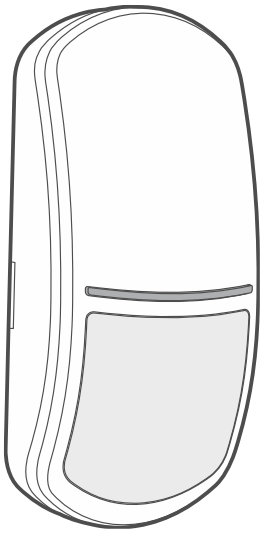
Bus dual technology motion detector
with lighting feature

SLIM-DUAL-LUNA BUS

Firmware version 1.00

EN



CE

slim-dual-luna_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).

The device meets the requirements of the applicable EU directives.

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-DUAL-LUNA BUS detector uses infrared and microwaves to detect motion. It also provides a lighting feature. The detector can be connected to the RS communication bus of a SATEL control panel that supports bus devices.

1. Features

- Motion detection with passive infrared sensor (PIR) and microwave sensor (MW).
- Maximum coverage area: 20 m x 24 m, 90° (see Fig. 9).
- Adjustable detection sensitivity of both sensors.
- Capability of separate sensor testing.
- Digital motion detection algorithm.
- Digital temperature compensation.
- Digital filter of signals received by the microwave sensor ensuring immunity to false alarms caused by the power network and gas-discharge lamps.
- 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.
- 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).
- Lighting feature implemented using LEDs.
- Possibility to control the lighting remotely.
- LED indicators.
- 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) and the microwave sensor detect motion within a time period shorter than 3 seconds.

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.

Lighting feature

The light sources are 4 white LEDs. The way the lighting works depends on the system settings.

i | *When the lighting is ON, the temperature data from the detector may be incorrect.*

LED indicators

The LED indicators indicate:

- warm-up – flashing alternately different colors for about 30 seconds,
- motion detected by microwave sensor – ON in green for 3 seconds,
- motion detected by PIR sensor – ON in purple for 3 seconds,
- alarm – ON in blue for 2 seconds,
- 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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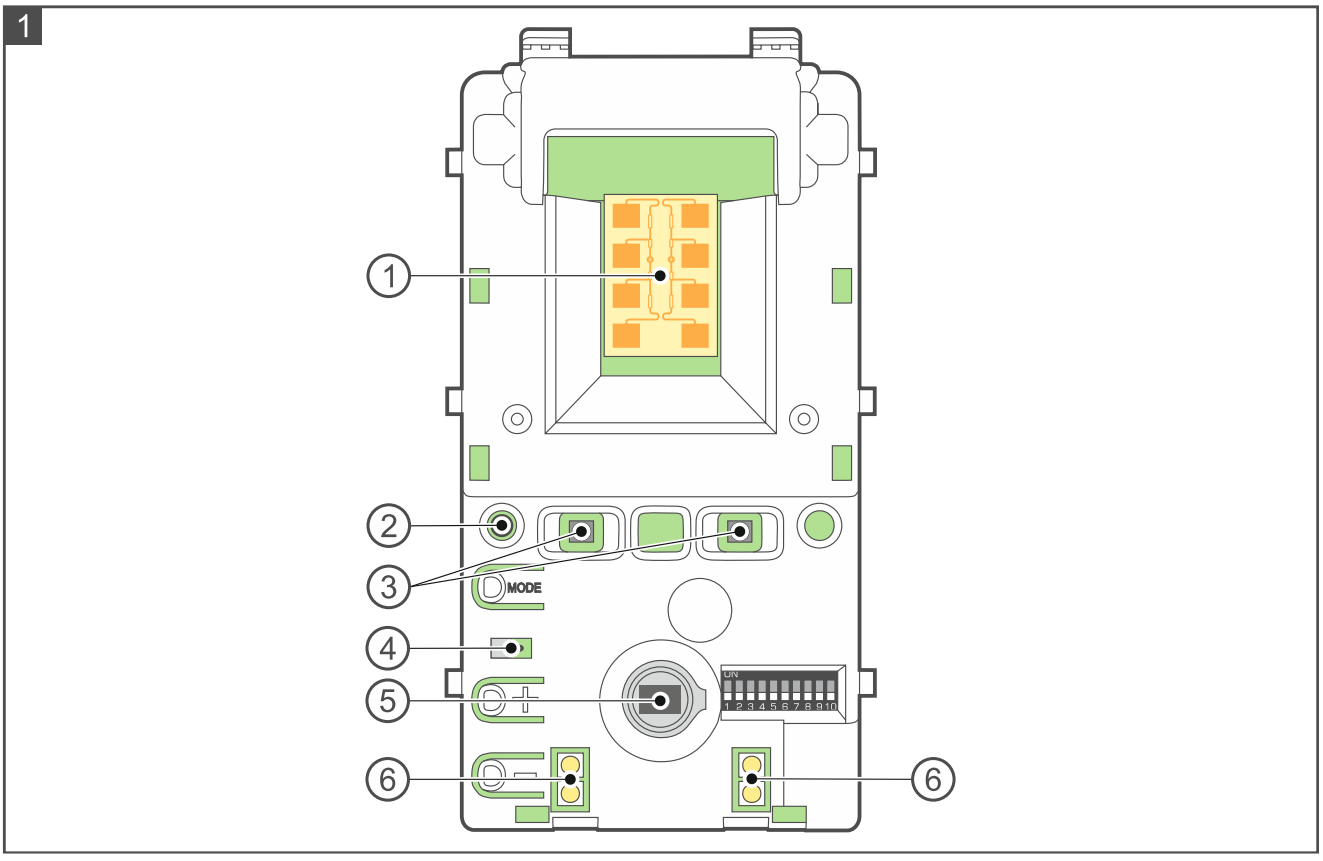


