# Perimeter protection

## An invisible sentinel to prevent intrusions

Politec Srl has the technology and the expertise to design and manufacture intrusion detection systems, offering the solution for the indoor and outdoor perimeter protection of your property.

Over the years we have developed a notable and innovative research and development resource that enables us to meet the requirements of a challenging and demanding market and to adapt to our customers needs, who are ever more aware of a need of security.

WS SMA - HIBRID SMA - SMA SOLAR are defacto new product lines meeting all the market demands even for the most critical installation environments. Politec is constantly committed to designing innovative products and systems to meet the requests for customised solutions.

The quality of all our products are approved and certified and Politec is certified to ISO 9001: 2008.







Perimeter protection

## A partner who supports you from the design phase

Politec works closely with architecture firms, builders and engineers to draw up technical specifications for public, residential or industrial projects that require intrusion detection systems.

## Made in Italy excellence

Politec is an Italian company that specialises in the design and production of active infrared anti-intrusion perimeter barriers designed specifically to protect outdoor perimeters.

For more than 20 years, Politec has been creating the most advanced products with high quality and technological standards, combined with ease of use and installation, made entirely in Italy.



## **ADEBUS**

## **Control centre and total management of equipment**

ADEBUS is an advanced system to monitor, set-up and customise all the devices involved in the anti-intrusion system.

It allows the complete exchange and management of information between two or more systems or networks, and the use of said information.

It is functional when the system is at a distance from the installer or in cases of poor accessibility (bad weather, night hours, etc.) as it allows total control of the devices, even remotely.

Management of: MANA IR SMA, PARVIS MES SMA, SANDOR PLUS SMA, GAPID SR.







### **PERFORMANCES: COLUMN GAPID SR**

HAX 32 COLUMN RS 485 MAX 1 KM 36/46 ETHERNET LAN - PSTN TEP/IP 128 BAPID SR EXPANDABLE **128 BAPID SR EXPANDABLE** GAPID SR

CONFIGURATION

Alarm

• Tamper

Power values

• Signal values

• Event loas

aroup of sensors

sensors

 Loas • Self-addressing

Status of BUS Serial

Sector-specific management

• Management of single sensor or group of

• Adjustment and calibration of single sensor or

• Status of each sensor or sensor group



## MANA

## Barrier, single and/or double technology, long range"

Mana is the new barrier designed by POLITEC for outdoor protection of large sites. MANA can be composed and configured to match the installation requirements and the level of security required: only IR, only microwave, double "dual technology" or "triple technology", where there is a Doppler microwave that covers the dead zone.

### MANA IR SMA

SMA technology (Single Man Alignment) permits single operator alignment thanks to the high brightness LEDs and a buzzer on each beam, permits the operator to attain the maximum alignment value without the use of additional instrumentation.

The features is easily activated using the button situated near each beam optics.

The RS 485 output allows for the centralization of the systems.



## TECHNOLOGY

MANA IR SMA SMA (Single Man Alignment) technology allows performing an alignment, while still being a single operator.





#### MANA IR SMA

MANA AC TOP ANTI-CLIMB COVER

> HIGH INTENSITY LEDS VISIBLE AT 250m

THERMOSTATICALLY CONTROLLER HEATERS

**TERMINAL BLOCK WITH S485 OUTPUT** 

230 VAC SUPPLY INPUT

**SPACE FOR A 7 AH BATTERY** 

BUZZER





- Random delay
- Parallel or crossed beams
- Fog disqualification with dedicated output OC
  Random AND or bottom two beams activation
- Exclusion of the first beam or the lower two beams
- Wired or optical synchronization
  Antimask detection with dedicated output OC
- Crawl detect on bottom beam
- Adjustable response time
- Optical synchronization
- Exclusion Leds
- RS485 connection (only with wired ynchronization) with the Adebus system
- Dimensions 25 x 20 cm H 1,2 ÷ 4 m

MANA SD BRACKET





WALL MOUNT OR EXTERNAL MOUNT



MANA FOR **REINFORCING BRACKETS** 

MANA BH NEW CABLE PIT **BATTERY SUPPORT** 



## MANA

## Barrier for protecting large perimeters

### MANA DT SMA

A barrier consisting of two columns with IR TX and TX MW optics in one, while the other consists of RX and RX MW optics. Each section has its own alarm outputs, which can be managed as required (OR or AND).

