COETZER OPTICAL SYSTEMS (Pty) Ltd

Suriname Fiber Optic Grating Strain Gauge Manufacturer

Overview

os3100 | Optical Strain Gage | Luna Fiber Optic ProductsThe os3100 Optical Strain Gage is designed to make fiber handling easy and sensor installation fast.

Key Takeaways

While there are no known fiber optic grating strain gauge manufacturers based in Suriname, international suppliers like Luna, Scaime, and HT Sensor Technology provide high-quality FBG strain sensors suitable for structural and industrial monitoring.Key International Manufacturers

Luna Innovations offers a range of fiber optic strain sensing solutions, including fiber Bragg grating (FBG) sensors for multipoint and distributed strain measurements. Their sensors provide high precision, sub-millimeter spatial resolution, and can be embedded in challenging environments. Luna's systems are suitable for monitoring pipelines, railways, highways, and power lines, with long-range capabilities up to 100 km . Scaime produces fiber-optic strain gauges for civil engineering, composite laminates, concrete, and tar applications. Their sensors are immune to electromagnetic interference, resistant to corrosive environments, and suitable for long-term monitoring in marine or offshore structures. Scaime also offers ATEX/IECEx-certified sensors for hazardous zones, making them ideal for industrial and offshore applications . HT Sensor Technology CO., LTD. is a verified supplier of fiber grating strain gauges, offering custom options and competitive pricing for industrial and structural monitoring. Their products are designed for high accuracy and stability in demanding applications .

Technology Overview

Fiber Bragg grating (FBG) strain sensors operate by reflecting specific wavelengths of light that shift in response to strain. This allows precise measurement of mechanical deformation without electrical interference. FBG sensors are lightweight, can be multiplexed along a single fiber, and are suitable for dynamic and high-bandwidth measurements .

Sourcing for Suriname

Since no local manufacturers are identified, companies in Suriname can source FBG strain gauges from these international suppliers. Many of these manufacturers provide global shipping and technical support. When selecting a supplier, consider:

• Application requirements: civil, industrial, or offshore monitoring

• Environmental conditions: temperature range, corrosive or hazardous environments

• Measurement range and resolution: distributed vs. multipoint sensing

• Integration and installation support: embedding in structures or retrofitting existing systems By partnering with established international manufacturers, Suriname-based projects can access advanced fiber optic strain sensing technology for infrastructure monitoring, industrial safety, and research applications.

Article Content

os3100 | Optical Strain Gage | Luna Fiber Optic Products

The os3100 Optical Strain Gage is designed to make fiber handling easy and sensor installation fast and repeatable. Its stainless

Fiber Bragg Gratings – Buyer''s Guide & Suppliers

This buyer''s guide for fiber Bragg gratings provides technical background, comparison of major types, selection criteria, and an

Fiber Optic Strain Gauges

newLight® optical strain gauges offer wide strain ranges, fatigue resistance, easy installation, and durability even in harsh conditions

Optical Strain Sensors – strain gauges, fiber Bragg gratings, point ...

Optical strain sensors are devices, typically based on fiber optics, for measuring mechanical strain. They offer key advantages over

Fiber optic strain gauges | Althen Sensors

Fibre optic strain sensors are suitable for precise deformation measurement without temperature compensation. Find out more here.

FBG Strain Sensors (Fiber Bragg Gratings) | Optromix

Fiber Bragg grating strain sensors employ fiber optic principles for strain detection. These sensors possess great sensitivity and

Fiber-Optic Strain Sensing | Luna

Luna''s fiber optic sensing solutions deliver strain measurements that go beyond what''s possible with traditional strain gages. Three

Fibre Bragg Grating Sensors and Interrogators

An unpackaged FBG sensor supplied in a single mode optical fibre for strain and temperature measurements. Available to purchase

FBG Technology | fibre Bragg grating | Smart Fibres

FBG Technology Description The fibre Bragg grating (FBG) is an optical sensor recorded within the core of a standard, single-mode

Fiber Optic Strain Sensor: Working, Advantages, and Disadvantages

This article explores the structure, working principle, advantages, and disadvantages of fiber optic strain sensors. It covers both Fiber

How Does an Optical Strain Gauge Work? | HBM

Optical Strain Gauges: What You Need to Know Optical strain gauges are strain sensors based on optical fibers. There are several

Strain gauge, Strain gage

Boundable optical fiber strain gauges -5 000 ... +5 000 µm/m • Fiber Bragg grating strain gauge • Made of Glass Fiber Reinforced

Strain Gauge vs Fiber Bragg Grating in Engineering Applications

Strain gauges and Fiber Bragg Gratings (FBGs) are essential tools for precise strain measurement in engineering and structural

Design and study of fibre-optic-grating-based displacement strain

Therefore, based on the fibre Bragg grating sensing technology, a double-oblique wedge and bull''s-eye screw contact structure

Optical Strain Gauges

FBG sensors are optical fiber sensors. The propagating light is split at the active part into a transmitted part and in a reflected part.

Fiber Optic Strain Gauges | Discontinued | GEOKON

Fiber Optic Strain Gauges are designed for use with space limitations, high levels of electrical interference or where intrinsic safety is

Fibre Bragg Grating (FBG) Strain Sensors

We supply Fibre Bragg Grating (FBG) Strain Sensors in our full fibre optic product range. Visit for data sheets and a quote.

Strain Sensing

Force Sensing Pressure Sensing Cases for Strain Sensing Spatial Strain Sensing Using Embedded Fiber Optics ECN is one of

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