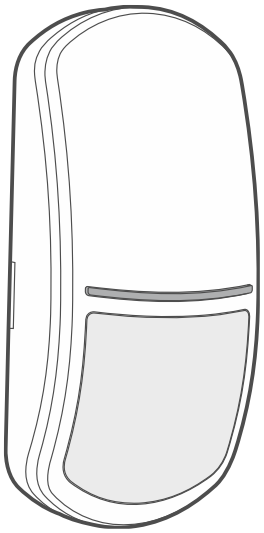
Bus PIR motion detector
with anti-mask

SLIM-PIR-PRO BUS

Firmware version 1.00

EN



CE

slim-pir-pro_bus_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:

⎓ Direct current (DC).

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

EAC The device meets the technical regulations of the Eurasian Customs Union.

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.

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The SLIM-PIR-PRO BUS detector uses infrared to detect motion. The detector can be connected to the RS communication bus of a SATEL control panel that supports bus devices.

The detector meets requirements of the EN 50131-2-2 standard for Grade 3.

1. Features

- Motion detection using passive infrared sensor (PIR).
- Maximum coverage area: 20 m x 24 m, 90° (see Fig. 9).
- Adjustable detection sensitivity.
- Digital motion detection algorithm.
- Digital temperature compensation.
- Option to enable / disable the creep zone protection.
- Wide-angle lens designed specifically for SLIM detectors.
- Ability to replace the lens with a curtain or long-range one.
- Active IR anti-mask, compliant with EN 50131-2-2 requirements for Grade 3.
- RS communication bus.
- Programming settings via the RS bus.
- Firmware update via the RS bus.
- Built-in temperature sensor (measuring range: -10 °C...+55°C).
- LED indicator.
- Supervision of motion detection system.
- Powered by 12 VDC (±15%).
- Supply voltage control.
- Tamper protection against enclosure opening and removal from mounting surface.
- Adjustable mounting bracket included.

2. Description

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

Tamper protection

The detector will report tamper after enclosure opening / removal from the mounting surface. The detector reports tamper as long as it detects it.

Active IR anti-mask

The active anti-mask feature detects attempts to cover the detector or paint over the lens. The detector emits infrared radiation and measures the amount of radiation received. If the detector detects a change in the level of received infrared radiation, it will report masking. The detector reports / signals masking as long as it detects a wrong amount of infrared radiation.

The active anti-mask feature meets the EN 50131-2-2 requirements.

LED indicators

The LED indicators indicate:

- warm-up – flashing alternately different colors for about 30 seconds,
- alarm – ON in blue for 2 seconds,

- masking – flashing blue when the detector is masked,
- trouble – ON in blue for entire duration of the trouble.

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 also indicated by the LED indicators turning on. The detector reports / indicates the trouble for the entire duration of its occurrence.

3. Electronics module

Do not remove the plastic cover from the circuit board to prevent damage to the components located on the board.

Do not touch the pyroelectric sensor, so as not to soil it.

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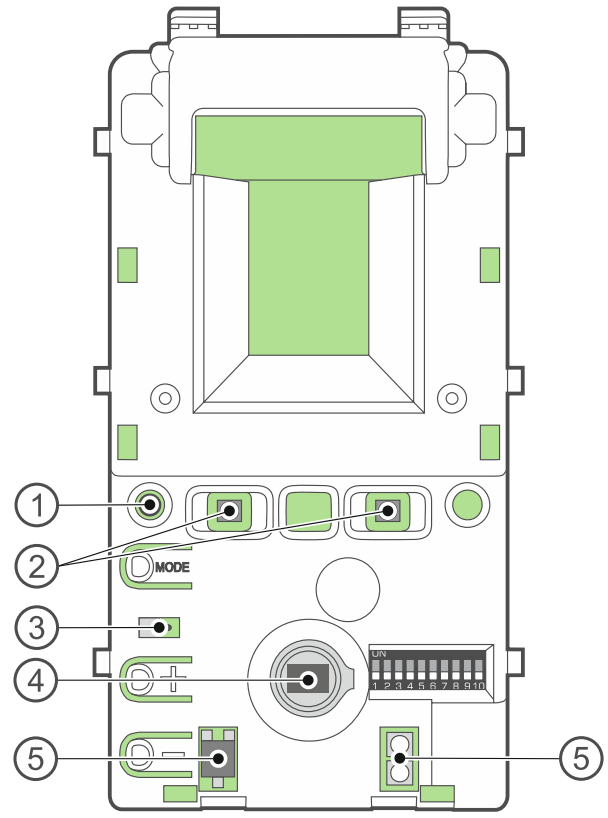


Figure 1 shows the detector electronics module.

