



CERTIFIED QUALITY
SYSTEM
UNI EN ISO 9001:2008

Curtarolo (Padova) Italy
www.avselectronics.com



OUTSPIDER PA

*Double passive infrared detector
for outdoors and indoors*

OUTSPIDER PA WS

*Double passive infrared
wireless detector
for outdoors and indoors*

OUTSPIDER PA WS UB

OUTSPIDER PA WS U

*Double passive infrared
universal wireless detector
for outdoors and indoors*

IST0894V4.4

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Main Features

- w **OUTSPIDER** can be connected in the traditional way using **relay contacts** or by way of **RS485 serial** to the **XSATHP** satellite or directly to the pre-set control panels.
- w **OUTSPIDER** features pet immunity to small animals with all type of lenses
- w **OUTSPIDER PA** is made of a **double infrared**, developed for both indoor and outdoor protection.
- w **OUTSPIDER DT** and **OUTSPIDER DT WS(UB)(U)** are composed of a **double infrared and a planar microwave**, developed for both indoor and outdoor protection.
- w **OUTSPIDER PA WS(UB)(U)** and **OUTSPIDER DT WS(UB)(U)** are volumetric presence detectors, with an integrated **single-frequency radio transmission module** compatible with AVS Electronics receivers and central stations.
- w **OUTSPIDER PA WS(UB)(U)** and **OUTSPIDER DT WS(UB)(U)** are volumetric presence sensors, equipped with terminal block for connection to an external radio transmission module.
- w **OUTSPIDER PA WS** and **OUTSPIDER DT WS** are powered by a 3.6 V lithium battery. The **U** model is supplied without a battery
- w **OUTSPIDER DT** is made of a **double infrared and a planar microwave**, developed for both indoor and outdoor protection.
- w **OUTSPIDER** is equipped with a microprocessor that completes a **signal analysis** and manages them based on the operational mode selected.
- w **OUTSPIDER** is equipped with a particular circuit that makes it possible to read the temperature and automatically adjusts sensitivity (**Thermal compensation**), depending on the ambient temperature; however the sensitivity of the detector may significantly vary within certain temperature intervals.
- w **OUTSPIDER** is equipped with a circuit that avoids that the microprocessor goes in block.
- w **OUTSPIDER PA** is equipped with a **buzzer** and a series of LED in order to give an optical-acoustic signal (**Walk Test**) even if a block is applied to the sensor.
- w **OUTSPIDER DT** is equipped with a **buzzer** and an LED in order to give an optical-acoustic signal (**Walk Test**) only if a block is not applied to the sensor or it is set in Security mode.
- w **OUTSPIDER PA WS(UB)(U)** and **OUTSPIDER DT WS(UB)(U)** are equipped with a **buzzer** and a **led** to provide a visual-acoustic warning (**Walk Test**)
- w **OUTSPIDER** is equipped with an **anti-masking** circuit on the two infrared sections made of 4 side TX LEDs and 1 central RX LED also capable of signalling the **presence of filth on the lenses**.
- w **OUTSPIDER PA** and **OUTSPIDER DT** are equipped with an auxiliary input (AUX) to handle an additional alarm input or for the anti-tearing sensor circuit
- w **OUTSPIDER PA WS(UB)(U)** and **OUTSPIDER DT WS(UB)(U)** are equipped with an input (T T) to handle the anti-tearing sensor circuit
- w **OUTSPIDER** is equipped with an auxiliary input (**AUX**) for managing an additional alarm input or the anti-tampering circuit of the actual sensor.
- w **OUTSPIDER** can adapt the coverage field, bases on requirements, using a series of lenses among those supplied.

NOTE: where not clearly indicated, instructions refer to both models.

Initial power-up

When powering the first time, **OUTSPIDER PA** and **OUTSPIDER DT** remain **inhibited** for about **60 seconds**, during which the **yellow** and **red** LED, if enabled, flash alternatively and the buzzer emits an intermittent signal.

At the first power supply of the **OUTSPIDER PA WS(UB)(U)** and **OUTSPIDER DT WS(UB)(U)** it is necessary to let the sensor rest with the cover on for about **90 seconds** during which time it acquires the average signal of the various analog signals it will be controlling. It is important that the cover is kept closed so that it does not distort the average anti-mask signal and to avoid false detections.

Introduction

OutSpider DT/Outspider DT WS(UB)(U) and **OutSpider PA/Outspider PA WS(UB)(U)** models are sensors designed to protecting outdoor areas where meteorological conditions, environmental elements, freely roaming animals, etc. can determine a high risk of false alarms. Differently from conventional sensors, for indoor environments, that generally only go in alarm status based on the intensity, or frequency at the most, of detected signals, these outdoor detectors analyse signals generated from the infrared and microwave sensors more accurately, also considering, besides the two aspects mentioned above, elements such as degree of similarity and coincidence between the two infrared signal (correlation) and, in the double technology version, the presence of a signal in the microwave that is characterised by movement mostly in one direction instead of two way (typical of oscillations: for ex. plants moved by the wind) and the degree of synchronisation between the signals from the two technologies.

Processing this information, according to software algorithms and parameters pre-set by the installer, makes it possible to establish if a determined set of signals must be considered an alarm or not. Since there is a greater number of conditions that must be satisfied for a signal to be considered an alarm, it is logical that there is a lesser degree of "reactivity" in this type of detectors compared to indoor ones, this does not mean a lesser capacity, but a more accurate selection of stimulus to be considered valid alarms. This means that, compared to a conventional sensor, sometimes the sensor may delay in giving an alarm, especially in proximity: this is caused by the fact that, in vicinity, the target generates signals that are more confusing and deformed, because at the same time it intercepts a greater number of rays, and this makes it more difficult to obtain a positive verification of the wave shapes. This type of sensor responds better when the target moves at a greater distance, near maximum capacity.

In order to facilitate operation of this type of sensor, in order to guarantee maximum possible similarity between pyroelectric signals, it is recommended to adjust circuit board position based on installation height, as indicated by the notches present on the board, then acting on inclination of the entire sensor, through the bracket joint, in order to adjust actual coverage. **One must avoid shortening or lengthening capacity by moving the board inside the container, as is done instead with the Fresnel indoor lens detector .**

Description of sensor operation in “Default” mode

In this mode the infrared section discriminates the alarms by operating the following controls:

w signal width and symmetry: the wave shape must exceed minimum thresholds, both in the positive and in the negative direction; besides, the width of the half-waves must be proportionate.

w the energy level of the signal must be above a minimum value.

The previous controls are completed by two infrared, independently from each other.

w comparison of the two infrared signals in order to evaluate their similarity: signal produced by two infrared sensors must present a certain correspondence as far as shape, phase and width.

Sometimes this last criteria may cause a signal that a normal detector would consider an alarm to be discarded. However, it allows the sensor to tolerate very wide interference signals without going into alarm status, as long as they are not correlated with each other.

In “default mode the microwave completes two types of evaluation:

w it measures signal intensity, that must exceed a minimum established level, and its frequency must be included within the maximum and minimum limits.

w evaluates the degree of directionality of the target, discarding signals that present oscillating characteristics.

Even for the microwave, through to a lesser degree than the infrared, it is possible that even intense signals are discarded because they are not characterised by a defined sense of movement. Please note that in “default” mode it is not required for the movement direction of the target in a specific direction (approaching or moving away), any movement direction is fine as long as it is defined.

General sensor alarm takes place when both technologies go into alarm status.

Description of other operational modes

If “medium” or “low” sensitivity is chosen for the infrared, obtained functioning is similar to the “default” mode but the applied decision thresholds are more and more strict for all parameters that the sensor controls. The width and energy of the signal must be greater and signal correlation must be positive with a tighter temporal gap between the signals. Besides, with “low” sensitivity, it is required for the infrared to go into alarm status with two impulses instead of only one.

By selecting “high” sensitivity mode instead, all correlation controls between signals are eliminated and the analysis is only based on intensity and frequency, as occurs on conventional detectors. Choosing this mode is recommended if the sensor is installed outdoors. However, it can also be used if installed indoors.

As far as the microwave, besides the “default” operational mode, there are the “only approaching” and “only moving away” modes that require for target movement to be in a specific direction to trigger the alarm, and “no control” mode that deactivates movement direction discrimination and makes the detector work in the conventional way, only based on signal intensity and frequency. This last mode is not recommended for outdoor environments because, in presence of plants moved by the wind, the microwave almost always remains in alarm. Sometimes this may be necessary when the path the target must go through is very short (in case of tight areas), particularly with a combination of vertical protection lenses or long range mono-lobe. It is recommended to complete accurate testing before deciding on a mode and, if the “default” mode works in a satisfactory way, keep that one. In any case, it is recommended to carefully adjust, using the potentiometer, microwave sensibility to the minimum necessary level in order to reach the maximum requested distance and not go beyond. One must consider that using HPWIN PC software from PC to adjust the sensors, both locally by way of USB, or remotely by way of modem or GSM, it is possible to **reduce** microwave sensitivity even more until it reaches about 75% of its original value, if circumstance require it.

AND Mode (Outspider DT and Outspider DT WS(UB)(U) and SECURITY Mode (Only OutSpider DT)

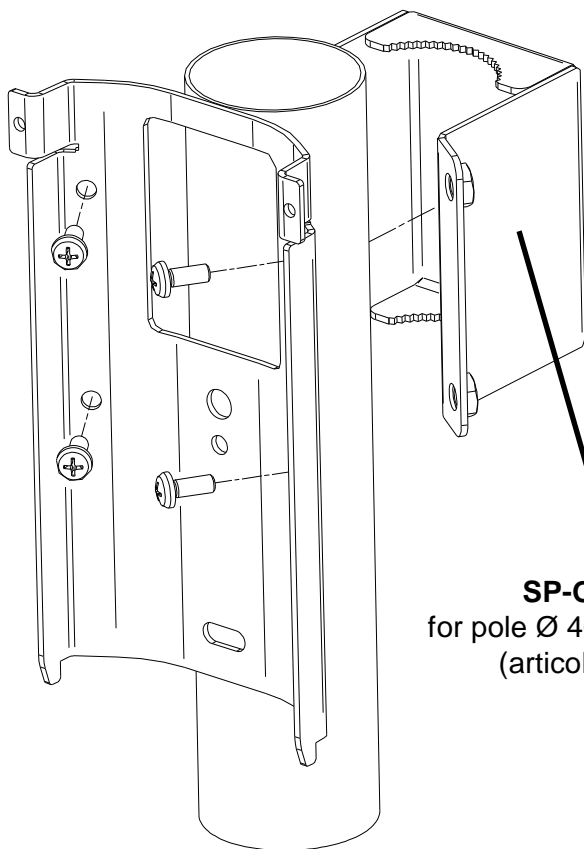
The **AND** mode requires that both technologies go into alarm within a close time interval to set off the general alarm.

While the **OUTSPIDER DT WS(UB)(U)** manages **only** this mode, in addition to this the **OUTSPIDER DT**, which is the **default** mode, can also operate in **SECURITY** mode if one of the two technologies goes repeatedly into alarm within a certain time interval, the sensor will still set off the general alarm.

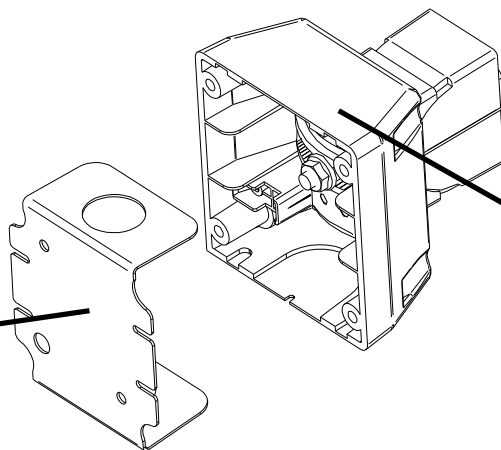
Specifically, if at least 4 infrared alarms or 7 microwave alarms occur within about 30 seconds, the detectors go into alarm status. The AND condition remains valid however, since an alarm for both technologies within a specific amount of time immediately trips the general sensor alarm.

No matter what the mode is, AND or SECURITY, the alarm for each individual technology is processed according to the criteria described in previous paragraphs for sensitivity levels and the selected operational modes: default, medium, low and high for the infrared; default, only approaching, only moving away and no control for the microwave.

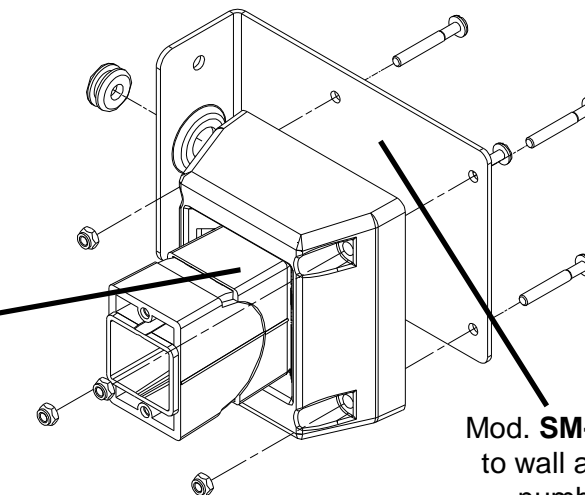
Accessories



SP-OUT Mod.
for pole Ø 40 mm installation
(articolo 1135106)



ST-OUT Mod.:
for wall fixing of
an electric tube Ø 20 mm
(item code 1135108)




Mod. SM-OUT for fixation
to wall at 90° (item part
number 1135107)

SUPPLIED ACCESSORIES

JOINT made up of:	A. Wall bracket	1
	B. Intermediate joint	1
	C. Sensor-side joint	1
	D. Stainless steel TC-C M6 screw	1
	E. Stainless steel M6 nut	1
	F. Toothed washer	1
TAMPER made up of:	A. Tamper guide	1
	B. button with spring	1
	C. Self-threading screw TCC 2.9 x 9.5	1
	D. TCC 4 X 45 screw	1
	E. S5 plug	1
5° opening lens, 15 meter capacity	BARRIER LENS	1
5° opening lens, 23 meter capacity	LONG RANGE lens	1
90° opening lens, 15 meter capacity	ANIMAL ALLEY lens	1
To fix sensor to the plate	Stainless steel M4 x 10 screw	2
To fix cover	Stainless TC-C X Plastic 4X14 screw	1
To fix joint to sensor	Stainless TC-C X Plastic 4X14 screw	2
To fix sensor/joint to the wall	TCC 3.5 X 30 screw	4
	S5 plug	4
	Adhesive rubber-sponge	1
For power cable passage	Cable gland	1

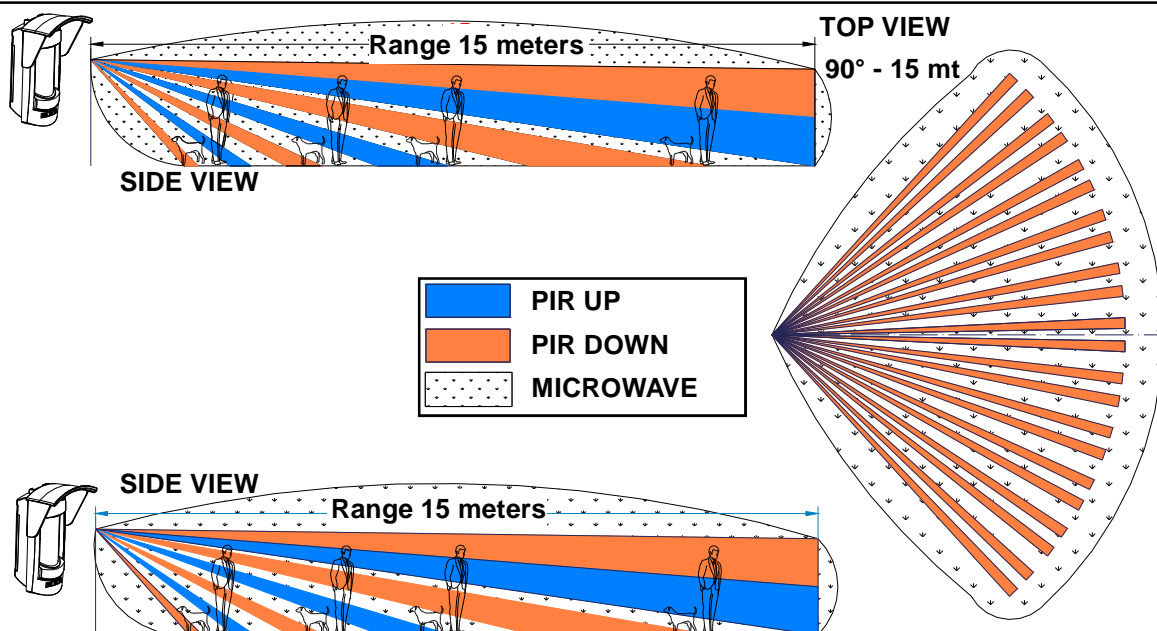
Supplied joint

Coverage

 The lens code is imprinted inside a long side of the actual lens

w With **Wide Angle** lens (cod **FR09-0001-30**): opening **90°**, range **15 mt**, suggested installation height about **2,2 mt**.

