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EXTENDING THE BOUNDARIES OF TECHNOLOGY
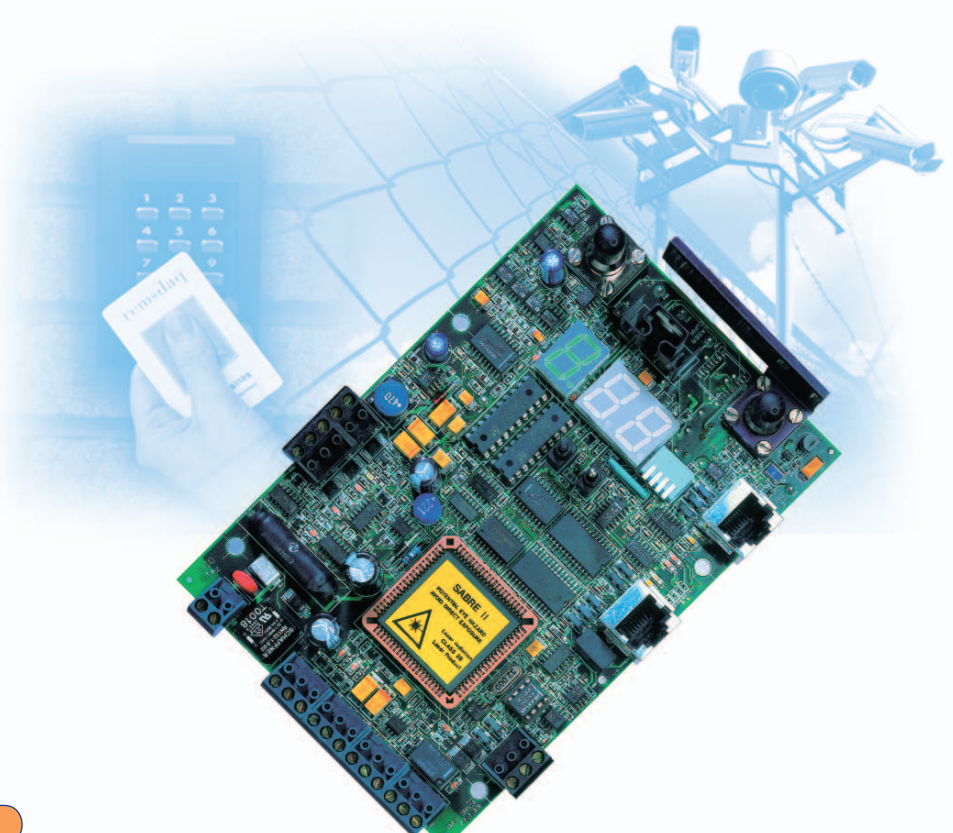
sabre

Sabre II Processor - Fibre Perimeter Systems

FEATURES

- Sabre II protects fences, gates, walls, roofing and covert buried applications
- Automatic environmental compensation minimises nuisance alarms
- Performance is unaffected by lightning or other electromagnetic interference
- Provides cost-effective linear protection for zones up to 1000 metres in length
- Easy to set-up and install without test equipment
- Operating parameters can be remotely adjusted using optional software
- Integral data collection when used with StarWatch in-built audio assessment capability

Sabre II is the latest fibre-optic Perimeter Intrusion Detection System (PIDS) from Remsdaq. Using a continuously monitored and intrinsically safe, fibre optic sensor cable which is sensitive to vibration, flexing and compression, Sabre II systems can protect many forms of physical barrier.

Sabre II is designed for use with Remsdaq's proprietary fence-mounted (SabreFonic) and buried (SabreLine) sensor cables.

Disturbance of the fibre optic sensor cable is detected in the Sabre II processor and analysed using a microcontroller with digital signal processor (DSP). When a disturbance exceeds pre-set conditions, an alarm will be generated. Automatic environmental compensation algorithms ensure the highest probability of detection whilst ensuring a minimum of nuisance alarms from natural causes.

Sabre II is factory set to enable rapid installation and commissioning. Application specific set-up parameters can be adjusted in the field using built-in switches and an LED display. If required, Sabre II can also be configured and adjusted remotely using the integral serial communications ports and optional software tools.

Sabre II is especially useful for integration with third party data collection and alarm management systems. It provides facilities for external alarm threshold adjustment as well as additional input/output for connection of sensors or control devices.

Technical Specifications

Power Requirement
11.0 - 14.0V DC @ 300mA.

Processor

High performance microcontroller with integral digital signal processor (DSP) and Analogue-to-digital (A to D) converter.

Sensor Cable and Connections

Sabre II is designed for use with SabreFonic and SabreLine sensor cable.

Method of Detection

Laser diode transmitter with speckle pattern detection using photo diode receiver.

Alarm Output Relay

Up to 1A @ 12V DC.

Ancillary Outputs (Open Collector)

Two open collector outputs with a maximum rating of 100mA @ 24V 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. The digital signal inputs provide the means by which external equipment may control the unit's auto-threshold values.

Serial Communications Ports

- 1 isolated RS232 / RS485 serial port for alarm transmission, remote set-up or diagnostics
- 1 non-isolated RS232 serial port for local high level diagnostics

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 or remote, high level test, set-up and diagnostics.

Connections

Electrical connections to the PCB are made via quick disconnect screw terminals. Serial communications cabling is via PCB mounted RJ 45 connectors.
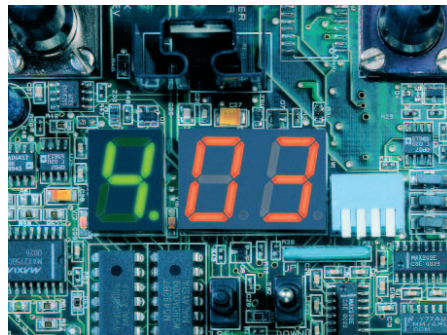
Environmental Specification

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)

Sabre II meets the requirements of EN55022: 1998, EN50082-1: 1998 and Low Voltage Directive 93/68/EEC.

Dimensions

Printed Circuit Board: 158mm x 111mm

settings can be configured using the simple user interface