(1) infrared receiver (for future use).

(2) LED indicators.

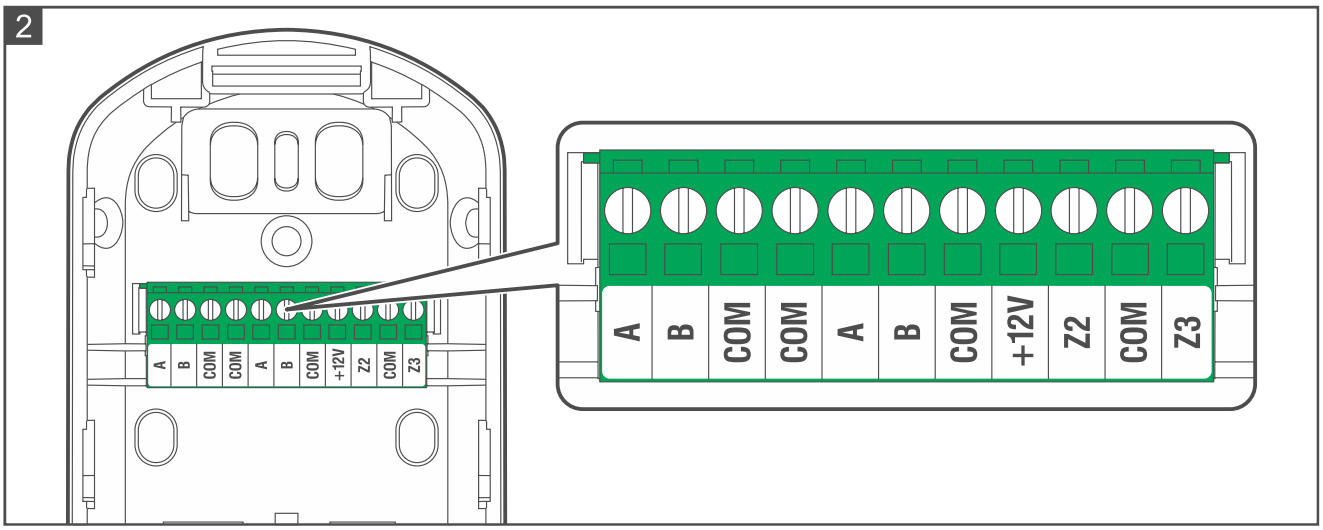
(3) tamper switch activated by cover removal.

(4) PIR sensor (dual element pyrosensor).

(5) anti-mask system LEDs.

The tamper switch activated by removing the detector from the surface is on the other side of the electronics module.

Terminals



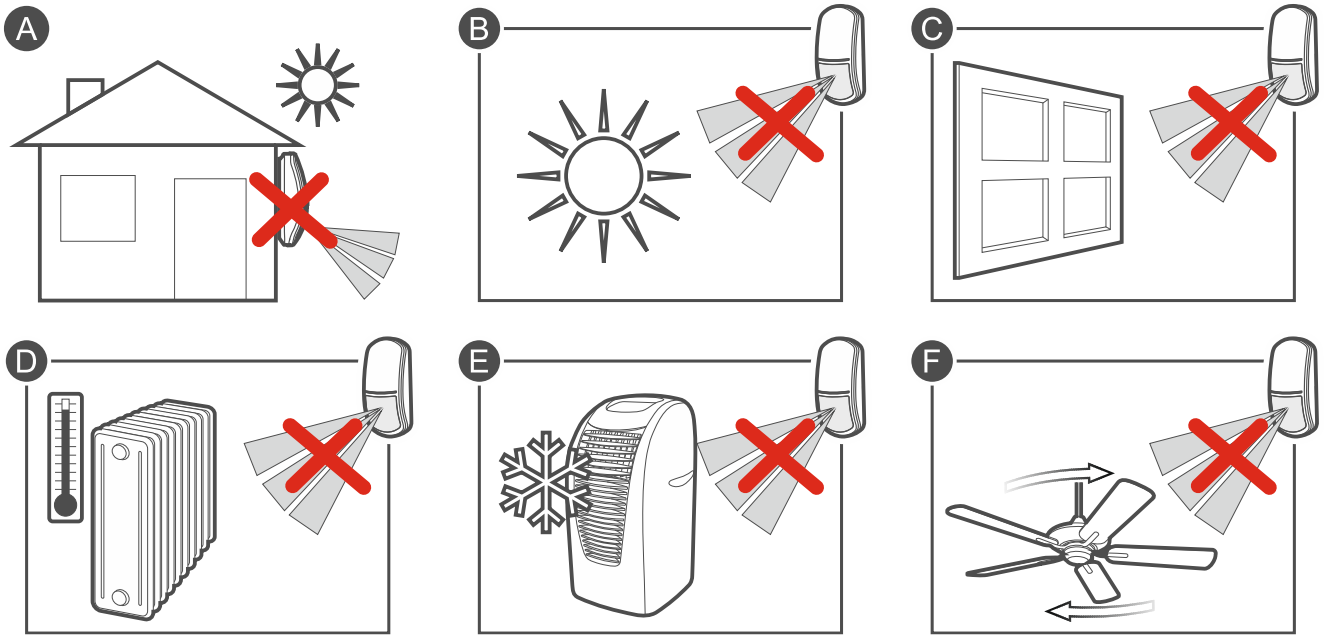
The terminal block is located on the enclosure base (Fig. 2). To access the terminals, remove the electronics module (Fig. 4).

