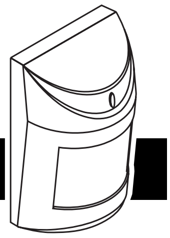
AQUA PET



DIGITAL PASSIVE INFRARED DETECTOR
PET IMMUNITY UP TO 15 KG

CE

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The microprocessor-based, fully digital AQUA PET digital movement detector is dedicated for use in spaces in which pets may stay when the alarm security system is armed. It is immune for animals up to 15 kg in weight. Due to an advanced digital temperature compensation feature, the device can work in a wide temperature range. A dual pyroelectric element is used in the detector.

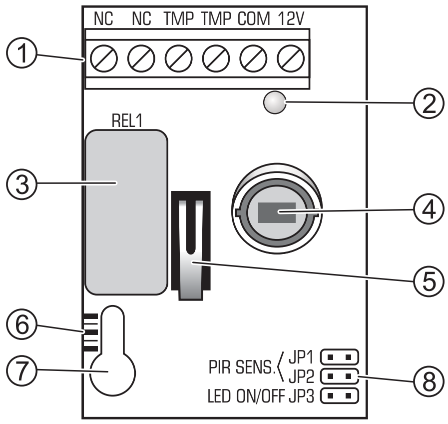

Figure 1. View of detector electronics board.

Explanations to Fig. 1:

1 – terminals:
- **NC** – relay (NC)
- **TMP** – tamper contact
- **COM** – common ground
- **12V** – supply input

2 – LED indicator. It lights red for approx. 2 seconds after movement is sensed by the detector and the alarm relay activated (opening of the NC contacts). This allows the installer to check the detector for correct functioning and to approximately determine the protected area.

3 – alarm relay.

4 – pyroelement.

5 – tamper contact.

6 – scale for positioning of pyroelement against the lens (see Table 2 and Figure 3).

7 – fixing screw hole.

8 – pins for setting detector operating parameters (see Table 1).

For 30 seconds after the power-up, the detector remains in the **starting state**, which is signalized by a rapid LED blinking. Only then the detector enters its operational readiness state.

The detector is monitoring power supply voltage and availability of the signal path. In case of a voltage drop below 9 V (±5%), lasting longer than 2 seconds, or detection of a fault in the signal path, the detector will signal a trouble by activating the alarm relay and steady lighting of the LED. The signaling continues as long as the trouble exists.

	Pins		
	JP1	**JP2**	**JP3**
Low sensitivity	▭	▭	
Medium sensitivity	▭	▬	
	▬	▭	
High sensitivity	▬	▬	
LED indicator ON			▬
LED indicator OFF			▭

▬ – pins shorted

▭ – pins open

Table 1. Programming of working parameters.

Installation

The detector is designed for indoor installation. It should be directly secured to the wall in vertical position.

⚠ **Be careful so as not to soil or damage the pyroelement in the process of installation.**

Be careful during installation not to turn the detector towards heat sources and air-conditioning outlets, as well as objects exposed to strong solar radiation.

1. Open the housing as shown on Fig. 2.

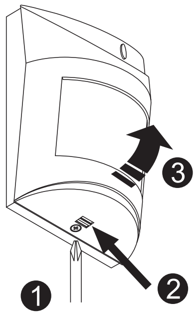

Figure 2. Removing the cover.

2. Remove the electronics board.
3. Make suitable openings for screws and cable in the rear panel of the housing.
4. Pass the cable through the prepared opening.
5. Secure the rear housing panel to the wall.
6. Fasten the electronics board, taking into consideration the height of detector installation (see Table 2 and Figure 3).

Detector installation height	Scale position in relation to housing indicator
more than 2.1 m	center scale mark above the indicator
2.1 m	**center scale mark in line with the indicator**
less than 2.1 m	center scale mark below the indicator

Table 2. Positioning of pyroelement in relation to the lens.