Figure 1 shows the detector electronics module.

(1) microwave sensor.

(2) infrared receiver (for future use).

(3) LED indicators.

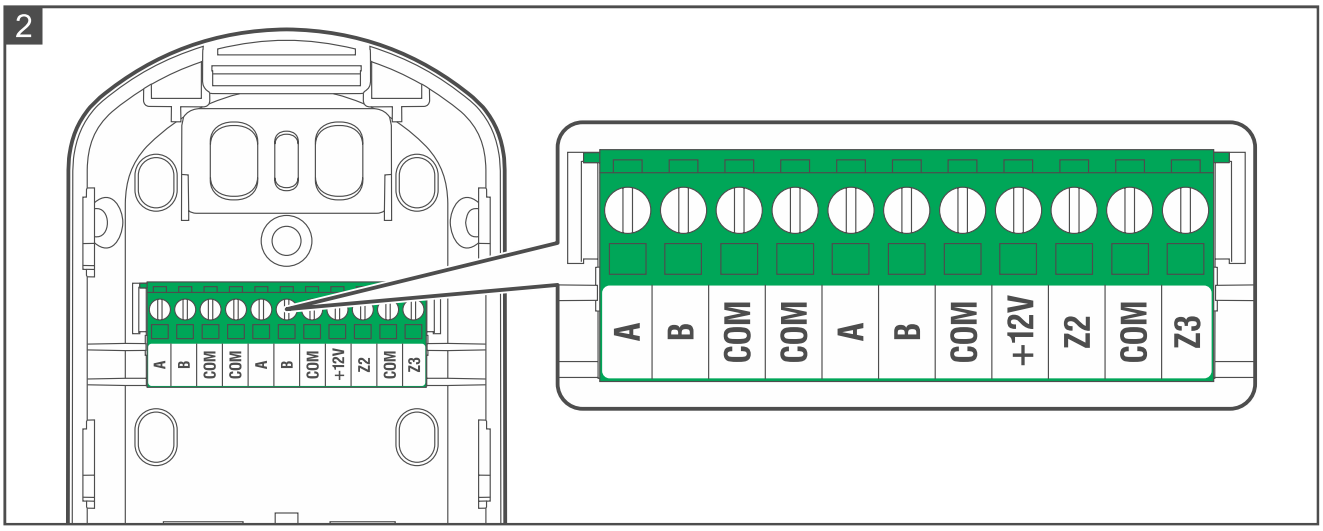
(4) tamper switch activated by cover removal.

⑤ PIR sensor (dual element pyrosensor).

⑥ LEDs for lighting.

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).

