

SISMA CP 50

Geoseismic protection



SISMA CP 50 is a buried intrusion 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.



⚙️ **Invisible.** 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.

⚙️ **Immune to climatic disturbances.** The functioning of the system isn't affected by harsh weather conditions such as rain, wind, hail and strong temperature changes or by environmental nuisances such as the fall of leaves or thin branches.

⚙️ **Maintenance-free.** Thanks to their robustness and the absence of active electronic components, the sensors do not need any maintenance or periodic site inspection.

⚙️ **Sensitive.** Even if they operate at 60 cm depth, the sensors can perceive the lightest step or movement.

⚙️ **Flexible.** The sensor-strings adapt to the ground contour and to the perimeter route; in addition, they allow you to circumvent potential obstacles.

⚙️ **Compatible with small animals.** The system is able to discriminate the crossing of small animals from real intrusion events.

⚙️ **Quick to install.** For a quick and easy installation of the system, the sensors are supplied in prewired strings of 10, 30 or 50 metre length.

THE SENSORS

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 sensor is maintenance free and is not subject to electric failure since it does not contain any active electronic components**.

The sensors are supplied in prewired strings of 10, 30 or 50 metres composed of 12, 34 and 56 detectors, respectively. DEA can also supply sensor-strings with customized length (less than 50 metres).

The flexibility of the prewired sensor-strings **allows you to adapt the system to the ground contour and to the perimeter route**, making it possible to follow slopes and differences in level, and to circumvent potential obstacles. If a sensor or the relevant connection cable are intentionally or accidentally damaged, the functioning of the system can be quickly recovered by executing a simple electric junction.

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



THE PROCESSING BOARD

The signals coming from the sensors are amplified and processed by **SC-SMCP50-Z1** microprocessor board, which **manages one sensor-string (alarm zone)**.

Sisma CP 50 processing board **allows you to adjust the sensitivity parameters and the detection algorithms** of the sensor-strings, so as to maximize the performance of the system in each single installation.

The advanced detection algorithms of SC-SMCP50-Z1 processing board are one of the key points of **DEA Security's** technology. Thanks to them, **the system can discriminate different types of intrusion**, filtering the environmental factors which might trigger improper alarms.

The calibration and the programming of the boards can be performed via a PC by using a specific service software which displays **a real time graph of the signals** coming from the sensor-strings and of the input and output status. By this software you can also upload a configuration previously saved and view **the event logs**.

All the signals generated by the sensor-strings are recorded in chronological order inside a large memory: **DEA Security's** engineers can analyse these events to determine the cause raising the alarm (if any).

The processing board raises 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 TCP/IP protocol**.

THE 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.

☆ **Single-zone processing board (SC-SMCP50-Z1)**

Microprocessor electronic board which amplifies and analyses the signals coming from one sensor-string.

☆ **Connection cable (CV-SMCP50)**

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

☆ **Wiring accessories**

They comprise a small case (JBX-SMCP50) for the junction of the sensor-strings, a small 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.

For further information about SISMA CP 50 system, please refer to “SISMA CP 50 brochure” which can be downloaded, in a PDF format, from our website.



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DEA Security S.r.l. reserve the right to vary at any moment and without notice the information and the specifications herein.

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