# SISMA CP. 50 Geoseismic protection

SECURITY

**SISMA CP 50** is a buried intrusion detection system **creating an invisible and unidentifiable detection band** around the area or the building to be protected. The system uses **special geoseismic sensors** which perceive the seismic waves generated by a person crossing the protected perimeter. The sensors operate 60 cm underground and are compatible with different types of surfaces, such as terrain, lawn, asphalt and interlockings.

### MINVISIBLE PROTECTION

Covered by a thick layer of soil and deployed in a non-rectilinear way, the sensor-strings prove to be completely invisible and virtually impossible to locate.

### MINUNE TO CLIMATIC NUISANCES

The normal functioning of the system is not affected by harsh climatic conditions, such as rain, snow, hail and strong temperature jumps and by the most common environmental disturbances such as the fall of leaves or thin branches.



Thanks to their robustness and the absence of active electronic components, the sensors are free from electric failures and do not need any type of maintenance.

### BIGH DETECTION SENSITIVITY

Even if they operate at 60 cm depth, the sensors can also perceive the transit of a person walking softly, moving on all fours or creeping.

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The sensor-strings adapt to ground contour and to perimeter route, making it possible to follow slopes and dips and to circumvent potential obstacles.

## COMPATIBILITY WITH SMALL ANIMALS

The system tolerates small animals, both domestic and wild, consequently their passage along the protected area do not trigger improper alarms.



SISMA CP 50 employs **special geoseismic sensors** which detect the seismic waves generated by a person walking on the surface. Thanks to their high detection capability, the sensors can operate at 60-cm depth, in **an environment which is not affected by adverse weather conditions and by the presence of rodents**. This depth makes the system **compatible with normal gardening jobs and maintenance of the surface**, such as hoeing and re-asphalting activities.

The sensitive core of the detector consists of a **piezoceramic transducer**, sealed and protected inside a plastic housing which is resistant to the chemical and organic substances present in the soil. The connection cable is equipped with a **rodent-proof armour** which consists of a thick galvanized iron braid which provides a long-lasting and an efficient protection against rodents.

The sensors are supplied in prewired strings of 10, 30 or 50 metres composed of 12, 34 and 56 detectors, respectively (installed at 90 cm from each other). DEA can also supply sensor-strings with customized length. The flexibility of the prewired sensor-strings allows you to adapt the system to ground contour and to perimeter route, making it possible to follow slopes and differences in level, and to circumvent potential obstacles.

**The sensors of a SISMA CP 50 string are alternately assembled on two different communication channels** (*A and B*) so that the intruder can generate a signal on both of the channels at the same time. In this way, the processing board receives a "**double acknowledgement**" (*AND sensor detection*) to discriminate potential environmental nuisances from real intrusion attempts.



## **ELECTRONIC BOARDS**

service software

The signals coming from the sensor-strings are amplified and processed by the **BR-SMCP50-Z1 (single-zone) and BR-SMCP50-Z2 (dual-zone) microprocessor electronic boards**. The former manages one sensor-string (alarm zone) while the latter can manage 2 sensor-strings at the same time and in an independent way.

The processing boards **allow you to adjust the sensitivity and to vary the processing parameters of the signals coming from the sensor-strings**, so as to maximize the performance of the system in each single installation or according to specific needs.

BR-SMCP50-Z1

BR-SMCP50-Z2

**IP NATIVE** 

The new processing boards, dual-zone boards or multi-zone boards, are now equipped with a USB port, with an Ethernet Interface for the connection over TCP/IP network and with a completely upgraded service software.

The IP native support enables the direct integration, or via plug-in, with a wide number of third-party software and devices, such as PSIM and VMS.

The calibration and the programming of the processing boards can be performed via a PC by using a specific service software which displays a real time graph of the signals coming from each sensor-strings and input and output status. By this software you can also upload a configuration previously saved and view the event logs, where all the signals from the sensor-strings are recorded in chronological order. DEA Security's engineers can analyse these events to determine the cause raising the alarm.

The processing boards raise alarm, tamper and failure signals through dry relay contacts (C/NC) but can be also connected over **DEA NET centralization network or over Ethernet with IP protocol**.

# **COMPONENTS OF THE SYSTEM**

#### Standard sensor-string (LN-SMCP50)

Sensor-string of 10, 30 or 50 metres length composed of 12, 34 and 56 detectors, respectively.

#### Customized sensor-string (SN-SMCP50)

Sensor-string with customized length (no longer than 50 metres) composed of a variable number of sensors.

#### **Connection cable (CV-ST50)**

Shielded cable equipped with rodent-proof armour, for the connection of the sensor-string to its processing board.

#### Processing boards (BR-SMCP50)

Microprocessor electronic boards which amplify and analyse the signals coming from the sensor-strings.

#### Wiring accessories

They comprise a case (JBX-SMCP50) for the junction of the sensor-strings, a case (TBX-SMCP50) for the termination of the sensor-strings and a 100-gram pack of PUR cast resin (RP-100) to seal the junction and the termination cases.



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