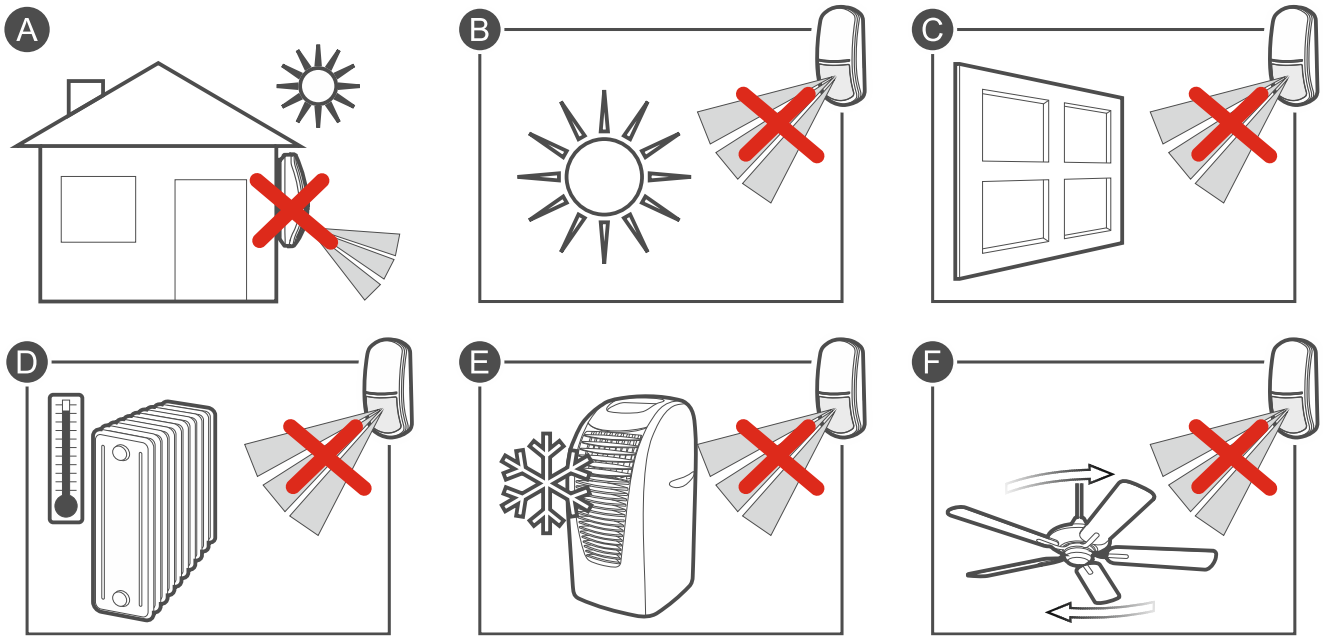
A, B - RS communication bus.
COM - common ground.
+12V - power input.
Z2 - terminal for future use.
Z3 - terminal for future use.

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.