A, B - RS communication bus.
COM - common ground.
+12V - power input.
Z2 - terminal for future use.
Z3 - terminal for future use.

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 aim the detector directly at sunlight or at surfaces reflecting sunlight (B).

- Do not aim the detector at a window because it may detect motion on the outside (C).
- Do not point the detector towards heat sources (D), air conditioners (E) or fans (F).
- No object should obstruct the detector's field of view.
- Install the detector at 2...2.4 height.

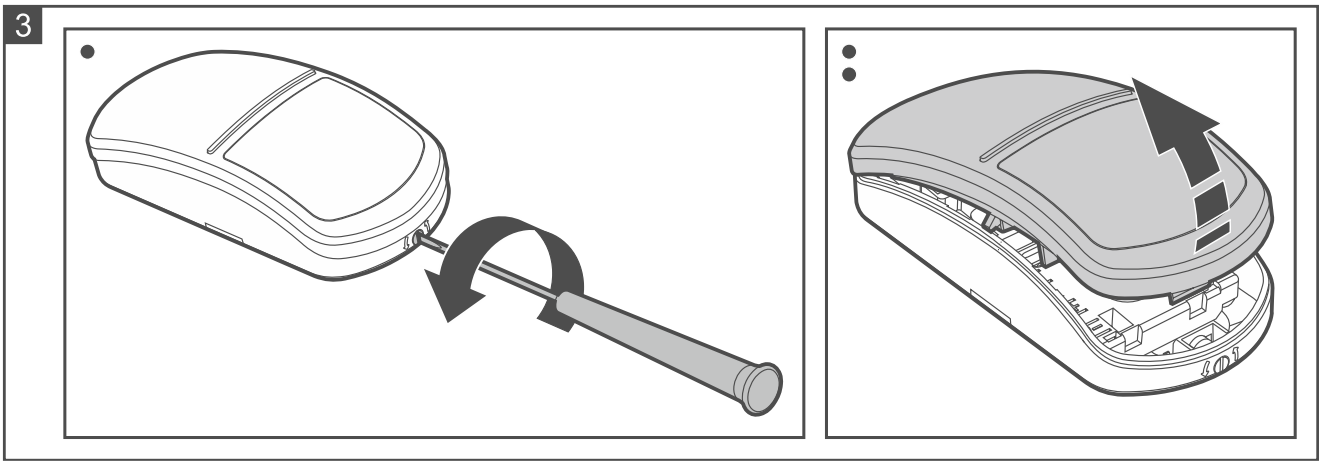
RS communication bus

- Use a UTP cable (unshielded twisted pair).
- The length of the bus must not exceed 1200 meters.
- If the device is connected at either end of the bus, place a 120 Ω ± 20% resistor between the A and B terminals.
- Connect the COM terminals of all devices on the bus with an additional wire.

