

# **Optical Sensor Analysers**



# Micron Optics 1~4 Channels Interrogator

The si155 is an industrial grade fan-less optical sensing interrogator. Featuring both static and dynamic full spectrum analysis, the si155 provides long-term, reliable and accurate measurements of hundreds of sensors on 4 parallel, 160nm wide channels.

#### **Features**

- Standard, High Speed and Enhanced Visibility models, each with an available depolarised source and up to 4 parallel channels
- Dynamic and absolute measurements of FBGs, LPGs, FP and MZ sensors from detailed optical spectrum
- Deep, continuous dynamic range is available to each sensor on each channel, independent of differential system losses
- Data verification key guarantees only valid output. Each data set is calibrated and verified against a permanent NIST traceable reference.
- Proven reliability and longevity of the Micron Optics swept wavelength source, with over 100 million hours logged since 2000

## **Applications**

- Oil & gas (well reservoir management, platform structural health, pipeline condition)
- Medical devices (probes, catheters)
- Industrial measurements (industrial heaters and metal fabrication process control)
- Energy (wind turbines, oil wells, pipelines, nuclear reactors, generators)
- Structures (bridges, dams, tunnels, mines, buildings)
- Security (perimeter intrusion, heat detection, security gate monitoring)
- Aerospace (airframes, composite structures, wind tunnels, static tests)

# Data sheet

Manufacturer: Micron Optics Inc.

Product Code: si155-

Product SKU: 53839000004690265

Product SKU: Sensor Interrogator, 1~4 channels, 10~5000Hz



## Micron Optics 4~16 Channels Interrogator

The si255 is an industrial grade fan-less optical sensing interrogator. Featuring both static and dynamic full spectrum analysis, the si255 provides long-term, reliable and accurate measurements of nearly 1000 sensors on 16 parallel, 160 nm wide channels

#### **Features**

- Standard, High Speed and Enhanced Visibility models, each with an available depolarised source and up to 16 parallel channels
- Dynamic and absolute measurements of FBGs, LPGs, FP and MZ sensors from detailed optical spectrum
- Deep, continuous dynamic range is available to each sensor on each channel, independent of differential system losses
- Data verification key guarantees only valid output. Each data set is calibrated and verified against a permanent NIST traceable reference.
- Proven reliability and longevity of the Micron Optics swept wavelength source, with over 100 million hours logged since 2000

# **Applications**

- Oil & gas (well reservoir management, platform structural health, pipeline condition)
- Medical devices (probes, catheters)
- Industrial measurements (industrial heaters and metal fabrication process control)
- Energy (wind turbines, oil wells, pipelines, nuclear reactors, generators)
- Structures (bridges, dams, tunnels, mines, buildings)
- Security (perimeter intrusion, heat detection, security gate monitoring)
- Aerospace (airframes, composite structures, wind tunnels, static tests)

#### Data sheet

Manufacturer: Micron Optics Inc.

Product Code: si255-

Product SKU: 53839000004690313

Product SKU: Sensor Interrogator



# **Micron Optics sm125 Sensor Interrogator**

The sm125 is a compact, industrial grade, static optical sensor interrogation module, field proven for robust, reliable, and long term field operation.

#### **Features**

- Capacity of 100s of sensors resulting from multiple channels, wide wavelength range and high dynamic range. Expandable to 16 channels
- Proven reliability and longevity with over 100 million hours logged since 2000
- Detailed optical spectrum enables versatile measurements of fibre Bragg gratings, long period gratings and Fabry-Perot sensors
- Automatic calibration with on-board NIST traceable reference

# **Applications**

- Structures (bridges, dams, tunnels, mines, buildings, oil platforms)
- Oil & gas (well reservoir management, platform structural health, pipeline condition)
- Medical devices (probes, catheters)
- Aerospace (airframes, composite structures, wind tunnels, static tests).
- Industrial measurements (industrial heaters and metal fabrication process control)

#### Data sheet

Manufacturer: Micron Optics Inc.

Product Code: sm125-

Product SKU: 53839000004690325

Product SKU: Sensor Interrogator, 1~4 channel, 1~10Hz,



## Seikoh Giken Electro-Optic Field Sensor Analyser

Sensor analyser for Seikoh Giken Isotropic Optical E-Field Sensor, Optical RF Probe and Optical Voltage Probe Heads.

