

Temperature Measurement Fiber Optic Sensor Manufacturer



Overview

This section provides an overview for fiber optic temperature sensors as well as their applications and principles.

Key Takeaways

Leading manufacturers of fiber optic temperature sensors include COMEM, OSENSA, Luna Innovations, FJ Inno, and Yokogawa, offering solutions for high-voltage, EMI/RFI-prone, and harsh industrial environments.



COMEM produces fiber optic sensors using a Gallium Arsenide (GaAs) crystal at the fiber tip, ideal for highly accurate temperature measurements in environments exposed to microwave radiation and electromagnetic interference. Their sensors are fully non-metallic, dielectric, and suitable for high-voltage and magnetic field-intense applications, integrating with FOTEMP monitoring devices for precise, repeatable measurements . OSENSA Innovations specializes in fiber optic temperature sensing and partial discharge monitoring for switchgear, transformers, data centers, and industrial applications. Their probes are immune to electromagnetic radiation, high voltage, RF, and magnetic fields, providing reliable monitoring in critical electrical equipment . Luna Innovations offers high-definition distributed temperature sensing based on Rayleigh backscatter, fiber Bragg grating (FBG) multipoint sensors, and long-range distributed acoustic sensing. Their systems deliver sub-millimeter spatial resolution and can be embedded in locations inaccessible to traditional sensors, suitable for batteries, industrial processes, and harsh environments . FJ Inno is a professional OEM/ODM manufacturer providing fiber optic temperature sensors, distributed temperature measurement systems, and transformer monitoring solutions. Their products are high-voltage resistant, anti-electromagnetic interference, and customizable for real-time monitoring in power, medical, laboratory, and aerospace applications . Yokogawa Electric Corporation offers distributed temperature sensing (DTS) systems integrated with industrial process control and asset management platforms. Their solutions are widely used in oil and gas, chemical, and power generation industries, benefiting from global service and support networks .

Sensor Technologies

- Fluorescent Fiber Optic Sensors: Point measurements with $\pm 0.5^{\circ}\text{C}$ accuracy, ideal for switchgear and transformer hot-spot detection.
- Distributed Temperature Sensing (DTS): Converts a single fiber into thousands of virtual sensors over 10–50 km, suitable for pipelines, tunnels, and power cable monitoring.
- Fiber Bragg Grating (FBG) Sensors: Multipoint sensing with high stability, capable of multiplexing multiple sensors along a single fiber.

Considerations for Selection

When choosing a manufacturer, consider:

- Technology type (fluorescent, DTS, FBG)
- Application environment (high voltage, EMI/RFI, harsh conditions)
- Required accuracy and spatial resolution
- Integration with monitoring systems

- After-sales support and global availability These manufacturers provide solutions that ensure safe, precise, and reliable temperature monitoring in environments where traditional sensors may fail, supporting industrial automation, critical infrastructure protection, and high-voltage equipment monitoring .

Article Content

Fiber Optic Sensors & Transducers its Types and

Tempsens is a global leader in providing Thermal Camera and Cable Solutions, and have developed Fiber

10 Fiber Optic Temperature Sensor Manufacturers in 2026

This section provides an overview for fiber optic temperature sensors as well as their applications and principles. Also, please take a

ONSENSA Innovations | Fiber Optic Temperature Sensing & Partial ...

Recognized as a leading developer and manufacturer of fiber optic temperature sensing and partial discharge monitoring products,

Fiber optic temperature sensor-temperature monitoring

INNO is a manufacturer of fiber optic temperature measurement devices and fluorescent fiber optic

Fiber Optic Sensors & Transducers its Types and

Each of these optical fiber temperature sensors can be used to get real-time temperature with a great

Optical Temperature Sensors - fiber Bragg gratings, point sensors ...

There are various types of optical temperature sensors, including point sensors and distributed sensors.

Temperature Measurement Using Optical Fiber

The paper deals with the overview of fiber optic methods suitable for temperature

Fiber Optic Temperature Sensors: Types, Working & Applications

Explore the structure, working principles, advantages, and disadvantages of Fiber Optic Temperature Sensors for accurate

Optical Fiber Sensors for High-Temperature Monitoring: A Review

This paper reviews the sensing principle, structural design, and temperature measurement performance of fiber-optic high

Fiber optic sensors

Fiber optic temperature measurement systems Fiber optic sensors Our fiber optic sensors use a Gallium

Optical Fiber Sensors for High-Temperature Monitoring: A Review

High-temperature measurements above 1000 °C are critical in harsh environments such as aerospace, metallurgy,

ONSENSA Innovations | Fiber Optic Temperature Sensing & Partial ...

