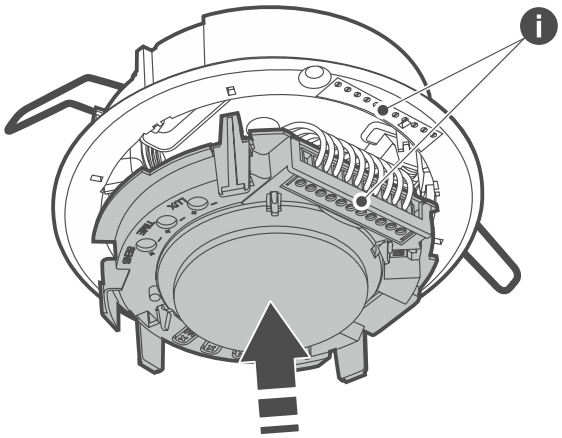
5. Make the opening for a cable in the base (Fig. 12).

12



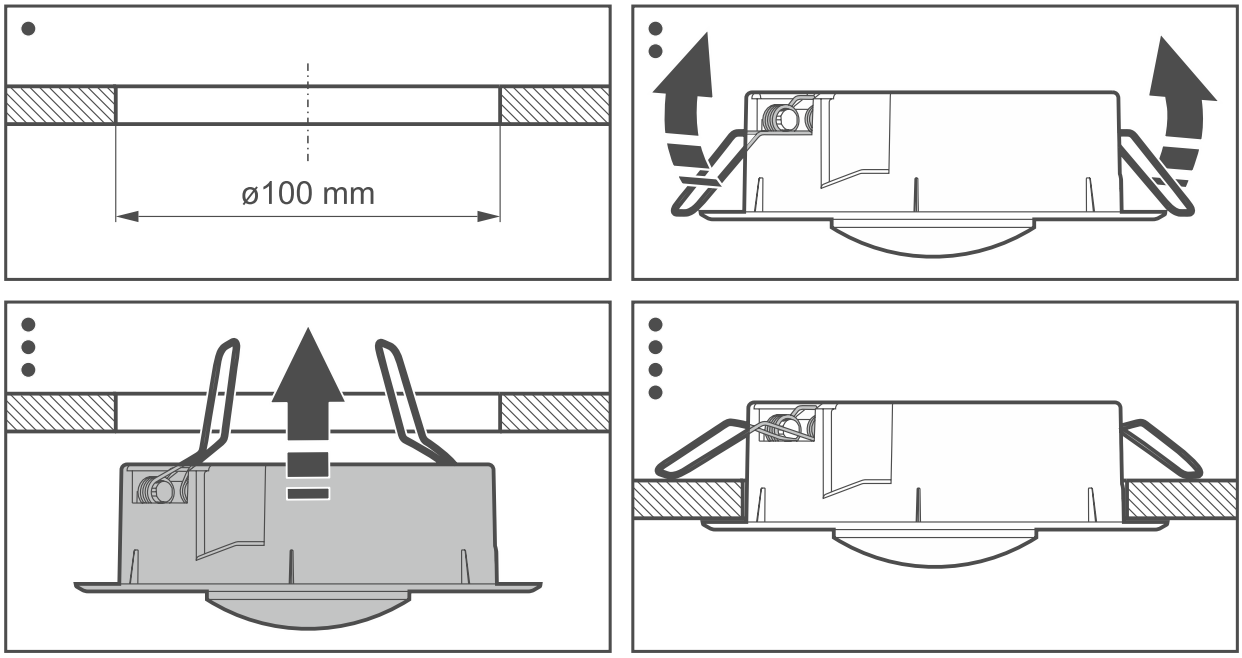
6. Configure the detector using the DIP-switches (see *DIP-switches* p. 4).
7. Make a 100 mm diameter opening in the suspended ceiling for the detector (Fig. 14).
8. Run the cable inside the detector enclosure.
9. Screw the wires to the detector terminals.
10. Place the electronics module in the enclosure base, then press it down onto the base to lock it. There are markings on the base flange showing where the terminals should be located (Fig. 13).