- Ideal for protection of wide areas of medium range



w **OUTSPIDER** manages to discriminate the intrusion of medium sized animals (**PET IMMUNE**)

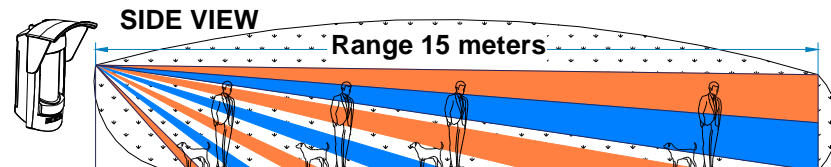
w The reference code of the lens is printed inside one of the long sides of the lens itself

w The reference of the microwave section shown in the drawings concerns to the **OUTSPIDER DT** and **OUTSPIDER DT WS(UB)(U)** models with all various types of lenses

w The effective coverage of the infrared section could result significantly different from the nominal value depending on the ambient temperature

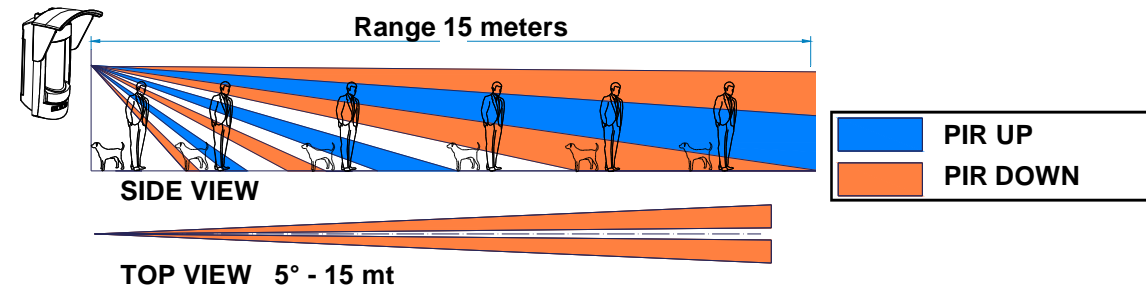
w With **Animal Alley** lens (cod. **FR09-0004-30**): opening **90°**, range **15 mt**, installation height about **1,50 mt**

- Ideal for protection of wide areas of medium range



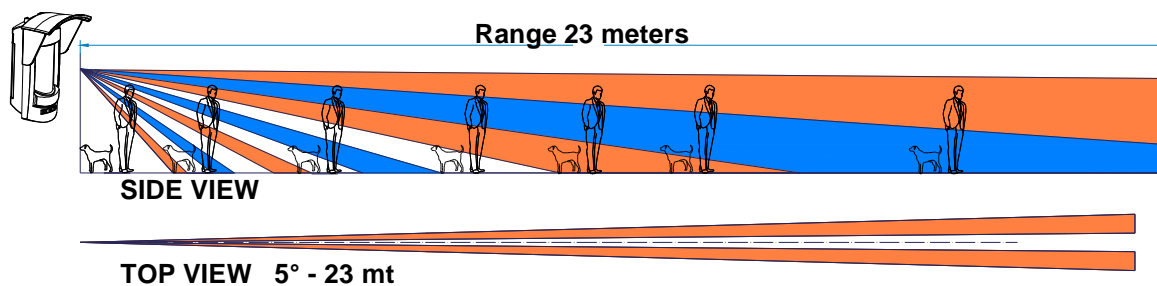
w With **Barrier lens** lens (code **FR09-0002-30**): opening **5°**, range **15 mt.**, suggested installation height about **2,2 mt**

- Ideal for medium range protection of narrow corridors



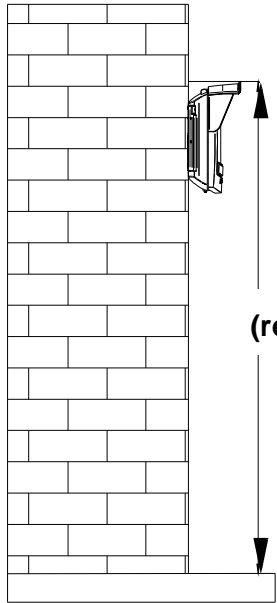
w With **Long Range** lens (code **FR09-0003-30**): opening **5°**, range **23 mt**, suggested installation height about **2,2 mt**

- Ideal for long range protection of narrow corridors



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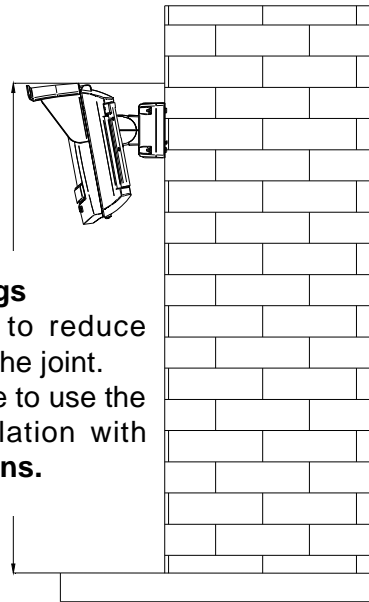
Warnings



2.7 metres
(max.)

2,2 metres
(recommended)

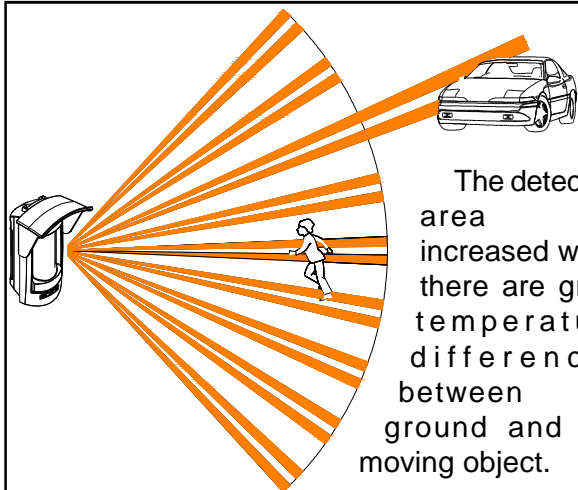
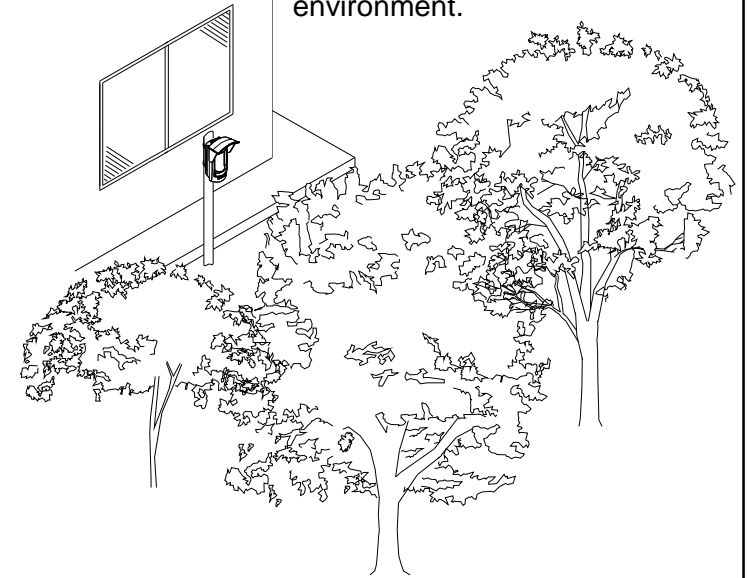
1.5 metres
(minimum)



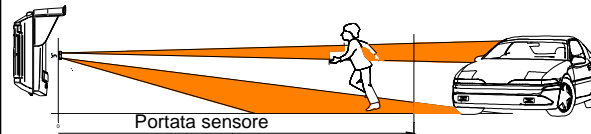
Warnings

- w It is possible to reduce capacity using the joint.
- w It is not possible to use the joint for installation with **Animal alley lens**.

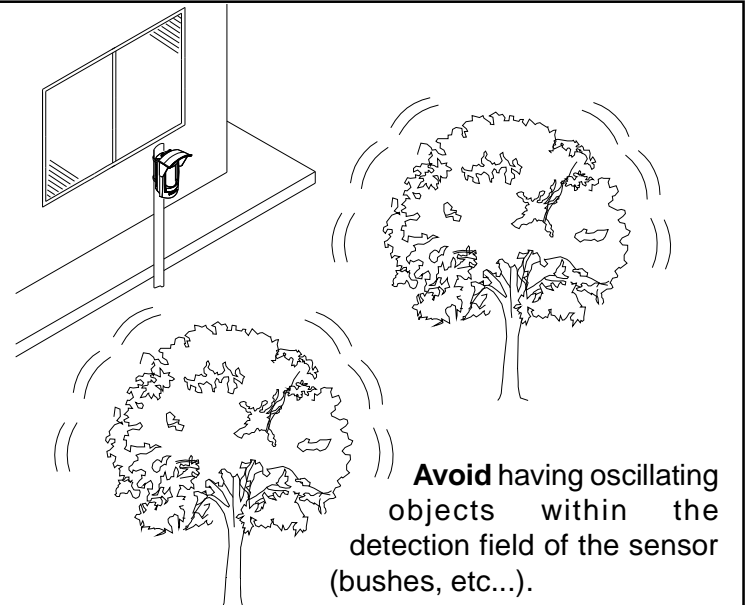
Avoid the presence of objects in the sensor detection area that cover the read range or that there are plants that over time modify the surrounding environment.



The detection area is increased when there are great temperature differences between the ground and the moving object.

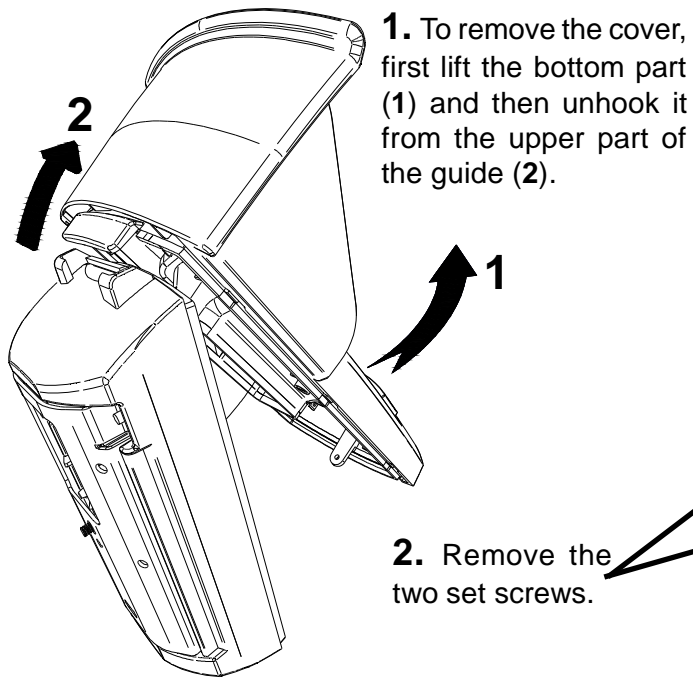


If the detection area reaches in proximity of a road (and without any separation), it is possible that the sensor detects large moving objects or heat sources that are beyond the desired capacity.

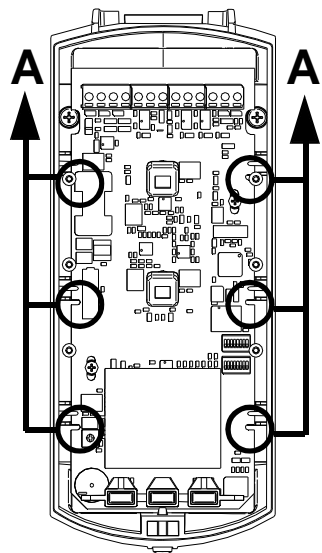
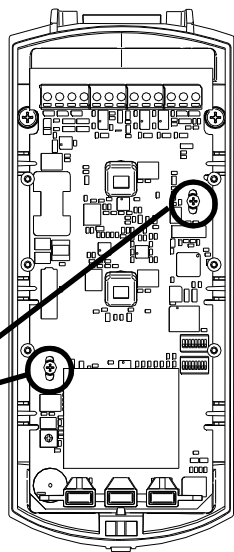


Avoid having oscillating objects within the detection field of the sensor (bushes, etc...).