Leading developer of fiber optic temperature sensing and partial discharge monitoring solutions for switchgear, data centers, energy,

Neoptix Fiber Optic Temperature Sensors, Probes and Transducers

Neoptix is a fast paced, imaginative and agile company that designs and manufactures fiber optic temperature sensors for manual

Fiber optic temperature sensors | Althen Sensors

Advantages of Fiber Optic Temperature Sensors Immune to electromagnetic interference (EMI) Ideal for applications in high-voltage

Distributed Fiber Optic Temperature Sensor

What is a Distributed Fiber Optic Temperature Sensor? Yokogawa's DTSX product family is engineered with a variety of fiber optic

Fiber Optic Temperature Sensor DTSX | Yokogawa India

The DTSX fiber optic temperature sensor, which uses optical fiber for the temperature sensor, quickly detects and locates

Fiber Optic Sensors & Transducers its Types and

Each of these optical fiber temperature sensors can be used to get real-time temperature with a great

Optical Temperature Sensors – fiber Bragg gratings, point sensors ...

There are various types of optical temperature sensors, including point sensors and distributed sensors.

Temperature Measurement Using Optical Fiber

The paper deals with the overview of fiber optic methods suitable for temperature

Fiber Optic Temperature Sensors: Types, Working & Applications

Explore the structure, working principles, advantages, and disadvantages of Fiber Optic Temperature Sensors for accurate

Optical Fiber Sensors for High-Temperature Monitoring: A Review

This paper reviews the sensing principle, structural design, and temperature measurement performance of fiber-optic high

Fiber optic sensors

Fiber optic temperature measurement systems Fiber optic sensors Our fiber optic sensors use a Gallium

In-Depth Overview of Fiber Optic Temperature Sensors

A fiber optic temperature sensor is a temperature measurement device that uses optical fibers as the sensing medium. Unlike

Fiber optic temperature sensor, Fiber optic temperature probe

Find your fiber optic temperature sensor easily amongst the 19 products from the leading brands (SAB, TEMPESENS, TEXYS, ...) on

OTG-F fiber optic temperature sensor, probe and transducer

Opsens Solutions' OTG-F fiber optic temperature sensor offers the highest performances in the industry. The OTG-F sensor uses the

FOTEMP TS Series Fiber Optic Temperature Probes

Micronor Sensors offers a complete range of fiber optic temperature sensors, probes and interfaces for high precision temperature

Optical Fiber Sensors for High-Temperature Monitoring: A Review

High-temperature measurements above 1000 °C are critical in harsh environments such as aerospace, metallurgy,

OSENSA Innovations | Fiber Optic Temperature Sensing & Partial ...

Leading developer of fiber optic temperature sensing and partial discharge monitoring solutions for switchgear, data centers, energy,

Neoptix Fiber Optic Temperature Sensors, Probes and Transducers

Neoptix is a fast paced, imaginative and agile company that designs and manufactures fiber optic temperature sensors for manual

Fiber optic temperature sensors | Althen Sensors

Advantages of Fiber Optic Temperature Sensors Immune to electromagnetic interference (EMI) Ideal for applications in high-voltage

Fiber Optic Sensors & Transducers its Types and

Tempsens is a global leader in providing Thermal Camera and Cable Solutions, and have developed Fiber

10 Fiber Optic Temperature Sensor Manufacturers in 2026

This section provides an overview for fiber optic temperature sensors as well as their applications and principles. Also, please take a

ONSENSA Innovations | Fiber Optic Temperature Sensing & Partial ...

Recognized as a leading developer and manufacturer of fiber optic temperature sensing and partial discharge monitoring products,

Fiber optic temperature sensor-temperature monitoring

INNO is a manufacturer of fiber optic temperature measurement devices and fluorescent fiber optic

Fiber Optic Sensors & Transducers its Types and

Tempsens is a global leader in providing Thermal Camera and Cable Solutions, and have developed Fiber

10 Fiber Optic Temperature Sensor Manufacturers in 2026

This section provides an overview for fiber optic temperature sensors as well as their applications and principles. Also, please take a

ONSENSA Innovations | Fiber Optic Temperature Sensing & Partial ...

Recognized as a leading developer and manufacturer of fiber optic temperature sensing and partial discharge monitoring products,

Fiber optic temperature sensor-temperature monitoring

INNO is a manufacturer of fiber optic temperature measurement devices and fluorescent fiber optic

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

Contact Us

Continue your research online:

Website: <https://zithatech.co.za>

Technical inquiry: <https://zithatech.co.za/contact.html>

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