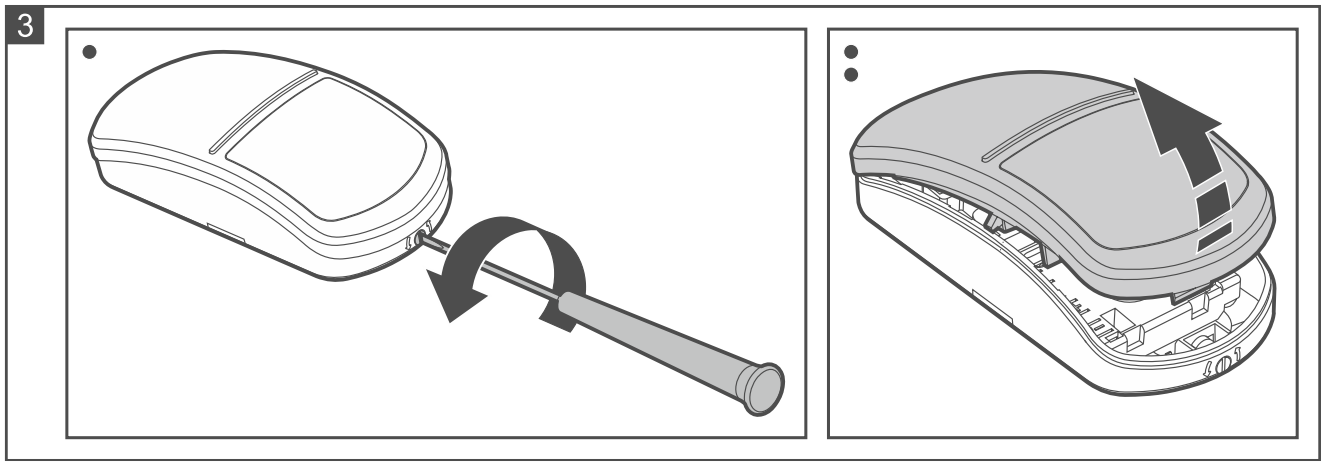


RS communication bus

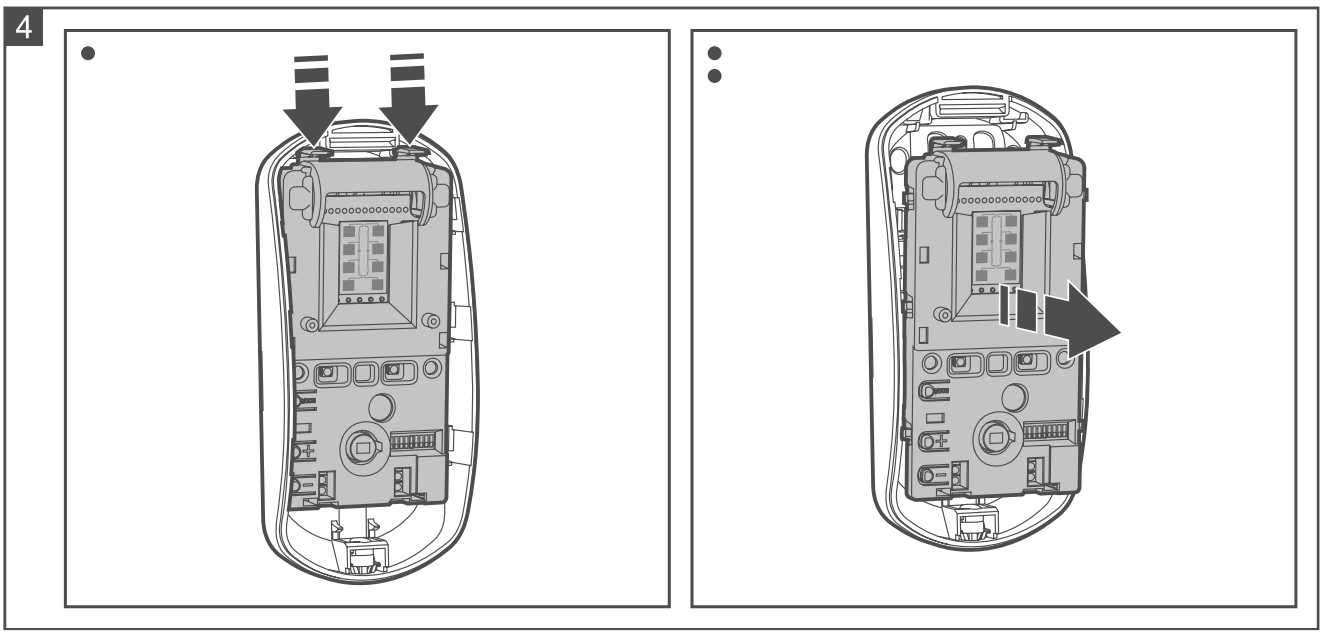
- Use a UTP cable (unshielded twisted pair).
- The length of the bus must not exceed 1200 meters.
- If the device is connected at either end of the bus, place a 120 Ω ± 20% resistor between the A and B terminals.
- Connect the COM terminals of all devices on the bus with an additional wire.

