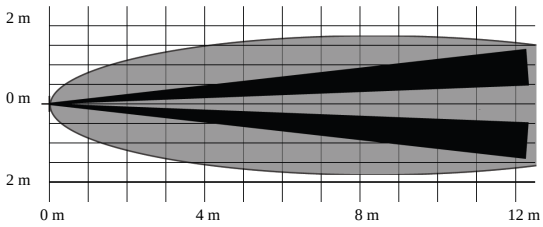
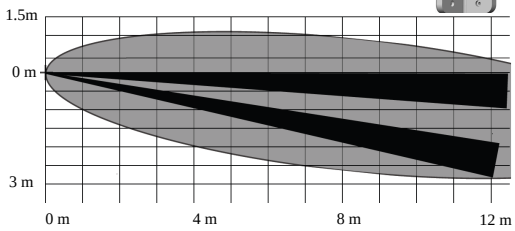
De Fence

Detection Area ■ Infrared ■ Microwave

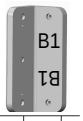
View from above corridor installation



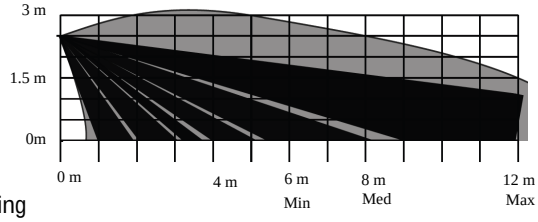
View from above with B support



Support B



Side view



Dual technology external/internal tent effect for perimetral protection 12 x 2.7 m cover
IP54 protection grade

Main functions

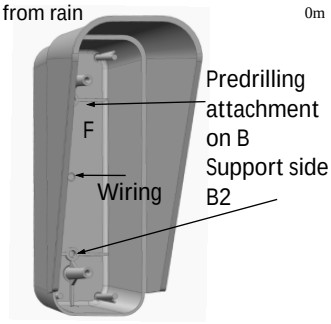
-SmartMask (patent pending) Anti-mask circuit
-Two levels of sensibility with open/closed passage selection
-16 fine line resistances with DEOL/TEOL selection
-6 to 12 meters detection range adjustment
-May be installed up to a height of 3 meters
-Microwave anti-collision circuit
-Selectable pet immune
-Interactive Led Off

B Support

B support has a 3° perspective on B1 side to make the IR passage parallel to the perimeter to be protected, so that the sensor can be installed just before the perimeter itself

Cable cover F

Cable cover with rain shield, to be used if site not repaired from rain



Cable cover C

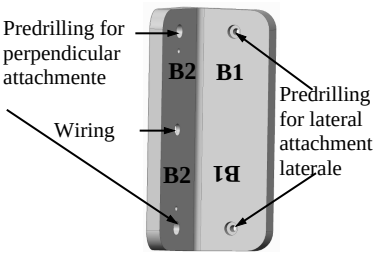
Double bottom for cable passage, to be used only if site protected from rain, otherwise use cable cover F

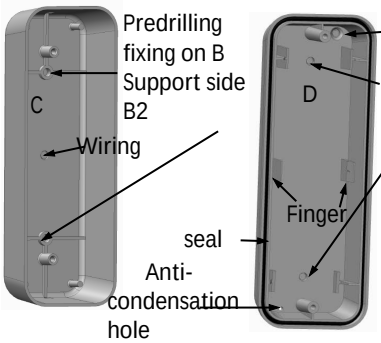
Bottom D

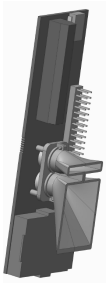
Circuit seat

Plate A

Support B covers



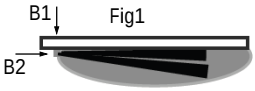




INSTALLATION GUIDE

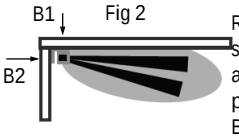
The ideal installation height is from 2.50 m, with a detection range of 12 x 2.7 m, when the installation height is varied the detection range is reduced proportionately.
Install the sensor so that in the vicinity there are no moving objects or those that could move in the wind such as trees or plants.
If it is assembled on a site protected from rain the double bottom C can be used, otherwise use double bottom F rain shield.
If animal immunity (PET) is required install the sensor up to a height of 1 meter (see Par.Pet).
The sensor may be installed directly on the wall to be protected Fig. 1, on a perpendicular wall on the perimeter to be protected Fig. 2 or on corridor protection Fig. 3.
The B SUPPORT presents a light perspective of 3° so as to provide a detection field to the exterior of the perimeter to be protected as in Fig. 1 and Fig. 2. The B1 side must be positioned between the sensor and the perimeter, this allows the sensor to be installed just before the perimeter itself.