## Related products:

Optical Electric Field Sensors

#### **Features**

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## **Applications**

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## Data sheet

Manufacturer: Seikoh Giken

Product Code: C3-

Product SKU: 53839000002534043

Product SKU: Optical Sensor, electro-optic, controller



# **Fibre Optic Current Sensor Analyser**

Optical fibre current sensor (OCS) utilising the Faraday effect enable measurement of current without affecting the signal and without being affected by the signal or electromagnetic noise.

# **Optical Electric Field Sensors**

Optical fibre current sensor (OCS) utilising the Faraday effect enable measurement of current without affecting the signal and without being affected by the signal or electromagnetic noise.

## **Features**

- · Compact, light and easy to insulate
- Easy to install
- Immune to electromagnetic noise
- Can measure large currect
- High speed response
- Long distance signal transmission

# **Applications**

- Current measurement for underground cables, switch gear and circuit breakers
- Inverter harmonic current measurement
- Current waveform measurement for automotive motors etc.
- Waveform measurement of impulse current such as from lightning
- Superconductor current measurement

#### Data sheet

Manufacturer: Adamant

Product Code: AOCM-100

Product SKU: 53839000005118080

Product SKU: Sensor Analyser, Optical Current Sensor



#### **FBGS 2 Channel FBG Measurement Device**

Dynamic, precise measurement of FBG sensors. Features:

- 2 optical channels
- 40 FBG sensors per channel
- Up to 2000Hz measurement rate
- Includes Illumisense measurement software

#### **Features**

- High dynamic range
- High sampling rate
- External triggering

- High number of sensors can be connected
- Excellent wavelength precision
- Extendable with 1x8 or 1x16 optical switch supporting 1 Hz measurements

# **Applications**

• FBG stress, strain, pressure, displacement etc. sensors

#### Data sheet

Manufacturer: FBGS International

Product Code: FBG-SCAN-?00

Product SKU: 53839000000924261

Product SKU: Sensor Interrogator, FBG, distributed, 1525~1565nm



#### **FBGS 4 Channel FBG Sensor Measurement Device**

The FBG-Scan 704D and 804D are dynamic, precise measurement devices for Fibre Bragg Grating (FBG) sensors based on spectrometer technology. The system offers a cost effective solution and can measure up to 4 optical channels with 40 FBG sensors per channel. All sensors can be monitored with a scan rate of 500Hz

#### **Features**

- Four individual optical lines
- High dynamic range
- High sampling rate
- External triggering
- 160 sensors can be connected
- Excellent wavelength precision

## **Applications**

Interrogating stress, strain, displacement, pressure etc. FBG sensors

#### Data sheet

Manufacturer: FBGS International

Product Code: FBG-SCAN-?04d

Product SKU: 53839000000923981

Product SKU: FBG Interrogator, dynamic, 4 channel



## **FBGS 8 Channel FBG Sensor Measurement Device**

The FBG-Scan 708D and 808D are dynamic, precise measurement devices for Fibre Bragg Grating (FBG) sensors based on spectrometer technology. The system offers a cost effective solution and can measure

up to 8 optical channels with 40 FBG sensors per channel. All sensors can be monitored with a scan rate of 250Hz.

#### **Features**

- 8 individual optical lines
- High dynamic range
- High sampling rate
- External triggering
- 320 sensors can be connected
- Excellent wavelength precision

# **Applications**

• Interrogating FBG strain, stress, displacement, pressure etc. sensors

## Data sheet

Manufacturer: FBGS International

Product Code: FBG-SCAN-?08D

Product SKU: 53839000000923985

Product SKU: Sensor Interrogator, FBG, dynamic, 8 channel



# **Sylex Sensor Analysers**

- FBG sensors
- 1, 4, 16 and 36 channels
- 80nm wavelength range
- Up to 1Hz sampling rate

## Sylex Sentinel Software Overview Video

- FBG sensors
- 1, 4, 16 and 36 channels
- 80nm wavelength range
- Up to 1Hz sampling rate