Mounting

1. Open the detector enclosure (Fig. 3).

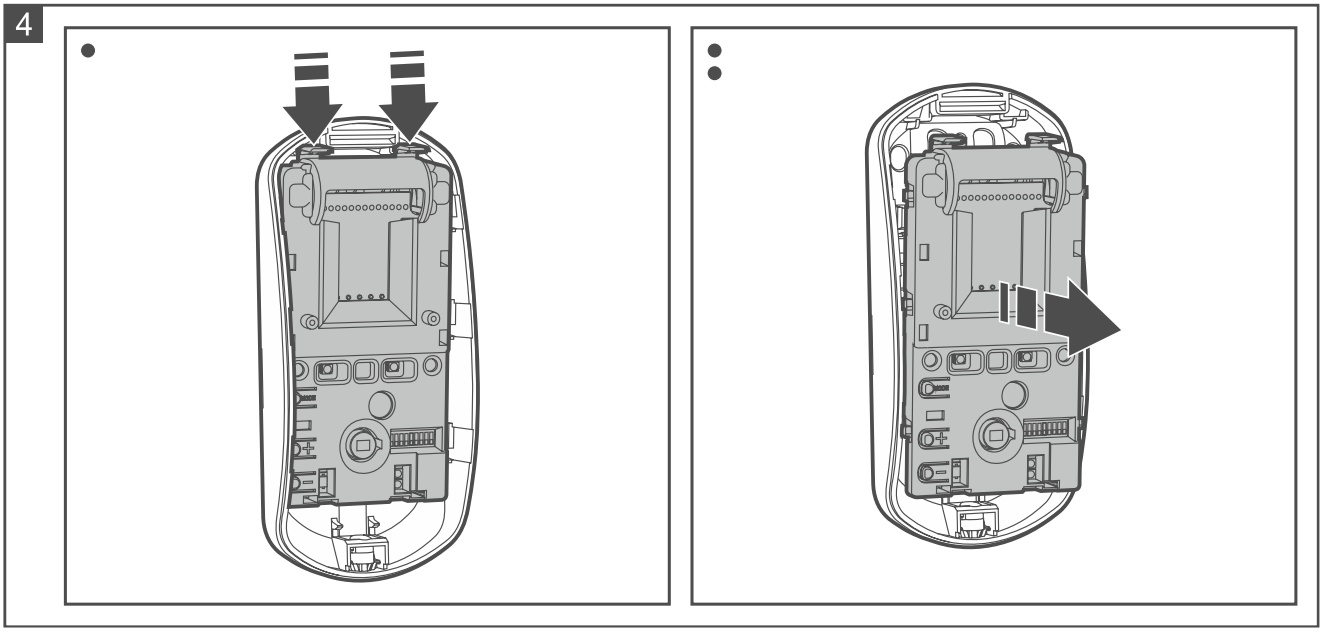
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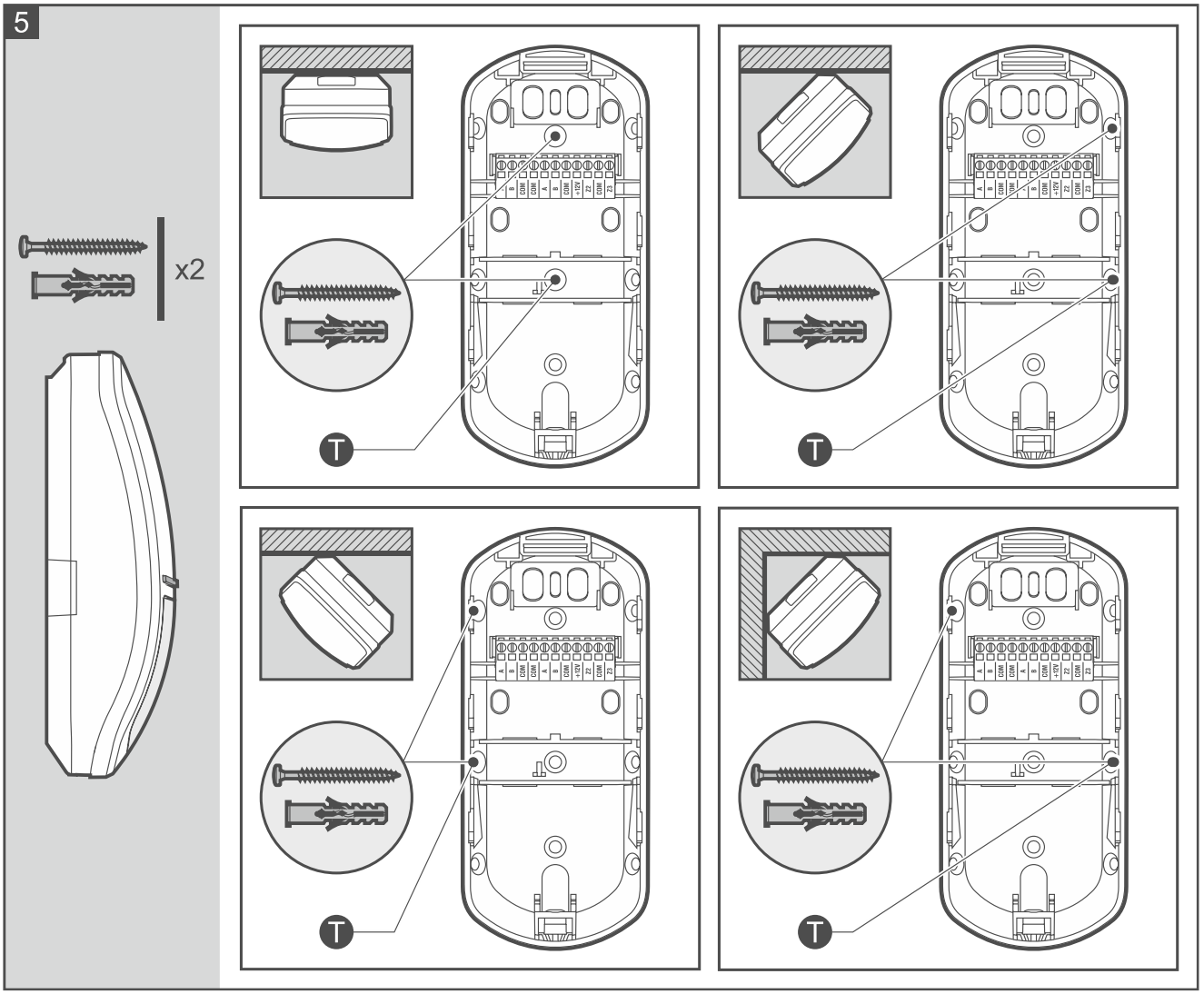