13



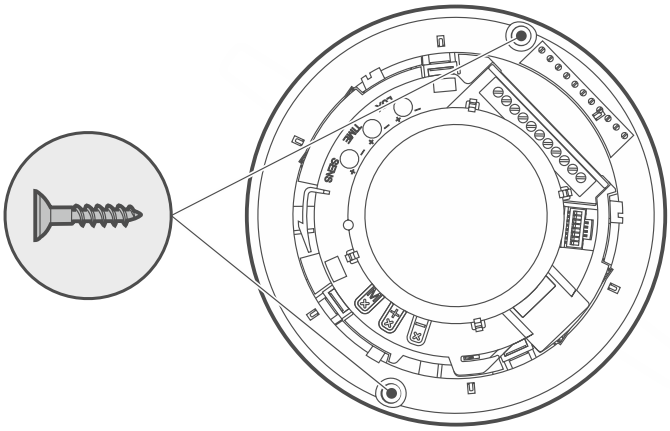
11. Bend the mounting springs and place the detector in the opening made in the ceiling (Fig. 14). When released, the springs will lock the detector in the opening.

14



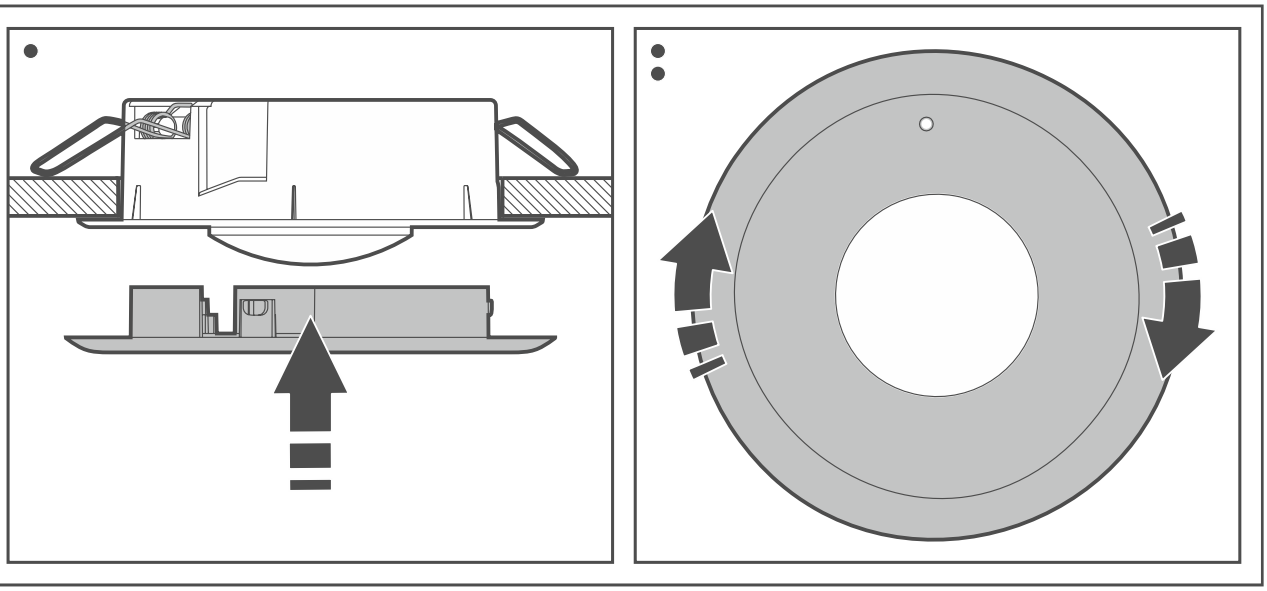
There are screw holes in the base flange (Fig. 15). You can also use screws for mounting or remove the springs and use only screws for mounting.

