

# GPS

STANDARD

Committed to security.

PERIMETER



## MICROPHONIC PROTECTION SYSTEM **CPS PLUS**







# CPS PLUS

## MICROPHONIC CABLE system

The CPS™ Plus is a **passive, perimeter intruder detection system**, suitable for both **internal and external applications**. It is normally installed on existing, external fences such as chain link and welded mesh. It can be used on top, or in the structure of walls (wood, brick, stone, .... etc.) too. CPS™ Plus is designed to detect all the typical intrusion attempts for cutting or pulling

or lifting or climbing over the fence and, in case of internal applications, penetration of the wall. The system can be foreseen as the primary means of detection, in application of medium to high risk. When used with a secondary system (such as CCTV surveillance equipment), it can be used for the highest risk applications

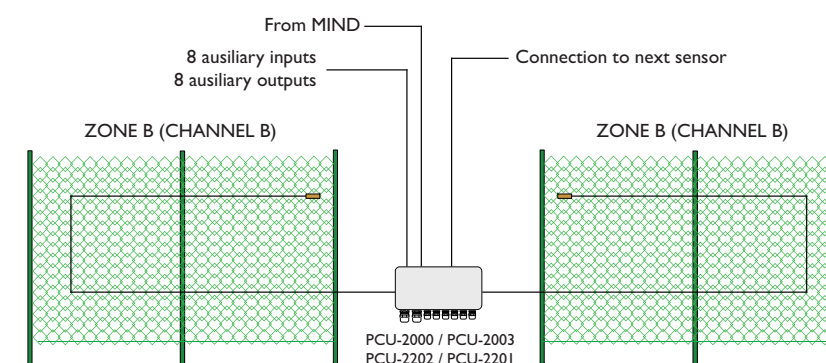
**OPERATION**  
CPS™ Plus is based on the detection, by the microphonic cable, of all the **mechanical stresses** produced by an attempted intrusion. These stresses produce deformation of the microphonic cable itself, which, due to a piezoelectric effect, converts them into electrical signals. The DSP signal analyser continuously monitors the

electrical signal present on the microphonic cable, and if this one exceeds the predetermined threshold, after subsequent comparisons with the pre-set system parameters, it generate an alarm or a warning. Depending on the shape of the perimeters and desired degree of sensitivity, the cable layout

can follow different configurations. The system can be connected to any type of alarm control unit and, during system installation, using a personal computer, the operating parameters can be adjusted.



CPS™ Plus is based on the detection, by the microphonic cable, of all the mechanical stresses produced during an attempted intrusion.





# Components

## Microphonic cable

The Microphonic Cable is installed along the perimeter fence of the area to be protected. The particular features make it especially sensitive to the mechanical disturbances produced in the course of an attempt to violate the protection (cutting, climbing, pulling,...etc.); this disturbance is translated into an electric signal (piezoelectric effect) which is

continuously analysed by the CPS™ Plus sensor. To conform to the perimeter layout and the level of sensitivity required, the installation of the cable can assume many different configurations, but in each case no more than 300 mt. of cable per zone can be used.

## CPS™ Plus sensor

It can manage two or four distinct zones (channels) of 300mt each, providing for each

one indications of Pre-alarm, Alarm, Cable Cut and Short Circuit, via NC relay contacts on the Stand-alone version, or via the serial line for the Multiplex version.

## PLUS

**CPS™ Plus is resistant to weather conditions** such as rain, snow, hail, etc.

**Very low percentage of false alarm** due to unwanted

vibrations (a train passing by, highway in the vicinity, etc...) thanks to:

- Analysis of signals in the time and frequency domain, eliminating background noise
- System self-learning: the system can be "trained" to recognize certain behaviour, such as intrusion, attempts, simulated during the calibration

**Local interface with other systems** via serial data port e.g.

to speed dome cameras , sirens, lights, etc.

**The calibration is carried out when the system has been installed** (in real operating conditions), to simulate the type of detection desired, thus ensuring very high immunity to unwanted alarms.

**It can be Integrated with other perimeter protection technologies**, by using the same

communication BUS, creating mixed systems from the various perimeter solutions provided by GPS Standard.

The microphonic cable is installed along the perimeter to be protected.

The system can be connected to any type of alarm control unit.

CPS™ Plus is resistant to weather conditions, such as rain, snow, hail, etc.





# Versions and configurations

There are two main versions of the CPS™ Plus sensor: 2 zones and 4 zones. For each of them there will be the following configuration:

**-Stand-Alone USB** [Art. PCU-2000 (2 zones) or PCU-4000 (4 zones)] with relays contact outputs NC and USB for PC connection.

**-Stand-Alone COM1 I5** [Art. PCU-2003 (2 zones) or PCU-4003 (4 zones)] with relays contact outputs NC and

COM1 I5 for PC connection with a dongle (PSW2000/K).

**-Multiplex COM1 I5** [Art. PCU-2202 (2 zones) or PCU-4202 (4 zones)] with COM1 I5 communication bus line powered at 48VDC.

