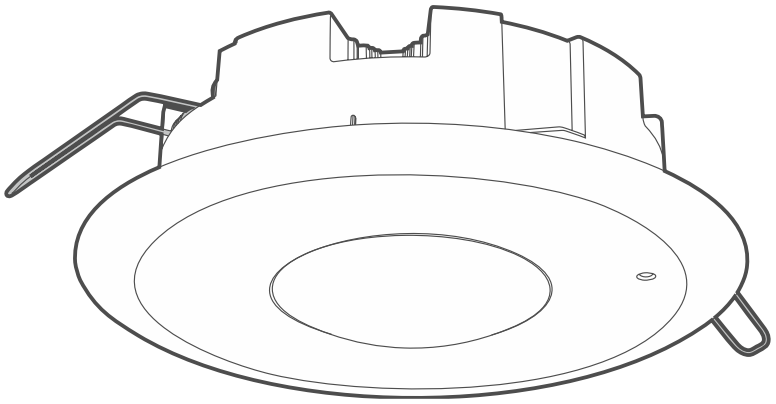
Ceiling Motion Detector R

APC-200 R

EN

Firmware version 1.00



CE

apc-200_r_BW_en 05/26

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IMPORTANT

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 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

Hereby, SATEL sp. z o.o. declares that the radio equipment type APC-200 R is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: 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 APC-200 R (Ceiling Motion Detector R) ceiling detector uses infrared to detect motion. It is designed for mounting in a suspended ceiling. The manual applies to the detector installed in the BE WAVE system.

1. Features

- Motion detection using passive infrared sensor (PIR).
- Maximum coverage area (Fig. 10):
  – 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.
- Operation in the 868 MHz frequency band.
- AES encrypted two-way radio communication.
- Transmission channel diversity – 4 channels for automatic selection of the one that will enable transmission without interference with other signals.
- Remote settings programming.
- Remote firmware update.
- Built-in temperature sensor (measuring range: -10 °C...+55°C).
- LED indicator.
- Supervision of motion detection system.
- Powered by CR123A 3 V battery.
- Battery status control.
- Tamper protection against opening the enclosure and detector displacement.
- Mounted in a suspended ceiling.

2. Description

Alarms

The detector reports alarm after:

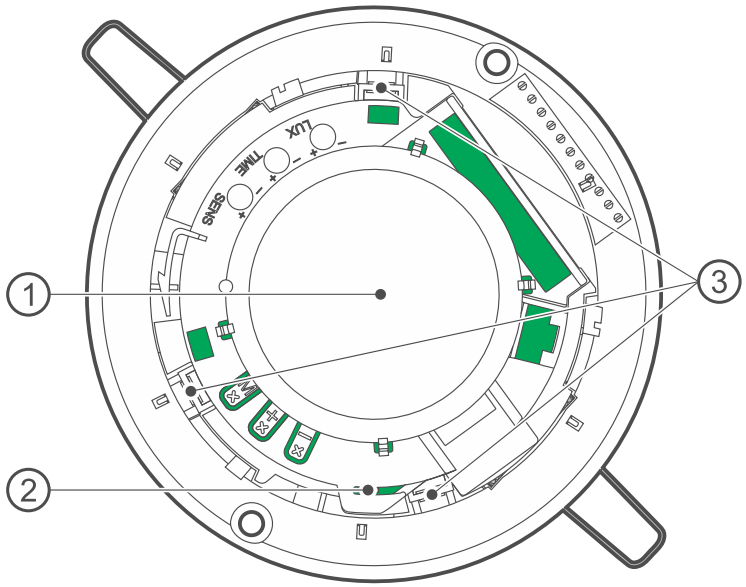
- detecting motion in the protected area,
- detecting a fault in the motion detection system,
- opening the tamper switch (tamper alarm).
- detecting detector displacement (tamper alarm).

The detector remembers its position at the moment of switching to armed state or enabling the diagnostic mode in the system.

Electronics module

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

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(1) lens.

(2) tamper switch activated by cover removal.

(3) catches holding the electronics module in the base.

The PIR sensor (dual element pyrosensor), the displacement sensor (accelerometer) and the LED indicator are under the lens. The battery holder (CR123A 3 V) is on the other side of the electronics module. To access the battery holder, remove the electronics module from the base.