15

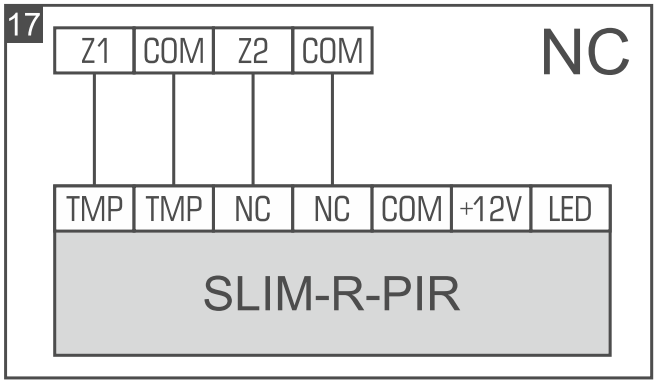


12. Power on the detector. The LED indicator will be flashing red for 30 seconds to indicate the detector warm-up.
13. Once the LED indicator stops flashing, configure the remaining detector settings (see *Configuring the detector using the buttons* p. 9).
14. Replace the cover and turn it clockwise to lock it in place (Fig. 16).

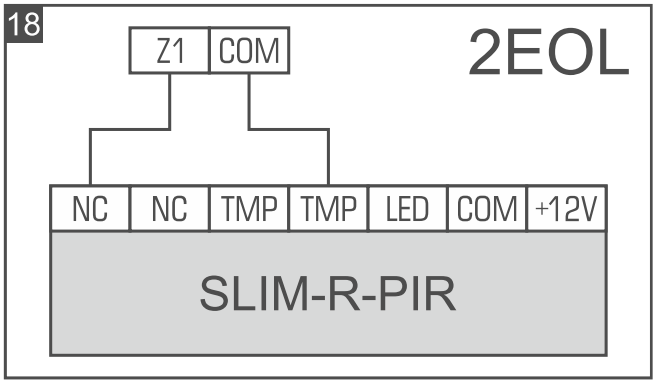
16



17



18



5. Configuring the detector using the buttons

Description of buttons

M - starting configuration mode / ending configuration mode / running a function / saving changes and exiting a function.

+ - next function / next value.

– - previous function / previous value.

Starting configuration mode

Press **M** for 3 seconds. The LED indicator will start flashing red.

Configuring the settings

1. Use **+** or **–** to find the function you want to run. The number of flashes of the LED indicator is the function number (see table 1).
2. Press **M** to run the function. The LED indicator will start flashing green. The number of flashes is the currently set value (see table 1).
3. Use **+** or **–** to set a new value.
4. Press **M** to save changes and exit the function. The LED indicator will start flashing red to indicate that you returned to the list of functions.

Function number	Description of function
1	**Setting the PIR sensor sensitivity** You can program from **1** to **16** (1 - minimum; 16 – maximum). By default: **8**. When the function is running, the LED indicator indicates that the PIR sensor has detected motion: it is ON in red for 2 seconds. This enables the PIR sensor coverage area to be tested for the selected sensitivity.
2	**Setting the LED indicator light color for indicating alarm / trouble** You can program from **1** to **7** (1-7 – color). By default: **3** (blue). The LED indicator shows the selected color (for 2 seconds).

Table 1

Restoring factory settings

To restore the detector factory settings, press and hold **-** and **+** for 3 seconds in the configuration mode.

Ending configuration mode

Press **M** for 3 seconds.

