

AQUA RING S

CEILING MOUNT

DIGITAL PASSIVE INFRARED DETECTOR



aquaring_s_e 03/06

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

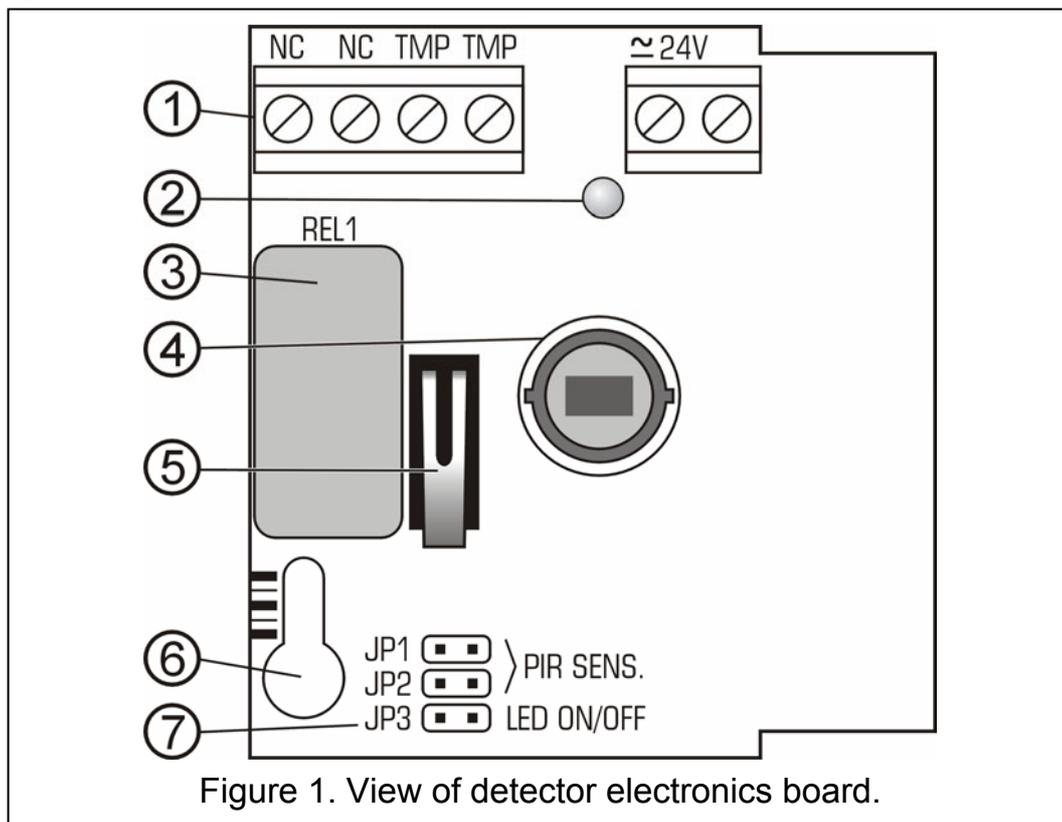


Figure 1. View of detector electronics board.

Explanations to Fig. 1:

1 – terminals:

NC – relay (NC)

TMP – tamper contact

≈24V – supply input (AC/DC)

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 – fixing screw hole.
- 7 – pins for setting detector operating parameters (see Table 1).

The detector is provided with a **prealarm feature**. The prealarm is indicated by a short flash of the LED for approx. 120ms, but does not activate the relay. Activation of the prealarm takes place when the detector registered disturbances in the environment, which do not meet the alarm criterion. The prealarm sensitivity do not depend on what sensitivity is set on the detector pins.

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

	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.

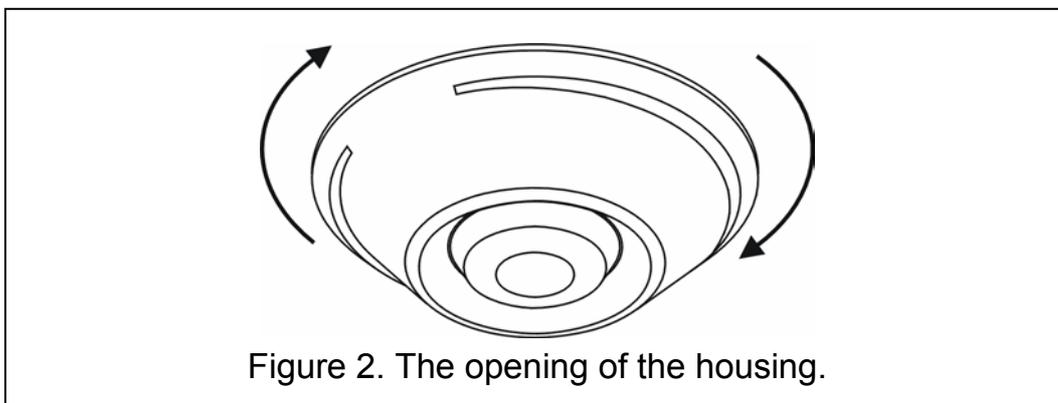
1. Installation

The detector is designed for indoor installation.



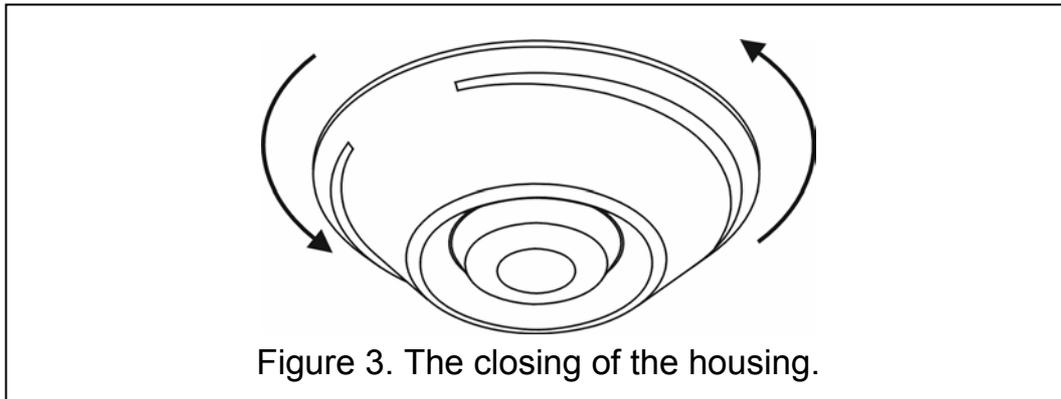
Be careful so as not to soil or damage the pyroelement in the process of installation.

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



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. Fix the rear housing panel to the wall or to the attached holder.
6. Fasten the electronics board.

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 as shown on Fig. 3.



2. 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).

3. Technical data

Nominal supply voltage	24V AC/DC
Max. current consumption ($\pm 10\%$)	27mA for 24V AC
.....	14mA for 24V DC
Violation signaling time.....	2s
Protected area:	
when mounted at a height of 2.4m.....	36m ²
when mounted at a height of 3.7m.....	80m ²
Operating temperature range	-10...+50°C
Detectable motion speed	up to 3 m/s
Dimensions	ø97x29mm
Recommended installation height	from 2.2m to 4.5m

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



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