LED indicator

The indicator is flashing for about 35 seconds after inserting the battery (detector warm-up). After that, it is only enabled while the diagnostics mode is started in the system. It indicates:

- periodical communication – short flash,
- alarm – ON for 2 seconds.

3. Installation

There is a danger of battery explosion when using a different battery than recommended by the manufacturer, or handling the battery improperly.

Do not crush the battery, cut it or expose it to high temperatures (throw it into the fire, put it in the oven, etc.).

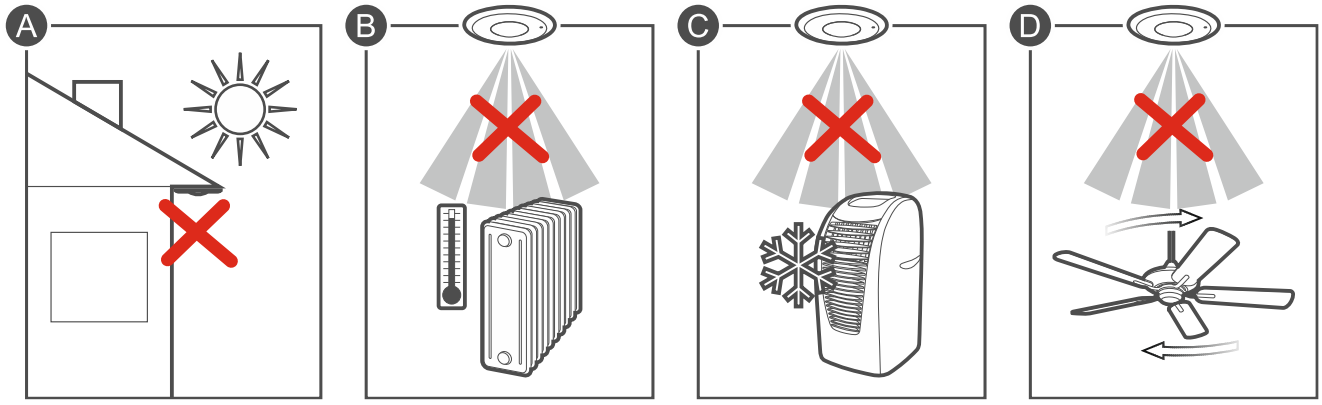
Do not expose the battery to very low pressure due to the risk of battery explosion or leakage of flammable liquid or gas.

Be particularly careful during installation and replacement of the battery. The manufacturer is not liable for the consequences of incorrect installation of the battery.

If the detector is mounted higher than 2 meters above the ground, it may cause harm if it falls off.

