

## Lsens-B Fiber Optic Temperature Sensor



- Small diameter for fast response
- Outstanding repeatability
- Complete immunity to RFI, EMI, NMR and microwave radiation
- Plug and Play operation, does not require setup or calibration
- Minimal thermal shunting

Solutions for scientists working in laboratories, research centers and universities who are looking for reliable instruments with fast response & dielectrically neutral in advanced research applications.

## Product Summary

A multiuse fiber optic temperature sensor designed for a wide range of applications, especially for the use in demanding applications. The sensor offers complete immunity to RFI, EMI, NMR and microwave radiation. The standard temperature sensor has a response time of 0.2 s. With a standard deviation of  $\pm 0.2$  °C it allows precise and repeatable measurements. The coating of the temperature sensor is made of PTFE, and the fiber tip has 0.3 mm x 0.3 mm area with a Polyimide coating. The fiber optic probe consists of a PTFE protected glass fiber and a GaAs-crystal (Gallium Arsenide) at the sensor tip. It is totally free of metal and is immune to external fields. Therefore, the probes are explicitly suitable for use in large temperature ranges as well as in aggressive operating environments. The sensor length can be from several meters to 1 kilometer in length without impacting the accuracy of the measurement result. Other sensor lengths and connector types are available upon request.

## Applications

- Semi-conductor
- Electronic component
- Magnetic, RF and microwave environments
- Catheter design
- High voltage environments
- Medical applications
- Microwave assisted chemistry
- Sterilization applications
- RF and microwave drying applications

## Benefits

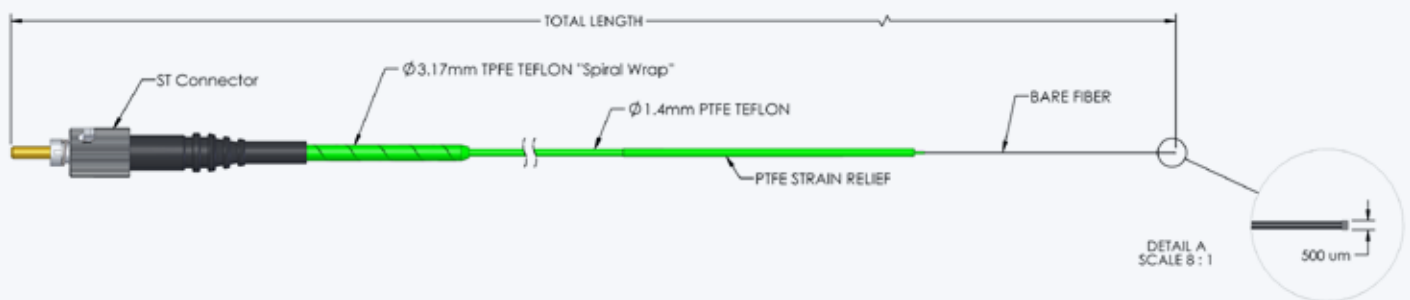
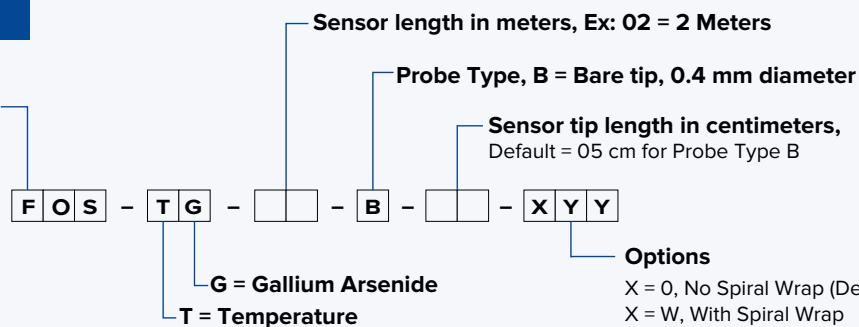
- Sensors do not require any recalibration
- High Stability, no shift over time
- Direct and accurate readings
- Robust fiber optic temperature sensor
- Available in different cables and sheath options
- Customizable according to customer specific applications
- Suitable for OEM-type applications

## TECHNICAL SPECIFICATIONS

Temperature range	-200 °C to +250 °C
Temperature range (Optional Range extensions)	Down to 4 °K / Up to +300 °C
Repeatability	0.2 °C
Accuracy absolute temperature	+/- 0.8 °C
Accuracy relative temperature	+/- 0.2 °C
Probe sheathing material	Teflon Coated, except for the sensor tip
Connector	Stainless Alloy / Optional - Dielectric
Response time	As fast as 35 ms
Probe sensitive area - Diameter	0.3 mm x 0.3 mm
Longevity	Probe accuracy & repeatability constant over time

## ORDERING CODE

FOS = Fiber Optic Sensor



### Rugged Monitoring Services

Rugged Monitoring provides customization of sensors, monitors & software. In addition we offer on-site commissioning services, maintenance contracts and technical support to all customers worldwide.



### About Rugged Monitoring

Industry leading team of fiber optic experts with 100+ years of combined experience committed to delivering customizable solutions for challenging applications. We offer a range of reliable, high performance, customizable sensors and monitoring solutions that are immune to external influence.

2018 Rugged Monitoring Company. All rights reserved. Information subject to change without notice. All trademarks are properties of their respective companies, as noted herein.