Installation on the wall to be protected



Run the cable in B support, attach side B1 on the wall and close side B2 with plate A.
Installation on perpendicular wall.

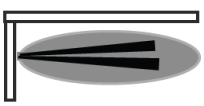
Installation on perpendicular wall



Run the cable in B support, attach side B2 on the perpendicular wall and with B1 from the side of the perimeter to be protected, close B1 with plate A.

Corridor installation

Fig 3

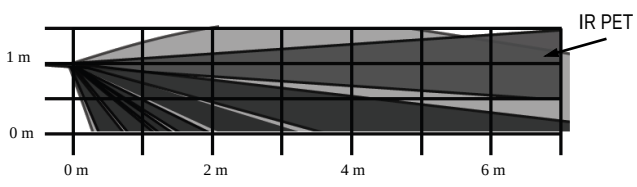


If corridor installation is required verify whether there is space on the sides of the area referring to the diagram "View from above". Run the cable in cable cover C and attach the cable cover directly on the wall with the plugs and the two large screws.

Secure Bsupport as required as described using the two big screws, run the cable in the cable cover C or F, secure it on on the B support with the two small screws, run the cable in the bottom D and secure it with the screws on the cover cable C or F. Wire the cable on the tterminal give power, during the first 120 sec the DeFence will enter in self test (LEDs light alternately),at the end proceed with the regolations

When it is turned on the De Fence will go into the led on mode for 40 minutes independently of the setting.

PET Installation



If a pet immune installation is required, install the sensor up to a height of 1 meter and set the DIP 2 to PET (pos. ON). The alarm will only be set off if the PET beam is also crossed. In the PET mode the detection range is reduced to 6 meters, rending the sensor eludible, it is recommended to disable the MASK function.

Sigma

TEOL- Triple end of Line Output
MASK- NC relay. Open with microwave masked

DEOL- Double End of Line Outpt
ALARM- NC relay, open with alarm

TAMPER- NC contact, open if cover removed

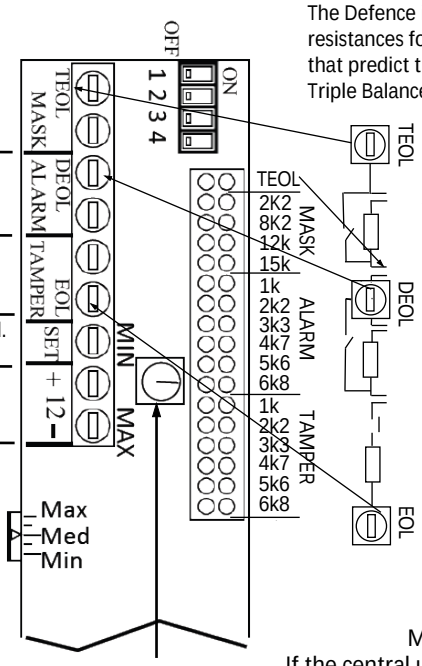
EOL-Common output for End Of Line

SET- Input for system armed/not armed. A +12V determines system not armed

+ 12 -Power input

IR range adjustment
Trip the circuit to adjust the IR range

Max 12 m
Med 8 m
Min 6 m



Trimmer- microwave range adjustment

CALIBRATION

DIP SWITCH 1 pos OFF (antimask OFF)

DIP SWITCH 4 pos OFF (Led Abilitati)

IN THIS MODALITY THE ANTIMASK IS DISABLED

uW microwave range adjustment

Adjust the trimmer to minimum (range 4-12 m) go to the border of the area to be protected, and with leds of, move perpendicularly to the sensor and verify the detection of the uW via the green LED. If the LED is not switched on increase the range by rotating the trimmer in a clockwise direction, repeat the test until the required condition is obtained.