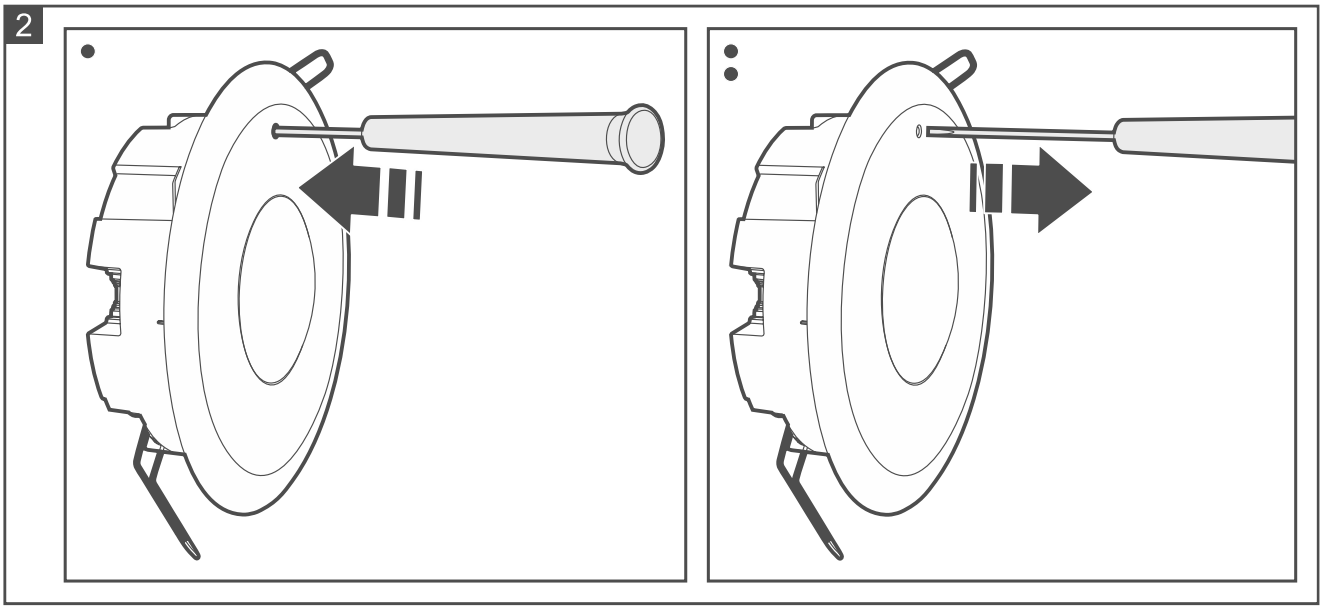
3.1 Tips for installation

- The detector should be installed indoors, in spaces with normal air humidity.
- Do not install the detector outdoors (A).
- When selecting a place of installation, consider the radio communication range.
- Thick walls, metal partitions, etc. reduce the range of the radio signal.
- 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 the recommended height: 2.4...3.5 m.