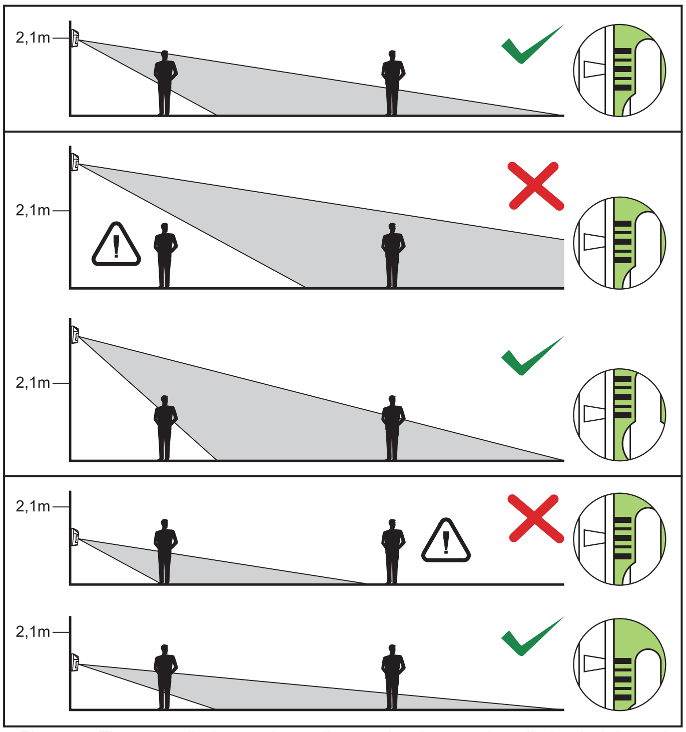

Figure 3. The controlled area depending on the detector installation height and positioning of pyroelement in relation to the lens for the optimal setting.

7. Connect the leads to the corresponding terminals.
8. Using jumpers, set the working parameters of the detector (see Table 1).
9. Close the detector housing.

Start-up

1. Switch the detector power on. The LED will start blinking (if the JP3 pins are shorted).
2. When the detector enters the ready state (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 JP1 & JP2).

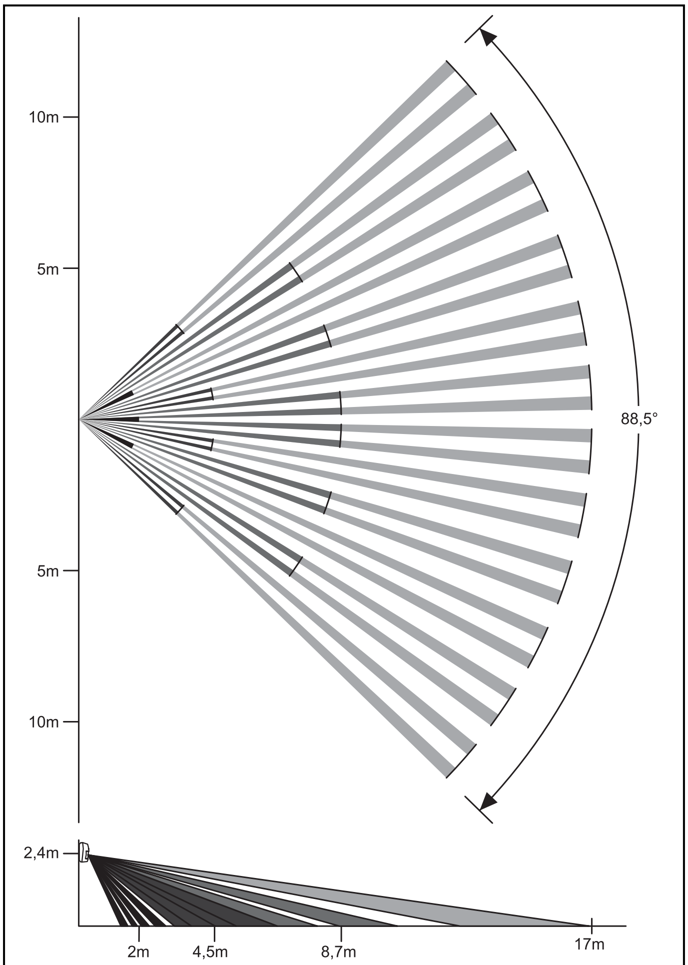

Figure 4. Distribution of lens beams.

Note:

- *The effective operating range of the detector can differ from the one, which is shown at the figure.*
- *The factory mounted lens must not be replaced by another type lens.*

Technical data

Nominal supply voltage (±15%)	12 V DC
Average current consumption (±10%)	9.5 mA
Violation signaling time	2 s
Operating temperature range	-10...+55 °C
Detectable motion speed	up to 3 m/s
Dimensions	63x96x49 mm
Recommended installation height	2.1 m
Weight	73 g

The latest EC declaration of conformity and product approval certificates are available for downloading on website **www.satel.pl**

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