2. Press the catches and move the electronics module down, then remove it from the enclosure base (Fig. 4).
3. Make the openings for screws (Fig. 5 or Fig. 6) and cable (Fig. 7) in the enclosure base.

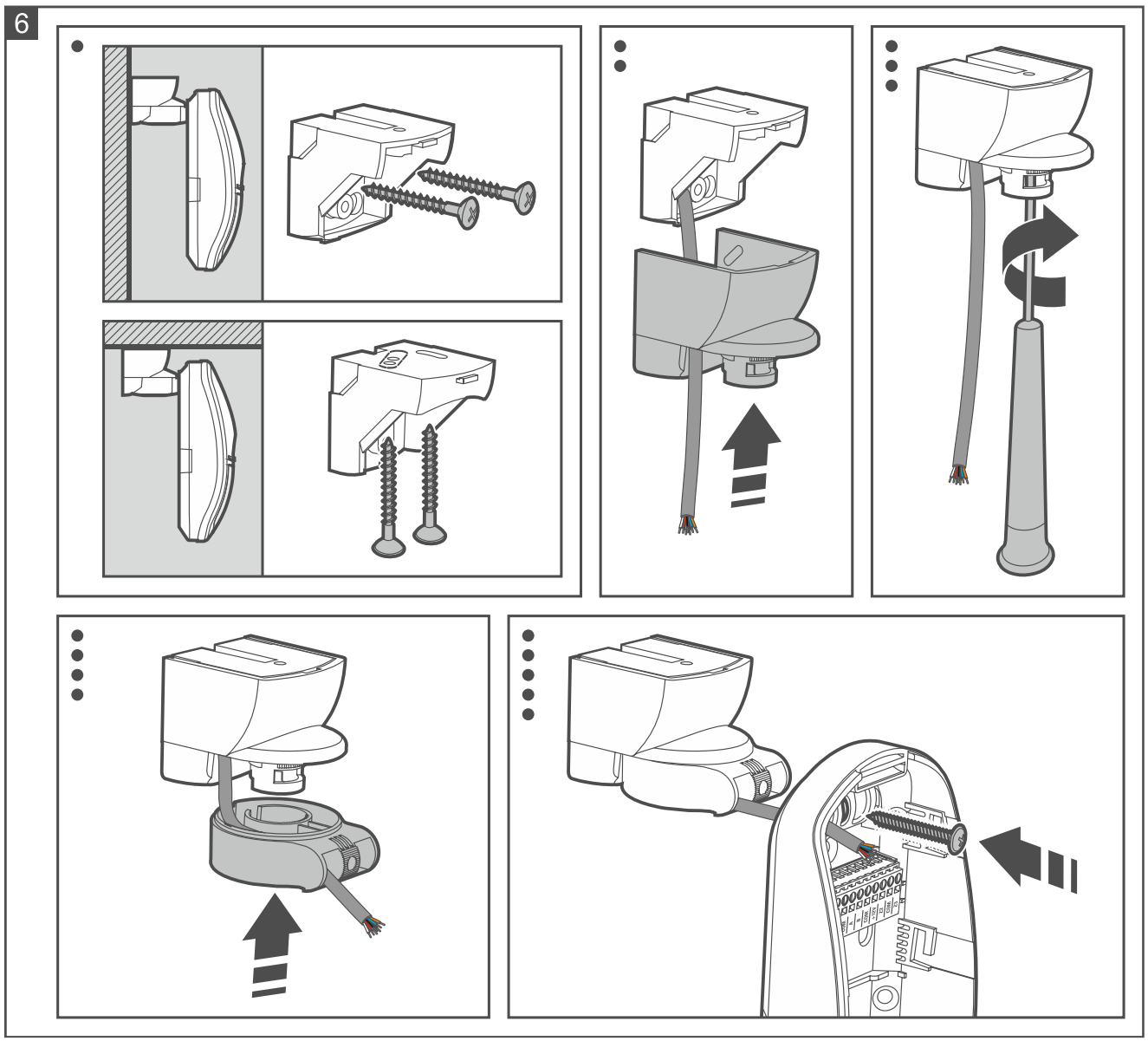
If the detector is to detect removal from the surface, secure the detector to the wall with screws (do not use the bracket – the tamper switch in the bracket is not supported). Figure 5 shows the places where a screw should be screwed so that the detector mounted directly to the wall detects removal from the surface. They are marked with the Ⓣ *symbol.*

