



HIGH SECURITY WELD MESH

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FlexPI™

Microphonic intrusion detection sensor

FLEXPI™: FENCE AND WALL-MOUNTED SENSORS

Description

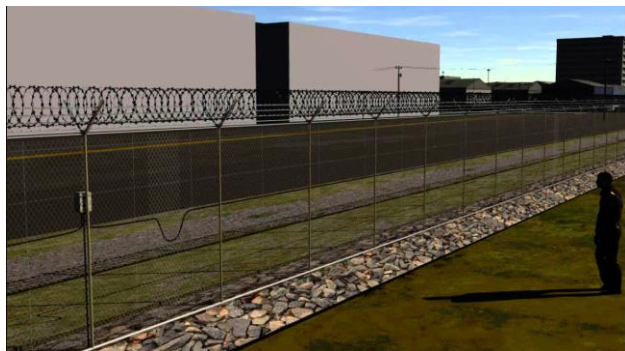
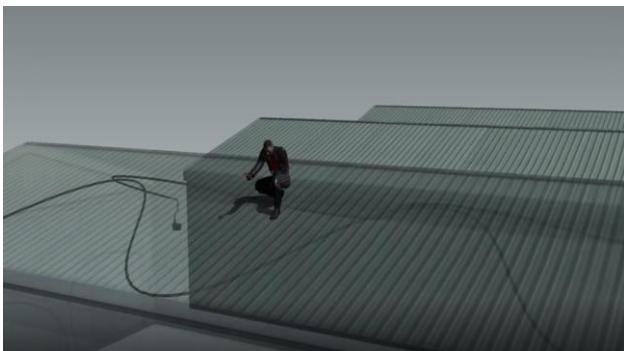
FlexPI™ is an intrusion detection sensor used to protect unsupervised building interiors. It makes use of proven microphonic cable technology to the specialized requirements of indoor security applications.

Low Cost Protection

FlexPI™ can function with a wide range of surfaces and materials when protecting structures such as walls, ceilings, roofs, stock cages, floors and pipes. It is easily integrated into most existing alarm systems.

Application

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How it works

FlexPI™ is an indoor intrusion detection system designed to detect intruders attempting to cut, saw, chisel, drill or smash their way through building walls, ceilings, roofs, floors or stock cages. It uses a microphonic sensor cable that is attached to the structure to be protected and detects vibrations caused by any attempted intrusion.

To further minimize nuisance alarms, FlexPI™ uses Ambient Compensation which dynamically adjusts detection parameters to effectively ignore long term, gradual inputs caused by environmental effects.

Features and benefits

- Detects shock, impact and sustained attack
- Used on walls, roofs, ceilings, stock cages, floors and pipes
- Microphonic technology
- Selectable frequency response
- Up to 600 m (1970 ft.) coverage
- Built-in calibration indicator
- Can be configured using DIP switches or UCM software via USB
- Cost effective
- Easy-to-install and adjust
- Low power consumption
- Alarm deters intruders in unmanned locations
- Alarm alerts police / security forces

Capability

Each FlexPI processor can monitor up to 600 m (1970 ft.) of sensor cable to provide up to 1,115 sq. m (12,000 sq. ft.) of coverage and can be calibrated to deliver optimal performance on any wall construction – wood, steel, concrete, masonry block, fencing, or others. FlexPI uses the proven MEX sensor cable which is flexible, lightweight, and has a rugged polyethylene jacket.

The sensor cable is fully supervised against cutting and shorting. The alarm output relays (Form C) are fail-safe and the processor is protected with a tamper-switch.

Installation and connections

The sensor cable can be attached to the structure using commercially available fasteners such as cable ties or nail-clamps that ensure good contact between the sensor cable and the structure to be protected. It can also be installed in metal conduit. The processor is easily mounted on any stable surface using two screws.

Processor connections consist of the following:

- Sensor cable connection
- Input power
- Two Form C relays for alarm and supervision for connection to the customer's alarm panel or Security Management System (SMS)
- One NO (Normally Open) alarm output relay useful for triggering a local audible alarm
- USB connection for calibration

For ease of installation, all connections except for USB are made on removable terminal blocks and only standard tools are required.

The FlexPS processor also includes a built-in piezo audible alarm with a 70 db output level.

Calibration

FlexPI can be calibrated for optimal detection on virtually any type of building wall or security cage.

Configurable settings include:

- Frequency range of sensor inputs to process, selectable from an overall bandwidth of 100 to 900Hz.
- The number of impact events required before an alarm is generated and the time window in which they must occur.
- The minimum duration of a sustained attack to generate an alarm. Sensor calibration is performed using either on-board DIP switches or a Configuration Module (UCM) software running on a laptop PC. The UCM allows greater fine tuning of the calibration settings and the ability to view a live plot of the sensor response, including viewing it as a frequency response.

TECHNICAL SPECIFICATIONS

Processor specifications:

Sensor processing capability for one zone, with up to 600 m (1970 ft.) of sensor cable

Operating temperature & humidity:

- 0° C to 70° C (-40° F to 158° F) ambient
- Relative humidity to 95% non-condensing

Input power:

- 12 to 48 VDC
- 0.5 watt
- Circuitry is protected against reverse polarity, transients and surge voltages

Supervision / self-test:

- Monitoring of the sensor cables to detect opens and shorts
- Cover tamper switch

Components:

- Rugged plastic enclosure
- Two cable entry points with compressing glands

Dimensions / weight:

- Overall dimensions with cable glands and mounting flange: 17 H x 16.5 W x 4.7 cm D (6.7 H x 6.5 W x 1.9 in. D)
- Weight: 0.5 kg (1.1 lbs.)

Processor outputs:

- 2 Form C relays, 1.0 A at 30 VDC
- Function of each relay can be assigned based on requirement
- Assignable functions include: cable alarm, cable supervision, enclosure tamper, input power fail, misc hardware faults, fail-safe
- Relay activation time programmable from 0.125 to 10 sec.

SENSOR CABLE SPECIFICATIONS:

MEX proprietary sensor cable on 300 m (984 ft.) roll:

- Cable outside diameter 3.5 mm (0.138 in.)
- Roll dimensions: 28 L x 28 W x 23 cm H (11 L x 11 W x 5.2 in. H)
- Roll weight: 10.5 kg (23 lbs.)
- Cable ties and terminators sold separately

Accessories

- UV-resistant cable ties
- Waterproof cable splice terminator kit
- Non-sensitive lead-in cable in 30 m (98 ft.) roll
- Universal Configuration Module (UCM) software on CD
- USB cable

REGULATORY COMPLIANCE

- Safety: no voltage exceeds SELV levels
- RF emissions and susceptibility: CE, FCC, (Part 15, Subpart B)
- RoHS