Sensor opening and board removal

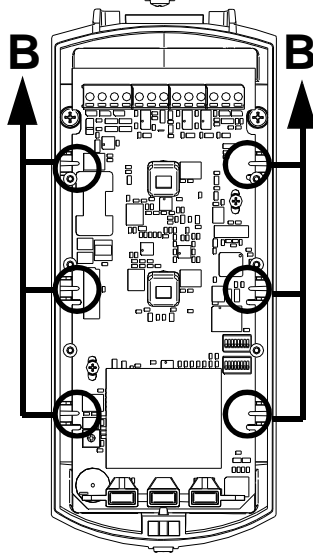


2. Remove the two set screws.

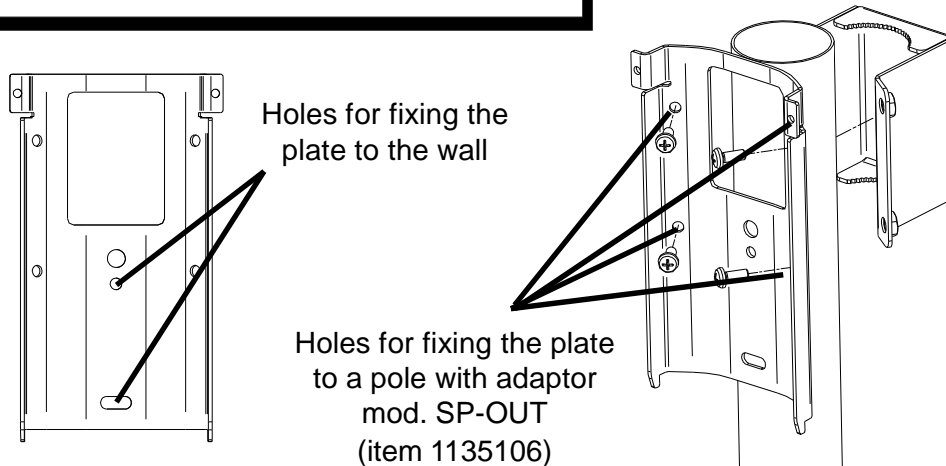


3. Slide the board until the notches **A** coincide with the stops **B**.

4. Remove the board.

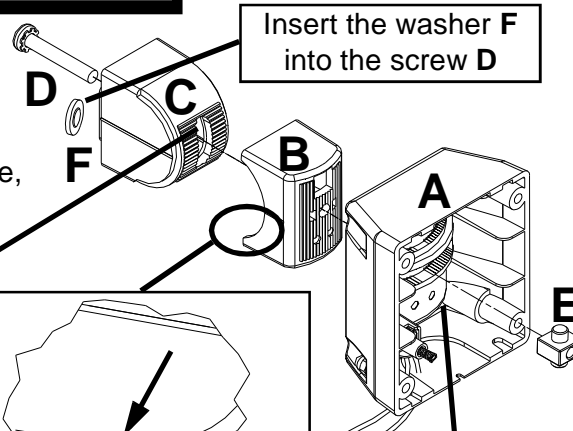


Wall and pole plate installation



Installation of the joint

Assemble and fasten using the **Screw D** and the **Nut E** the various pieces that make up the joint, as shown in figure, before fixing the *Wall side bracket A* to the wall.

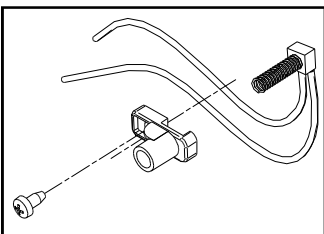


For passing connection cables and those of the anti-tampering module, use the existing space above the **Screw D**

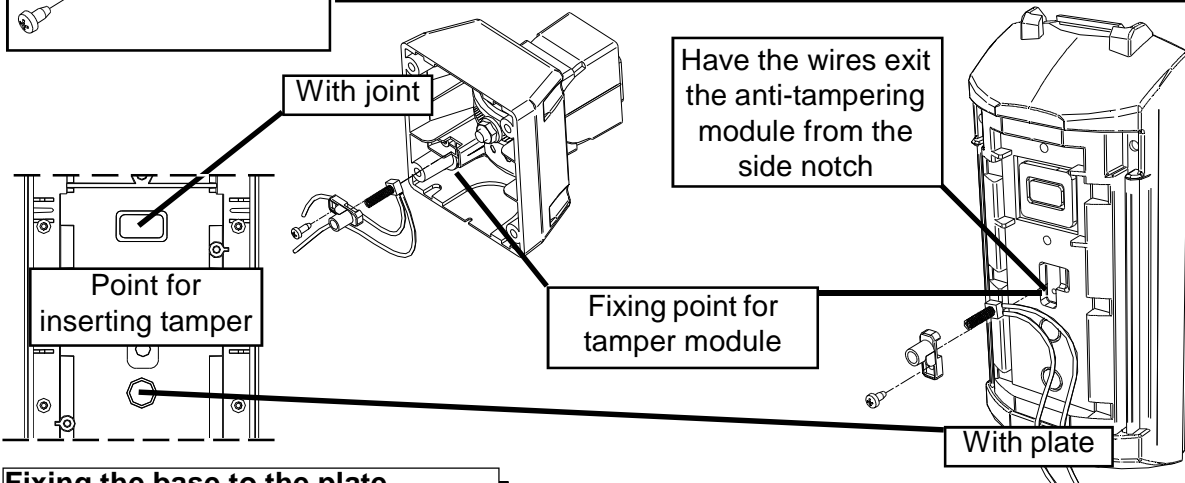
ATTENTION
Position the *Sensor side joint C* verifying that the 45° notch is on the bottom and the 90° one is on the top

ATTENTION
Before fixing the wall joint, install the anti-tampering module

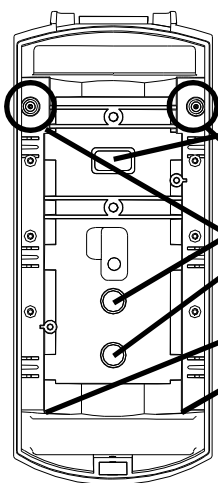
Installazione Antistrappo



w For **OUTSPIDER PA** and **OUTSPIDER DT** connect the tamper module to the negative power supply and to the specially configured AUX input (see **DIP 6** and **DIP 8** from panel **SW2**)
 w In **OUTSPIDER PA WS(UB)(U)** and **OUTSPIDER DT WS(UB)(U)** connect the tamper module to the dedicated terminals **T T**



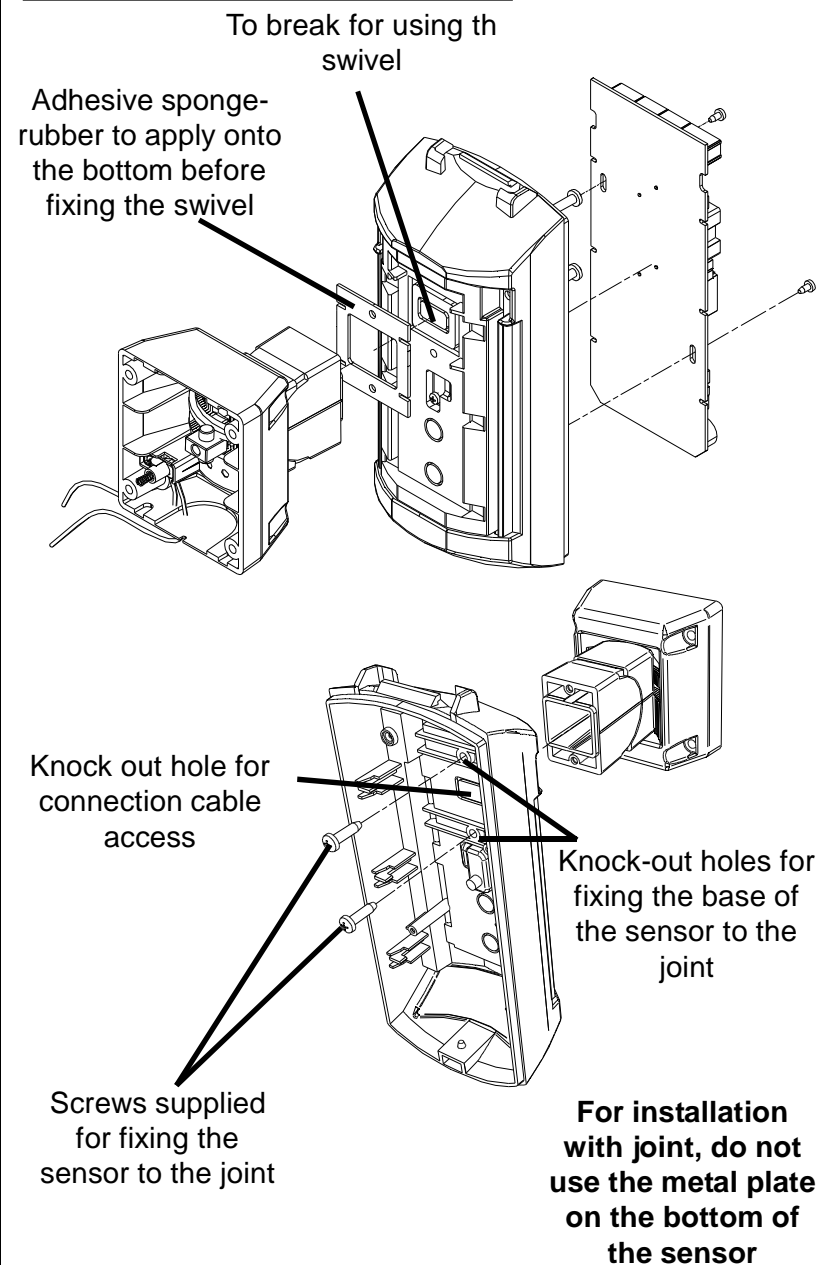
Fixing the base to the plate



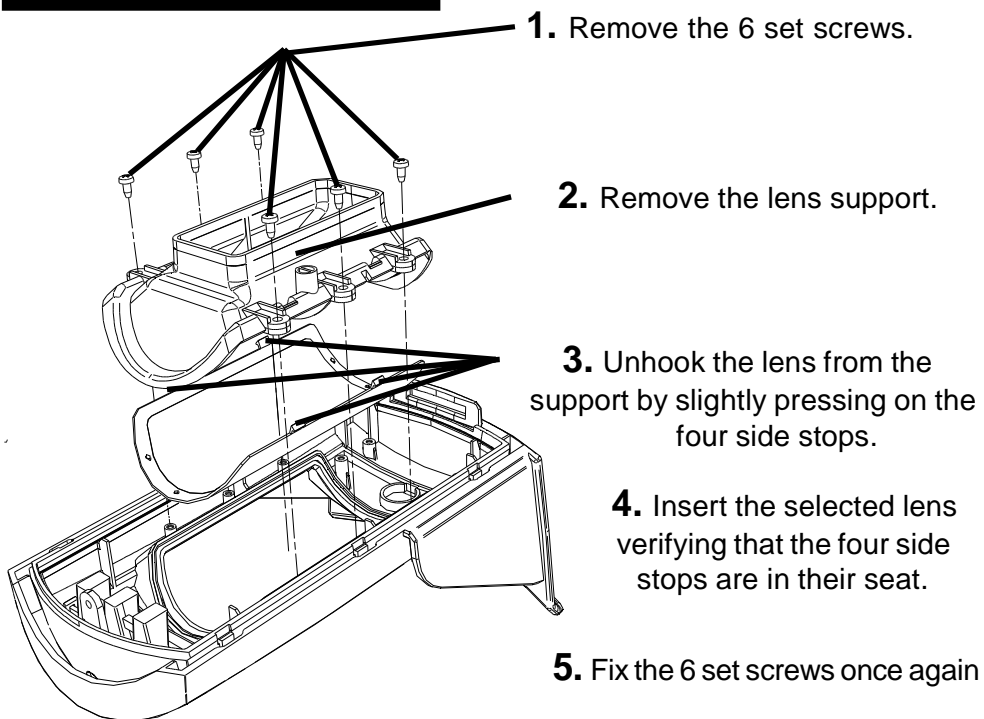
Presettings for access of connection wires

1. Hook the base of the sensor to the two stops on the lower portion of the metal plate
2. Fix the base of the sensor to the metal plate using the two screws provided

Fixing the base to the joint

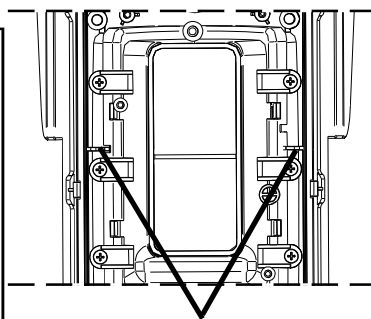


Lens change



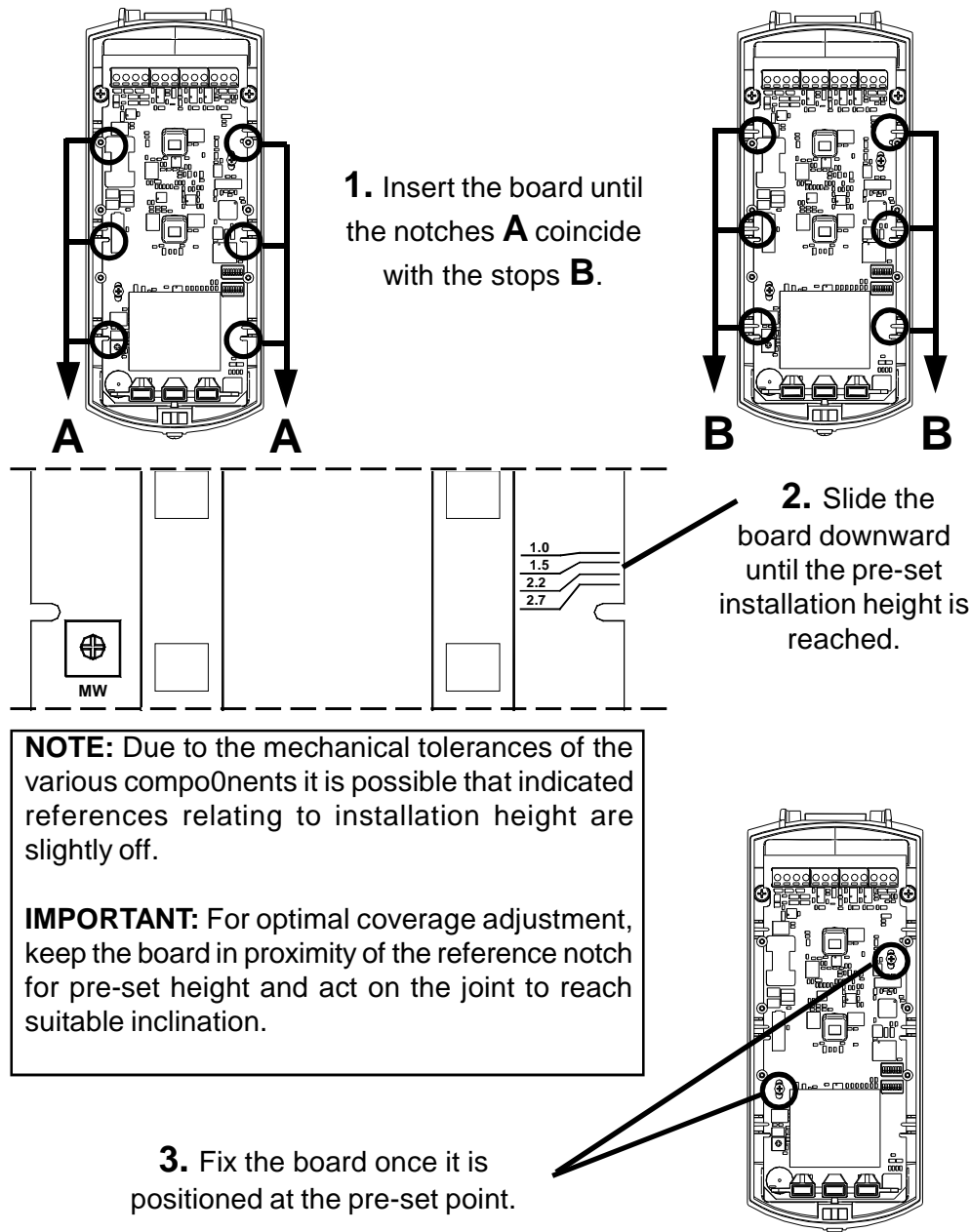
- w With **Wide angle** lens (cod.FR09-0001-30): opening 90°, capacity 15 m, recommended installation height about 2.20 m.
- w With **Barrier** lens (cod.FR09-0002-30): opening 5°, capacity 15 m, recommended installation height about 2.20 m.
- w With **Long range** lens (cod.FR09-0003-30): opening 5°, capacity 23 m, recommended installation height about 2.20 m.
- w With **Animal alley** lens (cod.FR09-0004-30): opening 90°, capacity 15 m, recommended installation height about 1.50 m.

