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# SENSITIVE WIRE INTELLIGENT BARRIER **TPS**





T P S

PERIMETER

# TPS

## SENSITIVE wire INTELLIGENT barrier

The TPS System represents one of the solutions provided by GPS Standard in response to the increasing requirements for external perimeter protection. It is a system based on solid experience in the field of electronics applied to security systems and a profound knowledge of the most advanced electronic techniques. It comprises a variable number of parallel barbed wires

positioned about 10–15 cm from each other and mounted on support posts placed at a distance of about 2.5-3 m from each other. The system is a real and self-sustaining physical fence barrier, sensitive to the disturbances created by attempted intrusions. The TPS System is modular and can be used to protect very large perimeters. It is particularly suited to areas

such as: military sites, airports, industrial complexes, refineries, nuclear centres, and even for warehouses, car storage areas and residential areas. It can also be installed on top of or along side perimeter walls.

### OPERATION

The TPS System is particularly suited for climbing detection (on top of a wall) when it is

also necessary to create a physical barrier (fence). In fact, because it uses a stainless steel barbed wire, once installed it provides a physical barrier of significant strength that is perfectly suitable as a fence.

The active part of the system is the sensor post, with particular

characteristics that make it sensitive to any attempts to violate the fence such as cutting, breaking through or forcing apart the wires.

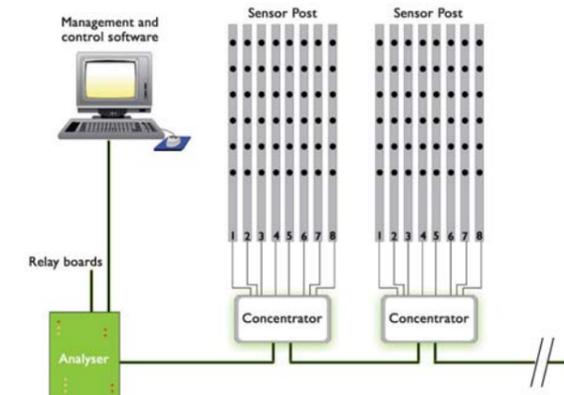
TPSM200



TPSE100



System configuration



PERIMETER





# Components

## Analyser Unit (MIND)

This can control from 1 to 64 peripheral units (concentrators). The analyser unit generates the alarm outputs using appropriate relay boards. It can also be connected to a personal computer, using an RS232 interface, that is used for system commissioning, verification, maintenance and monitoring.

## Concentrator

Microprocessor unit that receives the signal from the sensor post,

processes it, discriminates the alarm signals based on appropriate algorithms and signals alarm conditions to the analyser unit. Each concentrator can be connected to a maximum of 8 sensor posts.

## Amplifier

This is the unit that contains the pre-amplifier and it is directly connected to the sensitive wire, receiving the electrical signals from the wire, amplifying them and passing them to the

concentrator. Also generates a signal if the sensitive wire is cut. The amplifier unit controls the sensitive cable positioned in the sensor post.

## Sensor Post

The sensor post receives and amplifies the signal produced by the sensitive wire following vibrations in the barbed wire. Following a mechanical disturbance, and proportional to the energy applied, the barbed wire generates a vibration that is

received by the sensitive cable, which converts it into an electrical signal. The amplified signal is sent to the concentrator for real time analysis.

## Software

If a personal computer is connected and using a specific software package, it is possible to display in a graphical format the signals generated by the sensor posts. This is particularly useful during the installation phase when it

allows detection of the background noise present on the system.

It is possible to set the system up by checking on the computer screen the signals corresponding to specific mechanical disturbances on the wires. If there are unwanted alarms (not attributable to an intrusion) it is possible to use the computer as an event recorder. Setting a start threshold, the computer memorises all events above this

threshold, starting the recording 4 seconds before the passing of the threshold.

The recorded signals are associated with the specific time and date.

This allows very accurate subsequent analysis of the recorded signals and to identify most causes of any false alarms.





# Available versions

## TPSE100

Following a mechanical disturbance, and proportional to the energy applied, the barbed wire generates a vibration that is received by a sensitive cable, which converts it into an electrical signal. The signal, after being subjected to appropriate amplification, is sent to a microprocessor based signal processor that analyses it and generates pre-alarm and alarm signals. These are based on exceeding thresholds and

matching detection parameters that can be configured individually, suited to the requirements of each individual site. Using differential signal analysis, the system is able to eliminate false alarms from common mode signals that can be produced by environmental phenomena (wind, hail) or by large variations in temperature (day, night). The extreme modularity of the system allows the creation of very long perimeter protection

systems, up to 31 Km. The system in fact comprises a single analyser unit that, using a proprietary serial connection system, can connect to up to 64 concentrators; each of which can connect to up to eight TPS sensor posts. For even longer perimeters a second analyser unit can be used to which a further 64 concentrators can be connected and even a third analyser and so on. This configuration also allows mixed installations, made up

from different technology sensors (IPS active infrared barriers, GPS buried sensors, DPS double technology GPS/RFC, CPS microphonic cable) where the characteristics of the protected area require alternative solutions.

## TPSM200

The TPS M200 comprises an extruded aluminium post on to which is fitted a mechanical joystick type sensor that can detect all the movements in the

barbed wire created by cutting or forced parting of the wire. The barbed wire is connected to the joystick using a small stainless steel bracket with a serrated clamp. A joystick is attached to each wire and provides an alarm contact direct to the control unit. Control of the sensitivity is by manual adjustment of the screw on the joystick. The joystick is rated at IP68.



## TECHNICAL FEATURES

	Sensor	Concentrator	MIND(Multiplex2000)
Power supply	from concentrator	55 Vdc	12 Vdc
Quiescent current	1 mA	20mA@55V	50mA
Operating temperature	-30° +60°C	-30°C +60°C	-5° +60°C
Dimensions	80x80x50 mm	260x190x95 mm	5U 19" rack
Weight	400 gr.	300 gr.	2,0 kg.

Retailer of confidence



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