

GPS

STANDARD

Committed to security.

PERIMETER



MICROPHONIC PROTECTION SYSTEM **CPS**™



CPS

MICROPHONIC CABLE system

CPS™ is a passive, perimeter intrusion detection system designed for both external and internal applications, using microphonic cable. Normally installed on an existing, external chain-link or welded mesh fence it can also be used on the surface or in the structure of solid barriers: ceilings, walls etc. It is designed to detect, in the case of external applications, all of the typical signals created

by attempts to climb over, cut or lift up the fence. For internal applications it can detect attempts to break down or penetrate the wall. These characteristics make the CPS™ system particularly suitable as the principal protection for medium to high risk installations or as the secondary protection -with CCTV for example- in the highest risk situations.

OPERATION
The operation of the system is based on the detection, by the microphonic cable, of all of the mechanical disturbances created during an intrusion attempt. These disturbances produce a deformation in the cable, which, using a piezo-electric effect, will create a small electrical signal. The control unit continuously analyses the signals present on the Microphonic Cable, with a

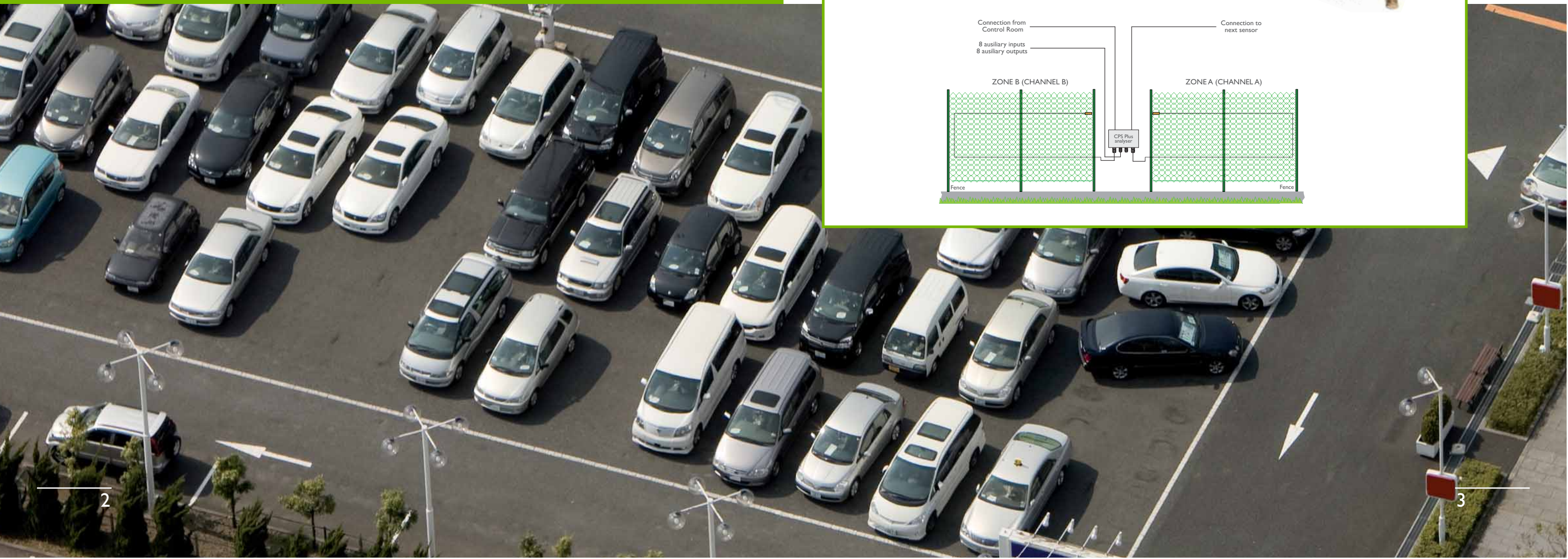
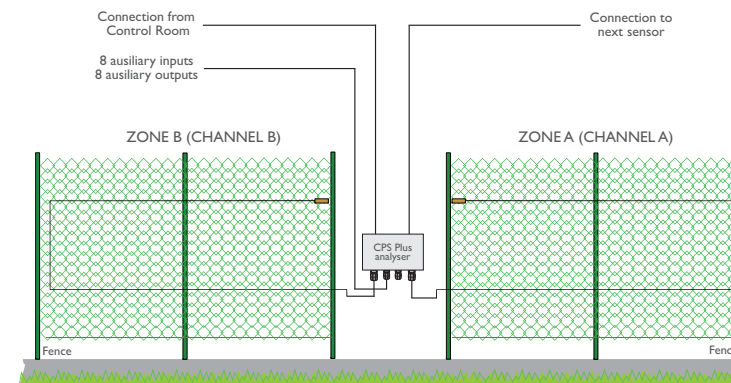
maximum length of 300m per zone, and, after various comparisons with specific parameters set into the system, will eventually generate an alarm. Depending on the type of perimeter and the level of sensitivity required the installation of the cable can assume many different configurations. The system can be connected to any type of central alarm control panel and during installation the all the

system operating parameters can be configured either locally or remotely using a Personal Computer. Over the years the CPS™ system has undergone a series of evolutions. The latest is CPS™ Plus, based on DSP microprocessor technology, capable of extremely fast and accurate signal analysis in both time and frequency domains. CPS™ Plus is able to discriminate between the different types of recurring

environmental signal and those, which are genuine alarms. The alarm signals received from the microphonic cable are automatically compared to those already memorised. Based on the type and duration of the signal received the system recognises if the signal is consistent with an actual alarm.