Verify infrared cover (IRP)

Adjust the range of the IR by tripping the circuit. Min 6 m Med 8m Max 12. Apply the cover and when LEDs are of move perpendicularly to the sensor verifying the detection of the IRP via the yellow LED.

DETECTION MODE

STD DIP 2 IN POS OFF
Standard detection mode, the alarm invokes the technologies detecting an intrusion.

PET DIP2 IN POS ON

Pet immune detection mode, the sensor is installed up to a height of 1 meter and the alarm will only go off if the PET beam is also crossed.

STANDARD SENSIBILITY DIP3 IN POS OFF

Closed passages protection detection mode for or with obstacle that cannot be crossed while running.

HIGH SENSIBILITY DIP3 IN POS ON

Open passages protection detection mode that can be crossed while running, detection is guaranteed up to a distance of 8 m from the sensor.

END OF LINES JUMPERS

The Defence is equipped with selectable fine line resistances for connection with power stations that predict the Double Balance (DEOL) or the Triple Balance (TEOL).

NB: Leaving the jumpers open as factory set will leave the Defence configured like any other sensor with NC contacts.

DEOL connection

Select via jumpers the Tamper (series) and Allarme resistances. Connect the DEOL and EOL terminal to the input zone of the central unit

TEOL connection

select the Tamper (series) and Allarme and Mask resistance values via jumpers and jumper TEOL. Connect the TEOL and EOL terminal to the input zone of the central unit

Mask connection on DEOL

If the central unit only supports the DEOL but you wish to connect the anti-mask on the same zone proceed as follows:
Select the resistances like in DEOL taking care to jump the TEOL and connect the TEOL and EOL terminal to the zone input of the central unit. In the event of a mask alarm a sabotage alarm will go on the zone and the sensor will light the three LED simultaneously.

FUNZIONI

ANTIMASK

Microwave mask detection. :

Any object designed to mask the microwave generates a visualized alarm via the LED flashlights and sent centrally via the MASK terminal. This situation remains until the reason for its being generated is removed.

Infrared mask detection::

If the lens becomes covered (piece of paper, carton, varnish, spray) the Defence will enter microwave mode. In other words, the intrusion alarm will only be operated with microwave detection. The Defence will leave this mode with an infrared detection.

ANTIMASK ENABLING

DIP SWITCH 1 pos ON

The enabling of the antimask is the last operation tobe made. When enabling the antimask the Defence will enter the self test mode for 120 seconds. During this time close the front cover and move away. The sensor will then enter the AUTOCALIBRATION mode and the automatic calibration will operate on the antimask level. It is important that during this phase nothing should be present in the immediate vicinity of the sensor in order not to alter the autocalibration.

LED OFF DIP SWITCH 4

The ON position disables the display of detection. With the INHIBIT line connected when whenn the system will be armed off, the detector will enable the display for 30 sec. from the first detection.

WALK TEST

On power on the Defence enters LED ON for 40 minutes independent of the setting to enable the walk test also in LED OFF.

Visualizzazioni LED

Giallo	Infrared Detection
Rosso	Allarm
Verde	Microwave detection

Mask Alarm three leds flashing

Timed alarm memory

When the SET line is connected, if the system is turned off, the first alarm occured will be indicated. Memory will be reset when the system is turned on. Memory is delayed by 30 seconds in order to be employed in timed areas as well.

Memory display			
Alarm	Led Green	Led Red	Led Yellow
IRP + uW	Off	On	Off
uW	On	Off	Off
MASK	Flash	On	Flash

DATI DI TARGA

Voltage	12 Volt +/- 30%
Consumption	MAX 70 mA standby 60mA
Microwave	strip 8dbm 24.1 GHz
Alarm period	3 sec
RFI	0.1 / 500 MHz 3 V/m
SOLID STATE RELAY	100 mA / 24 V
COVER TAMPER	100 mA / 30 V
Operating Temp.	-10°C /+ 55°C
Ambiental humidity	95%
MTBF TEORICO	98803 ore

CE

RTTE Compilance statement
Hereby, De Tech Srl declares that the equipment is in compilance with the essential requirements and other rilevant provisions of Directive 1999/5/EC

WARRANTY

The product is gaurateed 5 years against defects manufacturing and malfunctions.

De Tech s.r.l.

Azienda certificata ISO 9001:2008

MADE IN ITALY