**-Multiplex RS485** [Art. PCU-2201 (2 zones) or PCU-4201 (4 zones)] with RS485 communication bus line powered at 12VDC.

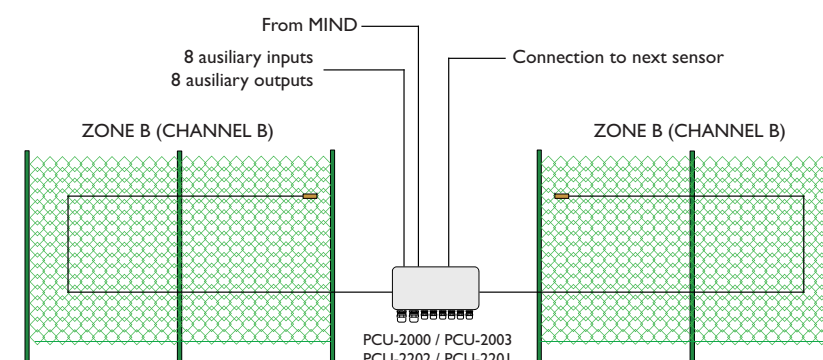
For the stand-alone versions, the programming and

calibration of the device can be locally performed via USB or COM1 I5 with a PC and dedicated software for Windows (Art. PSW-SA).

For the multiplex versions, the same activity can be remotely performed by using the dedicated software (Art. PMSW) and the MIND™ unit. All the electronic circuits are contained in a metal cabinet completely sealed and protected ("Anti-tamper").

## CONFIGURATIONS CPS™ PLUS - EXAMPLE

### -2 zones CPS™ Plus installation example, each zone with a length of 300m

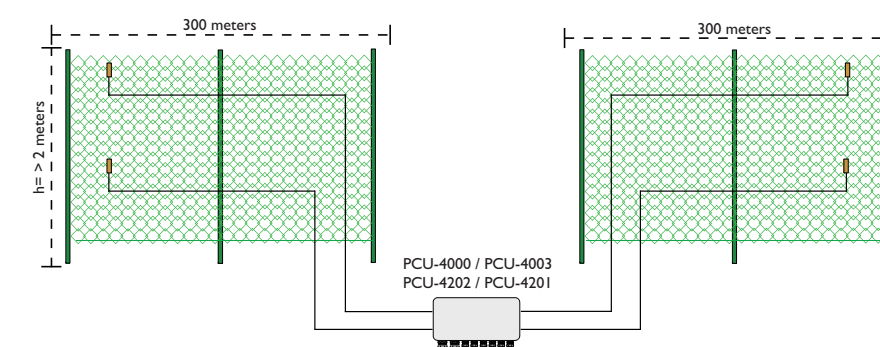


The sensor provides a series of NC contacts, via terminal blocks, for the signals of Pre-alarm, Alarm, Cut and Short for channel "A" and channel "B" and, in addition, the Fault and Tamper signals. The device can be programmed through the USB port or COM1 I5 serial port. The length of the sensitive zones for both the version with 2 or 4 zones is 300m each. This distance is given by the sum of the insensitive cable (RG59) and the sensitive one used to protect the specific section of perimeter.

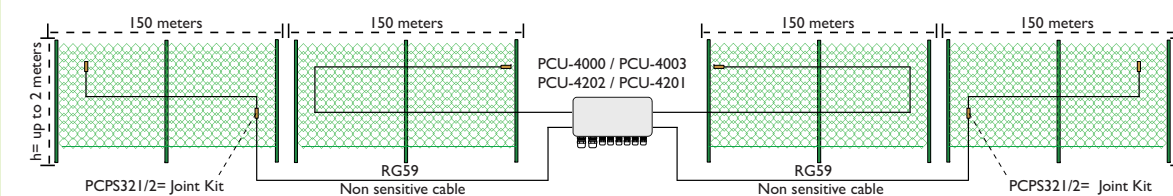
### -4 zones CPS™ Plus installation example, each zone with a length of 300m

In case of use of a 4 detection zones analyser, the location of the zones must comply with this maximum length.

The 4 areas will be star-connected to the analyzer:



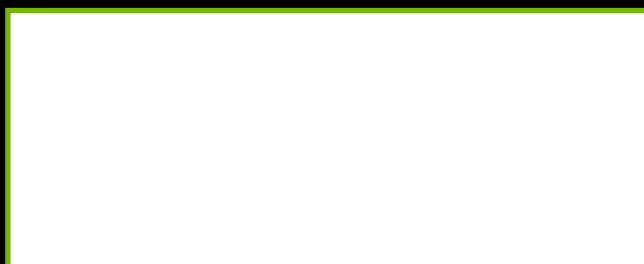
If the sections to be protected were sequential, the length of the two outer sections may be up of 150m since the beginning of the distant sections will be connected to the analyzer through a non sensitive cable with a length equal to those of the two sections closest to the analyzer.



## TECHNICAL SPECIFICATIONS

	Stand-Alone	Multiplex
Coverage	300 m for zone	300 m for zone
N° zone	Max 4	Max 4
Parameter Set-Up	Local using PC	Local or remote using PC
PC connection	USB – COM115	COM115 – RS485 - USB
Local relay inputs	8	8 optional
Local relay outputs	8	8 optional
Cabinet	Metallic box IP68	Metallic box IP68
Cabinet Dimensions	260x160x90mm (LxHxP)	260x160x90mm (LxHxP)
Weight	2 Kg	2 Kg
Operating temperature	-30°C +70°C	-30°C +70°C
Relative Humidity	90%	90%
Power Supply	10÷16Vcc	24÷55Vcc
Current (max)	220mA (12Vcc)	60mA (48Vcc)

Retailer of confidence



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