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



Components

ANALYSER -CPS™ 100/200

The analyser is the electronic part of the CPS™ system. Using microprocessor technology it is designed to manage two distinct and separate zones (channels) of up to 300m of cable each, providing a Pre-alarm and Alarm signal from each zone. The Fault (cable cut or short) and Tamper (cabinet open) signals are common to both the zones. The analyser also has an internal "Watchdog" facility to restart the board in case of working problems. The analyser can also automatically adjust the system

Alarm and Pre-Alarm threshold based on increased environmental noise. During the installation the system operating parameters can be set up in the "local" mode, using a Personal Computer. The function of the Analyser is to analyse, continuously, the signal generated by the microphonic cable and, after making accurate comparisons with the operating parameters, to discriminate the intrusion alarms from false signals caused, for example, by noise from animals, wind and other environmental sources. The

electronics is contained in a fully weather-proof metal box complete with anti-tamper switch.

ANALYSER -CPS™ PLUS

The analyzer for this system is based on DSP -Digital Signal Processing- technology that, thanks to the processing power it possesses, allows the implementation of Fourier analysis, digital filters and other techniques. The power of this technology allows analysis in both time and frequency domains, eliminating

environmental disturbances, while at the same time reducing nuisance alarms. The CPS™ Plus sensor can manage 2 zones of up to 300m of microphonic cable each, with independent signals for alarm, pre-alarm, cable cut and short circuit via NC contacts on the Stand-Alone or via the COM115 serial bus in the Multiplex version. When using the serial line it is also possible to configure, monitor and record signals using a Personal Computer and a dedicated software program. Configuration is in local mode for the Stand-Alone, and remote for the Multiplex analyser. The electronics is contained in a fully weather-proof metal box complete with anti-tamper switch.

MICROPHONIC CABLE

The microphonic cable is installed along the entire perimeter of the area to be protected. The cable characteristics make it particularly sensitive to mechanical disturbances generated during attempts to penetrate the perimeter: climbing, cutting, lifting. These disturbances are converted into electrical signals using the piezo-electric effects, which are continuously analysed by the analyser. Depending on the type of perimeter and the level of sensitivity required the installation of the cable can assume many different configurations but in any situation there must not be more than 300m of cable on any one zone.

SOFTWARE -CPS™ 100/200

The PSWCPS100-200 software allows complete set up of the operating parameters, monitoring and recording of the analogue signals provided by the analyser. Used for correct installation of the CPS™ 100 e CPS™ 200 series analysers (Windows XP environment).

SOFTWARE -CPS™ PLUS

The Multiplex2000 software in a Windows environment allows complete calibration, verification, monitoring and recording of the analogue signals from the analyser for correct identification of climb or cut attempts on the fence and the discrimination of environmental noise.

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.



Available versions

CPS™ I00 -SINGLE ZONE

Version without automatic sensitivity control. Provided with (screw terminals) NC relay contacts for alarm and fault, LED indicators for pre-alarm, alarm and fault and RS232 serial line.

contacts for alarm and fault, LED indicators for pre-alarm, alarm and fault and RS232 serial line.

CPS™ 200 -TWO ZONE

Version with automatic sensitivity control. Provided with (screw terminals) NC relay

CPS™ PLUS -TWO ZONE
Versions with "advanced time and frequency domain analysis" and as Multiplex or Stand-alone configurations.

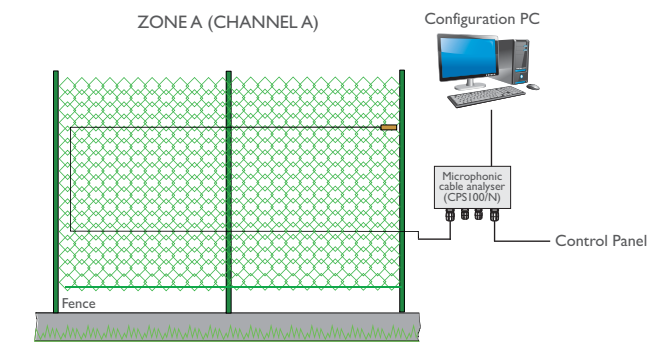
The Multiplex version provides, at the central control, up to 24 outputs for each sensor.

Of these, 16 are associated with alarm signals (for the two zones) and 8 are associated with the auxiliary inputs. The Stand-Along version has 8 local alarm outputs provided on programmable relays.