The lens code is imprinted inside a long side of the actual lens



6. Reposition the lens support in its seat verifying that the two notches are correctly in their guides.

Fixing the board




NOTE: Due to the mechanical tolerances of the various components it is possible that indicated references relating to installation height are slightly off.


IMPORTANT: For optimal coverage adjustment, keep the board in proximity of the reference notch for pre-set height and act on the joint to reach suitable inclination.

Calibration procedure

OUTSPIDER PA

OUTSPIDER DT

 **In order to test the detector, it is necessary to close the cover correctly**

 **First to proceed with calibration, set correctly the sensibility/ range of the microwave**

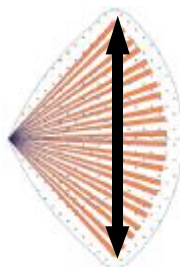
It is possible to activate the calibration mode that defines the best possible position of the electronic card, depending on the installation height, and obtains the ideal infrared section detection.

1. Place DIP1 in SW2 in ON-OFF-ON or OFF-ON-OFF
The led will flash for few seconds to confirm that the procedure has been activated (calibration mode will be active for 1 hour).

2. Perpendicularly cross the detection area at the maximum distance you want to detect.

During a crossing, if the card is not positioned correctly, not only the buzzer will sound intermittently but the green (á) or yellow (â) LED blinks.

During a crossing, if the card is positioned correctly not only the buzzer will sound continuously but the red LED will activate.



3. If the YELLOW LED blinks and the buzzer sounds QUICKLY (0.1 sec beep - 0.1 sec pause), SLIDE DOWN (â) the electronic card by small variations.




If the GREEN LED blinks and the buzzer sounds SLOWLY (0.1 sec beep - 1.5 sec pause), SLIDE UP (á) the electronic card by small variations.




Calibration procedure

OUTSPIDER PA WS(UB)(U)

OUTSPIDER DT WS(UB)(U)

 **In order to test the detector, it is necessary to close the cover correctly**

 **First to proceed with calibration, set correctly the sensibility/ range of the microwave**

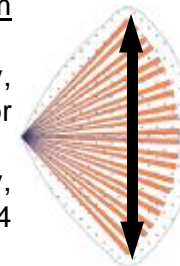
It is possible to activate the calibration mode that defines the best possible position of the electronic card, depending on the installation height, and obtains the ideal infrared section detection.

1. Move DIP6 in SW1 in ON.
(calibration mode will be active for 1 hour)

2. Perpendicularly cross the detection area at the maximum distance you want to detect.

During a crossing, if the card is not positioned correctly, both LED and buzzer will be activated alternatively, more or less quickly.

During a crossing, if the card is positioned correctly, there will be 4 beep of the buzzer and the red LED blinks 4 times, as in a regular alarm transmission.



3. The LED blinks and the buzzer sounds QUICKLY (0.1 sec beep - 0.1 sec pause), SLIDE DOWN (â) the electronic card by small variations.



The LED blinks and the buzzer sounds SLOWLY (0.1 sec beep - 1.5 sec pause), SLIDE UP (á) the electronic card by small variations.

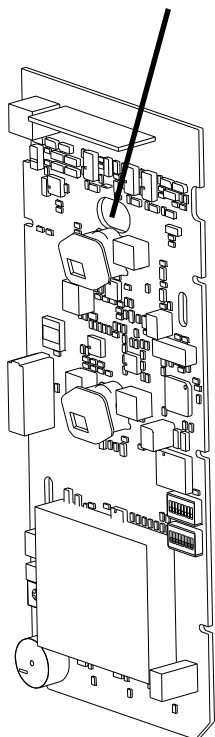


Hole for joint adjustment

In case you need to adjust the position of the sensor, the board is designed with a hole to easily access the joint screw, without having to remove the board from its housing.

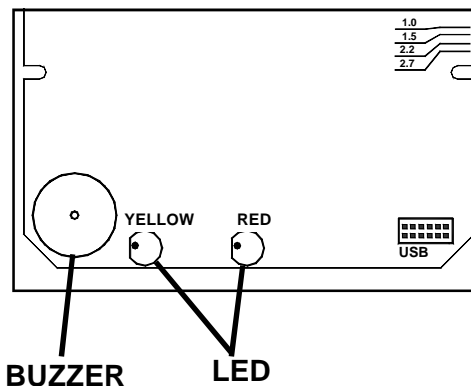
The hole is placed over the top PIR so in order to use it, it is necessary to lift the adhesive foam located over the hole.

HOLE FOR JOINT ADJUSTMENT



Recommendations OUTSPIDER PA

OUTSPIDER PA is equipped with a **buzzer** and a series of LED in order to give an optical-acoustic signal (**Walk Test**) even if a block is applied to the sensor.

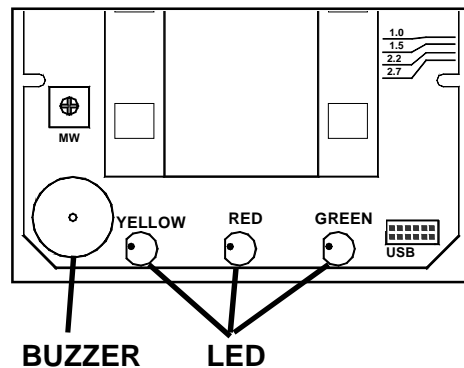


LED		
Yellow	Steady:	Passive infrared alarm signal
	Fast flashing:	Antimask alarm signal
	Slow flashing:	Dirty lenses fault signal
	Flashing:	Alternately with red LED for about 60 seconds at first feeding
Red	Steady:	General alarm signal
	Flashing:	Alternately with yellow LED for about 60 seconds at first feeding

When powering the first time, **OUTSPIDER PA** remain **inhibited** for about **60 seconds**, during which the **yellow** and **red** LED, if enabled, flash alternately and the buzzer emits an intermittent signal.

Recommendations OUTSPIDER DT

OUTSPIDER DT is equipped with a **buzzer** and an LED in order to give an optical-acoustic signal (**Walk Test**) only if a block is not applied to the sensor or it is set in Security mode.

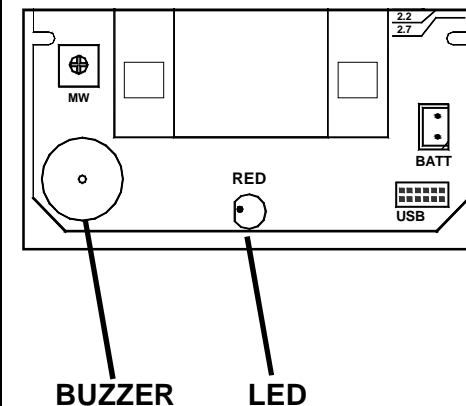


LED		
Yellow	Steady:	Passive infrared alarm signal
	Fast flashing:	Antimask alarm signal
	Slow flashing:	Dirty lenses fault signal
Red	Flashing:	Alternately with red LED for about 60 seconds at first feeding
	Steady:	General alarm signal
Green	Flashing:	Alternately with yellow LED for about 60 seconds at first feeding
	Steady:	Microwave section alarm signal

When powering the first time, **OUTSPIDER DT** remain **inhibited** for about **60 seconds**, during which the **yellow** and **red** LED, if enabled, flash alternately and the buzzer emits an intermittent signal.

Recommendations OUTSPIDER PA and OUTSPIDER DT WS (UB) (U)

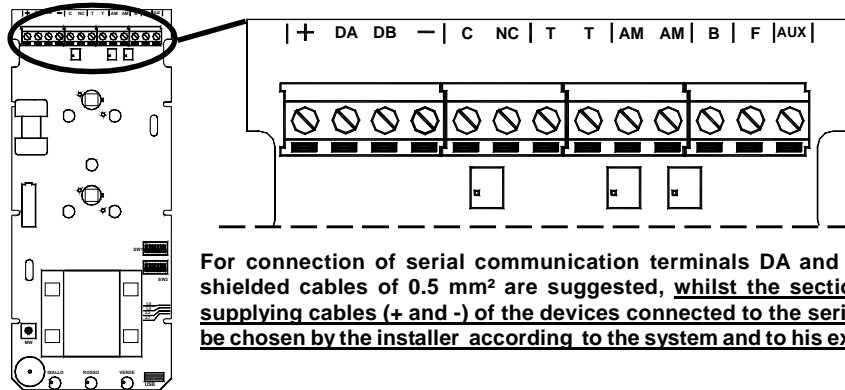
OUTSPIDER PA WS(UB) (U) and **OUTSPIDER DT WS(UB) (U)** are equipped with a **buzzer** and a **led** to provide a visual-acoustic warning (**Walk Test**)



LED		
Red	Steady:	General alarm signal
	Flashing:	Alternately with yellow LED for about 60 seconds at first feeding

At the first power supply of the **OUTSPIDER PA WS (UB) (U)** and **OUTSPIDER DT WS (UB) (U)** it is necessary to let the sensor rest with the cover on for about **90 seconds** during which time it acquires the average signal of the various analog signals it will be controlling. It is important that the cover is kept closed so that it does not distort the average anti-mask signal and to avoid false detections.

Terminal board OUTSPIDER PA e OUTSPIDER DT



For connection of serial communication terminals DA and DB only, shielded cables of 0.5 mm² are suggested, whilst the section of the supplying cables (+ and -) of the devices connected to the serial has to be chosen by the installer according to the system and to his experience

TERMINAL BOARD

+	Power supply positive pole 12 V $\overline{\text{---}}$
DA DB	Serial RS485: When operating with Relay the serial is disabled. When operating with BUS , to be connected to input of XSATHP satellites or directly to serial 485 of pre-set control panels
-	Power supply negative pole 12 V $\overline{\text{---}}$
C NC	Alarm signal output. Contact C - N.C. controlled by microprocessor.
T T	Anti-tampering signal output. Contact C - N.C. controlled by microprocessor.
AM AM	Anti-mask signal output. Contact C - N.C. controlled by microprocessor.
B	Input enabling sensor to have reference of status of control panel. To manage this information, when the control panel is off, this input must be closed to positive pole. In this condition, act as follows: OUTSPIDER PA: <ul style="list-style-type: none"> • the alarm relay remains closed • if an alarm is generated, the LED and buzzer are activated. OUTSPIDER DT: <ul style="list-style-type: none"> • the alarm relay remains closed • The microwave power is cut (only if the HPWIN software sets the step "Always memorise alarm" at ON, the microwave continues working regularly) • if an alarm is generated, the LED and buzzer are not activated (only if the HPWIN software sets the step "Always memorise alarm" at ON or the "Security" mode is set, the LEDs activate)
F	Dirty Lenses Failure signal output. This terminal supplies a transistorised negative pole if an increase of the reflected signal, prolonged in time, is detected by anti-mask circuit.
AUX	With the DIP SWITCH 6 ON , the offset of this input activates the Alarm relay. With DIP SWITCH 6 OFF , the offset of this input activates the Tamper relay (to be used for the anti-tamper circuit connection).

Dip Switch OUTSPIDER PA e OUTSPIDER DT

SW1 - FUNCTIONS

In operation with relays, the configurations that can be programmed with the Dip Switch SW1 strip are:

INFRARED SECTION CONFIGURATION			
DIP 1	OFF	DEFAULT	In this configuration, the infrared section has a default sensitivity (studied for standard use) and executes a digital analysis of the signals.
DIP 2	OFF		
DIP 1	ON	LOW	in this configuration, the infrared section has a low sensitivity compared to the default and executes a digital analysis of the signals which is more severe than the default one and considers a dual impulse .
DIP 2	OFF		
DIP 1	OFF	MEDIUM	in this configuration, the infrared section has a medium sensitivity compared to the default and executes a digital analysis of the signals which is more severe than the default one.
DIP 2	ON		
DIP 1	ON	HIGH	in this configurations, the sensor has a high sensitivity and detects any signal analysing amplitude and frequency.
DIP 2	ON		
MICROWAVE SECTION CONFIGURATION (only OUTSPIDER DT)			
DIP 3	OFF	DEFAULT	in this configuration, the microwave section executes a digital analysis of the signal.
DIP 4	OFF		
DIP 3	ON	APPROACHING	in this configuration, the microwave section analyses the signal while considering only the movements approaching the sensor
DIP 4	OFF		
DIP 3	OFF	MOVING AWAY	in this configuration, the microwave section analyses the signal while considering only the movements moving away from the sensor
DIP 4	ON		
DIP 3	ON	NO CONTROL	in this configuration, the microwave section detects any movement while analysing the intensity and frequency of the signal.
DIP 4	ON		
SENSOR OPERATION (only OUTSPIDER DT)			
DIP 5	OFF	AND	the alarm is generated only when both sections (infrared and microwave) detect the adequate signal
	ON	SECURITY (not recommended for external use)	
DIP 6		NOT USED	
DIP 7		NOT USED	
DIP 8		NOT USED	

NOTE: by default, the DIP SWITCHES are all positioned at OFF.

SW2 - FUNCTIONS

DIP 1	ON	DEFAULT	Connection to DIP/RELAY
	OFF		Connection to PC/BUS
DIP 2	ON	DEFAULT	Buzzer enabled
	OFF		Buzzer excluded
DIP 3	ON	DEFAULT	Red LED enabled Alarm
	OFF		Red LED excluded Alarm
DIP 4	ON	DEFAULT	Green LED enabled Microwave
	OFF		Green LED excluded Microwave
DIP 5	ON	DEFAULT	Yellow LED enabled Infrared, Antimask and Dirty lenses
	OFF		Yellow LED excluded Infrared, Antimask and Dirty lenses
DIP 6	ON		AUX input activates Alarm relay
	OFF	DEFAULT	AUX input activates Tamper relay
DIP 7	ON	DEFAULT	Antimask function enabled
	OFF		Antimask function excluded
DIP 8	ON		AUX input management enabled
	OFF	DEFAULT	AUX input management disabled

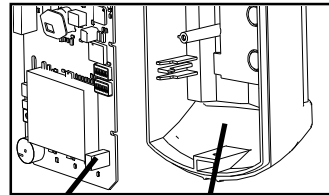
IMPORTANT: In the mode with BUS, the functions configurable through DIP SWITCH SW2 cannot be modified through the PC except for the ANTIMASK function (DIP 7)

Battery OUTSPIDER PA WS(UB) e OUTSPIDER DT WS(UB)

NOTE: OUTSPIDER PA WS(UB) and OUTSPIDER DT WS(UB) are provided with a lithium 3.6V 8.5Ah battery (mod. C Size) complete with cable with Amp. connector end.