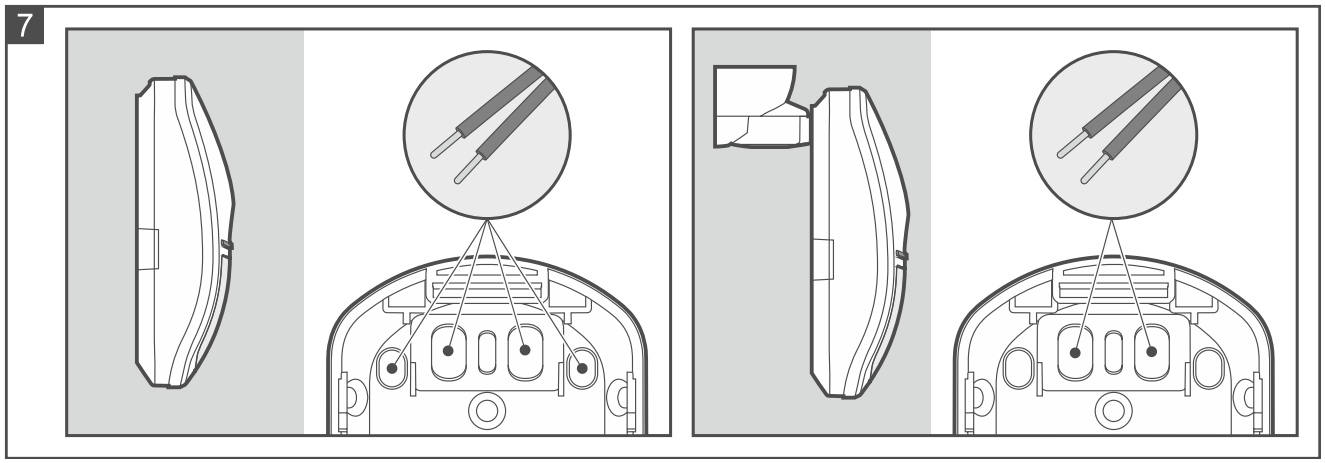
The detector must detect removal from the surface if it is to meet the requirements of Standard EN 50131 for Grade 3.





