GPS STANDARD

Committed to security.

PERIMETER

PERIMETER PROTECTION **RADAR 077**

RADAR 077

77GHz ELECTROMAGNETIC WAVE system

The **Radar 077** is a patented perimeter protection system ideal for safeguarding small and medium-sized industrial, commercial, and residential sites. It uses electromagnetic waves at a frequency of 77GHz to establish **impenetrable security**.

VERSIONS
The Radar 077 comes in two versions: **Radar 077 Wide,** with 90° opening, and **Radar 077 Blade.** Both versions ensure high performance in all types of applications and are offered with an **integrated gyroscope device** capable of detecting sudden changes in the detection field related to tampering attempts.

OPERATION
In the **Wide version**, the Radar 077 creates a sensitive area with a **radius of 40 metres and a 90° aperture**. Up to 4 separate, identified and freely configurable alarm zones and 4 exclusion zones can be created within this area. The alarm event only occurs when the target moving within the sensitive area enters one of the programmed alarm zones.

In the **Blade version**, on the other hand, the Radar 077 creates a **60-metre long sensitive corridor**, featuring a crossing median line, a one-metre pre-alarm zone to the left and a one-metre pre-alarm zone to the right of the median line.
An alarm is generated only when the target physically crosses the median line, passing from one pre-alarm zone to the other.
Up to three separate, freely configurable alarm zones can be programmed within this sensitive corridor.

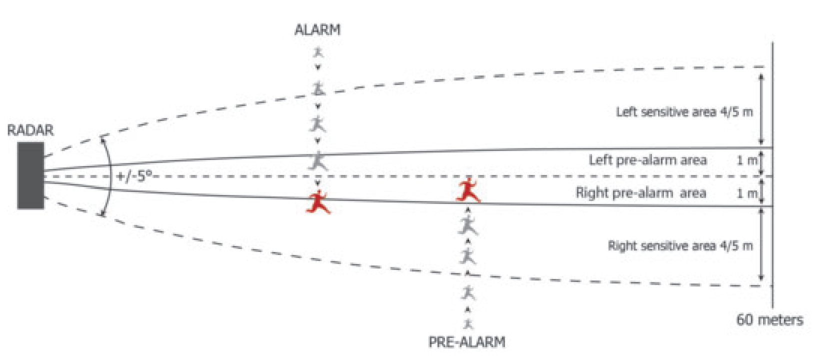
ADVANTAGES
- RADAR 077 Blade and Wide systems are **not affected by atmospheric events**, and small animals can be easily classified and identified.

- **New machine learning and deep learning algorithms** can track and classify each target according to volume, speed and behaviour, thus distinguishing between small animal, human target, motor vehicle etc.

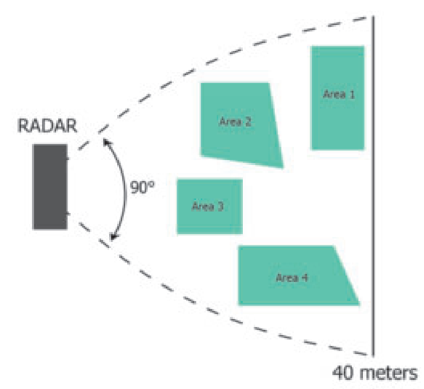
- Thanks to **Cross Point Technology**, the use of Minimum Redundancy - **MIMO** (Multiple Input Multiple Output) technology, and the presence of a multitude of transmitting and receiving devices, the new Radar 077 detects all targets with **an accuracy of 20 centimetres defining the intrusion point**, in all weather and lighting conditions.

- By exploiting the range of frequencies available, the 7**7GHz frequency** allows for up to 20 times the performance in field resolution and accuracy compared to standard 24GHz microwave barriers, enabling the simultaneous detection and **tracking of up to 32 targets**.

The Radar 077 Blade creates a very narrow barrier with a width consisting of a crossing line and two one-metre wide pre-alarm areas, one to the right and one to the left of the crossing line, with a maximum range of 60 metres..



The Radar 077 Wide creates a sensitive volumetric area with a radius of 40 metres on the 3db line (90°).



TECHNICAL SPECIFICATIONS*

Frequency	77 GHz
Transmitted power	12 dBm
Horizontal detection field	Radar 077 Blade: 5°~10° / Radar 077 Wide: 90°
Angulation accuracy	±0,35°
Horizontal spatial resolution (person)	0,5 m
Vertical detection range	±7,5°
Detection range (person)	Radar 077 Blade: 0÷60 m / Radar 077 Wide: 0÷40 m
Distance accuracy	± 20cm
Spatial resolution in distance (person)	0,5 m
Minimum detection speed	± 0.01 m/s
Maximum detection speed	± 50 m/s
Accuracy of detection speed	± 0.01 m/s
Data update speed	10 Hz
Maximum number of tracked objects	32
Object classification	Unknown, Animal, Person, Vehicle
Crossing lines	Radar 077 Blade: 3 / Radar 077 Wide: 4
Exclusion Area	4
Outputs	6 Relè (NO/NC)
Dimensions	144 x 154 x 35mm
Supply voltage	12÷48 Vdc & PoE
Absorbed power	6W
IP grade	IP56
EN50131	Grade 3
Communication interface	Ethernet RJ45 10/100
Network Protocols	TCP/UDP/DHCP/NTP MODBUS TCP/IP/HTTP
Compatible with	Web relè board art. PUA-R008

*The technical specifications indicated are valid for a radar installed at a height of one meter using official accessories included in the official GPS Standard catalogue

Retailer of confidence

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