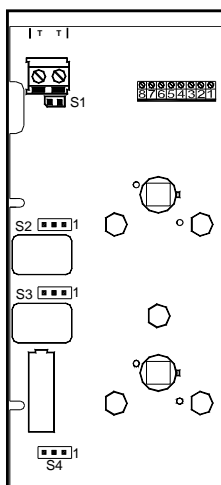
To power the sensor, plug the battery Amp onto the appropriate reference on the bottom of the sensor as shown in the picture, and place the battery on the back of the board.

Note:The "U" versions are supplied without a battery.



BATTERY ATTACHMENT **BATTERY COMPARTMENT**

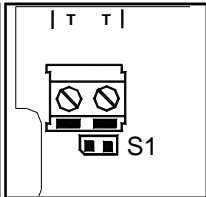
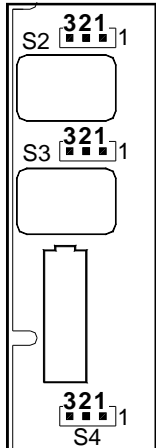
Terminal and Jumper OUTSPIDER PA WS(UB)(B) e OUTSPIDER DT WS(UB)(B)



Terminal block present on OUTSPIDER PA WS(UB)(U) and OUTSPIDER DT WS(UB)(U) only

Terminal block present on OUTSPIDER PA WS(UB)(U) and OUTSPIDER DT WS(UB)(U) only

Terminal	Description
1	<p>"+" positive</p> <p>It is possible to apply a positive between 3.0 and 3.6 V to terminal " + " to give power to OUTSPIDER the WS (if the model without battery " U " is used)</p> <p>or</p> <p>You can use it as power output for an external transmitter (if the model used is the "UB "with battery)</p> <p>Note: In all cases, the detector performs a check on the battery level</p>
2	"-" Negative
3	Tamper
4	
5	Alarm
6	
7	Antimask Battery
8	



TT : Normally closed input for connection of wall removal tamper switch of the bracket. When open, causes a cyclical TAMPER transmission each minute inhibiting the alarm transmission, in the same way as when the tamper switch of the front cover is open.

Jumper	Position	Description
S1	Closed	TT input active
	Open	TT input inactive
S2	1 - 2	Antimask relay with contact C / NC at rest
	2 - 3	Antimask relay with contact C / NO at rest
S3	1 - 2	Alarm relay contact with C / NC at rest
	2 - 3	Alarm relay contact with C / NO at rest
S4	1 - 2	Tamper relay contact with C / NC at rest
	2 - 3	Tamper relay contact with C / NO at rest

By default, jumper S2, S3 and S4 are in positions 1-2

Dip Switch OUTSPIDER PA WS e OUTSPIDER DT WS

FUNCTIONS

DIP SWITCH SW 1:

	ON	OFF
DIP 1 - 5	Addressing sensors: Follow the radio sensors acquisition procedure described in either the central stations or receiver which the sensors will be coupled with. (Default: all ON = Sensor 1)	
DIP 6	USB Enabled - Survival not active	USB Disabled (Default)
DIP 7	Buzzer Enabled (Default)	Buzzer Disabled
DIP 8	Led Red Enabled (Default)	Led Red Disabled

DIP SWITCH SW 2:

DIP 1	ON	the sensor works based on the settings made by DIP 2,3 and 7 of strip SW 2 is not considering any changes made by PC (Default)	
	OFF	the sensor works based on the settings made by PC is not considering any changes made by DIP 2,3 and 7 of strip SW 2	
INFRARED SECTION CONFIGURATION			
DIP 2	OFF	DEFAULT	In this configuration, the infrared section has a default sensitivity (studied for standard use) and executes a digital analysis of the signals.
DIP 3	OFF		
DIP 2	ON	LOW	in this configuration, the infrared section has a low sensitivity compared to the default and executes a digital analysis of the signals which is more severe than the default one and considers a dual impulse.
DIP 3	OFF		
DIP 2	OFF	MEDIUM	in this configuration, the infrared section has a medium sensitivity compared to the default and executes a digital analysis of the signals which is more severe than the default one.
DIP 3	ON		
DIP 2	ON	HIGH	in this configurations, the sensor has a high sensitivity and detects any signal analysing amplitude and frequency.
DIP 3	ON		
DIP 4	OFF	Only mod.UB and U	battery control off
	ON		enables battery control The battery low signal will be associated to putput no. 7
DIP 6		NOT USED	
ANTIMASK			
DIP 7	OFF		ANTIMASK disabled
	ON		ANTIMASK enabled (Default) The antimask signal will be associated to putput no. 7
OPERATION			
DIP 5	OFF		follows the DIP8 settings
	ON	and DIP8=OFF	the sensor inhibition time after transmitting an alari is set at 3 minutes
DIP 8	OFF	LOW CONSUMPTION	after an alarm transmission, the detector continues to analyze the surrounding space but won't emit any more, at least for the following 3 min during which it detects nothing.
	ON	NORMAL CONSUMPTION	detects and transmits the alarm without inhibition time (Default)

ENGINE

Sensor OUTSPIDER PA and OUTSPIDER DT operation

The sensors can be connected in **DIP/RELE'** mode or in **PC/BUS** mode:

DIP/RELE' Mode (SW2:DIP1-ON):

The programming occurs via the two sets of dip-switches which are on board:

In this working mode:

- the relay and O.C. outputs are active
- the RS485 serial is not active
- the USB connexion is active
- the HPWIN software only allows the visualization (and not the programming) of the detector status.
- The connection of the detector occurs exclusively using the relays and outputs on board.

PC mode and BUS activation (SW2: DIP1-OFF):

The programming can occur by PC via the HPWIN software or via the Dip mode following a special procedure.

In the PC mode, although previously set in the detector by the DIP-SWITCH, the configuration can be modified using the HPWIN program.

In this working mode:

- The relay and O.C. outputs are active
- The RS485 serial is active
- The USB connection is active
- The HPWIN software allows the entire management of the detector
- The connection of the detector occurs by using the RS485 serial or the relays on board.

Only management of the LEDs and the AUX clamp cannot be modified through the PC, but only using the related DIP SWITCHES (1 - 2 - 3 - 4 - 5 - 6 and 8 of the SW 2).

Acquisition sensor OUTSPIDER PA WS and OUTSPIDER DT WS

Follow the radio sensors acquisition procedure described in either the central stations or receiver which the sensors will be coupled with.

For the sensor, set the desired radio frequency using dip switches **1 to 5 on the SW1 panel**, connect the battery and run a tamper transmission.

USB-OUT module

Connector for connecting the module mod. **USB-OUT** (item 1135105) for direct handling of the sensor by way of the PC.

With the **USB-OUT** adapter it is possible to connect the sensor directly to the PC for managing through the **HPWIN** software.

OUTSPIDER PA and OUTSPIDER DT

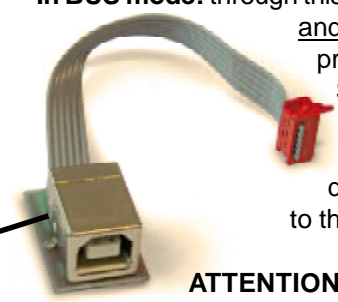
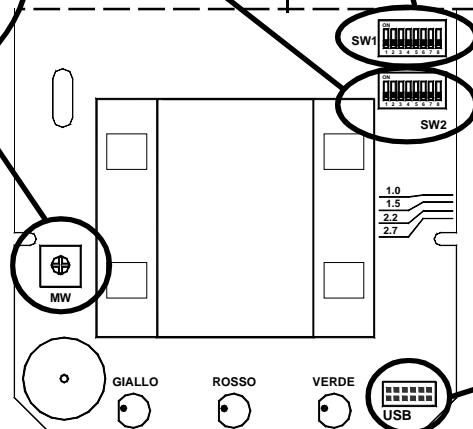
In the RELAY mode: through this connection it is possible to display the configuration made by way of the DIP SWITCH, display actual sensor operation and acquire the download of the last 1920 events to the pc.

In BUS mode: through this connection it is possible to display and modify the configuration, even is previously completed by way of DIP SWITCH, adjust microwave sensitivity, display actual sensor operation and acquire the download of the last 1920 events to the pc.

SW 1

SW 2

Trimmer for adjusting microwave capacity, **increases when turned clockwise**



ATTENTION: in order to test the detector, it is necessary to close the cover correctly. To maintain the USB connection active, take the **USB-OUT** module cable from the lower side of the detector beside the blocking screw of the cover

OUTSPIDER PA WS (UB) (U) and OUTSPIDER DT WS (UB) (U)

To connect the sensor to the PC you must enable the USB interface via the **dip 6 of SW1** before attaching the connecting cable between the PC and the sensor.

Once **dip 6 of SW1** is switched **ON**, wait about 10 seconds and then connect the cable to the sensor and the PC.



When the USB interface is activated, the sensor has a constant consumption of about 35 mA. Once you have finished working with your PC, disconnect the USB cable and switch the **dip 6 of SW1** to **OFF** to set the sensor in normal operating, low consumption mode.

Sensor address

For **OUTSPIDER PA WS** and **OUTSPIDER DT WS** models, and for **OUTSPIDER PA** and **OUTSPIDER DT** models used with serial connections (DIP 1 of SW2 in OFF), the DIP SWITCHES from 1 to 5 at the desk SW1 are used to assign an address to the sensor.

However, for **OUTSPIDER PA** and **OUTSPIDER DT** it is also possible to use the DIP SWITCHES of SW 1 momentarily in PC/ BUS mode to configure the two sections as if the DIP/RELE' mode was selected.

SW1 - SENSOR ADDRESS

Sensor	DIP1	DIP2	DIP3	DIP4	DIP5	Sensor	DIP1	DIP2	DIP3	DIP4	DIP5
1	ON	ON	ON	ON	ON	17	ON	ON	ON	ON	OFF
2	OFF	ON	ON	ON	ON	18	OFF	ON	ON	ON	OFF
3	ON	OFF	ON	ON	ON	19	ON	OFF	ON	ON	OFF
4	OFF	OFF	ON	ON	ON	20	OFF	OFF	ON	ON	OFF
5	ON	ON	OFF	ON	ON	21	ON	ON	OFF	ON	OFF
6	OFF	ON	OFF	ON	ON	22	OFF	ON	OFF	ON	OFF
7	ON	OFF	OFF	ON	ON	23	ON	OFF	OFF	ON	OFF
8	OFF	OFF	OFF	ON	ON	24	OFF	OFF	OFF	ON	OFF
9	ON	ON	ON	OFF	ON	25	ON	ON	ON	OFF	OFF
10	OFF	ON	ON	OFF	ON	26	OFF	ON	ON	OFF	OFF
11	ON	OFF	ON	OFF	ON	27	ON	OFF	ON	OFF	OFF
12	OFF	OFF	ON	OFF	ON	28	OFF	OFF	ON	OFF	OFF
13	ON	ON	OFF	OFF	ON	29	ON	ON	OFF	OFF	OFF
14	OFF	ON	OFF	OFF	ON	30	OFF	ON	OFF	OFF	OFF
15	ON	OFF	OFF	OFF	ON	31	ON	OFF	OFF	OFF	OFF
16	OFF	OFF	OFF	OFF	ON	32	OFF	OFF	OFF	OFF	OFF

To do so, simply:

1. Set the DIP SWITCH according to the desired configuration.
2. Put DIP SWITCH 1 of SW 2 in the ON position.
3. Bring DIP SWITCH 1 of SW 2 back to the OFF position.
4. Place the DIP SWITCH of SW 1 in position according to the address that will be assigned to the sensor.

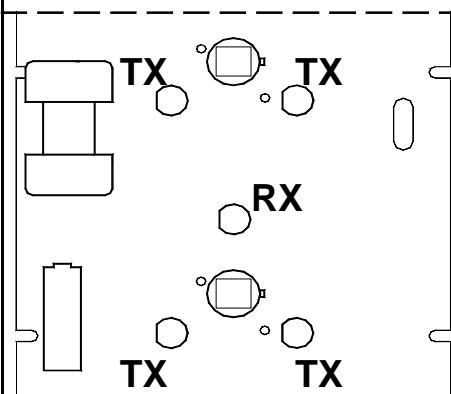
Initial power-up

Upon initial power-up the anti-masking circuit completes a self-adjustment. **In this phase it is essential for the cover to be properly installed in order to allow the sensor to adjust itself to the correct value.**

Antimask and Dirty Lenses

OutSpider PA and **OutSpider DT** are equipped with an anti-masking circuit, made of a central RX receives and four active infrared TX transmitters positioned on the sides of the PIR sensors, that detects obstacles placed in front of the sensor up to a distance of about 5 cm. An alarm, caused by an attempt to mask the sensor, is signalled by quick flashing of the yellow sensor and activates the dedicated relay output AM.

Operation



Antimask: When the Antimask circuit detects an obstacle that is less than 5 cm from the lenses, a delay time of about 20 seconds activates before this is signalled. If, at the end of this time, the obstacle is not removed, the **AM** anti-masking relay activates and the **yellow LED** flashes slowly. Both the LED and the relay are automatically reset after the first alarm of the sensor.

NOTE: this function however does not guarantee that the sensor cannot be masked.

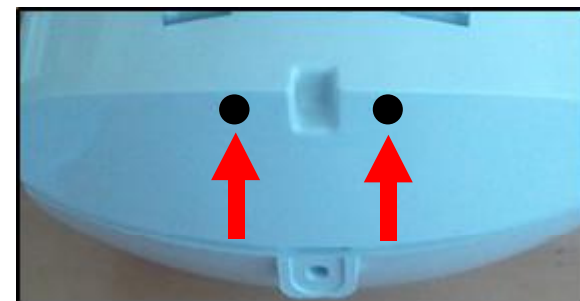
Dirty lenses: When the Antimask circuit detects that the average of the signal value saved after a certain interval of time changes by about 20 %, the **F** output and the **yellow LED** flashes slowly.

In order to restore the "dirty lenses" indication, it is necessary – after cleaning the lenses – to remove and then give again supplying to the detector.

Precautions

w Keep the sensor lens clean from dust or other filtering material that may modify its operation.

w To enable that some potential condensation can get out of the detector, two drainage perforations are predisposed on the cover in the lower part of the housing. It is prudent to practice these perforations.



Special functions

Thanks to the software from HPWIN PC, it is possible to make the best use of digital technology potential.

