

## Description

MagBar is an intrusion detection solution that combines a massive physical grid with an embedded intrusion detection sensor. Each MagBar installation is tailored to the specific dimensions of the pipe, drain, open tunnel, canal, air duct or window that it is meant to protect.

Two versions of MagBar are available; both electro-mechanical and electro-optical sensors have been optimized to detect cutting, bending and removing of the physical grid. The grid is extremely robust and sustains heavy water flow. It remains operational even when completely submerged under water for many years.

Several techniques are available to ensure consistent water flow and to overcome silt build-up which could block the grid:

1. A “guillotine” like grid with a sliding rail which can be manually lifted through winches when cleaning is required
2. A “guillotine” like grid, supported by an electric motor, which automatically lifts the gate if the water level exceeds a certain height
3. Door-like gates to enable silt cleaning with breakable pins (optional), designed to shear and open under excessive water pressure

MagBar can operate independently as a stand-alone system or be integrated into a wider PIDS (Perimeter Intrusion Detection System) solution. MagBar can report alarms via RS-422 communication or dry contact relay outputs.

## How it Works

Intrusion attempts on the grid structure disturb the light in the fiber-optics or break the embedded electrical wire to generate an alarm.

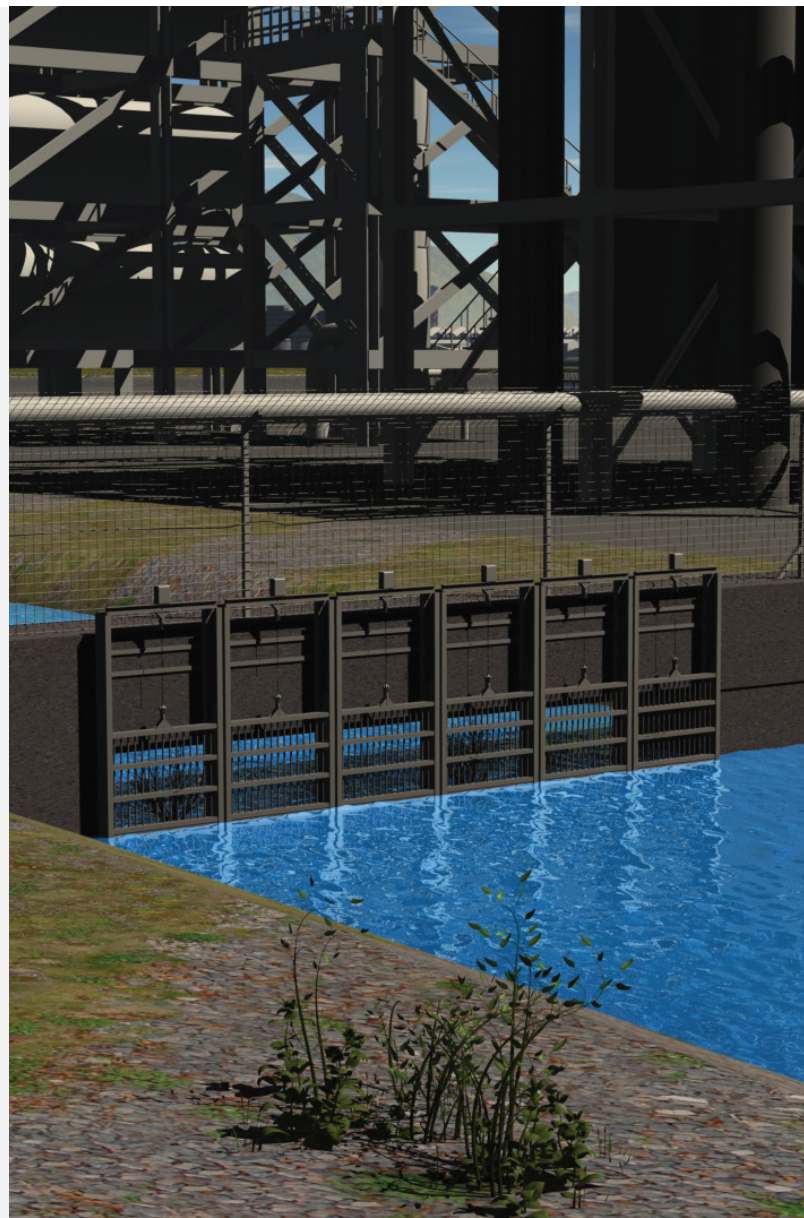
## Markets

MagBar is a maintenance-free answer to the problem of security vulnerabilities posed by storm drains, tunnels and other fixed openings.

CIP installations, military sites and correctional facilities around the world utilize MagBar to plug critical holes in their perimeter security systems.

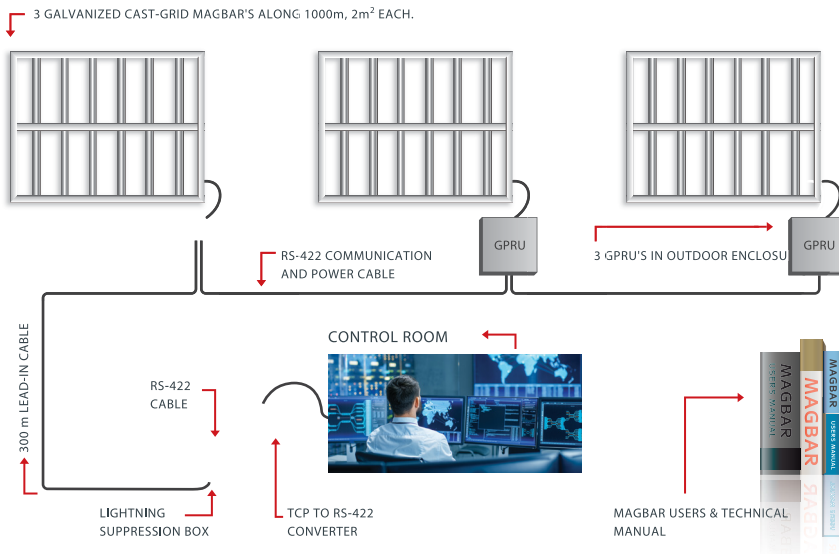
## Core Features

- Operates as a physical barrier and detects cutting, bending or removing
- Can operate totally submerged in water for many years
- Cleaning mechanism (optional)
- Minimum number of false alarms
- Zero to low power consumption ~0.1 W per unit
- Maintenance-free operation
- Easily integrated with other systems
- Opti-grid model offers adjustable sensitivity



# Technical Specifications

## Basic Layout



## Interface - Two Options

**CAST-MagBar** uses an embedded electro-mechanical sensor which detects cutting and bending of the steel grid. It requires no power and provides a standard dry contact output.

**OPTI-GRID-MagBar** uses an electro-optical sensor which detects cutting and minor bending of the steel grid. It is connected to a communication processor and communicates through a standard dry contact output or through a long range RS-422 serial output.



## Integration To Physical Security Information Management (PSIM) Systems

MagBar can be integrated with any PSIM system that can accept dry contact inputs or RS-422 protocol, including FORTIS™ and other third-party systems.

## General

### Size

Galvanized steel (stainless steel optional)

### Power Source (Opti-grid MagBar Only)

12 to 30 VDC, maximum current 65 mA

### Intrusion Detection Method

Electro-optical or electro-mechanical mechanism

### Communication Method

Dry contact or RS-422

### Mounting

Fixed, frame (rotating inner grid), rails (enables grid sliding) and gates

### False Alarm Rate (FAR)

Virtually zero

### Environmental Performance

No degradation in performance when exposed to or operated in the environmental conditions listed below.

## Environmental

### 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.