The MANA DT SMA can be connected via RS485 BUS and managed with ADEBUS centralised system.

### MANA MW

Microwave system with a work frequency of 24GHz band K, with cavities and 200mm parabolic antenna and 4 different channels. This barrier allows a long range protection but with a lobe set up from several centimeters to 4m maximum, that allows to use it in a narrow space. Calibration and test system is integrated into the receiver mother board.

### MANA DT3 triple technology

This version has a Doppler microwave installed inside the column to protect the blind zone.



## **TECHNOLOGY**

MANA DT SMA It features two IR + MW sections inserted in the column to form a pair of typical TX and RX columns. MANA MW 24 GHz microwave barrier





#### MANA DT SMA

#### MANA DT SMA

A TX and RX tower pair with both active IR and MW components.

The two independent components can be controlled separately, guaranteeing system operation continuity In the event of critical ambient or weather conditions.





LED BAR FOR MW ALIGNMENT

#### MANA MW

An electronic control board installed in the RX tower and is equipped with all the necessary instrumentation to simplify the operations of installation.

The colored LED BAR displays the optimal alignment, whilst on the digital display you can read the voltage values during calibration.

A powerful buzzer can be activated to control the cover efficiency during the Walk-test.

### **PERFORMANCES DT SMA**

- Outdoor range 250m
- Random delay
- Parallel or crossed beams
- Fog disqualification with dedicated output OC
- Random AND or bottom two beams activation
- Exclusion of the first beam or the lower two beams
- Wired or optical synchronization
- Antimask detection with dedicated output OC
- Crawl detect on bottom beam
- Adjustable response time
- optical synchronization
- Exclusion Leds
- RS485 connection (only with wired synchronization) with the Adebus system
- Dimensions 25 x 20 cm H 1,2 ÷ 4 m.

### **PERFORMANCES MW**

• 24 GHz microwave K-band

### **PERFORMANCES DT3**

- Microwave TX/RX 4 different channels
- DT3 doppler for blind zone protection adjustment 1/8m



## **GAPID SR**

## The serial sensor for any type of fence

Intelligent system characterised by sensors that detect attempts to climb, cut or break through barriers, designed to protect the perimeter of garages, doors, gates, nets, window, grilles, grating as it adapts to any type of fence.

Each Gapid sensor is equipped with a system to diagnose and digitally process vibrations across a surface area of  $15 \text{ m}^2$  in order to detect possible attempts of intrusion.

Internal algorithms enable the system to reset false alarms, since it checks the entire perimeter and the individual areas configured.

The software allows inserting the various sensors in a map and, through graphic management, is able to enter inside each Gapid sensor, configuring it and checking its status in real time.



## **TECHNOLOGY**

## **GAPID SR**

Suitable for multiple systems connected on a serial Bus controlled and managed by a single concentrator.





Gapid SR accelerome of the perin Each sense cable inter simultaneo



Gapid SR forms an intelligent system consisting of a series of state-of-the-art MEMS accelerometric sensors. Gapid detects attempts of climbing over, cutting and breaking through of the perimeter.

Each sensor can work autonomously, and is connected to the system via a RS485 serial cable interconnected to a control and configuration concentrator called Adebus, which can simultaneously analyse two sections of 128 sensors, up to 1 km each (expandable).



