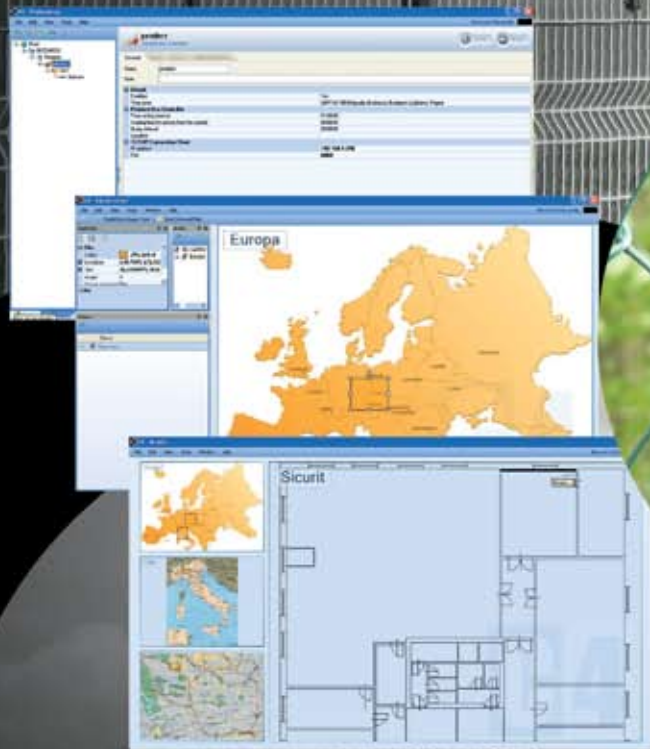


PERIDECT®



FENCE Perimeter DETECTION System

PIN POINT Detection



OUTDOOR PROTECTION
OUR PROFESSION

PERIDECT®

System Description

The **PERIDECT®** system detects vibrations on the fencing caused mechanically during attempts to enter the premises (climbing over, cutting through, lifting off). Sensors are arranged on the fencing for such detection (usually one detector (FENSEN10) per fence panel between posts).



Each detector contains a piezoelectric element supported by microprocessor-based signal processing.

Using a differential logic, the system considerably suppresses false alarms caused by weather effects (rain, wind). The system provides detection accuracy enabling each individual detection sensor FENSEN10, to be viewed on the control system as one zone, while the parameters of any sensor can be set independently.

One single evaluation unit

(FENCEN) can typically be used for approx. 600 m of fencing with resolution of unauthorised entry for each 2.5 m fence panel assuming one detector per panel.

The **PERIDECT®** system is fully autonomous with fully configurable features and alarm outputs allowing the **PERIDECT®** system to be connected to a standard security system as a regular detector. The **PERIDECT®** system is in addition equipped with an input/output module to simply connect other devices on the perimeter route (e.g. magnetic contacts on gates) into the system as well as controlling other devices (e.g. spotlights).

System Elements

The **PERIDECT®** system consists of an evaluation unit (FENCEN), to which detection sensors (FENSEN10) and input/output modules (FENSEN15), are connected using a data cable. Each FENCEN can be connected to up to 246 detection sensors (FENSEN10) and 8 input/output modules (FENSEN15).

FENCEN - Evaluation Unit

The evaluation unit is located in a plastic box with cable grommets. The unit is connected to individual detection sensors (FENSEN10) and input/output modules (FENSEN15) using a data cable (twin-wire bus-bar). The unit contains 10 programmable outputs. These can be connected to a conventional security panel with the result that activation from any groups of FENSEN10's or the input status of any FENSEN15 module can be assigned to any output. The evaluation unit contains in addition eight double balanced inputs, which can be used for connection of other security system elements, e.g. PIR's, IR beams, MW detectors and contacts.

FENSEN10 - Detection Sensor

The detection sensor evaluates mechanical vibrations from the fencing using a piezoelectric sensor (ensuring long-term durability and repeatability). It is located in a plastic box and attached to the fencing by two screws and a plastic strap. It is fitted as standard in the middle of the fence panel between the post supports.

The manufacturer connects individual sensors using a bus cable with spacing according to actual conditions that the installer must specify. It is recommended to fix these cables every 25 cm using cable ties, so that these cables cannot interfere with the fencing in windy weather conditions causing false alarms.

FENSEN15 - Input/output Module

Each input/output module has been designed to allow one input to be connected (e.g. contacts) into the system and for one output to be connected (e.g. switching on devices on the perimeter route).

The input is double balanced and the output is an open collector type with galvanic separation. The module has its own address and can be connected anywhere to the data cable. For example this FENSEN15 module can monitor door opening on the secured route by connecting a magnetic contact. The output may for example switch on the lighting or a sounder remotely. In such case, it is however necessary to provide a local power supply for that device.

Configuration Program

Because of the broad functional range of the **PERIDECT®** system, it is necessary to use a configuration program to set up the system.

This program enables the set up of basic system parameters, e.g. number of FENSEN10 and FENSEN15 modules (including their addresses), sensitivity of individual sensors according to the fence type and their position, the function of programmable output links, and to download the system log of events from the evaluation unit FENCEN.

The system evaluates the alarm not only on the disturbance amplitude basis, but also according to the preset number of disturbances during a certain time period and the link to adjacent detection sensors. The configuration program also provides graphic display of the disturbance volume of individual sensors in time.

The first monitoring window displays the amplitude of six sensors simultaneously. The second type of monitoring window displays all sensors at the same time, while the disturbance amplitude is colour-coded. For increased ease of device identification within the system, each detection sensor is assigned an identification number (address) from 1 to 246. Also the input/output unit uses special addresses from 247 to 254 entered using the configuration program.

TECHNICAL FEATURES

FENCEN - Evaluation Unit

- Power supply: 9 - 16 V DC
- Consumption: 200 mA (without connection to modules FENSEN10 and FENSEN15) 600 mA max. (with connected maximum number of units, i.e. 246x FENSEN10 and 8x FENSEN15)
- Operating temperature range: **-55 to +85°C**
- Inputs: 8x double balanced (balancing resistances 2x2k2)
- Outputs: 10x open collector type
- Environmental Protection: IP56
- Data bus link: max. length 700 m
- Dimensions: 150 x 200 x 80 mm

FENSEN10 - Detection Sensor

- Power supply: from the bus cable of the evaluation unit FENCEN
- Consumption: 1mA max.
- Operating temperature range: **-55 to +85°C**
- Environmental Protection: IP54
- Dimensions: 70 x 80 x 35 mm

FENSEN15 - Input/output Module

- Power supply: from the bus cable of the evaluation unit FENCEN
- Consumption: 2mA max.
- Inputs: 1x double balanced (balancing resistances 2x2k2)
- Outputs: 1x open collector type, galvanic separation
- Operating temperature range: **-55 to +85°C**
- Environmental Protection: IP54
- Dimensions: 70 x 80 x 35 mm