FAST-TECH®
INTEGRATED SECURITY SYSTEMS

SISMA CA®

The invisible system

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 PROTECTION

Placed on the slab and integrated into the screed of the flooring, the sensors prove to be completely invisible and virtually impossible to sabotage

IMMUNE 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

MAINTENANCE-FREE SENSORS

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.

HIGH DETECTION SENSITIVITY

Even if they are installed under a thick layer of concrete, the sensors can also perceive the transit of a person walking softly, moving on all fours or creeping

CALIBRATION PER MODULE

Each sensor module can be calibrated and configured individually, with the possibility of varying its security level depending on the risk related to the protected area.

COMPATIBLE WITH SMALL ANIMALS

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

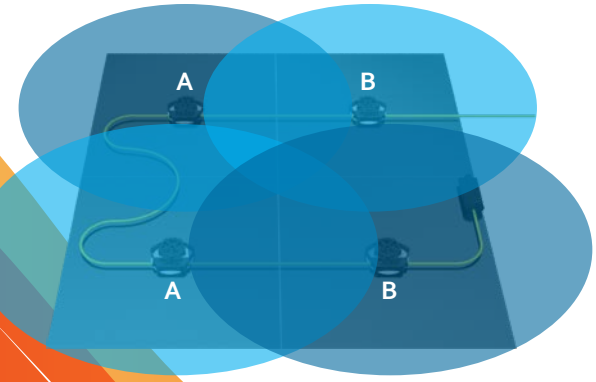
SENSORS

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 and the architectural elements of the place to be protected**: this is appreciated not only for residential sites but also for museums, art galleries and archaeological sites.

To make the installation procedures easier and quicker, **the sensors are supplied in prewired modules** which cover, depending on their version, surfaces from 1 up to 4 m^2. It is possible to cover surfaces of any size by placing more modules side by side.

Each module is featured by sensors which **are wired, alternatively, on two different channels** (*A and B*) so that the passage of a potential intruder can generate a signal on both of the channels at the same time. This "**double acknowledgement**" (*AND sensor detection*) maximize detection reliability and make the system immune to environmental noises.



ELECTRONIC 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:

- **BR-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. The board is equipped with Ethernet interface and IP native support;
- **BR-XS-CTRL32/64 + BR-XS-SMCAPU**, a modular solution for the simultaneous management of a large number of zones, up to 32, in a flexible and centralized way. Under such configuration, each sensor-module is connected to an interface board, the BR-XS-SMCAPU board, which is in turn connected to BR-XS-CTRL32/64 control boards by means of a specific communication bus.

software di service

BR-SMCA-Z1

BR-XS-CTRL32/64 + BR-XS-SMCAPU

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 Ethernet with IP protocol**.

WHICH CONFIGURATION TO CHOOSE

The use of **BR-SMCA-Z1** boards is suggested for systems composed of maximum 4 sensor-modules: beyond that number, the employ of **BR-XS-CTRL32/64 + BR-XS-SMCAPU** prove to be more cost effective and easy to manage.

COMPONENTS OF THE SYSTEM

Sensor-module (MD-SMCA)
Detection module to protect 1, 1.5, 2, 3, 4, 5 or 6 m^2 composed of 4, 6, 8, 12, 16, 20 and 24 sensors, respectively.

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

Processing boards (BR-SMCA-Z1, BR-XS-CTRL32/64)
Microprocessor electronic boards which amplify and analyse the signals coming from the sensor-modules.

Interface peripheral board (BR-XS-SMCAPU)
Interface board for one SISMA CA/CAPF sensor-module; it amplifies the signals coming from the sensor-module and send them to BR-XS-CTRL32/64 control boards via the Xensity bus.

Wiring accessories
They comprise a case (JBX-SMCA) for the junction of the sensor-modules, a 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.

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