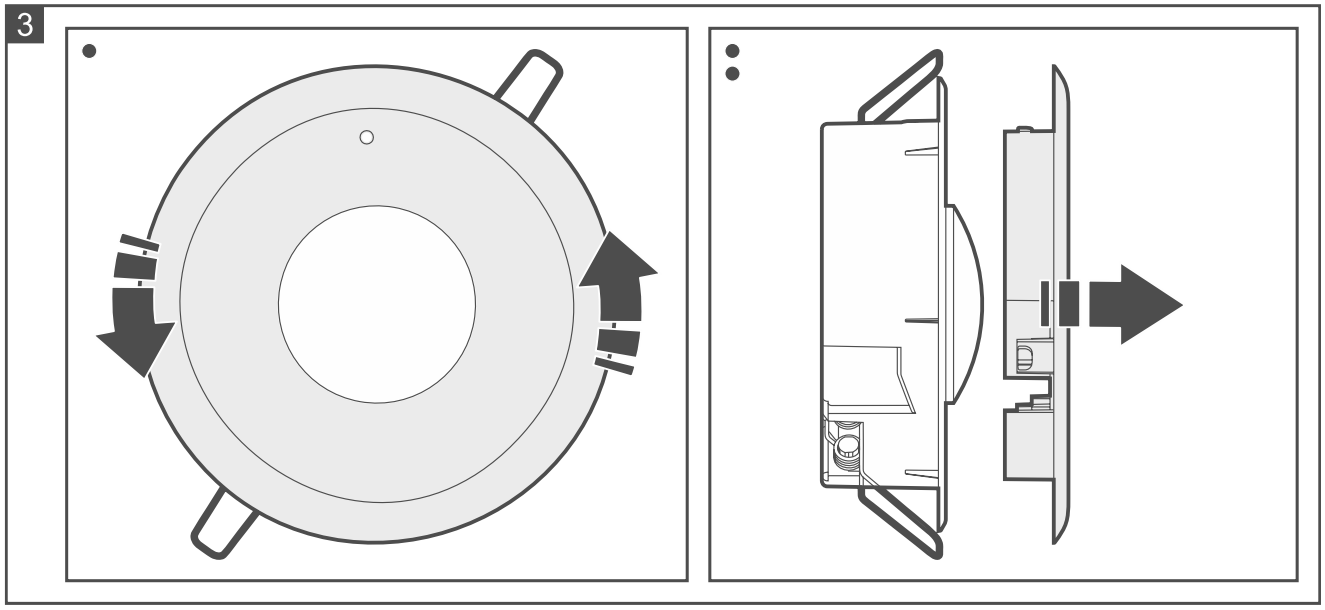


3.2 Mounting

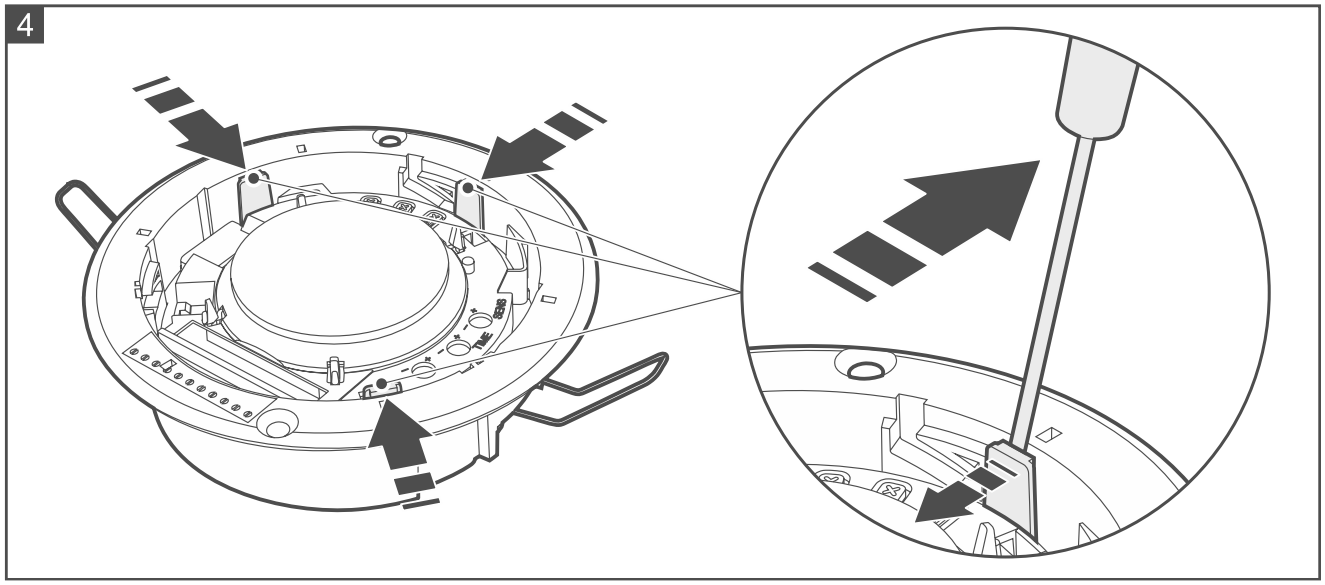
1. Make a 100 mm diameter opening in the suspended ceiling for the detector (Fig. 8).
2. Unlock the enclosure cover (Fig. 2). To unlock the cover, you can use a 1.8 mm flathead screwdriver.



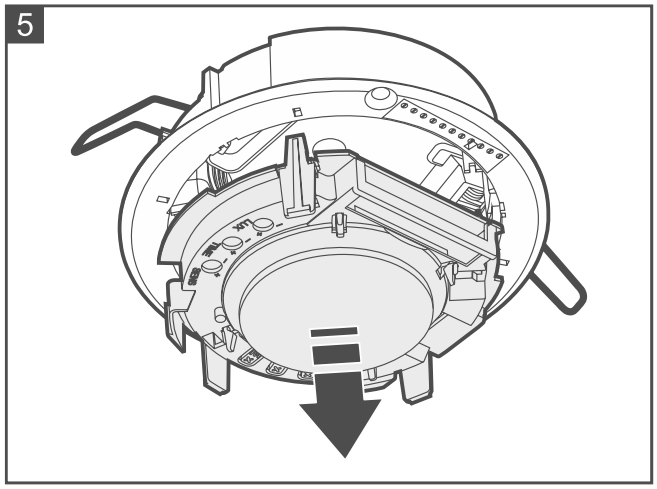
3. Turn the cover counter-clockwise and remove it (Fig. 3).