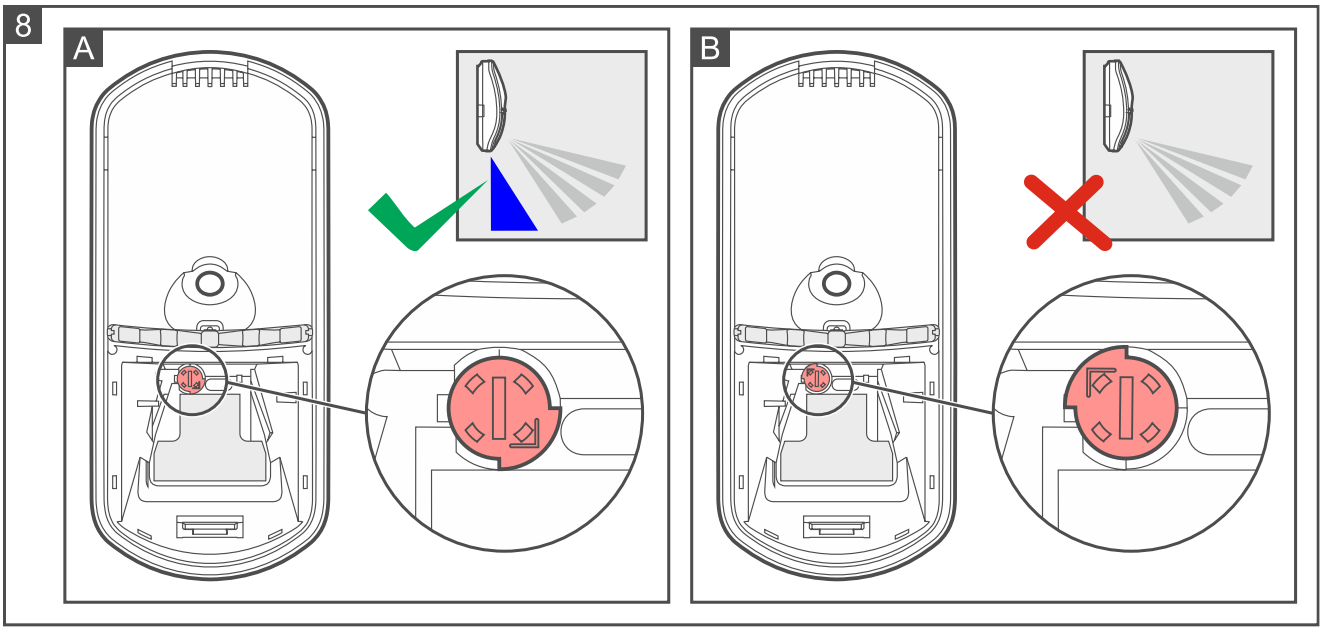
4. Pass the cable through the prepared opening. If you are mounting the detector on the bracket, run the cable as shown in Fig. 6.
5. Secure the enclosure base to the wall (Fig. 5) or a bracket fastened with screws to the wall or ceiling (Fig. 6). The wall plugs provided with the detector are intended for concrete or brick. For other types of surface (drywall, styrofoam), use other appropriately selected wall plugs.





6. Screw the wires to the detector terminals.
7. Place the electronics module in the enclosure base and then move it up to lock it.

8. Use the knob on the cover to enable / disable the creep zone protection. Fig. 8 A – creep zone protected. Fig. 8 B – creep zone not protected.



9. Close the detector enclosure.
10. Power on the detector. The LED indicator will be flashing alternately different colors for 30 seconds to indicate the detector warm-up.

When starting the detector, the enclosure must be closed for the anti-mask feature to work properly. After power on, the detector analyzes the environment in which it has been installed and adjusts the anti-mask system working parameters to it (for 30 seconds). During that time, no object should be located within 1 m of the detector unless the object is intended to remain there.