HPWIN allows each sensor:

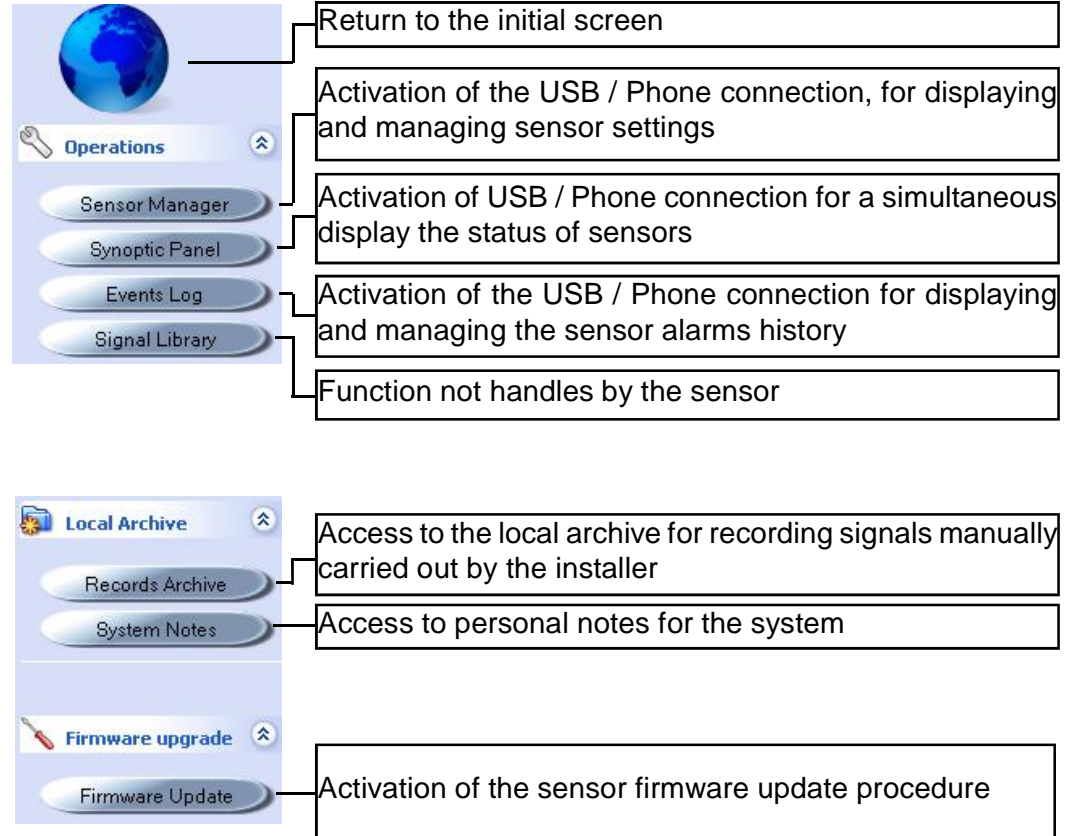
Check:

- w chart of signals from the two infrared (selectable)
- w chart of microwave signal (Outspider DT and DT WS(UB)(U) Mod.) (selectable)
- w antimask signal chart (selectable)
- w state of Alarm and Tamper outputs
- w input status (AUX) (Mod. Outspider PA and Outspider DT)
- w Antimask output status
- w F output status (Dirty lenses)
- w microwave status (alarm / rest) (Mod. Outspider DT and Outspider DTWS(UB)(U))
- w sensor diagnostics (temperature, power supply and type of connection)
- w alarms history with more than 1900 memorisations complete of date and time
- w individual sensor status synoptic (direct USB connection) or of all sensors (connection to the XSATHP by way of RS 485) (Mod. Outspider PA and Outspider DT)
- w signal adjustments archive for sensor

Management:

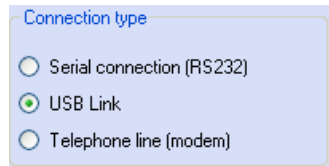
- w infrared sensitivity adjustment
- w microwave operational mode
- w microwave sensitivity adjustment (only reduction)
- w activation/exclusion of Antimask function
- w alarm saving mode
- w signals recording
- w select functioning mode (Mod. Outspider PA and Outspider DT):
 - w AND mode
 - w SECURITY mode
- w firmware upgrade (not active in PSTN/GSM)

Once the management software is installed it is necessary to create a "Nuovo Codice (New numerical Code)" in "Anagrafica Clienti (Customer Master)" and define that it is an HP / OutSpider BM.



Type of connection for managing with HPWIN software

The sensor can be connect to the PC by way of:

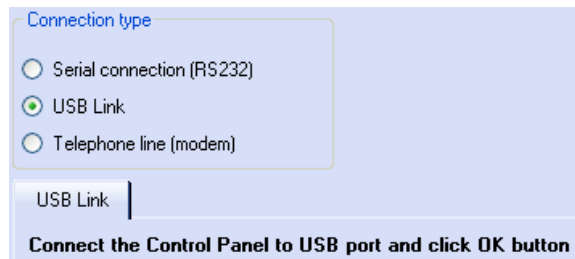


Connection type

- Serial connection (RS232)
- USB Link
- Telephone line (modem)

- w **RS232 Serial Connection (not used)**
- w **USB Connection**
- w **Phone line (modem) (Mod. Outspider PA and Outspider DT)**

USB connection



Connection type

- Serial connection (RS232)
- USB Link
- Telephone line (modem)

USB Link

Connect the Control Panel to USB port and click OK button

This type of connection makes it possible to connect the sensor to the PC by way of:

- w the **OUTUSB mod. adaptor** for a direct connection.
- w the USB port of the **XSATHP satellite** that the sensor Mod. Outspider PA and Outspider DT is connected to for a remote connection.

In order to connect:

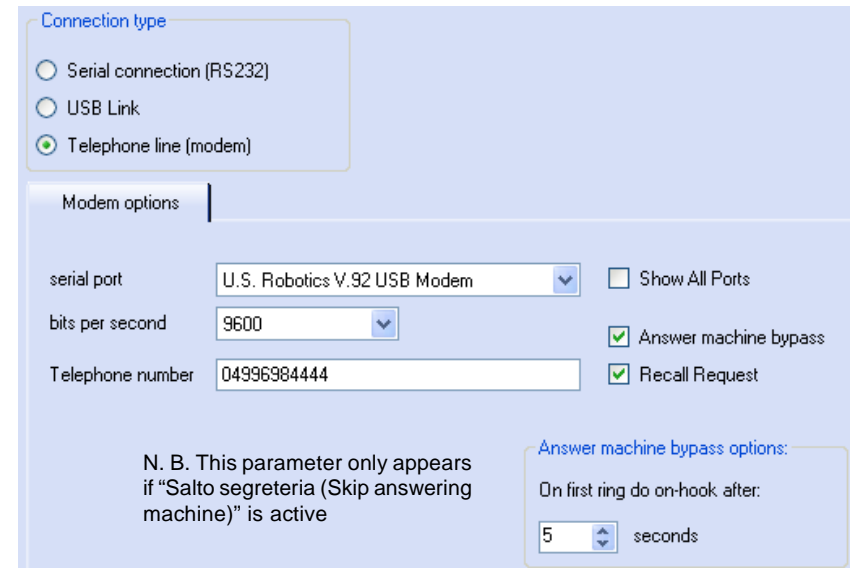
1. select type "**Connessione USB (USB Connection)**".
2. press "**OK**" on the bottom right of the screen.

Phone line (modem) (Mod. Outspider PA and Outspider DT)

This type of connection makes it possible to connect the sensor to the PC remotely using the modem, both through the PSTN and the GSM line. In this case sensor management can only take through the XSATHP satellite.

In order to connect:

1. select type "**Linea telefonica (Phone line) (modem)**"
2. in "**porta seriale (serial port)**" select the modem connected to the pc or, if "**Mostra Tutte le porte (Show All ports)**" is selected, the number of the serial port the modem is connected to
3. in "**bit per second**" select the value **9600**
4. in "**numero telefonico (phone number)**" insert the phone number to be called
5. press "**OK**" on the bottom right of the screen
 - a. if the "**Salto segreteria (Skip answering machine)**" option is activated (the PC first calls making one ring, it hangs up and then calls back after a few seconds) the wording "**Opzioni salto segreteria (Skip answering machine Options)**" appears, where it is possible to set how many seconds the first ring must last before hanging up.
 - b. if the "**Richiedi richiamata (Request recall)**" option is active, once the PC is connected to the XSATHP satellite through the phone line, it drops communication and waits for the satellite to call back.



Connection type

- Serial connection (RS232)
- USB Link
- Telephone line (modem)

Modem options

serial port: U.S. Robotics V.92 USB Modem Show All Ports

bits per second: 9600 Answer machine bypass

Telephone number: 0499698444 Recall Request

N. B. This parameter only appears if "Salto segreteria (Skip answering machine)" is active

Answer machine bypass options:
On first ring do on-hook after: 5 seconds

Sensors management

Access to this menu require a choice in type of connection:

1- Follow the procedure based on the the type of connection to be carried out

NOTE: if it is a USB connection, it may require installation of drivers for recognising the peripheral device. If the drivers are not recognised automatically, it is necessary to specify the following file path to the operating system **C:\Programmi\Xwin\Driver** and select the **stmcdcAVS.inf** file

2- Select the address of the sensor and/or the satellite on HPWIN and then chose “**Connetti (Connect)**”

NOTE: once connected the sensor model and firmware version will be displayed. Besides this, information related to the sensor will be displayed in real time, from the field signal to the status of the outputs; is will also be possible to make operational parameter changes and synchronise date and time with the PC.



Adjust date and time

This setting is important for handling sensor events history.



- CE Select “**Allinea ora (Align hour)**”
- Confirm by pressing “**Yes**” to synchronise date and time with that of the PC

Display parameters

These parameters highlight:



- Temperature:** indicates sensor operational temperature.
- Comp:** indicates the type of connection (BUS or RELAY) and therefore the position of DIP1 in SW2
- Power supply:** indicates the power present on the sensor

Status of Outputs

This section indicates the state of the receiver, the corresponding led goes from green to red when:



- Alarm:** if the sensor is in alarm status
- Tamper:** if the sensor has been tampered
- Aux:** if the auxiliary input of the sensor is enabled and open
- Antimask:** if the sensor is in anti-masking alarm status
- Lenses:** if the sensor detect the dirty lenses condition
- Microwave:** if the microwave section is in alarm status (*Mod. OutSpider DT and Outspider DT WS(UB)(U)*)

Parameters management

In this section it is possible to change sensor parameters (see SW1 - Functions Table and SW2 - Functions Tables):

OutSpider DT and OutSpider DT WS(UB)(U) Screen

Sensitivity OutSpider High	Microwave mode No control
Antimask On/Off On	Always memorize alarms On
Alarm Mod. OutSpider And	% Sensibilità microonda 0

OutSpider Sensitivity: selecting sensitivity of the infrared section

Microwave mode: selection of the microwave operational mode

Antimask On/Off: handles the Antimask function

Always memorise alarms (only Mod. OutSpider DT): memorises all alarms or only those occurring when the system is engaged

OutSpider alarm mode: selection of the sensor operational mode

% Microwave sensitivity: adjustment of microwave sensitivity (by way of software, it is only possible to decrease it compared to the value set for the sensor with the RV1 trimmer)

OutSpider PA and OutSpider PA WS(UB)(U) Screen

Sensitivity OutSpider High	Antimask On/Off On
Always memorize alarms On	

OutSpider Sensitivity: selecting sensitivity of the infrared section

Antimask On/Off: handles the Antimask function

Always memorise alarms (only Mod. OutSpider PA): memorises all alarms or only those occurring when the system is engaged

NOTE: by way of software it is not possible to change parameters related to the AUX input and LED management.

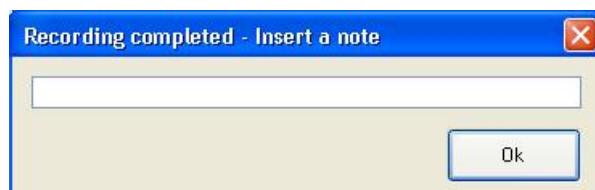
Recording



The “**REC**” button allows the installer to start recording what happens to the sensor to the PC. All signals are saved directly in an archive housed on the PC that can be consulted at will. This function is very interesting when wanting to verify detection areas of the sensor or monitor their behaviour.



The “**STOP**” button interrupts the recording.

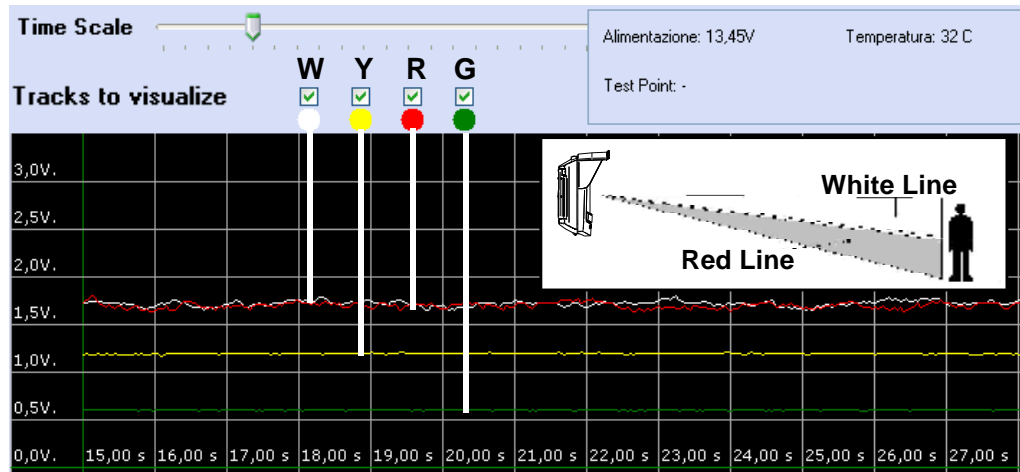


It requests for a “**Inserire una nota (Note to be inserted)**” that is necessary to distinguish the various files in the recordings history file.

In order to view them it is necessary to consult the “**I'Archivio Registrazioni (Recordings Archive)**” and select the file.

Oscilloscope function

This application makes it possible to verify sensor signals in real time:



Timing scale: selects the timing scale on the y-axis.

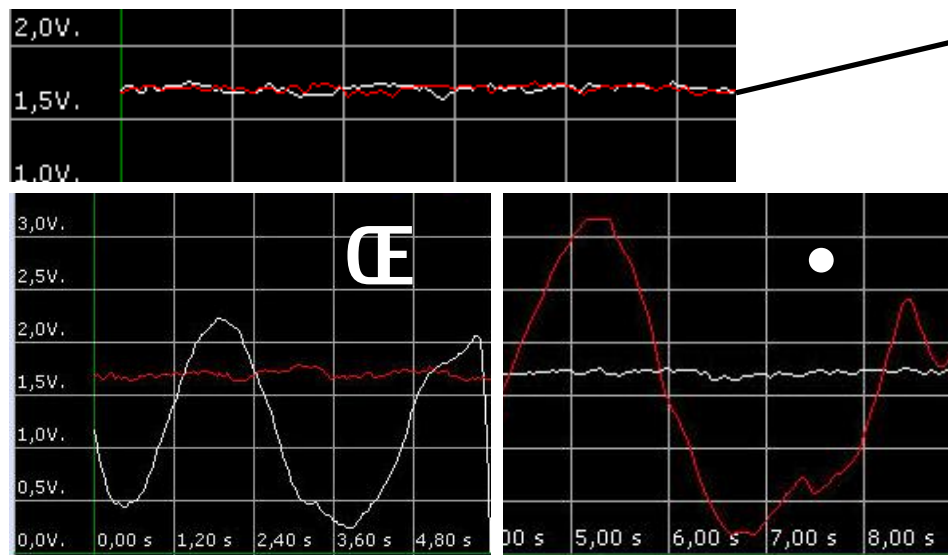
Traces to be displayed: enables/disables trace display.

