

**GPS**

**STANDARD**

Committed to security.

PERIMETER



PROTECTION FOR PIPELINES **MILES**™



# MILES

## FIBRE OPTIC system for PIPELINES

MILES™ is a protection system for ducts and pipelines. It uses a fibre optic cable and has a very high detection capability, being totally immune to electromagnetic interference and atmospheric conditions. The fibre optic cable requires no power in the field and, therefore, power supply units along the protected perimeter are not required. The system allows the

protection of very long pipelines (gas, oil pipelines, etc.), up to 50 km, and the area where the sabotage is taking place is identified to within a few hundred meters. The fibre optic is installed over the pipe to be protected, whether it is visible or underground. It is modular up to thousands of kilometres, with power supply points every 50 km.

**OPERATION**  
The fibre optic cable is subjected to mechanical stress caused by stimuli, such as pressure, vibration and motion, which changes the transmission characteristics of the light inside the fibre. The change is minimal, but with a source of coherent light obtained with laser diodes and sophisticated amplifier and processing systems, a signal that

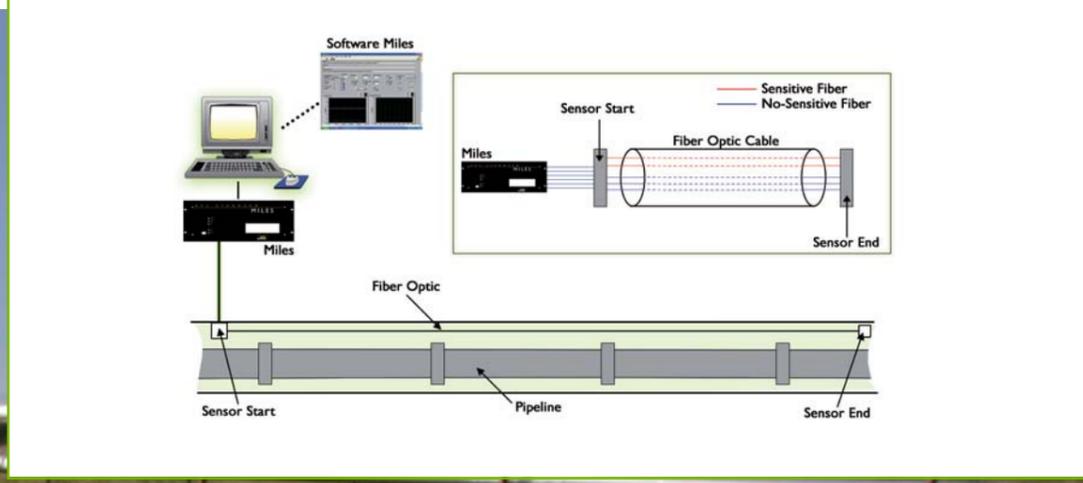
can be processed can be obtained. The careful analysis of the signal and the ability to change, using a calibration and monitoring software, specific parameters that determine the system operation, give this product excellent performance characteristics.

**PLUS**  
MILES™ is resistant to weather conditions, such as rain, snow, hail, etc., because it works using spectrum analysis of the signals. Very low percentage of false alarms due to disturbances such as wind, vibration caused by heavy loads passing nearby, etc;

Immune to electromagnetic disturbances; Calibration is carried out when the system is installed, in real operating conditions; MILES™ does not need any power supplies in field.



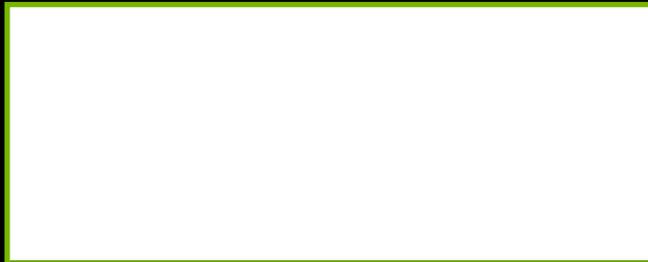
MILES™ can use fibre optic cables that are existing, already installed, is immune to atmospheric interference and does not require power in the field.



## TECHNICAL SPECIFICATIONS

Max sensor length	50 Km
Alarm location accuracy	< 0,5%
Number of virtual zones	128
Sensing configuration	Distributed sensor with single mode 9/125 fiber optic sensor
Electrical power controller	300W max, 100..240V 50/60Hz
Electrical power field	None
Dimensions controller	482 (19") x 175 (5U) x 420 mm
Laser specifications	Class IIIA, max output power 4mW wavelength 1530/1550 nm
Optical connector type	FC/APC
Operating system controller	Windows XP
Alarm interface	Via 10/100 Base-T to SCS software

Retailer of confidence



COMPANY WITH QUALITY MANAGEMENT  
SYSTEM CERTIFIED BY DNV  
= ISO 9001:2008 =



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