



**Solutions, When the Conventional Ones  
Run Out of Breath**



# MANHOLE DETECTOR

MONITORING SYSTEMS



## Remote monitoring of premises requesting permanent security

The Manhole Detector is a specifically designed FBG based detector for permanent monitoring of key premises and critical infrastructure using the state of the art optical approach. Under the highest security requirements, it helps you to detect intrusion and vandalism attempts at monitored places, such as manholes, shafts, cable entrances, etc., providing you with real-time alerts. This gives you valuable time to take appropriate action in order to minimize damages to your property and potential profit loss.

### 100% passive detector

Detector is operated without need of power supply and therefore easily monitors places without electricity and hazardous or hard to reach areas.

### Temperature compensation design

The sensor is physically designed to compensate temperature and doesn't require another FBG grating.

### Universal platform

Additional detector types can be used together with the manhole detector (flooding detector, strain, temperature, humidity, pressure, etc.).

## KEY PRODUCT FEATURES & BENEFITS

### Protected as IP68 rated devices

The protection comparable to the international standard rating of IP68 guarantees complete dust-tightness and protection against the effects of long periods of immersion in water.

### Sensitive sliding touch system

This small and compact detector features high sensitivity to the variation of applied pressure. It identifies even the slightest intrusion attempts and gives you time to take action before it is too late.

### Robust aluminium alloy material

The manhole detector comes with a robust design that is enabling withstand harsh environmental conditions and also temporal flooding without any damage to its functionality.

### Low operating costs

Optical fibre detector is very durable and, if installed correctly and protected from the environment, can be operated with minimal maintenance and servicing.

### Immune to EMI/RFI

The detector enables operation even in harsh environments, as the technology is fully passive, explosion safe and immune to electro-magnetic/radio frequency interference.

### Leverage existing fiber optic network

The connection between unit and detectors is ensured via standard telecommunication optical fibers (e.g. dark fibers), which is very economical even for a large area of monitored objects.

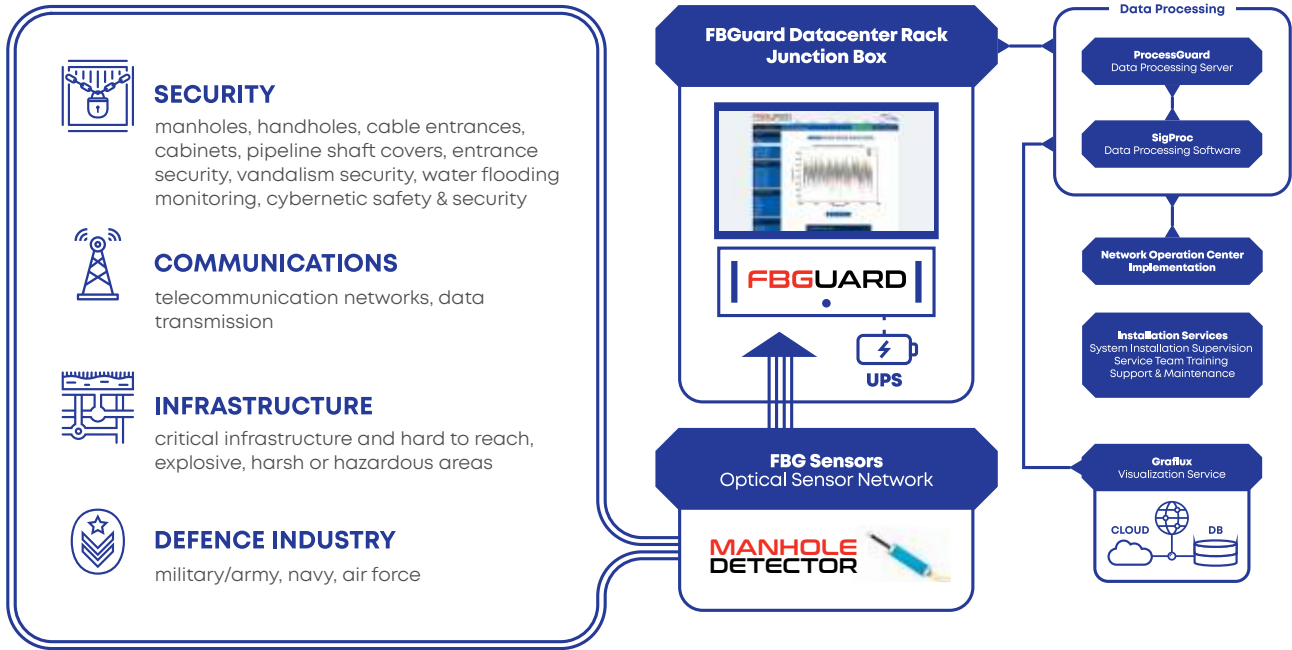
### Mounting accessories included

For easier installation on the bottom side or rear side of a structure, the basic mounting plates are delivered together with the detector. Additional accessories only upon request.

### Advanced customization available

The manhole detector can be modified in order to meet your project's needs, like plastic for high-voltage environments.

# PROJECT REQUIREMENTS



## TECHNICAL PARAMETERS

### Electrical, Environmental and Mechanical

Waterproof design	IP68
Size	240 mm x 44 mm x 27 mm
Detector weight	320 g
Operational temperature range	-20 – +70 °C
Linear detector range	up to 50 mm

### Fiber Optic Cable

Fiber type	SMF G.652d
Fiber input/output	<b>ruggedized</b> (protected against rough manipulation)
Fiber length	1 m
Fiber termination	<b>bare fiber</b> (scissor cut for splicing) - default <b>FC/APC connectors</b> - optional <b>other connectors</b> - upon request

### Mounting

Mounting surface	any
Mounting plates	<b>basic</b> (four Ø3,2 mm corner holes) delivered together with the detector <b>special or L-shaped</b> supplied upon request

We reserve the right to change these parameters.

**GET IN TOUCH WITH US**  
and we will recommend you the most suitable solution for your project.

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