Mounting

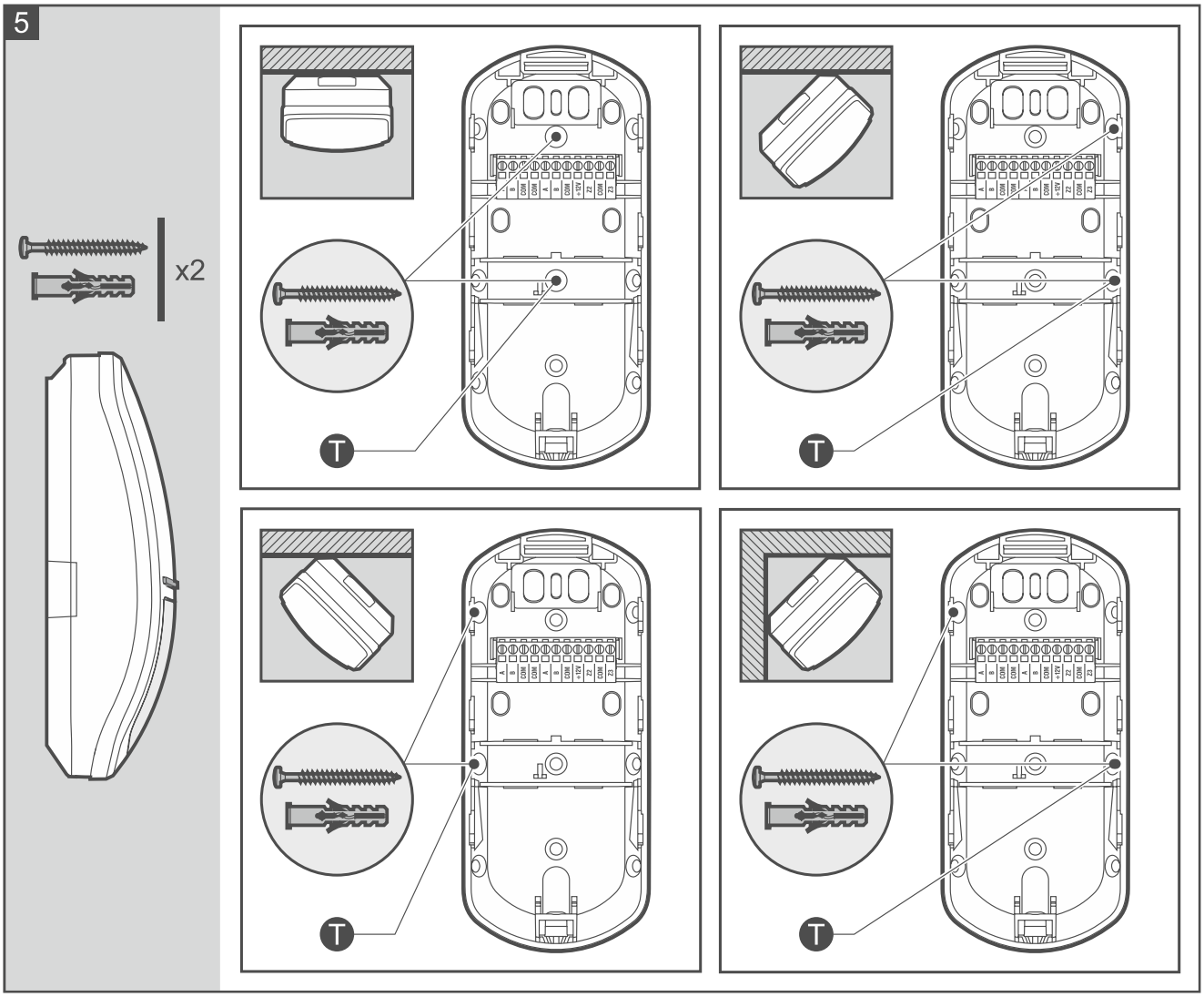
1. Open the detector enclosure (Fig. 3).