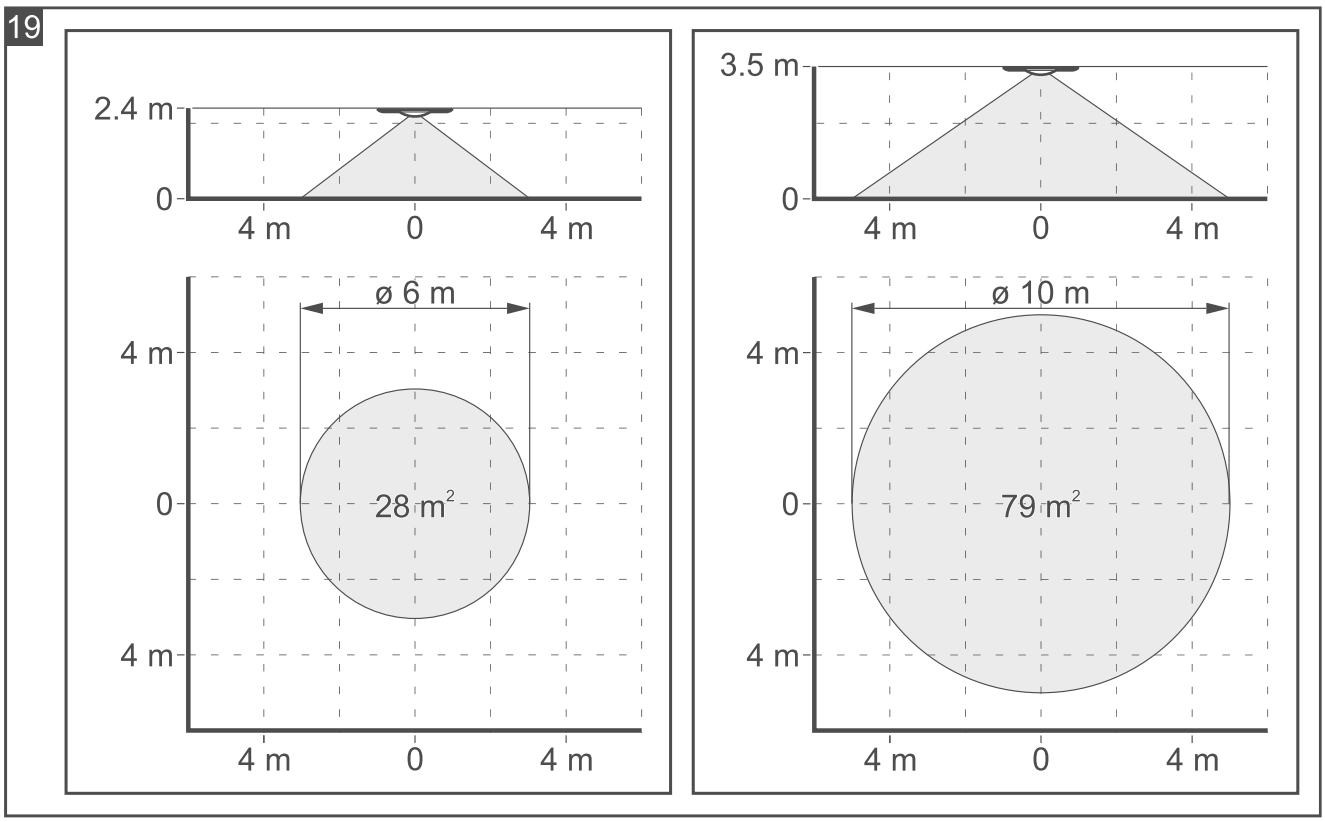
The configuration mode will be turned off automatically 20 minutes after the last operation performed by the user.

6. Walk test

The LED indicator should be enabled during the walk test (see LED indicator p. 2).

1. Check if moving within the detector coverage area will make the LED indicator turn ON. Figure 19 shows the maximum coverage area of the detector.
2. If necessary, change the sensitivity of the sensor (see *Configuring the detector using the buttons* p. 9).

19



7. Specifications

Supply voltage ..... 12 VDC ±15%
Standby current consumption ..... 11 mA
Maximum current consumption ..... 38 mA
EOL resistors ..... 2 x 1.1 kΩ
Outputs
- alarm (NC relay, resistive load) ..... 40 mA / 24 VDC
- tamper (NC) ..... 100 mA / 30 VDC

Relay contact resistance (alarm output) ..... 26 Ω
Detectable speed ..... 0.3...3 m/s
Alarm signaling period ..... 2 s
Warm-up period ..... 30 s
Recommended installation height ..... 2.4...3.5 m
Maximum coverage area
- mounted at 2.4 m ..... ø 6 m [28 m^2]
- mounted at 3.5 m ..... ø 10 m [79 m^2]

Security grade according to EN 50131-2-2 ..... Grade 2
Compliance with standards ..... EN 50131-1, EN 50131-2-2, EN 50130-4, EN 50130-5
Environmental class according to EN 50130-5 II
Operating temperature range ..... -10°C...+55°C
Maximum humidity ..... 93±3%
Dimensions ..... ø 130 x 42 mm
Weight ..... 138 g

5 year warranty from date of manufacture