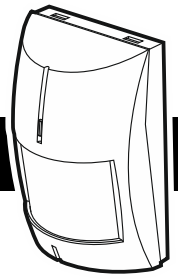
GRAPHITE Pet



DIGITAL PASSIVE INFRARED DETECTOR
WITH PET IMMUNITY UP TO 15 KG

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The GRAPHITE Pet detector allows detection of motion in the protected area. This manual applies to the detector with electronics version H (or newer).

1. Features

- Dual element pyrosensor.
- Digital motion detection algorithm.
- Pet immunity up to 15 kg.
- Digital temperature compensation.
- Adjustable detection sensitivity.
- Built-in EOL resistors.
- LED to indicate alarm status.
- Remote LED enable/disable.
- Alarm memory.
- Supervision of detector signal path and supply voltage.
- Tamper protection against cover removal.

2. Specifications

Supply voltage	12 V DC ±15%
Standby current consumption	12 mA
Maximum current consumption	14 mA
EOL resistors	2 x 1.1 kΩ
Relay contacts rating (resistive load)	40 mA / 16 V DC
Detectable speed	0.3...3 m/s
Alarm signaling period	2 s
Warm-up period	30 s
Recommended installation height	2.4 m
Environmental class according to EN50130-5	II
Operating temperature range	-30...+55 °C
Maximum humidity	93±3%
Dimensions	63 x 96 x 49 mm
Weight	76 g

3. Description

After motion is sensed by the detector in the coverage area, the alarm relay contacts will open for 2 seconds.

Supervision features

In the event of the voltage drop below 9 V (± 5%) for more than 2 seconds or the signal path failure, the detector will signal a trouble. The trouble is indicated by the activation of alarm relay and the steady light of LED indicator. The trouble signaling will continue as long as the trouble persists.

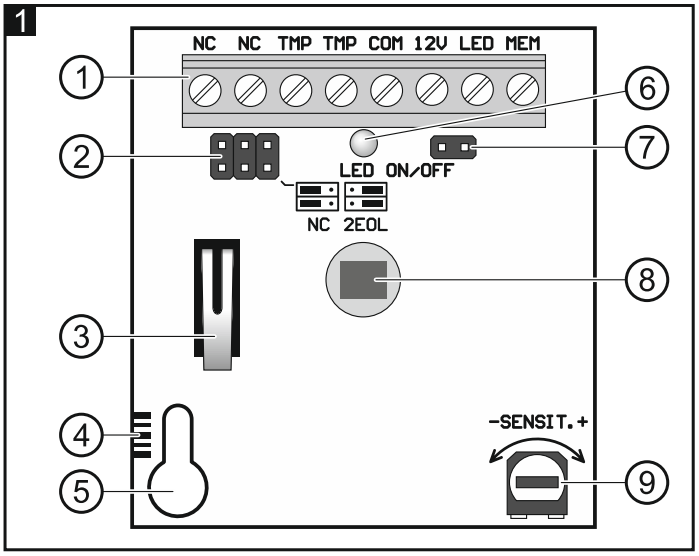
Remote LED enable/disable

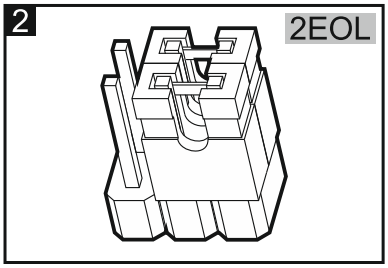
The LED can be enabled/disabled remotely, if the LED has not been enabled using the LED ON/OFF pins. The LED terminal is provided to allow remote LED enable/disable. The LED is enabled, when the terminal is connected to the common ground, and disabled, when the terminal is disconnected from the common ground. You can connect to the LED terminal an OC type control panel output programmed e.g. as the SERVICE MODE STATUS, BI SWITCH or ZONE TEST STATUS.

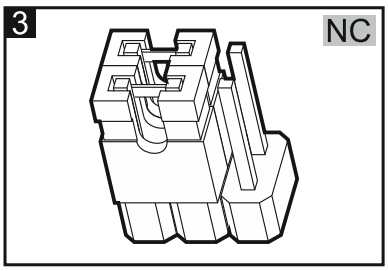
Alarm memory

If the LED is enabled, the detector can indicate the alarm memory. The MEM terminal is provided to allow the alarm memory feature enable/disable. The feature is enabled, when the terminal is connected to the common ground. The feature is disabled, when the terminal is disconnected from the common ground. If the alarm memory feature is enabled and an alarm occurs, the LED will start blinking. Indication of the alarm memory will continue until the alarm memory feature is enabled again (the MEM terminal is connected to the common ground). Disabling the alarm memory feature will not stop the alarm memory indication. You can connect to the MEM terminal an OC type control panel output programmed e.g. as the ARMED STATUS.

4. Electronics board







(1) terminals:

NC - alarm output (NC relay).
TMP - tamper output (NC).
COM - common ground.
12V - power input.
LED - remote LED control.
MEM - alarm memory control.