2. Press the catches and move the electronics module down, then remove it from the enclosure base (Fig. 4).

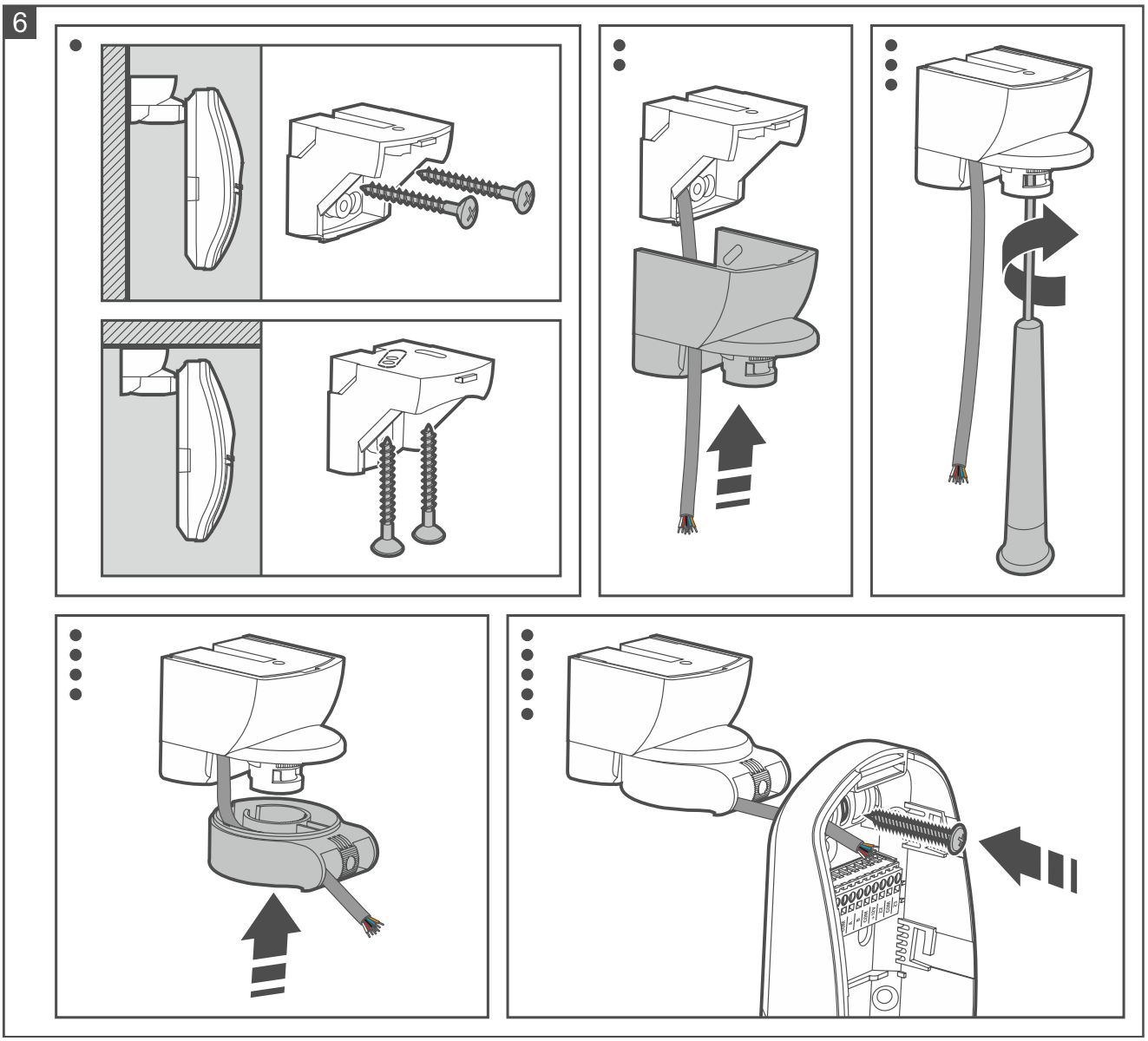


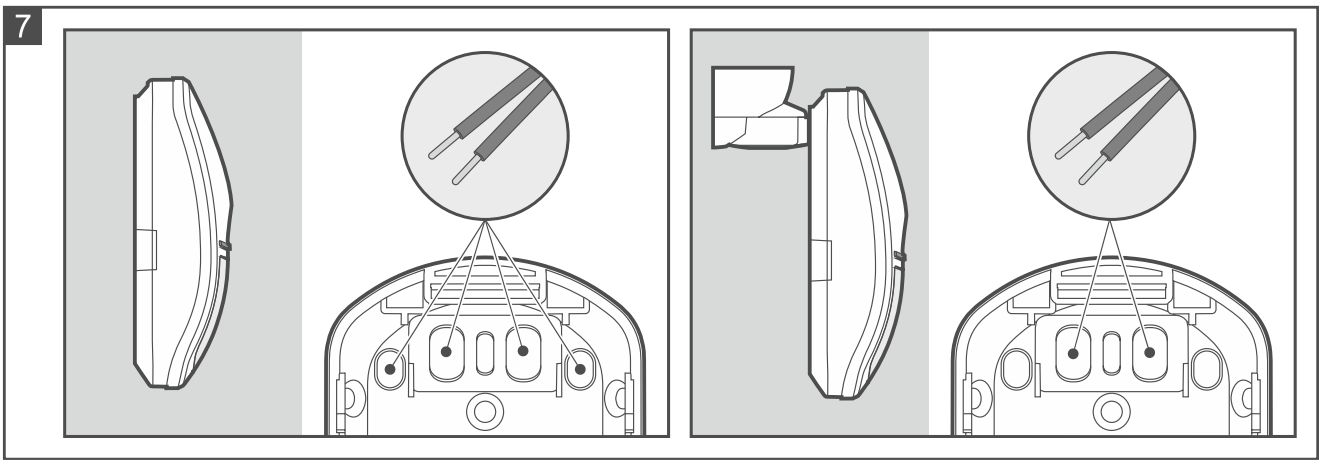
3. Make the openings for screws (Fig. 5 or Fig. 6) and cable (Fig. 7) in the enclosure base.