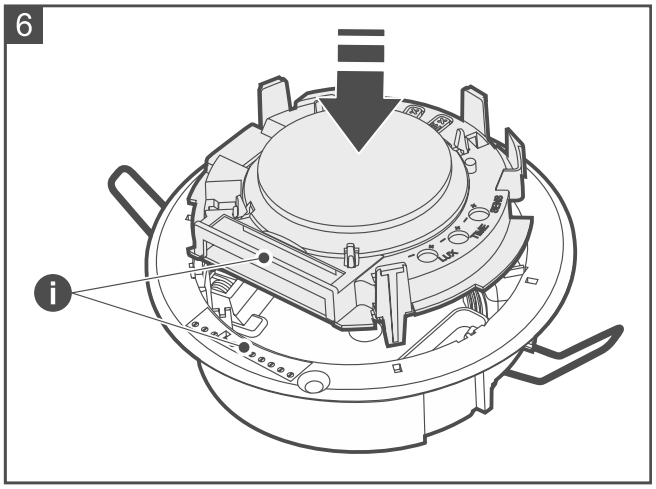


4. Release the mounting catches one by one to unlock the electronics module (Fig. 4). To release the catches, you can use a flathead screwdriver.



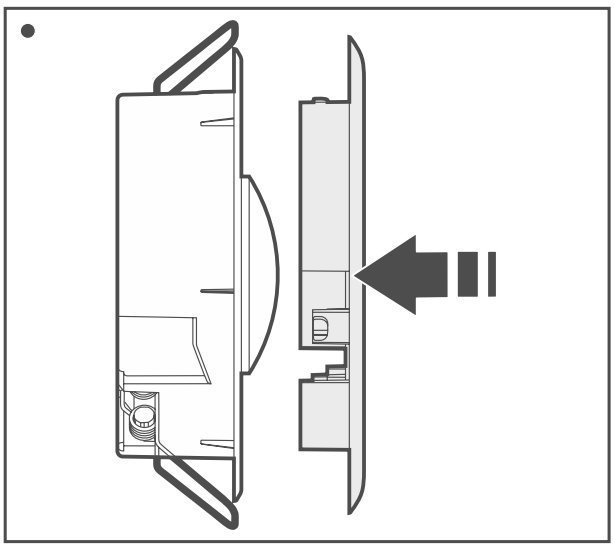
5. Remove the electronics module from the base (Fig. 5).

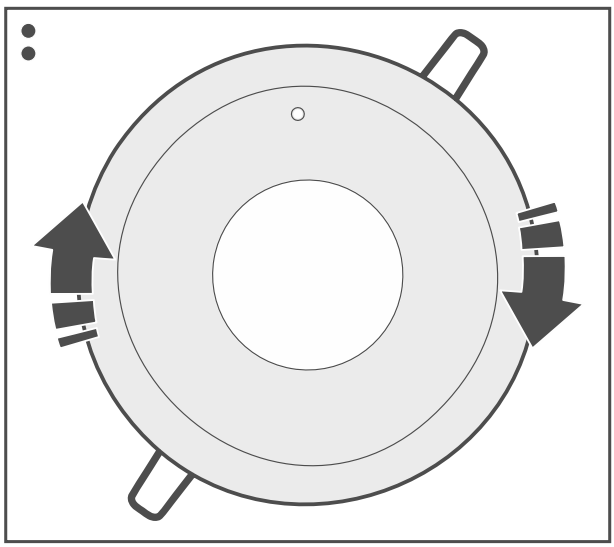




6. Add the detector to the system (see the manual for the BE WAVE system controller or the BE WAVE Hybrid system control panel). When a request to turn on the device will be displayed, install the battery in the detector.
7. Place the electronics module in the enclosure base, then press it down onto the base to lock it (Fig. 6). Figure 6 shows how to position the electronics module against the base.
8. Close the detector enclosure (Fig. 7).

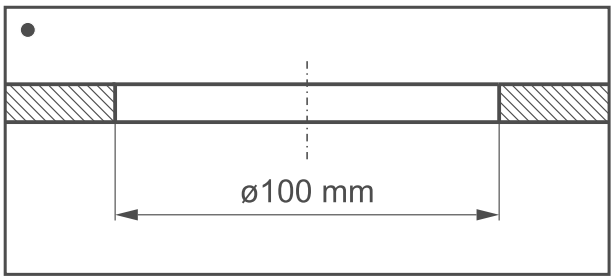
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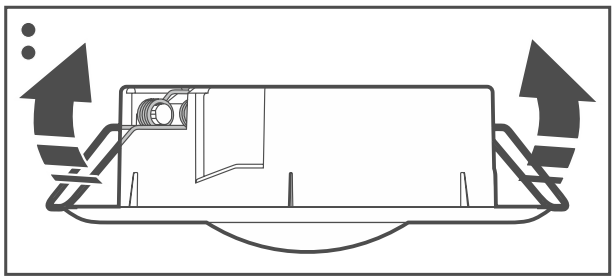


