

WA9DT

Dual technology external anti-blinding and tear-resistant sensor

The detector has been designed to provide an external perimeter protection, creating a horizontal barrier with multiple beams. This allows detecting the presence of an intruder before he breaks into the premises.

Being equipped with a double passive infrared sensor with microwave, the detector works as an active infrared anti-blinding and anti-removal device with a triaxial accelerometer. It covers an area up to 9 meters with a detection angle of about 90° (see the picture aside).

Technical features

Power supply	2 Lithium batteries 3.6Vdc 2.6Ah
Consumption	60 µA at rest, 40 mA in alarm
Autonomy:	3 years (anti-blinding system disabled)
Max. range*	9 m at 90°
Type of lens	Fresnel
Microwave frequency	24.000 - 24.250 Ghz
Working temperature	-20° C at + 70° C
Protection degree	IP 65
Anti-opening contact	yes
Anti-removal sensor:	accelerometer
Accelerometer intervention time:	about 9 seconds
Anti-blinding system intervention time:	3 minutes
Measurement range	9 m, 90°
Max. humidity	95% Max. (without condensation)

IMPORTANT

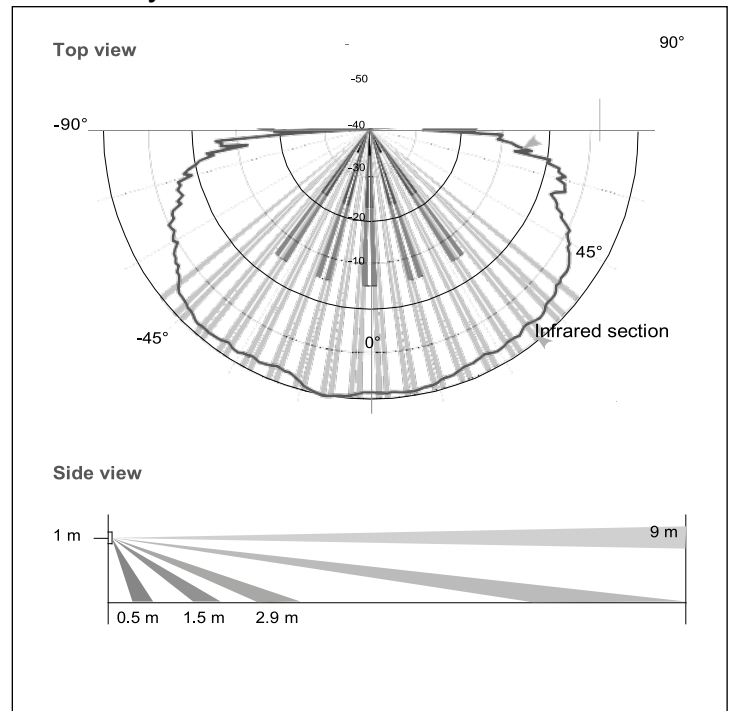
**This product detects the temperature differences between a moving object and the background temperature of the protection area. If the object does not move, the detector cannot detect it. Moreover, the temperature of the object and the environment temperature can affect the maximum measurement range.*



By using the two infrared sensors in «AND» mode (one with view parallel to the ground and the other one tilted downward), the «Pet Immune» mode can be enabled. In this mode, the movement of an animal passing below the installation height of the detector is not detected.

The detector autonomy is higher than 3 years thanks to the two lithium batteries 3.6 Vdc / 2.6 Ah. The supply outlet of the terminal board allows feeding the radio module. Use only the WA9DT batteries.

If the anti-blinding function is used, the autonomy can be reduced.



Instructions for the sensor positioning

For proper installation, the sensor is to be mounted outdoors at a height of about 100/120 cm from the ground and it must be perpendicular to it.

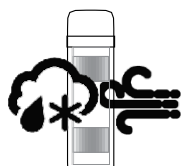
Installation

Choose the detector position. Fix the back part of the detector to the wall using the screws supplied and check it is perfectly perpendicular to the ground. Set the Dip Switches as appropriate referring to the table. Insert the battery. During the first minute, the sensor self-calibrates the anti-blinding system.

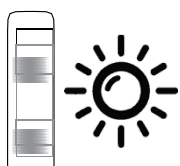
The Dip Switches must be set before inserting the battery.

Fix the cover to the bottom using the two screws supplied.

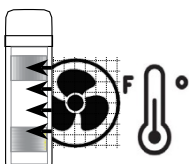
Useful advice



Avoid positioning the sensor in places which are completely exposed to atmospheric agents such as wind, rain, snow, etc.



Prevent the sensor from being exposed to direct sunlight



Prevent the sensor from being interfered with by sources of heat causing false alarms.



We recommended not to spray any water on the sensor.



Warning: After checking and calibrating, disable the LED IR signal (DIP switch) to prevent the autonomy of the battery from being reduced.

Connection to the terminal board



Microswitches

There is a bar with 8 microswitches on the detector board. The microswitches must be set before the detector is powered up.

Signalling LED

The detector is equipped with a warning LED lighting up in different colours according to the detection sensor:

Yellow LED: infrared alarm,

Violet LED: microwave alarm

Red LED: alarm (IR + microwave)

Blue LED: anti-blinding system alarm

Microswitches 1 and 2: infrared sensitivity

In OFF and OFF positions: minimum sensitivity.

In ON and OFF positions: medium sensitivity.

In OFF and ON positions: medium/high sensitivity.

In ON and ON positions: high sensitivity.

Microswitch 3: IR sensor operation

The detector has two lenses: the first one gives a view parallel to the ground while the other one is tilted downwards. By using them in the «AND» mode, the «pet immune» operation can be enabled.

In OFF position: AND mode operation

In ON position: OR mode operation

Microswitch 4: anti-blinding function (antimask)

In OFF position: anti-blinding system disabled.

In ON position: anti-blinding system enabled.

Microswitch 5: anti-blinding sensor sensitivity

In OFF position: low anti-blinding sensitivity.

In ON position: high anti-blinding sensitivity.

Microswitch 6: microwave sensitivity

In OFF position: low microwave sensitivity.

In ON position: high microwave sensitivity.

Microswitch 7: battery saving mode

In battery saving mode, after going into alarm the sensor is disabled for 5 minutes.

In OFF position: battery saving mode disabled.

In ON position: battery saving mode enabled.

Microswitch 8: LED operation

The signalling LED can be enabled or disabled.

In OFF position: the LED is disabled.

We recommend making this choice when the installation is finished.

In ON position: the LED is enabled. This ensures it lights up every time something is detected. This function is useful during the test to check the detector coverage.

WARNING:

The LED operation reduces the battery autonomy.

The consumption and the autonomy do not include the radio module.

SOPRAS

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EC Declaration of conformity

So.pr.a.s.r.l declares under its own responsibility that the device **SOP2IR** is designed and manufactured in compliance with the standard-directive 2011/65/EC – RoHS 2002/95/CE Electromagnetic compatibility/ LVD-73/23/EEC – Electric safety and with the standard PFOS (2006/4122/EC-M.D.) - REACH (REG. 1907/2006) – EN 60950-1:2006+A12:2011 – EN50130-4:2011 using only components compliant with anti-pollution directives RoHS - RAEE