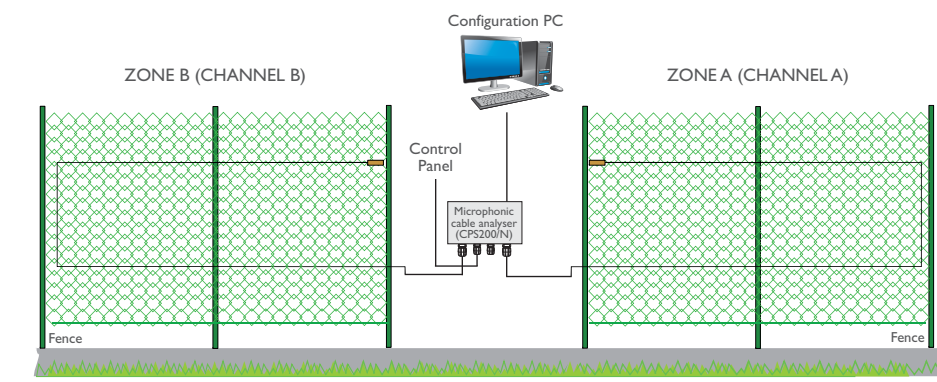


SYSTEM CONFIGURATION

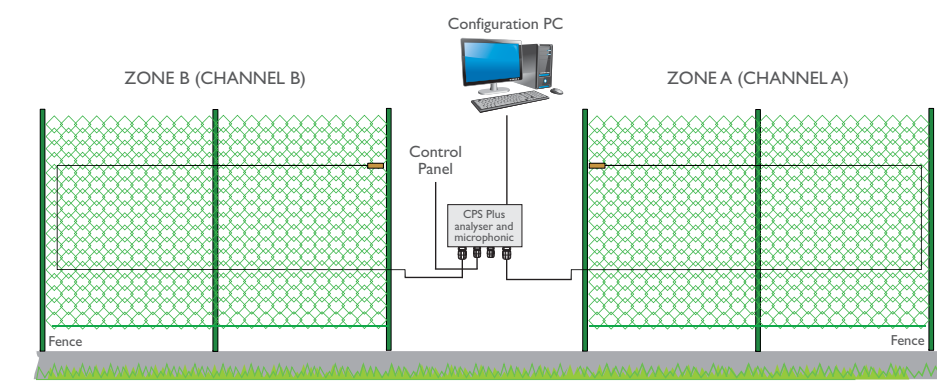
CPS™ I00 Single Zone



CPS™ 200 Two Zone



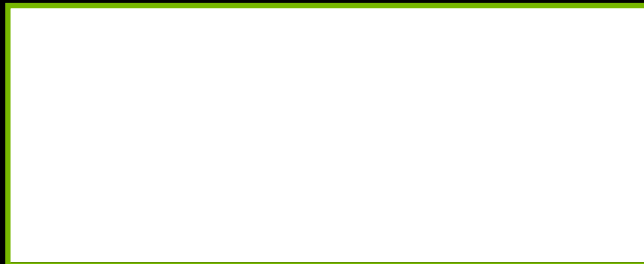
CPS™ PLUS Two Zone



TECHNICAL SPECIFICATIONS

	CPS™ 100	CPS™ 200	CPS™ PLUS
Coverage	300m.	600 m. (single run) 300 m. (double run)	600 m. (single run) 300 m. (double run)
Parameter Set-Up	Local using PC	Local using PC	Local using PC
PC Connection	RS232	RS232	COM1/15
Auxiliary Alarm Inputs			8 local inputs (S.A.) 8 local inputs (MPX) Optional
Local relay outputs	3	4	8 (S.A.) 8 (MPX) Optional
Cabinet	Metal container IP68	Metal container IP68	Metal container IP68
Dimensions (WxHxD)	220 x 120 x 80 mm	220 x 120 x 80	260 x 160 x 90 mm
Weight	1,5 Kg.	1,5Kg.	2 Kg.
Operating Temperature	-30° +70°C	-30° +70°C	-30° +70°C
Relative Humidity	90%	90%	90%
Power supply	9÷55 Vdc (12V nom.)	9÷55 Vcc (12V nom.)	10÷16 Vcc (12V nom.) (S.A.) 24÷55 Vcc (12V nom.) (MPX)
Current (max)	100mA @ 12 Vdc	100mA @ 12 Vcc	220mA @ 12 Vdc (S.A.) 60mA @ 48 Vdc (MPX)

Retailer of confidence



COMPANY WITH QUALITY MANAGEMENT
SYSTEM CERTIFIED BY DNV
= ISO 9001:2008 =



Committed to security.

GPS STANDARD S.P.A.

Fraz. Arnad Le Vieux, 47 • 11020 Arnad (AO) - Italy • Ph. +39 0125 96 86 11 • Fax +39 0125 96 60 43
info@gps-standard.com • www.gps-standard.com

Copyright by GPS Standard SpA

The rights of translation, reproduction or complete or partial amendment, by any means, are reserved in all countries.

GPS Standard reserves the right to modify the technical characteristics and prices without prior notice.

The information provided in this document is subject to modification and/or errors.

For detailed information refer to GPS Standard.