

The Remsdaq Sabre series is a range of fibre optic-based perimeter intrusion detection systems (PIDS) for applications including fence protection, buried sensors, cable theft, watercourses, buildings and flexible structures.





At the heart of each product is an advanced technology Sabre II processor connected to an application suitable fibre optic cable. The processor can be supplied in an enclosure with a power supply and battery backup.

Sabre continuously monitors for vibration, flexing and compression by analysing laser light returned to a sensor. Pattern changes are analysed with alarms triggered against pre-set conditions for cut and climb events.

Automatic environmental compensation algorithms ensure the highest probability of detection, minimising nuisance alarms from natural causes.

The Sabre communications interface uses BACnet/IP technology and integrates with EntroWatch access control software. Sabre alarms can be displayed in real time in the EntroWatch software, alongside video images from an integrated security surveillance package.





SABRE II PROCESSOR



**ENCLOSED DUAL SABRE PROCESSORS** 



SABRE ALARMS IN ENTROWATCH



Unlike infrared, copper or coaxial based detection systems, Sabre products are not susceptible to electrical or weather related interference and are able to provide uninterrupted monitoring. The system is suitable for hazardous industrial locations where there may be a fire or explosion risk as well as harsh environments with extreme temperature ranges.

## SABRE FEATURES

- BACnet/IP network interface
- Volt-free alarm signal contacts
- High Probability of Detection (POD)
- Easy to install and maintenance-free
- Field repairable using a splice connector
- Ideal for most hostile weather environments
- Sensitive to cut, climb and a wide spectrum of vibrations
- Highly resilient and immune to tap, tamper and sabotage
- Suitable for high security, prison and military applications
- Suitable for solar farms, oil and gas refineries and pipelines
- Low power consumption

Available in several formats to suit a range of applications

#### SABRE FONIC FENCE PROTECTION

A highly cost-effective fence mounted perimeter intrusion detection system (PIDS). More than one Sabre II processor can be installed to monitor specific zones along a fence installation. The Sabre units can be supplied in an IP65 enclosure with a power supply and battery backup.

#### SABRE LINE BURIED SENSORS

A buried pressure sensor suitable for covert applications under grass, gravel or sand. Sabre Line is undetectable using metal detectors and can be buried in a wide range of ground and humidity conditions. The system can be easily installed in zones with various lengths, widths and shapes.

### SABRE CABLE THEFT PROTECTION

Provides a reliable, covert and highly effective early warning of potential cable theft from troughs, hangers or overhead gantries. Installed as part of a new installation or as a retrofit.

# SABRE TAPE CLIMB PREVENTION

Consists of a specially prepared mild-steel tape, which is pre-galvanised and polyester coated. The fibre optic cable is laid into the tape, which is then sealed. Sabre Tape is available with an aggressive (barbed) or non-aggressive finish and can be installed as a complete fence or as a collapsible, anti-climb outrigger on an existing installation.

# SABRE AQUAMESH FOR CULVERTS

A rigid steel grating with an interlaced fibre-optic sensor cable which is fully encased in solid resin. Designed for semi or fully submerged water course security applications.

## SABRE OPTIMESH FOR BUILDINGS

Forms a physically flexible, waterproof and tamperproof fibreoptic detection mesh suitable for building into walls, docks and jetties.

- Sabre Fonic fence mounted protection
- Sabre Line buried pressure sensors
- Sabre Cable theft detection
- Sabre Tape fence outrigger protection
- Sabre AquaMesh watercourse security
- Sabre OptiMesh wall protection mesh

# **TECHNICAL SPECIFICATION**

POWER REQUIREMENT	11.0 - 1.4.0V DC @ 300mA
PROCESSOR	High performance microcontroller with integral digital processor (DSP) and analogue-to-digital (A to D) converter
METHOD OF DETECTION	Laser diode transmitter with speckle pattern detection using photo diode receiver
ALARM OUTPUT RELAY	Up to 1A @ 12V DC
STATUS / DIGITAL INPUTS	3 tamper protected status inputs are available which may be derived from switches or relay contacts, open collectors or CMOS / TTL level digital signals.
COMMUNICATION	1 isolated RS485 serial port for alarm transmission, remote set-up or diagnostics 1 non-isolated RS232 serial port for local high level diagnostics 3 communication type Optional BACnet/IP module
INSTALLATION, TEST AND DIAGNOSTIC AIDS	The Sabre II PCB incorporates a simple user interface comprising toggle switch, pushbutton and 3 seven-segment displays and allows all necessary settings to be easily configured without the need for specialist test equipment.  A number of operation and diagnostic LED indicators are also included to facilitate test and commissioning.  An audio monitor output is also available which may be used as an additional commissioning aid.
	An optional PC based software package is available to enable local, high level test, set-up and diagnostics
CONNECTIONS	Electrical connections to the PCB are made via quick disconnect screw terminals RS232 serial communications cabling is via PCB mounted RJ45 connectors
ENVIRONMENTAL SPECIFICATION	Operating Temperature Range: -10°c to 70°c Operating Humidity: up to 95% at +40°c non-condensing Storage Temperature Range: -40°c to +70°c
ELECTROMAGNETIC COMPATIBILITY (EMC)	Emissions: BS EN 55022 Immunity: BS EN 55024 Safety: EN 60950-1
DIMENSIONS	Printed Circuit Board 158x111mm Enclosure (IP65) 400x400x200mm









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