## PERFORMANCES

- Maximum surface covered of 15mq
- Integrated analysis and control device
- Power supply of 7-14Vdc
- Remote control outputs on serial bus
- IP66 protection
- Rustproof and rodent-resistant cable
- Management with ADEBUS system that interfaces with the alarm control unit via:
- 3 relays + 4 open collectors on base board

16 relays on each expansion board (for a max of 5 boards)

## **APPLICATIONS**

- Nets and fences
- Grilles and grating
- Gates
- Railings
- Blastproof walls
- Windows
- Garages and doors

The software allows graphically managing a map with the site plan where each Gapid sensor can be positioned in its exact location, thus making it easy to visualise in case of an alarm.

Each sensor, single or group, can be configured and checked in real time: all the operations can be performed locally or remotely via web-based interface.



## SANDOR

## The small barrier with a long range

## SANDOR PLUS SMA

The barrier is housed in a small attractive designed anodized aluminium frame with polycarbonate front. Typical applications are wall/window protection or pole mounted (using the

appropriate brackets) for perimeter security.

Inside are the same electronic boards of **PARVIS MES SMA** and **MANA IR SMA**, hence being compatible with them and can be used to meet all needs of the perimeter systems.

**SANDOR PLUS SMA** can also be connected to the RS485 Bus and managed via ADEBUS system.

### SANDOR DUAL - QUAD - ESA SMA

Designed especially and recommended for the protection of large wall areas with windows, they allow to select parallel or cross beams which form a "net" of detection.

The signal emitted from any transmitter is received by all the receivers.











## SANDOR

## Long-range barrier for effective protection

### **SANDOR SMA WS**

The SANDOR SMA WS range maintains the single tower philosophy with two columns in opposition with battery use.

The low battery is indicated in the same time one person pass trough barriers. In case of fully discharged battery, a positive safety alarm is provided. 3 YEARS BATTERY LIFE

## **SANDOR SMA HY**

The SANDOR SMA HY range has the same features and functions as SANDOR SMA WS with one TX and one RX column; the supply is given by a power supplier working at 230 Vac. IN CASE OF POWER OUTAGE 230 VAC, 3 MONTHS BATTERY LIFE

### SANDOR SOLAR SMA

SOLAR SMA represents the last protect system evolution using solar energy.

These barriers are equipped with a mini Filmsolar panel fitted to the top of the tower to keep the batteries, housed in the column, constantly charged, capable of powering all the optics. 3 MONTH OPERATION WITHOUT RECHARGING ACTIVE CHARGE EVEN WITH 20% OF SOLAR ENERGY



## TECHNOLOGY SANDOR SMA WS SMA (Single Man Alignment) technology applied to wireless.

**SANDOR SMA HY** Column with 230Vcc power supply and built-in power unit that allows charging rechargeable batteries and using heating systems.



### **SANDOR SMA SOLAR**

This is the evolution in perimeter protection systems, which uses solar energy to recharge the batteries that power the columns.

## "

## PARVIS

## The product for your peace of mind

Outdoor security system created for residences and industrial sites which is possible to add an illumination device.

### **PARVIS MES SMA**

An invisible and discreet barrier is created by the active infrared beams which are both pulsed and synchronized.

This system is fitted into an aluminium frame which is covered with a polycarbonate tube which has the diameter of standard lighting fixtures.

This range maintains the Bi-directional philosophy with 2TX + 2RX or 3TX +3RX.





## **PARVIS MES SMA** Active infrared synchronised technology that integrates with lighting systems.













## **PERFORMANCES**

- Outdoor range 100m
- Random delay
- Parallel or crossed beams
- Fog disqualification with dedicated output OC
  Random AND-OR or first two beam activation
- Exclusion of the first or the two lower beams
- Wired or optical synchronization
  Antimask detection with dedicated output OC
- Crawl detect on bottom beam
- Adjustable response time
- 4 channels optical beams synchronization
  Exclusion of Leds
- Optical synchronism channel selector

