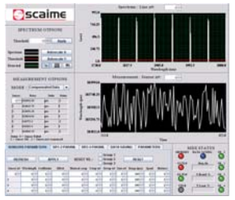
Softwares



All our MDX acquisition units integrate an extremely intuitive and user-friendly web interface that allows the setup of the entire system and sensors without having to install specific software on a PC.

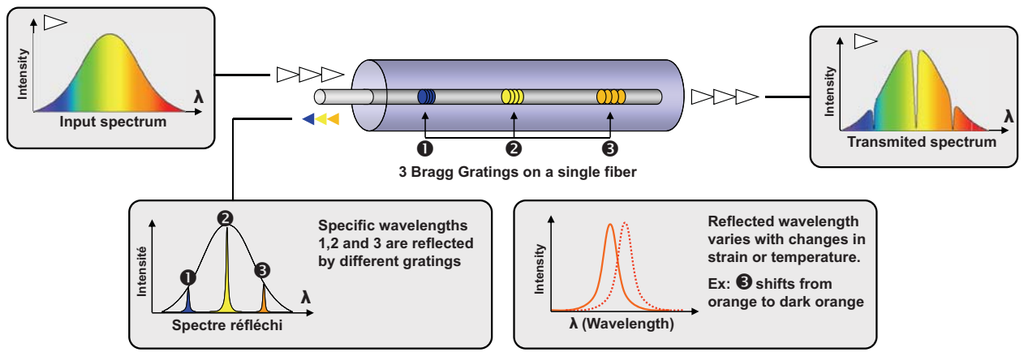
The MDX can be used fully autonomously: at power on, the unit will automatically start measurements and either store them on its internal memory or send them through TCP-IP or CANopen® connection.

ACQUISITION UNITS

Model	MDX-100	MDX-400-T	MDX-8000
Number of optical lines	1, 3 or 4	3 or 4	4 or 8
Frequency	1 Hz	100 Hz	1 or 2 kHz
Resolution	< 1 pm	< 1 pm	2 pm
Repeatability	2 pm	2 pm	3 pm
Digital I/O	1 I / 4 O	1 I / 4 O	1 I / 4 O
GPS antenna connectivity	✓	✓	✓
Communication	Ethernet / CANopen®	Ethernet / CANopen®	Ethernet
Storage capacity	32 GB	32 GB	32 GB
Housing	Stainless steel IP 66 or Rack 19'' IP30	Stainless steel IP 66 or Rack 19'' IP30	Rack 19'' IP30
Vibrations	IEC 60721-3-5 cat. 5M2*	IEC 60721-3-5 cat. 5M2*	N/A
Damp heat	IEC 60068-2-30*	IEC 60068-2-30*	N/A

* IP66 version

Bragg grating technology...



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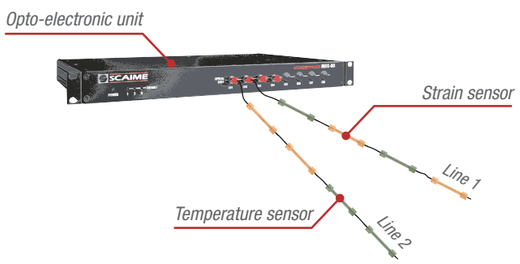
Download all our documents on our website

Fiber Optics Measurement

Sensors, Electronics

Overcome the sensing frontiers...

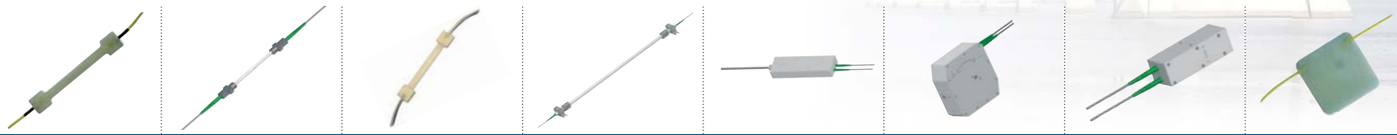
SCAIME has developed a measurement system based on Optical Fiber Bragg Grating. We offer technologically advanced technological solutions while ensuring innovation, quality and reliability.



New horizons for your measurements...

> Easy and reliable handling of the optical fiber cable
> High resistance to cyclic fatigue
> Perfect load transfert
> No sensitivity to EMI
> Sensors in series
> Measurement on long distances
> Intrinsically none explosive

SENSORS



Model	OBSG	OBSGW	OBEG	OBLG	OBDI	OBTI	OBAC	OBTS
Type	*Strain gauges for bonding or integration into composite*	*Strain gauges to be bolted/welded*	*Strain gauges for concrete or tar*	*Long base extensometers (0.5; 1 ; 1.5 m)*	*Displacement sensors*	*Tilt-meters*	*Accelerometers*	*Temperature sensors*
Capacity	-5 000 ... 5 000 µm/m	-2 000 ... 2 000 µm/m	-5 000 ... 5 000 µm/m	-2 000 ... 2 000 µm/m	25/50/100 mm	-3 ... 3°	-2 ... +2 g	-30 ... +180 °C
Sensitivity	1.2 pm/µm/m	1.25 pm/µm/m	1.2 pm/µm/m	1.25 pm/µm/m	9/17/33 µm/pm	2 x 10^{-3} °/pm	±3.3 x 10^{3} g/pm	10 ... 25 pm/°C
Resolution	1 µm/m	1 µm/m	1 µm/m	1 µm/m	10/25/50 µm	0.002°	0.10 %	0.05 ... 01.1°C
Combined Error (% N.R.)	0.25 %	1 %	0.25 %	1 %	0.5 %	0.5 %	0.5 %	0.4 % ... 1 %

For all your applications...

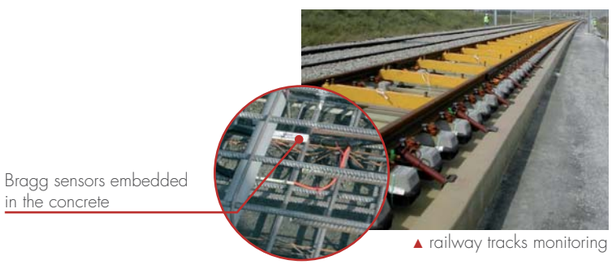
SCAIME offers integrated fiber optics monitoring systems for the control of complex structures exposed to mechanical and thermal stresses.
We provide:

- Optical fiber sensors for strain and temperature measurement
- Modular Opto-electronic acquisition units suited to their working environment
- Expertise in monitoring system design
- On-site installation and training, data acquisition as well as analysis with dedicated softwares

Civil engineering

Monitoring of civil engineering installations with temperature sensors, strain sensors and extensometers ready to be embedded or implemented directly on the structure.

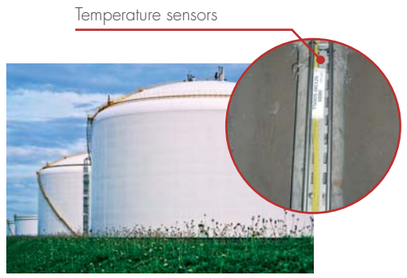
▲ civil works monitoring



▲ railway tracks monitoring

Petrochemical industry

Thanks to its intrinsically none explosive specification, optical measurement system is the best choice for gas leak detection and temperature or strain monitoring in explosive areas.



▲ Leak detection on LNG tanks

Marine applications

With hull monitoring, strain measurement allows to select the best route preventing the risk of mechanical failure in operation.

Wind energy

> Real time monitoring of loads in the blades
> Ice detection
> Condition based maintenance
> Optimization of energy production
> Estimation of remaining lifetime

▼ Watercraft hull monitoring