(2) configuration pins for detector outputs:

the built-in resistors are to be used – place the jumpers as shown in Fig. 2 (connect the outputs as shown in Fig. 8),

the built-in resistors are not to be used – place the jumpers as shown in Fig. 3 (connect the outputs as shown in Fig. 7).

(3) tamper switch.

(4) scale for positioning the electronics board.

(5) fixing screw hole.

(6) red color LED to indicate:

alarm – ON for 2 seconds,
alarm memory – blinking rapidly,
trouble – ON,
warm-up – blinking slowly.

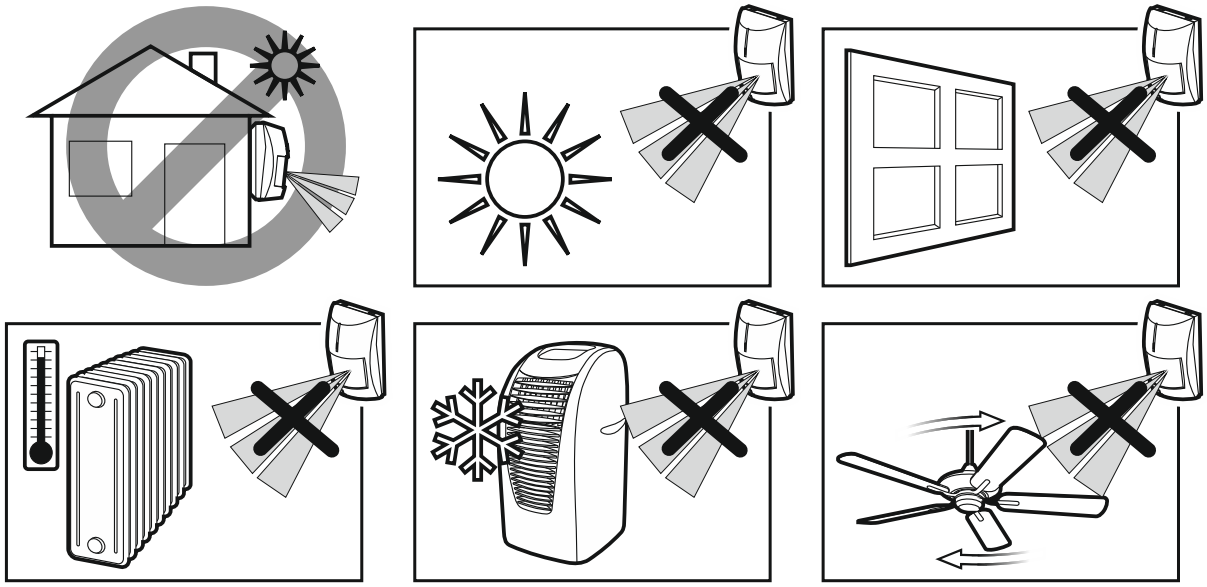
⑦ LED enable/disable pins. The LED is enabled, if the jumper is placed over the pins (the pins are shorted).

⑧ dual element pyrosensor. **Do not touch the pyroelectric sensor, so as not to soil it.**

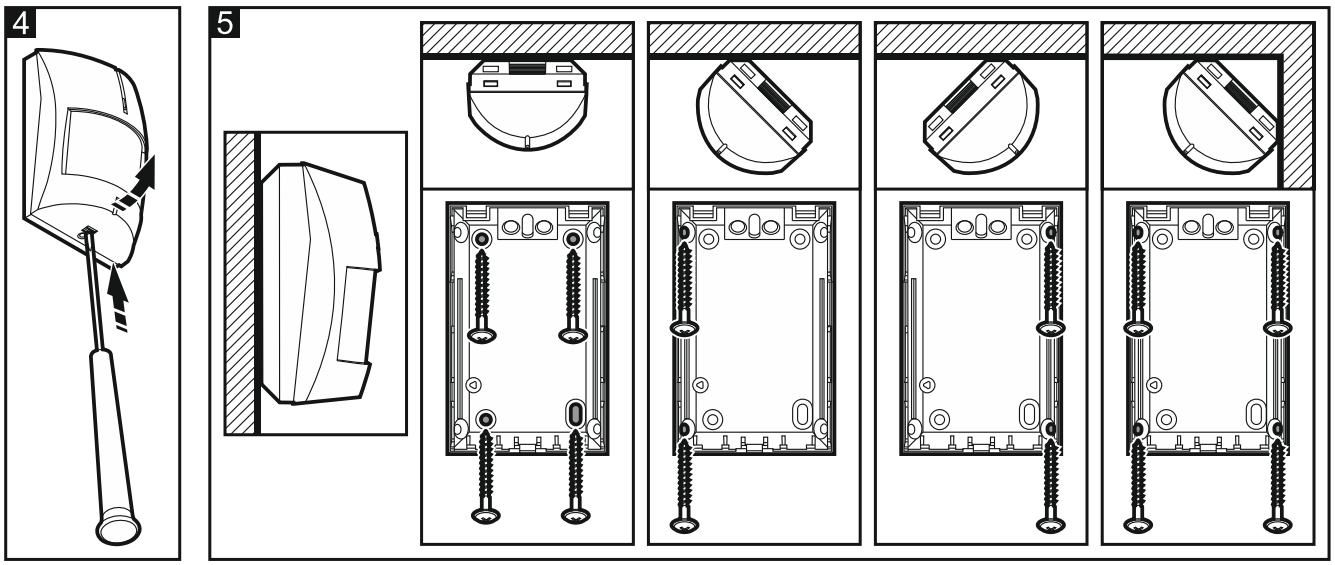
⑨ potentiometer for sensitivity adjustment.