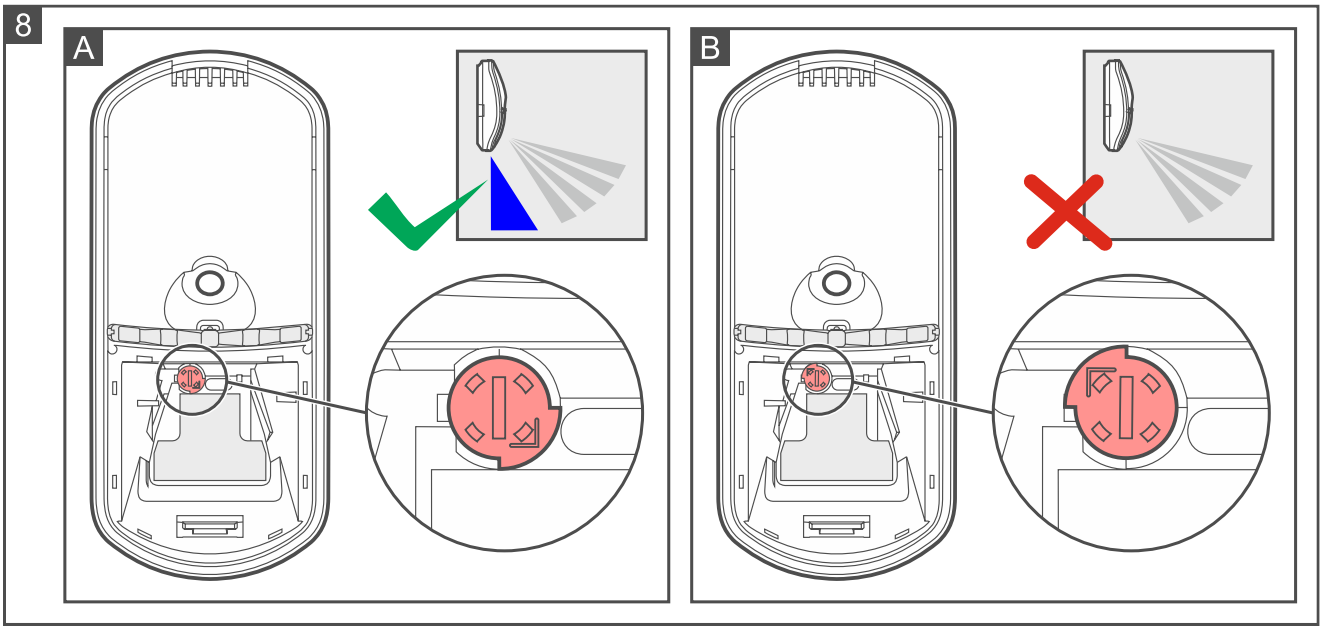
If the detector is to detect removal from the surface, secure the detector to the wall with screws (do not use a bracket). In order for the detector to detect removal from the surface, fasten the screws in places marked with the T symbol in Fig. 5.

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.