- Power supply 10-30 Vdc / 150 mA
  Heating supply 12-24 Vac / Vcc / 50 W
  RS485 connection (only with wired synchronization) with the Adebus system
- Protection degree IP65
- Dimensions Ø80 H 1,2 ÷ 3 m

ADJUSTMENT ANGLE



SECTION FOR LAMP CABLING PASSAGE



PUSH BUTTON ACTIVATED ALIGNEMENT



## PARVIS

## Easy to install wireless barrier

#### **PARVIS SMA WS**

Column with 230Vcc power supply and built-in power unit that allows charging rechargeable batteries and using heating systems. 3 YEARS BATTERY LIFE

**PARVIS SMA HY** 

The PARVIS SMA HY range maintains the same philosophy as the previous one with TX and RX columns, 2 or 3 dual beams, depending on columns high that allows a site of any size or shape to be protected. All the features and functions are the same as those in the SANDOR SMA WS, but the supply is given by a power supplier working at 230Vac and rechargeable Lithium battery. IN CASE OF POWER OUTAGE 230 VAC, 3 MONTHS BATTERY LIFE

### **PARVIS SOLAR SMA**

This is the evolution in perimeter protection systems which uses solar energy to recharge batteries that power the columns. 3 MONTH OPERATION WITHOUT RECHARGING ACTIVE CHARGE EVEN WITH 20% OF SOLAR ENERGY



## TECHNOLOGY PARVIS SMA WS SMA (Single Man Alignment) technology applied to wireless.

**PARVIS SMA HY** Column with 230Vcc power supply and built-in power unit that allows charging rechargeable batteries and using heating systems.



**SELF-POWERED** 

**COMPLETELY WIRELESS** 

### **PERFORMANCES PARVIS WS**



**AND BATTERY** 

**POWER UNIT** 

WS 200 RADIO REPEATER

WS 824 RADIO RECEIVER



## **PARVIS SMA SOLAR**

This is the evolution in perimeter protection systems which uses solar energy to recharge batteries that power the columns.

## **SADRIN** The safety barrier for windows

Miniaturised barrier, particularly suitable for the protection of doors and windows but, thanks to its capacity, can also be used to protect larger surfaces as long as it is not directly exposed to the elements.

The range includes a self-powered battery version that can be used with all wireless systems available on the market, thanks to its relay outputs that can be managed by universal transmitters.

The WSE version has a container fixed at the top part of the barrier to contain both a high-power battery and a universal transmitter and provides a self-protected housing for the latter.

A white model is also available, with a reduced range of 3 m.



### TECHNOLOGY SADRIN Low-absorption active infrared barrier.

#### **SADRIN WSE SMA** SMA (Single Man Alignment) technology applied to wireless. This version has an external battery compartment.



## **COMPLETELY WIRELESS**



WS 801

RADIO

## NAT SENSOR

## Revolutionary passive perimeter protection

### **NAT SENSOR**

A compact dual technology detector with curtain effect, suitable for the protection of doors, windows and facades, which is positioned in the upper corner of the accesses to be protected.

MW and IR are both equipped with antimasking, always active, able to detect any tampering attempts.

## NAT WS

The new outdoor sensor of Politec with curtain-effect dual technology detector for outdoor use with **microwave active 24/7**.

Battery power supply for easy installation in all radio systems on the market, which can house all the TX radio models on the market, making it a universal wireless sensor. AUTONOMY OF 3 YEARS





## TECHNOLOGY NAT Dual technology passive sensor with active antimasking.

**NAT WS** Dual technology passive wireless sensor with active anti-masking.







## **PERFORMANCES NAT**

- Application 2 3m height.
- IR and Microwave range adjustable from 1 to 12m
- Thermal self-compensation
- Coverage angle  $IR = 80^{\circ} V 6^{\circ} H$ ;  $MW = 85^{\circ} V 30^{\circ} H$
- Power supply 10Vcc ÷ 30Vcc consumption 42mA MAX
- Exclusion signal led: walk-test, IR, MW , alarm
- Function: ANTI-MASKING function IR and MW configurable ENERGY SAVING (no stand-by), PET IMMUNITY (10kg); INSECT IMMUNITY. AND + OR security function
- Operating temperature:  $-25^{\circ} \div +65^{\circ}C$
- Protection degree: IP65