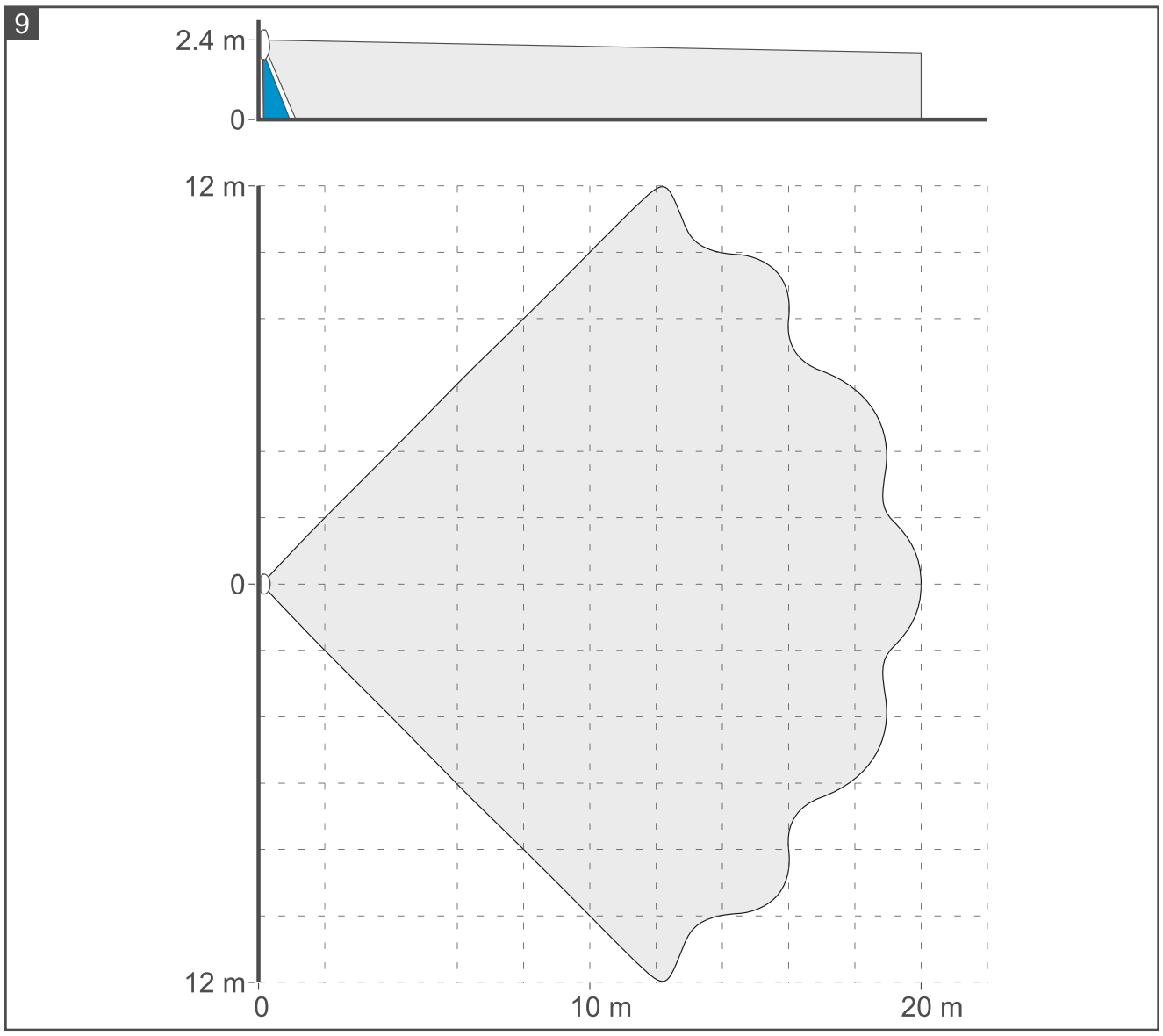
11. Add the detector to the system and program its settings (see the manual of the control panel to which the detector is connected).

5. Walk test

1. Check if moving within the detector coverage area will make the LED indicator turn ON. Figure 9 shows the maximum coverage area of the detector mounted at a height of 2.4 m (□ – maximum coverage area, ■ – creep zone).
2. If necessary, change the detector sensitivity (see the manual of the control panel to which the detector is connected).

Figure 9 shows the coverage area of the detector with the factory-installed wide-angle (WD) lens. This lens can be replaced with another one by changing the detector enclosure cover. The SATEL product range includes covers with a curtain lens (CT) and a long-range lens (LR).

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6. Specifications

Supply voltage ..... 12 VDC ±15%
Standby current consumption ..... 15 mA
Maximum current consumption ..... 68 mA
Detectable speed ..... 0.2...3 m/s
Alarm signaling period ..... 2 s
Warm-up period ..... 30 s
Recommended installation height ..... 2.4 m
Permissible installation height ..... up to 4 m
Maximum coverage area (mounted at 2.4 m) ..... 20 m x 24 m, 90°
Security grade according to EN 50131-2-2 ..... Grade 3
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 ..... 62 x 137 x 42 mm

Weight..... 143 g

5 year warranty from date of manufacture