Signals:

- Red line (R):** indicates the infrared signal that reads the lower part of the target
- White line (W):** indicates the infrared signal that reads the upper part of the target
- Yellow line (Y):** indicates the microwave signal (*OutSpider DT* and *Outspider DT WS(UB)(U)*)
- Green line (G):** indicates the signal from the anti-masking circuit

NOTE: *OutSpider PA* and *Outspider PA WS(UB)(U)*, to hide the signal from the lower infrared it is necessary to remove the check mark from both the red and the yellow box, to hide the upper infrared signal instead it is sufficient to remove the check mark from the white box. *Outspider DT* and *Outspider DT WS(UB)(U)*, each reference corresponds to the value indicated.

Signal from the infrared section (red and white line):

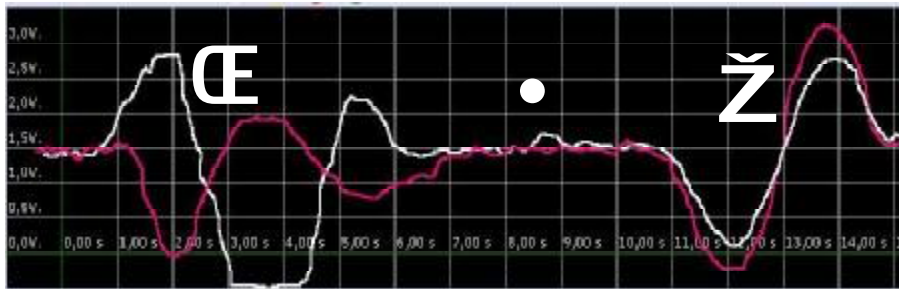


Both infrared sections do not detect signals.

E In the first part of the diagram it is the only infrared that reads the upper part of the target (white line) that detects a signal. The infrared section does not generate an alarm.

● In the second part of the diagram it is the only infrared that reads the lower part of the target (red line) that detects a signal. The infrared section does not generate an alarm.

For an adequate operation of the two infrared sections, find the correct inclination for the sensors so that the two signals, crossing the area to be protected, are nearly the identical.

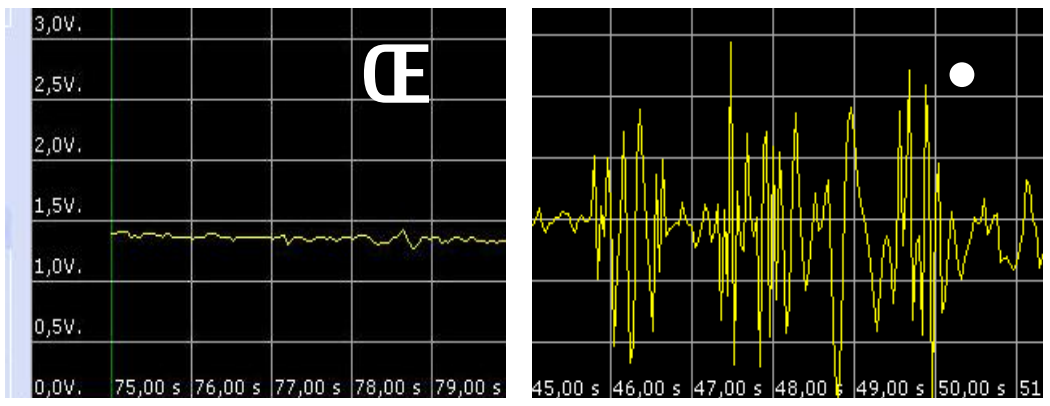


E The signals detected by the two infrared do not correspond. The infrared section signals an alarm only if the signal exceed a certain threshold and if the sensor is set with the HIGH configuration.

- The two infrared go back to being quiet.

Z The signals detected by the two infrared are similar. In this case, no matter what the configuration, if the signal exceeds a certain threshold, the Infrared section generates an alarm.

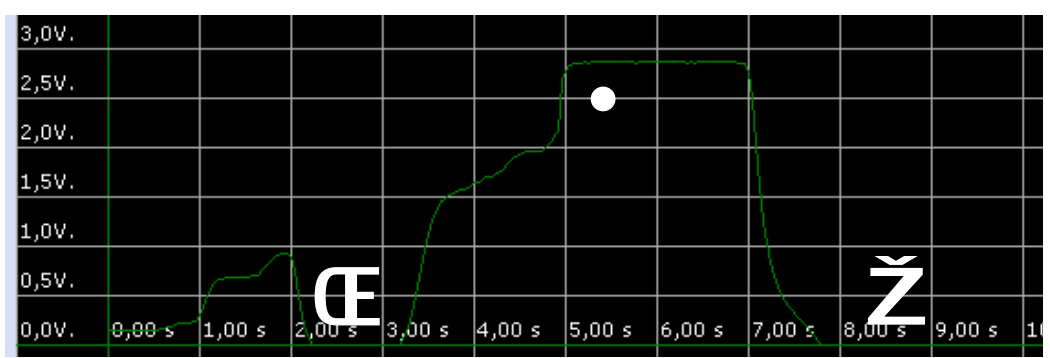
Signal from the microwave section (yellow line) only OutSpider DT and OutSpider DT WS(UB)(U):



E In the first part of the diagram the microwave does not detect any movement.

- In the second part of the diagram the microwave detects a movement. In this case it may generate an alarm if configured in Security mode.

Signal from the Antimask section (green line):

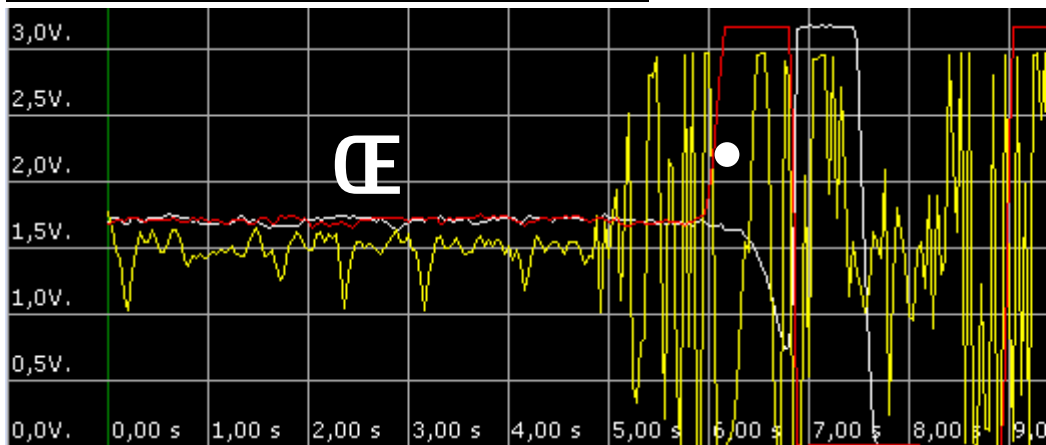


E The Antimask circuit detects a normal operation signal.

- The Antimask circuit detects a signal variation resulting from an obstacle being positioned in front of the lenses.

Z Once the obstacle has been removed, the signal returns to the initial values.

Infrared and Microwave concatenated signals



E Both the infrared and the microwave section detect a slight background noise that is not sufficient to generate an alarm.

- Both section detect a movements that is useful to generate an alarm.

Synoptic panel

Access to this menu require a choice in type of connection:

1- Follow the procedure based on the the type of connection to be carried out.

NOTE: if it is a USB connection, it may require installation of drivers for recognising the peripheral device. If the drivers are not recognised automatically, it is necessary to specify the following file path to the operating system **C:\Programmi\Xwin\Driver** and select the **stmcdcAVS.inf** file.

2- Select the address of the sensor or the satellite on HPWIN and then chose “**Connect**”.

NOTE: If connected to a sensor by way of USB, it displays the status in real time, if connected by way of XSATHP satellite, it displays the status of all active sensors connected to the actual satellite.

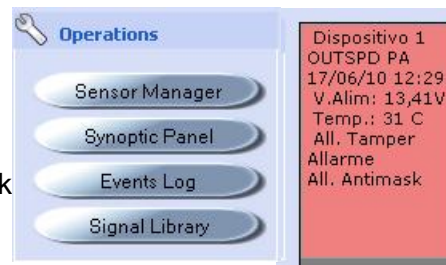
Elements displayed:

- w Sensor address (not managed with a USB connection)
- w Sensor date and time settings
- w Power supply voltage
- w Sensor temperature

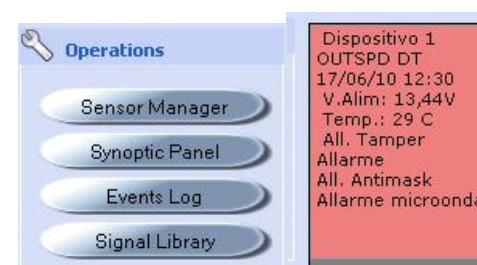
w Sensor status: **OutSpider PA and PA WS(UB)(U):** Tamper-Alarm - Antimask

OutSpider DT and DT WS(UB)(U): Tamper-General alarm-
Antimask-Microwave section alarm

Outspider PA and Outspider PA WS(UB)(U)



Outspider DT and Outspider DT WS(UB)(U)



Events Historical file

Access to this menu require a choice in type of connection:

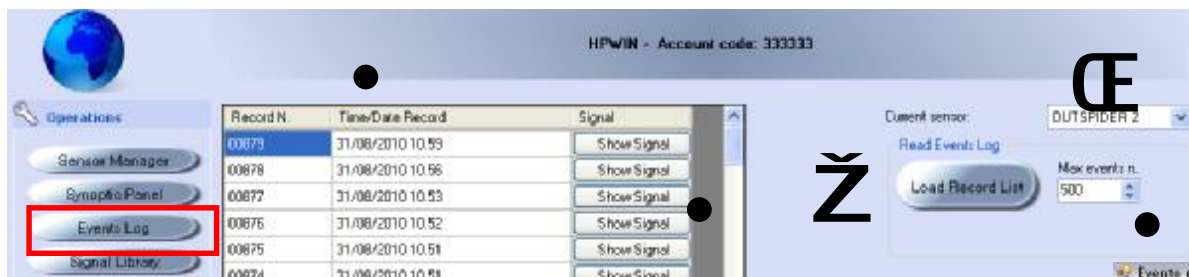
1- Follow the procedure based on the the type of connection to be carried out.

NOTE: if it is a USB connection, it may require installation of drivers for recognising the peripheral device. If the drivers are not recognised automatically, it is necessary to specify the following file path to the operating system **C:\Programmi\Xwin\Driver** and select the **stmcdcAVS.inf** file.

2- Select the address of the sensor or the satellite on HPWIN and then chose “**Connect**”.

Once connected, it is possible to access the alarms event history saves in the sensor.

Procedure for loading data



- 1- Select the satellite - sensor: “current satellite”-“current sensor”.
- 2- Define the number of events to be loaded, with a maximum of 1920: “N° eventi max (No. of max events)”.
- 3- Start the process: press “Carica Lista Record (Load Record List)”.
- 4- All events are displayed, complete with Record Number, Date and time.

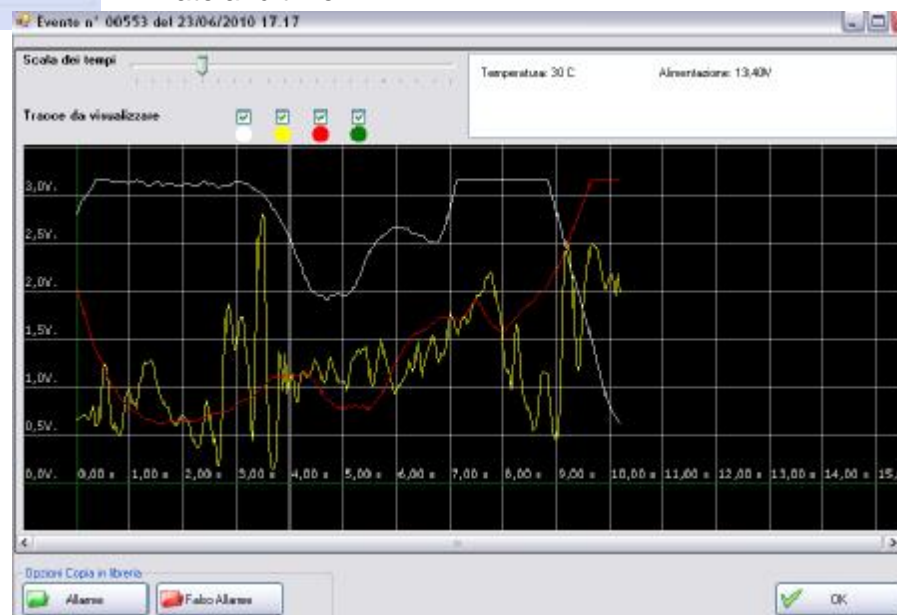
Procedure for displaying signals

5- Click on “**Mostra Segnale (Show Signal)**”; the software will load the information directly from the sensor.

The display is complete with some information saved the moment the alarm occurred:
- *Temperature- Power supply - Alarm signal for infrared section - Alarm signal for the microwave section - Antimask alarm signal.*

6- Press “**Ok**” to close the screen.

NOTE: The “**Alarm**” and “**False Alarm**” functions in the “**Opzioni Copia in Libreria (Library Copy Option)**” step are not managed.



Recordings Archive

The recordings archive makes it possible to display signals saved on the PC by the installer with the “**Registrazione (Recording)**” procedure described in the “**Gestione Sensori (Sensors Management)**”.

By entering this archive one accesses a database where the various files are saved with date/time, description and recording duration.

Procedure for accessing the data

- 1- Select : “**Archivio Registrazioni (Recordings Archive)**”.
- 2- Select the file to be loaded.
- 3- To slide the trace on the oscilloscope it is necessary to drag the cursor that is on the lower part.

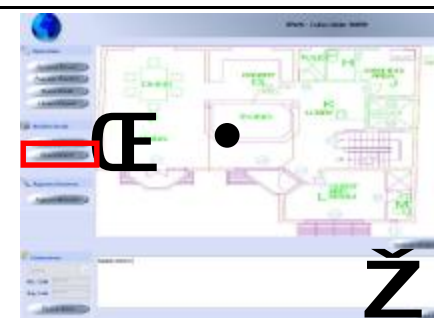


System notes

In this section it is possible to load an image that reminds us, for example, where the sensors are installed. It is also possible to enter notes into the editable field.

Access procedure

- 1- Select : “**Note Impianto (System notes)**”.
- 2- Select “**Cambia immagine (Change image)**” to load a file.
- 3- Select “**Salva note (Save notes)**” to confirm.



Update Firmware

In this section it is possible to update sensor firmware. This procedure is recommended is updated firmware versions are released.

There is a dedicated section on the website for file DOWNLOAD (<http://www.avselectronics.com/PHP/login.php>).

Access procedure

- 1- Select : “**Aggiorna Firmware (Update Firmware)**”.
- 2- In the item “**Periferica da aggiornare (Peripheral to be updated)**” select “**BMHP/OutSpider**”.
- 3- In the item “**Satellite**” select “**Aggiorna (Update)**” and the item “**Periferica da aggiornare (Peripheral to be updated)**” select “**Dispositivo 1 (Device 1)**”.
- 4- Select the file to be loaded and confirm.
- 5- Wait until the new firmware has downloaded, signalled with the wording “**Please disconnect USB cable...**”.



