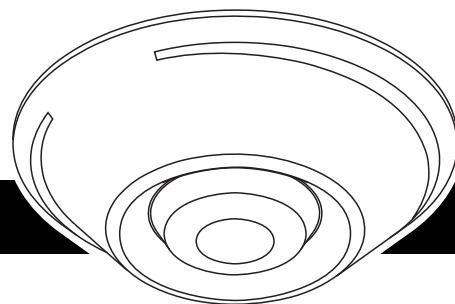




AQUA RING S

CEILING MOUNT

DIGITAL PASSIVE INFRARED DETECTOR



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The microprocessor-based, fully digital AQUA RING S detector for ceiling mount installation is characterized by high sensitivity and interference resistance. A dual pyroelectric sensor is used in the detector. The detector can be supplied with AC or DC 24 V voltage.

The detector is provided with a **prealarm feature**. Prealarm is signaled by a short flash of the LED after changes which do not meet the alarm criteria have been detected within the coverage area. The prealarm sensitivity depends on what sensitivity is set on the detector pins. Frequently occurring prealarms may cause an alarm.

The detector requires to warm up for the first 30 seconds after applying power. Warm-up is indicated by a rapid LED blinking.

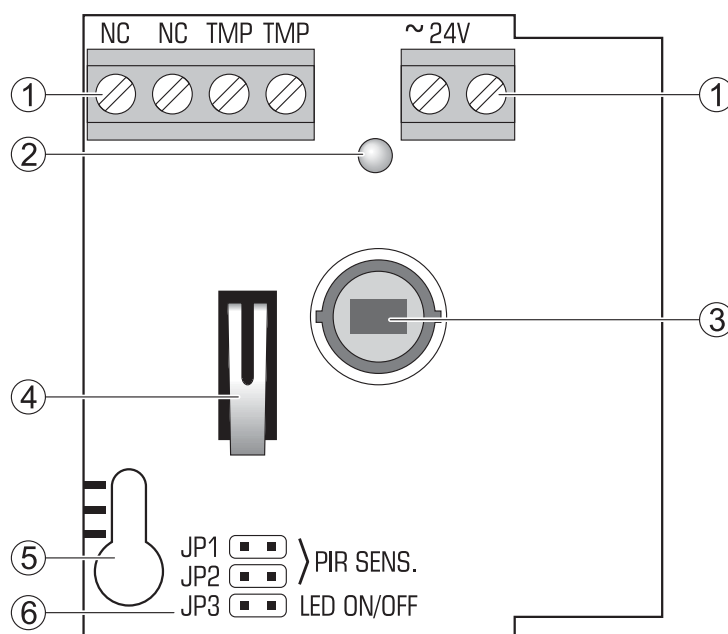


Fig.1. View of detector electronics board.

Explanations to Fig. 1:

1 – terminals:

NC – relay (NC)

TMP – tamper contact

≈24V– supply input (AC/DC)

2 – red color LED to indicate:

- prealarm – short flash (approx. 120 ms);
- alarm – ON for 2 seconds;
- warm-up – blinking rapidly;
- low supply voltage – ON.

3 – pyroelectric sensor.

4 – tamper contact.

5 – fixing screw hole.

6 – detector configuration pins:

PIR SENS. – setting detector sensitivity (see Fig. 2);

LED ON/OFF – enabling/disabling the LED indicator. The LED indicator is enabled when the pins are shorted.



Fig. 2. Setting the detector sensitivity
(A – low sensitivity, B and C – medium sensitivity, D – high sensitivity)
[■ – pins shorted; □ – pins open].

1. Installation

The detector is designed for indoor installation.

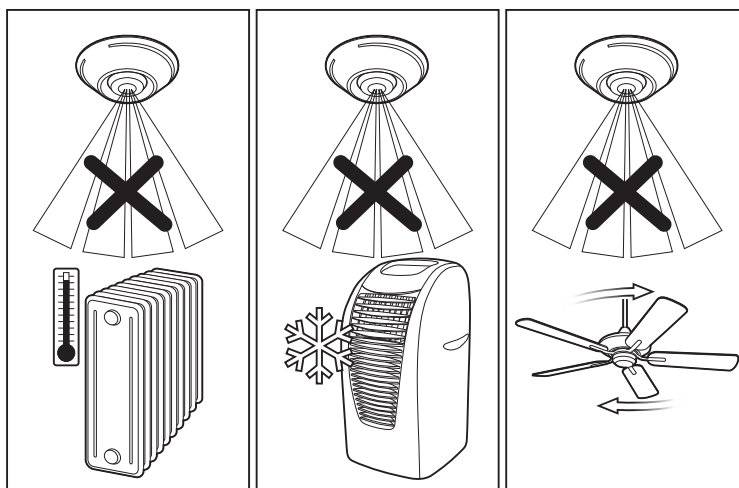


Fig. 3. Objects that should not be located in the detector coverage area (heat sources, air-conditioning outlets, moving objects).



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

1. Open the enclosure as shown on Fig. 4.

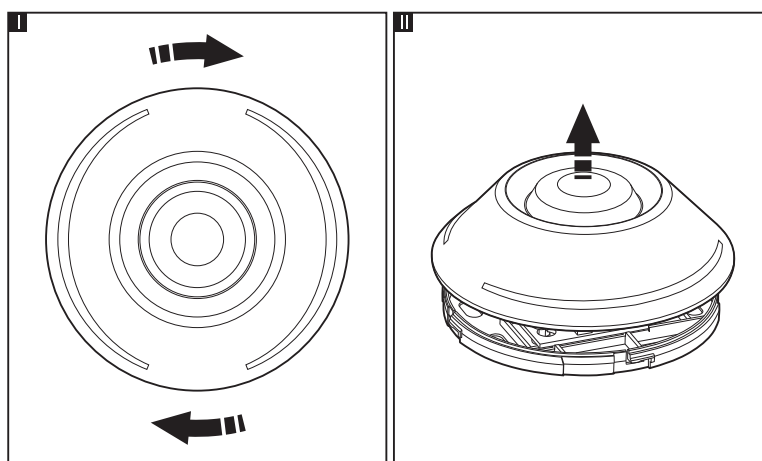


Fig. 4. Removing the cover.

2. Remove the electronics board.
3. Make suitable openings for screws and cable in the enclosure base.
4. Pass the cable through the prepared opening.
5. Fix the enclosure base to the ceiling.
6. Fasten the electronics board.
7. Connect the wires to the corresponding terminals.
8. Using jumpers, set the working parameters of the detector.
9. Close the detector enclosure.

2. Start-up

1. Switch the detector power on. The LED will start blinking (if the LED ON/OFF pins are shorted).
2. When the detector is ready to work (the LED will stop blinking), carry out the detector range test, i.e. check that movement within the supervised area will activate the alarm relay and lighting of the LED.
3. If necessary, change the detector sensitivity (pins PIR SENS.).

3. Specifications

Supply voltage	24 V AC/DC $\pm 15\%$
Max. current consumption ($\pm 10\%$)	27 mA for 24 V AC
.....	14 mA for 24 V DC
Relay contacts rating (resistive load).....	40 mA / 16 V DC
Alarm signaling time	2 s
Protected area:	
when mounted at a height of 2.4m.....	36 m ²
when mounted at a height of 3.7m.....	80 m ²
Detectable motion speed	0.3...3 m/s
Environmental class according to EN50130-5.....	II
Operating temperature range	-30...+55 °C

Maximum humidity.....93±3%
Dimensions.....ø97 x 29 mm
Recommended installation heightfrom 2.2 m to 4.5 m
Weight64 g

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

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