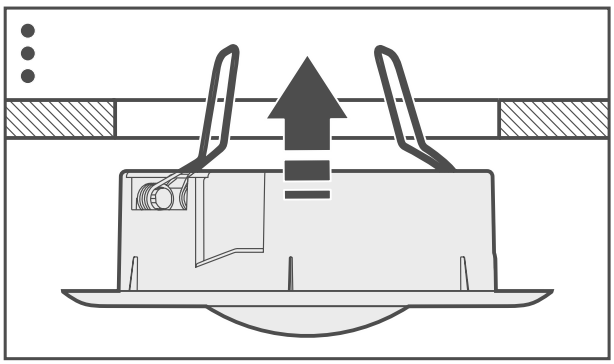


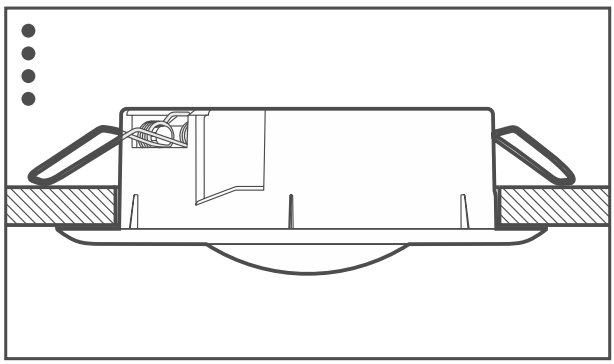
9. Bend the mounting springs and place the detector in the opening made in the ceiling (Fig. 8). When released, the springs will lock the detector in the opening.

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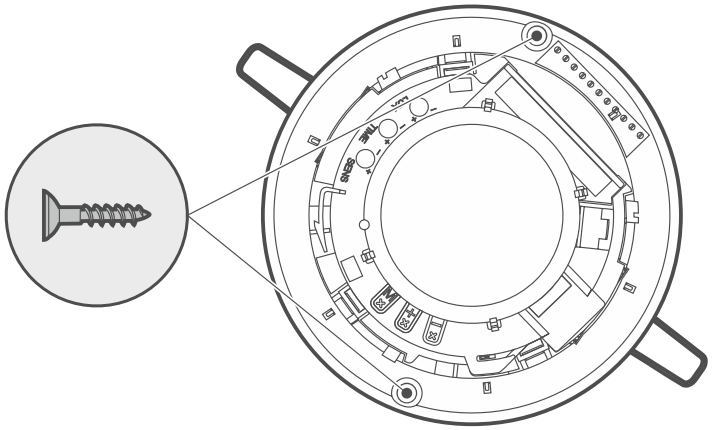






There are screw holes in the base flange (Fig. 9). You can also use screws for mounting or remove the springs and use only screws for mounting.

