SISMA CA®

Invisible perimeter protection

SISMA CA is an intrusion detection system for **flooring with concrete foundations**. The system is composed of special **pressure sensors** which, integrated into the screed of the flooring, **detect a person walking or standing on the protected area**. SISMA CA protects all the areas **before windows and doors** or **along walkways or driveways**.

- **Invisible.** Integrated into the screed of the flooring, SISMA CA sensors prove to be completely invisible and virtually impossible to sabotage.
- **Accurate.** SISMA CA allows you to accurately locate the area concerned by the intrusion and identify the single access under alarm.
- **Maintenance free.** Thanks to the technology employed, the detectors do not need any maintenance or periodic check.
- **Immune to environmental nuisances.** The system is not affected by harsh weather conditions, such as snow and hail, and by the fall of leaves or thin branches.
- **Sensitive.** Even though it is installed under a thick layer of concrete and it is designed to resist loads of tons, SISMA CA sensors can perceive the slightest step.
- **Smart.** The system is able to discriminate the crossing of small animals from real intrusion events.
- **Quick to install.** SISMA CA sensors are supplied in prewired modules from 1 up to 4 m^2 size, which can be installed side by side to cover surfaces of any size.
- **Calibration per module.** It is possible to calibrate and configure each sensor module individually, by varying its security level depending on the risk relevant to the protected area.

THE SENSORS

SISMA CA system employs special sensors which **detect the pressure exerted by a person on the surface**. While the flooring is being built, the sensors are placed first on the slab and then are covered with the cement of the screed.

Being completely invisible, the system **does not affect the aestetics of the place to be protected**: this is appreciated not only for residential sites but also for museums, art galleries and archaeological sites.

The functioning of the system **is not affected by climatic events**, such as snow, hail and strong temperature changes and **by other environmental nuisances** such as the fall of leaves or thin branches. In addition, SISMA CA tolerates the crossing of small animals.

The sensitive core of SISMA CA detector is represented by a **piezoceramic transducer**, sealed and protected against seepage of water, corrosive agents and mechanic stress. **The sensor does not need any maintenance and is not subject to electric failure** since it does not contain active electronic components.

For an easy and quick installation, **the sensors are supplied in prewired modules** for the protection of areas from 1 up to 4 m^2. It is possible to cover surfaces of any size by placing more modules side by side.

Since each sensor-module is connected to its own processing board, and the latter can be univocally identified, SISMA CA **allows you to accurately locate the area concerned by the intrusion** and to calibrate each zone individually, by varying its security level depending on the risk level relevant to that area. This zoning also makes SISMA CA system suitable for being coupled with CCTV systems.

THE PROCESSING BOARDS

The signals coming from the sensor-modules **are amplified and processed by special microprocessor boards**. The advanced detection algorithms can discriminate real intrusions events from improper alarms.

To manage and process the alarm signals, two solutions are available, depending on the project requirements:

- **SC-SMCA-Z1**, a stand-alone processing board which collects and analyses the signals coming from 1 sensor-module (alarm zone) and provides them through relay outputs;

- **SC-SMCA-CTRL + SC-SMCA-PU**, a modular solution which manages up to 24 zones, in a centralized way. With such a configuration, each sensor-module is connected to an interface board, the SC-SMCA-PU board, which in turn is connected to SC-SMCA-CTRL controller board by means of a specific communication bus.

The processing boards **allow you to adjust the sensitivity and vary the processing parameters of the signals coming from sensor-modules**, to maximize the performance of the system depending on the project requirements.

The calibration and programming of the processing boards are carried out via PC, by means of a specific service software which shows a **real-time graph of the signals** coming from each sensor-module and the status of the inputs and the outputs.

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 Etnernet with IP protocol**.

COMPONENTS OF THE SYSTEM

Sensor-module (MD-SMCA)
Detection module to protect 1, 1.5, 2, 3 or 4 m² composed of 4, 6, 8, 12 and 16 sensors, respectively.

Processing boards (SC-SMCA)
Microprocessor electronic boards which analyse the signals coming from the sensor-modules. Two models are available: a single-zone board, which manages one sensor-module, and a multi-zone board, which manages up to 24 sensor-modules by means of peripheral interface boards.

Cavo di collegamento (CV-SMCA)
Shielded cable to connect the sensor-modules to the single-zone processing board or to the peripheral interface boards.

Wiring accessories
They comprise a small case (JBX-SMCA) for the junction of the sensor-modules, a small case (TBX-SMCA) for the termination of the sensor-modules and a 100-gram pack of PUR cast resin (RP-100) to seal the junctions and the terminations.

DEA SECURITY

DEA Security S.r.l.
Via Bolano, snc - 19037 Santo Stefano di Magra (SP) - Italy
Tel. +39 0187 699233 - Fax +39 0187 697615
VAT No.: IT00291080455
www.deasecurity.com - dea@deasecurity.com