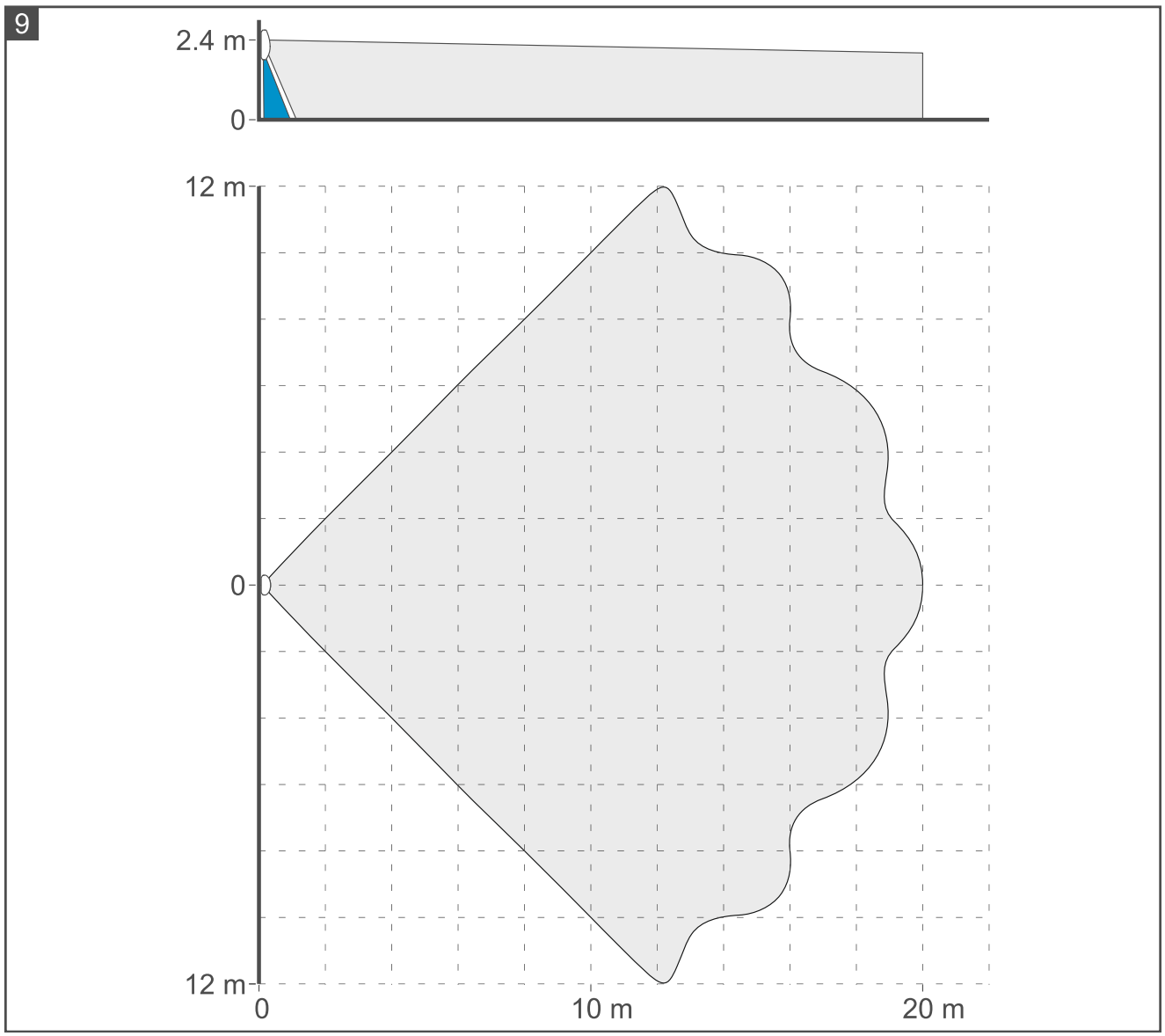
9. Close the detector enclosure.
10. Power on the detector. The LED indicator will be flashing alternately different colors for 30 seconds to indicate the detector warm-up.
11. Add the detector to the system and program its settings (see the manual of the control panel to which the detector is connected).

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 ..... 11 mA
Maximum current consumption ..... 88 mA
Microwave frequency ..... 24.125 GHz
Detectable speed ..... 0.3...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 50131-2-4 ..... Grade 2
Compliance with standards ..... EN 50131-1, EN 50131-2-4, 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