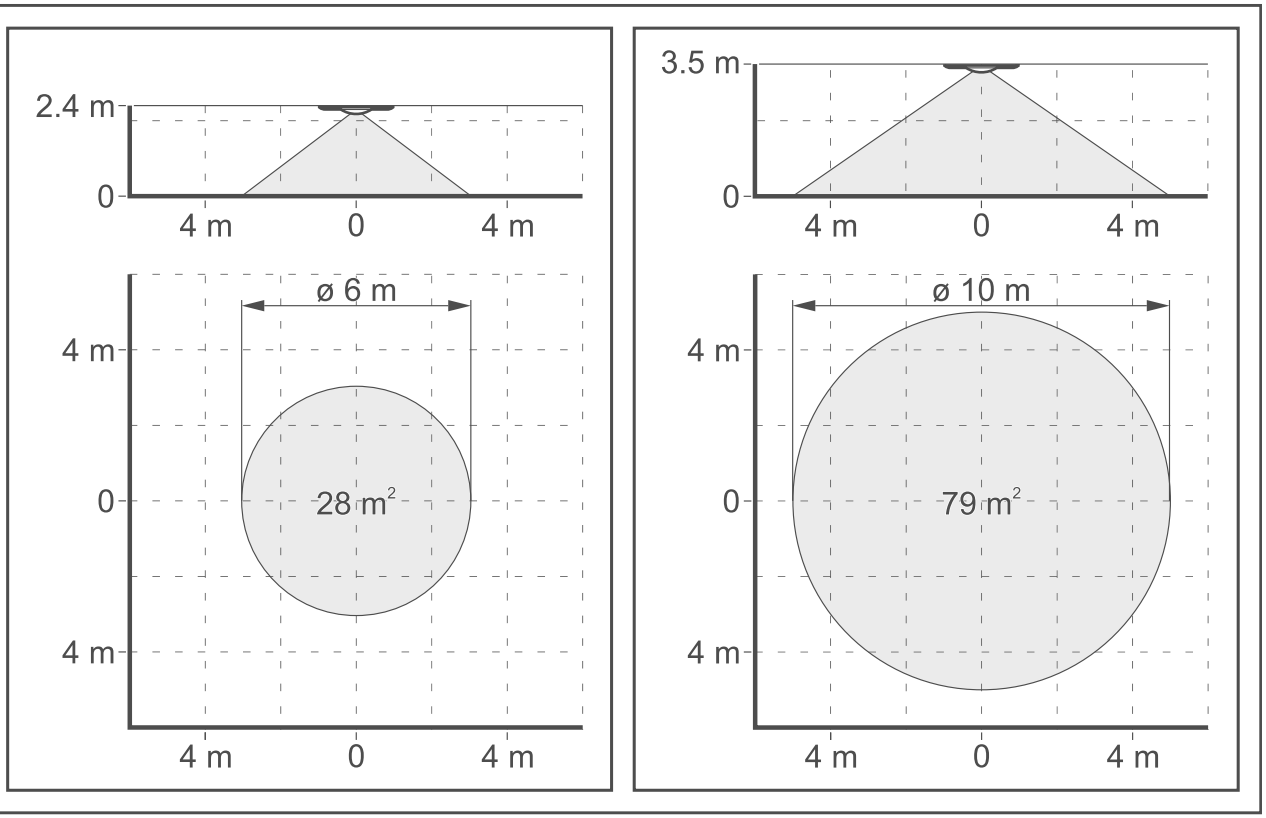
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4. Test

1. Enable the diagnostics mode in the system (see the manual for the BE WAVE system controller or the BE WAVE Hybrid system control panel).
2. Check if moving within the detector coverage area will make the LED indicator turn ON. Figure 10 shows the maximum coverage area of the detector.
3. Disable the diagnostics mode.

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5. Battery replacement

The used batteries must not be discarded, but should be disposed of in accordance with the existing rules for environment protection.

The Be Wave app will indicate that the battery in the detector is low. The low battery should be replaced as soon as possible.

1. In the Be Wave app / BE WAVE Soft program, tap / click the room in which the detector is installed.
2. Tap / click the detector name.
3. Start the *Battery replacement* function.
4. Open the detector enclosure.
5. Remove the electronics module from the base.
6. Remove the low battery.
7. Wait 1 minute.
8. Install the new battery.
9. Place the electronics module in the base.
10. Close the enclosure.
11. Start the *Unbypass device* function in the Be Wave app / BE WAVE Soft program.

6. Specifications

Operating frequency band ..... 868.0 MHz ÷ 868.6 MHz
Radio communication range (in open area) ..... up to 1800 m
Battery ..... CR123A 3 V
Battery life expectancy ..... up to 2 years
Standby current consumption ..... 82 µA
Low battery voltage threshold ..... 2.75 V
Temperature measurement range ..... -10°C...+55°C
Temperature measurement accuracy ..... ±1°C
Detectable speed ..... 0.3...3 m/s
Warm-up period ..... 35 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]

Complied with standards EN50131-1, EN50130-4, EN50130-5
Security grade according to EN50131-2-2 ..... Grade 2
Environmental class according to EN50130-5 II
Operating temperature range ..... -10°C...+55°C
Maximum humidity ..... 93±3%
Dimensions ..... ø 130 x 42 mm
Weight ..... 118 g