In order to re-initialise the sensor, if directly connected using the adapter mod. **OUTUSB**, it is necessary to disconnect it from the USB cable, if it is connected through the **XSATHP** satellite instead, it is sufficient to close the screen of the program. In the Outspider PA and Outspider DT, the end of the update the **yellow and red LEDs** of the sensor flash alternatively.

INFORMATION IN CONFORMITY WITH DIRECTIVE 1999/5/EEC (R&TTE)

This product subject of this declaration conforms to the fundamental requirements of Directive 1999/5/CEE (R&TTE) on weak power radio transmitting equipment and the use of the radio electric spectrum, also in agreement with recommendation CEPT 70-03.

Brand	AVS ELECTRONICS
Model	OUTSPIDER PA WS
Work frequency	868,350 Mhz (Radio transmission)
Type of power supply	Direct Current
Nominal voltage	3,6 V =
Nominal current	50 mA (in transmission) 30 μ A (to rest)
Countries in the European Union where it is to be used	ITALY, BELGIUM, FRANCE, GERMANY, GRECE, PORTUGAL, POLAND, HOLLAND, SPAIN, BULGARIA, CYPRUS, DENMARK, HUNGARY, ICELAND, IRELAND, MALTA, NORWAY, LUXEMBURG
Date	4 april 2011

! WARNING !

Danger of explosion if battery is not replaced in a correct way. Replacement must be made by a qualified technician using the same or equivalent type of battery recommended by manufacturer.

Do not open, do not expose to high temperatures, do not expose to fire. Do not waste discharged batteries in environment but dispose of them in special containers according to Law. Keep away from children.

LITHIUM BATTERY 3.6V TIPO MOD. C SIZE.



INFORMATION IN CONFORMITY WITH DIRECTIVE 1999/5/EEC (R&TTE)

This product subject of this declaration conforms to the fundamental requirements of Directive 1999/5/CEE (R&TTE) on weak power radio transmitting equipment and the use of the radio electric spectrum, also in agreement with recommendation CEPT 70-03.

Brand	AVS ELECTRONICS
Model	OUTSPIDER PA WS - U
Work frequency	868,350 Mhz (Radio transmission)
Type of power supply	Direct Current
Nominal voltage	3,6 V =
Nominal current	70 mA (in transmission) 30 µA (to rest)
Countries in the European Union where it is to be used	ITALY, BELGIUM, FRANCE, GERMANY, GRECE, PORTUGAL, POLAND, HOLLAND, SPAIN, BULGARIA, CYPRUS, DENMARK, HUNGARY, ICELAND, IRELAND, MALTA, NORWAY, LUXEMBURG
Date	4 april 2011

! WARNING !

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Do not open, do not expose to high temperatures, do not expose to fire. Do not waste discharged batteries in environment but dispose of them in special containers according to Law. Keep away from children.

LITHIUM BATTERY 3.6V TIPO MOD. C SIZE.





DICHIARAZIONE DI CONFORMITÀ
(MANUFACTURERS DECLARATION OF CONFORMITY)

Costruttore : (Manufacturer)	AVS ELECTRONICS SPA
Indirizzo : (Address)	Via Valsugana, 63 - 35010 Curtarolo (PD) - ITALY

DICHIARA CHE LA SEGUENTE APPARECCHIATURA
(DECLARES THAT THE FOLLOWING EQUIPMENT)

Nome dell'Apparecchiatura : (Equipment Name)	OUTSPIDER PA
Tipo di Apparecchiatura : (Type of Equipment)	RIVELATORE VOLUMETRICO INFRAROSSO PASSIVO (PASSIVE INFRARED MOTION DETECTOR)
Modello : (Model)	
Anno di Costruzione : (Year of Manufacture)	2010

RISULTA CONFORME CON QUANTO PREVISTO DALLE SEGUENTI DIRETTIVE COMUNITARIE:
(IS IN ACCORDANCE WITH THE FOLLOWING COMMUNITY DIRECTIVES)

2004/108/EC (EMC)	1999/05/EC (R&RTTE)
2006/95/EC (LVD)	

E CHE SONO STATE APPLICATE LE SEGUENTI NORMATIVE
(APPLYING THE FOLLOWING NORMS OR STANDARDS)

EN 55022
EN 50130-4
EN 50131-1 / EN 50131-2-2
EN 60950-1

IDENTIFICATORE DI CLASSE DEL DISPOSITIVO (per apparati RF regolamentati dalla direttiva R&TTE)
(Equipment class identifier (RF products falling under the scope of R&TTE))

Not Applicable None (class 1 product) (class 2 product)

Il costruttore dichiara sotto la propria responsabilità che questo prodotto è conforme alla direttiva 93/68/EEC (marcatura) e soddisfa i requisiti essenziali e altre prescrizioni rilevanti della direttiva 1999/5/EC (R&TTE) in base ai risultati dei test condotti usando le normative (non) armonizzate in accordo con le Direttive sopracitate.

(We declare under our sole responsibility that this product is in conformity with directive 93/68/EEC (Marking) and/or complies to the essential requirements and all other relevant provisions of the 1999/5/EC (R&TTE) based on test results using (non)harmonized standards in accordance with the Directives mentioned)

Luogo (Place) : Curtarolo

Data (Date) : Jul. 2010

Nome (Name) : G. Baro

Firma 
Amministratore
(Managing Director)


DICHIARAZIONE DI CONFORMITÀ
 (MANUFACTURERS' DECLARATION OF
 CONFORMITY)

Costruttore : (Manufacturer)	AVS ELECTRONICS SPA
Indirizzo : (Address)	Via Valsugana, 63 - 35010 Curtarolo (PD) - ITALY

 DICHIARA CHE LA SEGUENTE APPARECCHIATURA
 (DECLARES THAT THE FOLLOWING EQUIPMENT)

Nome dell'Apparecchiatura : (Equipment Name)	OUTSPIDER PA WS
Tipo di Apparecchiatura : (Type of Equipment)	SENSORE DOPPIO INFRAROSSO PASSIVO VIA RADIO DA ESTERNO (DOUBLE PASSIVE INFRARED WIRELESS OUTDOOR DETECTOR)
Modello : (Model)	
Anno di Costruzione : (Year of Manufacture)	2011

RISULTA CONFORME CON QUANTO PREVISTO DALLE SEGUENTI DIRETTIVE COMUNITARIE:
 (IS IN ACCORDANCE WITH THE FOLLOWING COMMUNITY DIRECTIVES)

2004 / 108 / EC (EMC)	1999 / 05 / EC (R&TTE)
2006 / 95 / EC (LVD)	

 E CHE SONO STATE APPLICATE LE SEGUENTI NORMATIVE
 (APPLYING THE FOLLOWING NORMS OR STANDARDS)

EN 300220-2	EN 50131-1 / EN 50131-2-2
EN 301489-3	
EN 50130-4	
EN 60950-1	

IDENTIFICATORE DI CLASSE DEL DISPOSITIVO (per apparati RF regolamentati dalla direttiva R&TTE)
 (Equipment class identifier (RF products falling under the scope of R&TTE))

 Not Applicable None (class 1 product)  (class 2 product)

Il costruttore dichiara sotto la propria responsabilità che questo prodotto è conforme alla direttiva 93/68/EEC (marcaturo) e soddisfa i requisiti essenziali e altre prescrizioni rilevanti della direttiva 1999/5/EC (R&TTE) in base ai risultati dei test condotti usando le normative (non) armonizzate in accordo con le Direttive sopracitate.

(We declare under our sole responsibility that this product is in conformity with directive 93/68/EEC (Marking) and/or complies to the essential requirements and all other relevant provisions of the 1999/5/EC (R&TTE) based on test results using (non)harmonized standards in accordance with the Directives mentioned)

Luogo (Place) : Curtarolo

Data (Date): APR 2011


 Firma (Signature)
 Amministratore
 (Managing Director)

Nome (Name): G. BARO

**DICHIARAZIONE DI CONFORMITÀ**
(MANUFACTURERS DECLARATION OF CONFORMITY)

Costruttore : <i>(Manufacturer)</i>	AVS ELECTRONICS SPA
Indirizzo : <i>(Address)</i>	Via Valsugana, 63 - 35010 Curtarolo (PD) - ITALY

DICHIARA CHE LA SEGUENTE APPARECCHIATURA
(DECLARES THAT THE FOLLOWING EQUIPMENT)

Nome dell'Apparecchiatura : <i>(Equipment Name)</i>	OUTSPIDER PA WS U
Tipo di Apparecchiatura : <i>(Type of Equipment)</i>	RIVELATORE VOLUMETRICO INFRAROSSO PASSIVO <i>(PASSIVE INFRARED MOTION DETECTOR)</i>
Modello : <i>(Model)</i>	
Anno di Costruzione : <i>(Year of Manufacture)</i>	2011

RISULTA CONFORME CON QUANTO PREVISTO DALLE SEGUENTI DIRETTIVE COMUNITARIE:
(IS IN ACCORDANCE WITH THE FOLLOWING COMMUNITY DIRECTIVES)

2004/108/EC (EMC)	
2006/95/EC (LVD)	

E CHE SONO STATE APPLICATE LE SEGUENTI NORMATIVE
(APPLYING THE FOLLOWING NORMS OR STANDARDS)

EN 50130-4	
EN 55022	
EN 50131-1 / EN 50131-2-2	
EN 60950-1	

IDENTIFICATORE DI CLASSE DEL DISPOSITIVO (per apparati RF regolamentati dalla direttiva R&TTE)
(Equipment class identifier (RF products falling under the scope of R&TTE)) Not Applicable None (class 1 product) **1** (class 2 product)

Il costruttore dichiara sotto la propria responsabilità che questo prodotto è conforme alla direttiva 93/68/EEC (marcaturo) e soddisfa i requisiti essenziali e altre prescrizioni rilevanti della direttiva 1999/5/EC (R&TTE) in base ai risultati dei test condotti usando le normative (non) armonizzate in accordo con le Direttive sopracitate.

(We declare under our sole responsibility that this product is in conformity with directive 93/68/EEC (Marking) and/or complies to the essential requirements and all other relevant provisions of the 1999/5/EC (R&TTE) based on test results using (non)harmonized standards in accordance with the Directives mentioned)

Luogo (Place) : Curtarolo

Data (Date): Nov. 2011

Nome (Name): G. Baro

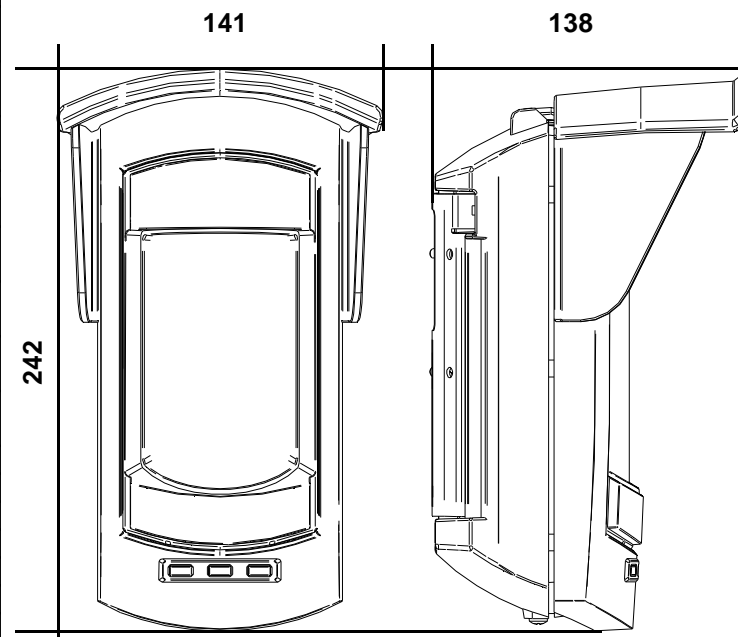

Firma (Signature)
Amministratore
(Managing Director)

TECHNICAL FEATURES

SENSOR	OUTSPIDER PA	OUTSPIDER DT	OUTSPIDER PAWS OUTSPIDER DTWS	OUTSPIDER PAWSUB(U) OUTSPIDER DTWSUB(U)
Maximum capacity	15 - 23 metres	15 - 23 metres	15 - 23 metri	15 - 23 metri
Recommended installation height	from 1.50 to 2.70 mt	from 1.50 to 2.70 mt	from 1.50 to 2.70 mt	from 1.50 to 2.70 mt
Conditions functioning electronic board	-25°C ÷ +55°C	-25°C ÷ +55°C	-25°C ÷ +55°C	-25°C ÷ +55°C
Dimensions (hxlxw)	242 x 141 x 138	242 x 141 x 138	242 x 141 x 138	242 x 141 x 138
Lithium battery - C-SIZE type	-	-	3,6 V = - 8,5 Ah	3,6 V = - 8,5 Ah
Power supply nominal voltage	12 V =	12 V =	3,6 V =	3,6 V =
Minimum power supply voltage	10.5 V =	10.5 V =	-	3 V =
Maximum power supply voltage	15 V =	15 V =	-	3,6 V =
Absorption while quiet	53 mA	65 mA	30 µA	30 µA
Absorption during alarm	67 mA	77 mA	50 mA	70 mA
Absorption with USB connection			35 mA	35 mA
Infrared channels for individual sensor	9 doubles	9 doubles	9 doubles	9 doubles
Signal emitted by microwave	-	by impulse	by impulse	by impulse
Frequency	-	- European Community countries except Germany: 10.525 GHz - Germany: 9,350 GHz		
Irradiated RF power (EIRP)	-	≤14 dbm		
Transmission frequency	-	-	868,350 Mhz	-
Alarm output	1 (C/NC)	1 (C/NC)	-	1 (Open Collector)
Tamper output	1 (C/NC)	1 (C/NC)	-	1 (Open Collector)
Antimask output	1 (C/NC)	1 (C/NC)	-	1 (Open Collector)
Relay contacts capacity	12 V = 500 mA	12 V = 500 mA	-	-
F output (Dirty lenses)	yes	yes	-	-
Signaling dirty lenses	yes	yes	-	-
AUX input	for remote sensor or tamper	for remote sensor or tamper	-	-
Block input	yes	yes	-	-
Temperature compensation	yes	yes	yes	yes
Walk Test	optic: LED acoustic: buzzer	optic: LED acoustic: buzzer	optic: LED acoustic: buzzer	optic: LED acoustic: buzzer
Infrared cover lenses	4	4	4	4
Protection rating	IP 65	IP 65	IP 65	IP 65



Via Valsugana, 63
Curtarolo (Padova) ITALY
Tel. 049 9698 411 / Fax. 049 9698 407
avs@avselectronics.it
www.avselectronics.com
Technical Assistance:
support@avselectronics.it



The power supply must come from very low safety voltage circuit with the characteristics of a limited power source protected by a fuse.

INSTALLATION AND MAINTENANCE MUST BE EXECUTED BY QUALIFIED PERSONNEL

AVS ELECTRONICS S.p.a. reserves the right to make amendments at any moment and without notice.