

Sensor Grid

Heavy grid intrusion detection sensor

Features & Benefits ▾

- Bending or cutting of bars initiates an alarm
- Fixed, hinged or rail-mounted grids
- Gate pressure can be regulated to avoid collapse under extreme water flow with a shear pin or motorized gate (activated based on water level)
- Movable grids enable access for cleaning, maintenance or regulating water pressure
- RS-422 serial protocol supports long communication lines and enables seamless integration with other PIDS sensors
- Maintenance-free
- Extremely low Nuisance Alarm Rate (NAR)
- Can be customized to fit any opening
- Can operate as a totally submerged system

BARRIER SENSORS

DESCRIPTION

Sensor Grid is a combination of a physical grid with an embedded detection sensor. The detection technology can be either opti-grid (fiber optic) or cast wire, both of which are optimized to detect cutting or bending of the structure.

The heavy-gauge steel grid is very robust and will sustain heavy water flow. It remains operational even when completely submerged under water for many years.



APPLICATION

Each Sensor Grid segment is carefully tailored to the specific size and nature of the opening. Based on the application (water pass, window grid, etc.), each segment can be either fixed or movable on a hinge or rail. For example, a sliding rail for a gate can be designed for water passage, to automatically raise the grid when water levels reach a certain height. Sensor Grid typically complements a larger PIDS application. The communication system should be integrated with other sensors, feeding a synchronized data stream into the Security Management System (SMS).

HOW IT WORKS

Sensor Grid is an enhanced conventional physical barrier offering state-of-the-art protection. Any attempt to cut or remove part of the grid or the grid itself, is immediately detected.

Sensor Grid comes in two versions:

- CAST - Sensor Grid uses an embedded electro-mechanical sensor, which detects cutting and bending of the steel grid. It requires no power and uses a standard dry contact output.
- OPTIGRID - Sensor Grid uses an electro-optical sensor, which detects cutting and bending of the steel grid. It is connected to a communication processor and communicates through a standard dry contact output or via a long range RS-422 serial output.

CONFIGURATION

Sensor Grid grids are built to order to suit specific customer requirements.

In the case of Sensor Grid installations where occasional access is required, Sensor Grid grids can be installed on rails and integrated with winches to enable lifting.

INTEGRATION WITH SECURITY MANAGEMENT SYSTEMS (SMS)

Sensor Grid can be integrated with any SMS system that can accept dry contact inputs or the CCC RS-422 protocol, including third-party systems.

TECHNICAL SPECIFICATIONS

SIZE: Customized to opening

STRUCTURAL MATERIAL: Galvanized steel (stainless steel optional)

POWER SOURCE (OPTIGRID-SENSOR GRID ONLY): 12 to 28 VDC, maximum current 65 mA

INTRUSION DETECTION METHOD: Electro-optical or electro-mechanical mechanism

COMMUNICATION METHOD: Dry contact or RS-422

FRAME DESIGN: Special design enables sliding and / or rotating inner frame

FALSE ALARM RATE (FAR): Virtually zero

ENVIRONMENTAL PERFORMANCE: No degradation in performance when exposed to or operated in the following environmental conditions:

Temperature range (standard): -20°C to +70°C (-4°F to +158°F)

Temperature range (extended): -40°C to +70°C (-40°F to +158°F)

Immersion in water: Operational even when fully submerged

Specifications are subject to change without prior notice.

