



# MANHOLE, CABINET, ENTRANCE & SHAFT MONITORING

## Detect intrusion and vandalism at an early stage

### PROTECTION AGAINST

property damages  
services interruption  
unauthorized entrance  
3<sup>rd</sup> party interference

Protecting **your property and ensuring continuity of provided services** are usually the main issue, especially in **places without electricity or in hazardous areas** where traditional ways of monitoring are very limited or almost impossible. Our **fiber optic sensing system** for monitoring manholes, cabinets, entrances and shafts helps you **detect intrusion and vandalism attempts** at monitored places early, giving you **valuable time to take the appropriate action**.

### INTENDED FOR

infrastructure owners  
telecom companies  
military and defense

- ▶ continuous monitoring of critical infrastructure
- ▶ evaluation of intrusion attempts in early stage with possibility of fast reaction
- ▶ minimization and control of damages

# ANALYZING TECHNIQUES



intrusion  
detection



open closed  
statuses



attempts  
warning



events  
identification



dynamic  
threshold

---

## FEATURES & BENEFITS

### Fiber Bragg Grating (FBG) technology

FBG technology brings many advantages over the conventional sensing methods, such as high precision, durability, quasi-distribution, absolute measurement, compact size, reduced cable requirement etc.

### 100% passive system immune to EMI/RFI

Our system operates without requiring power supply in the monitored locations and can be used in hazardous or difficult to reach areas. The technology is passive, explosion safe, and immune to electro-magnetic/radio frequency interference.

### Event notification and data exchange

The system has three direct alarm relays for immediate notifications via email. Supplementary communication interfaces are available for data exchange.

### Advanced data processing

Raw data analysis deploys advanced signal processing tools with AI elements that enable you to detect any interference early.

### Low operating costs

Our Manholes, Cabinets, Entrances, and Shaft Monitoring System is very durable and, if installed correctly and protected from the environment, can be operated with minimal maintenance and servicing.

### Web interface

You will be able to manage the system via a user-friendly web interface, which also provides all necessary information about the structure and reporting and data analysis features in accordance with your SLA.

### Customized solutions and adjustments

The system can be customized to meet your project's needs, such as the desired functionality, interoperability and others.

### Sensitive sliding touch system

It features a small and compact detector with 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.

### Negligible false alarm rates

Our monitoring system minimizes the number of false alarms by using algorithms that monitor the rate of change and the value of change against the ambient conditions. The system responds immediately if any monitored point is deactivated.

### Real time monitoring 24/7

Monitors any issues that may arise in real time, alerting you immediately about intrusion. It enables you to work with collected real time data right away.

### Up to 640 FBG sensors monitored on 16 channels

The system is designed for accurate measurements of up to 40 FBG sensors per channel, and can have up to 16 parallel optical channels (1, 2, 4, 8, 16).

### Leverage existing fiber optic network

The connection between unit and detectors is via standard telecommunication optical fibers (such as dark fibers), that is the most economical solution for monitoring many objects spread over a large area.

### Reporting and data analysis

Our system for monitoring of manholes, cabinets, entrances and shafts provides the necessary reporting and data analysis features. Available level of service is in accordance with SLA.

### Service and maintenance planning

We will help you optimize your service and maintenance planning based on your specific needs to ensure efficient operation.

# PRODUCTS USED



## FBGuard 1550

Highly accurate monitoring system for industrial measurements



## Data processing

Universal solution for your data analysis and processing needs



## Graflux

Data visualization, storage and analysis service



## Manhole Detector

Remote monitoring of premises requiring permanent security



## Secure Door Detector

Remote monitoring of door opening

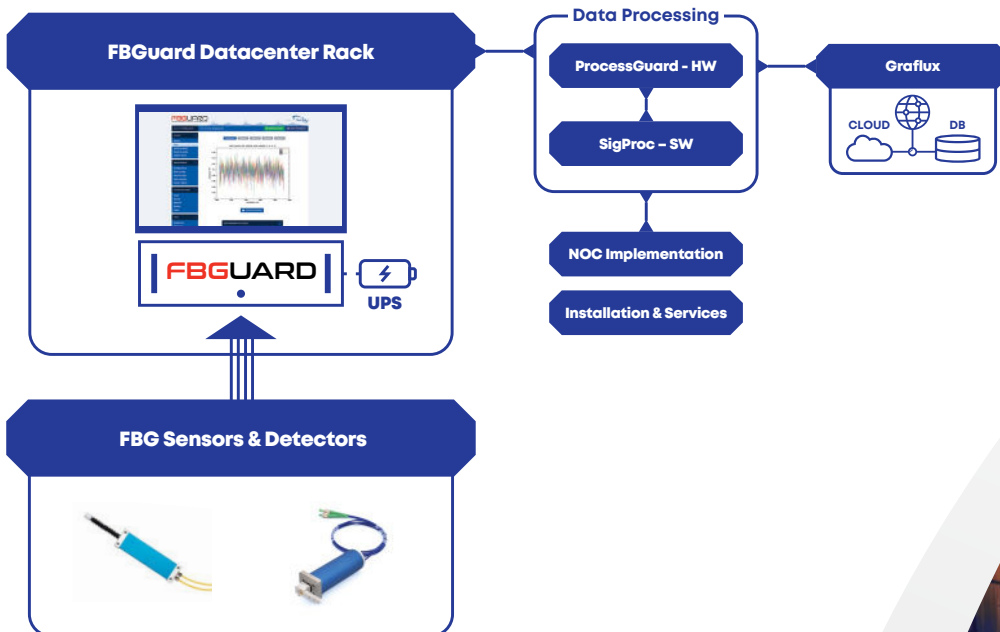


## Fiber Bragg Gratings

Field proven FBGs as measurement elements for sensing applications

# APPLICATION SCHEME

Example of a typical setup. Choose the project scale that you prefer.



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

SAFIBRA, s.r.o., U Sanitatu 1621, 251 01 Říčany, Czech Republic  
 ☎ +420 323 601 615 ✉ safibra@safibra.cz 🌐 www.safibra.cz