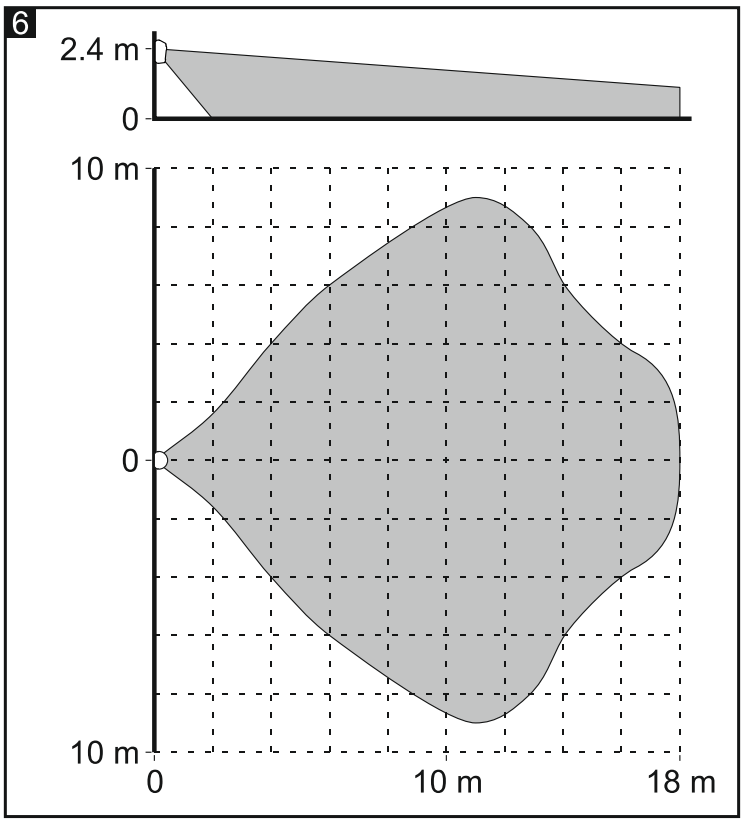
5. Installation

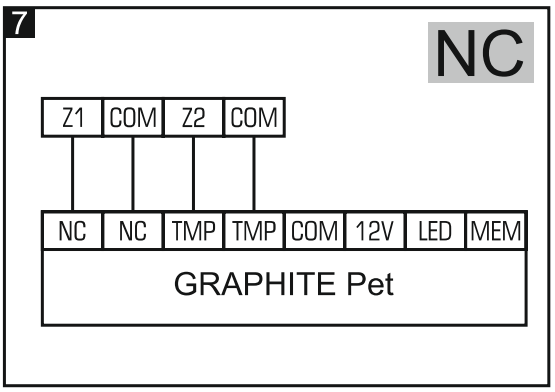
Disconnect power before making any electrical connections.

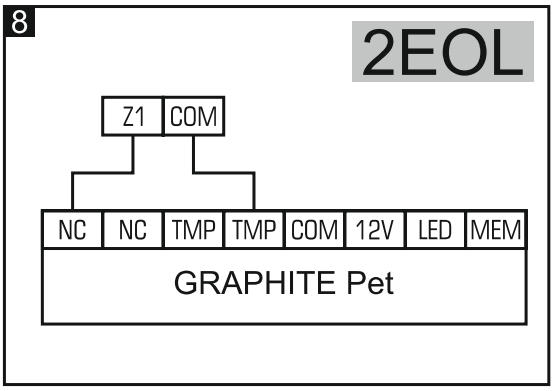


1. Remove the front cover (Fig. 4).
2. Remove the electronics board.
3. Make the openings for screws and cable in the enclosure base.
4. Pass the cable through the prepared opening.
5. Secure the enclosure base to the wall (Fig. 5).
6. Fasten the electronics board. The middle line of the scale for positioning the electronics board should be aligned with the mark in the enclosure base (the detector installed at a height of 2.4 m above the floor).
7. Connect the wires to the corresponding terminals.
8. Using potentiometer and jumpers, set the detector working parameters.
9. Replace the cover.









6. Start-up and walk test

Note: *When testing the detector, the LED should be enabled.*

1. Power-up the detector. The LED will start blinking, which indicates the detector warm-up.
2. When the LED stops blinking, check that moving within the coverage area (Fig. 6 shows the maximum coverage area – at the maximum sensitivity) will activate the alarm relay and make the LED light up.

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

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