## **PERFORMANCES NAT WS**

- PIR LIMITER included to adjust the angle of the PIR detector
- IR and Microwave range adjustable from 0 to 10m
- Power supply two 3.6V 2.7Ah Lithium Batteries 3 years life

ENERGY SAVING (no stand-by), PET IMMUNITY (10kg); INSECT

## GAPID

## Fence/gate shock detection system-anti climbing/cutting

GAPID is a MEMS detector, which use the triaxial acceleration capacity to discriminate and/or detect every kind of vibration or movement, to provide the best protection on many applications.

Each unit has 6 pre-set functions and 3 functions of self-learning, it is anti-tamper removal coverover, shockproof case is IP66 and the battery operated or supplied 8 – 30Vdc.

GAPID represents the latest evolution and innovation in the perimeter protection field.

Gapid is a real innovation and evolution in the perimeter protection industry.



Sensor Stand Alone / "Everything in one" with a wireless facility



## TECHNOLOGY

### GAPID

Autonomous triaxial accelerometric sensor for protection against attempts to climb over or break through the barrier.

**GAPID WS** 

It has the same performances as the wired model, but with the ease of being a wireless battery-powered instrument.





**GAPID WS** 





GAPID





INTELLIGENT

SENSOR

## PERFORMANCES

- Maximum coverage area 15sgm

- Setting and sensor programming
  Power supply 3.6 V (battery) or 8 ÷ 30Vdc
  Consumption -0.05mA stand-by, 0.8mA alarm
  3 years battery life with 3.6V 2.7Ah
  Alarm and Tamper Relays output (dry contact)
  Terminal block for double balancing alarm / tamper
- Protection degree IP66
- Delivered with anti-corrosion and crushing cable

## **APPLICATIONS**

- Light Metallic Grid Rigid Grid|\Thick
- Garden Netting Not Welded
  Garden Netting Fences
- Welded Garden Netting
- Wall\Railings Anti Breakthroughs
- Windows
- Garages

RADIO TRANSMITTER



## **BASIC FUNCTIONS SWITCH**



## **ALES** Reliability of a double-range barrier

In one word, ALES is universal because it can be used everywhere.

### **ALES SMA**

Single beam with dual optics which gave rise to the SMA technology, the special feature that allows "Single Man" installation and alignment. It could be provided with low consumption and efficient heater.

This product in also available in white, but with a reduced long range of 30m.

### **ALES WS**

The new barrier is the same ALES 60-120 philosophy with SMA technology and self-powered. ALES WS is available only in 60 meters.

**3 YEARS BATTERY LIFE** 





## **TECHNOLOGY**

ALES SMA SMA (Single Man Alignment) technology allows performing an alignment, even while still being a single operator.





## PERFORMANCES

- Outdoor range of Ales black 60m or 120m
- Outdoor range of Ales white 30m
- Infrared technology with dual optics synchronisation (4 different channels)
- Fog disqualification with dedicated output OC
  Power supply 10 ÷ 30Vcc / 90 mA
  Adjustment 180°H. And 20°V.

- Thermostatically controller heaters (option)
  10-30 VAC/Vdc Heater Power requirement 250mA max
- Protection degree IP65

### **PERFORMANCES WS**

- Outdoor range 60m
- Fog disqualification
- Optical synchronisation (4 channels)
- Tamper TX send to RX via optics
- Protection degree IP65
- Dimensions 78 x 130 x185 mm

#### ADJUSTMENT ANGLES VERTICAL 20°



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WS 824

RADIO RECEIVER











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