

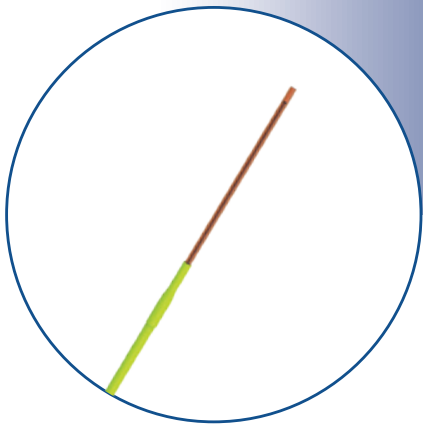


LSENS-P

Fiber Optic Temperature Sensor

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Fiber Optic Temperature Sensor



A multiple use fiber optic temperature sensor for measurement in a wide range of demanding applications, where immunity to electromagnetic fields is mandatory.

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 $\pm 0.2^{\circ}\text{C}$ it allows precise and repeatable measurements. The coating of the temperature sensor is made of PTFE, and the fiber tip has $0.3\text{ mm} \times 0.3\text{ mm}$ 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.

» Features

- Small tip Polyimide, protected
- Outstanding repeatability with high flexibility
- Cryogenic temperature range available (as low as 4°Kelvin)
- Complete immunity to RFI, EMI, NMR and microwave radiation
- Does not require recalibration or complex inputs to operate

» Benefits

- Sensors do not require any recalibration
- No shift over time, high stability
- Optional spiral wrap
- Robust fiber optic temperature sensor
- Available in different cables and sheath options
- Customizable according to customer specific applications
- Suitable for OEM-type applications

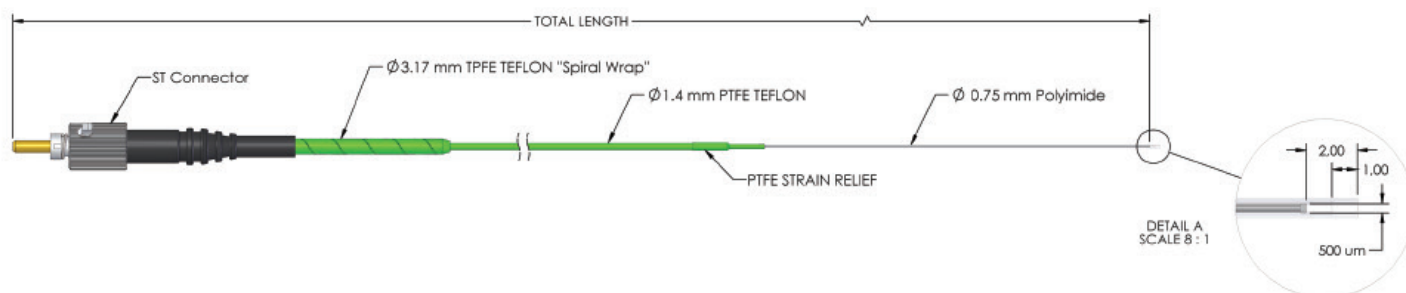
» Applications

- Electric Vehicle and Battery Testing
- High voltage environments
- Nuclear and hazardous environments
- Medical applications
- Chemical and Process Industries
- RF and Microwave drying applications
- Cryogenic and vacuum environment available (Optional)

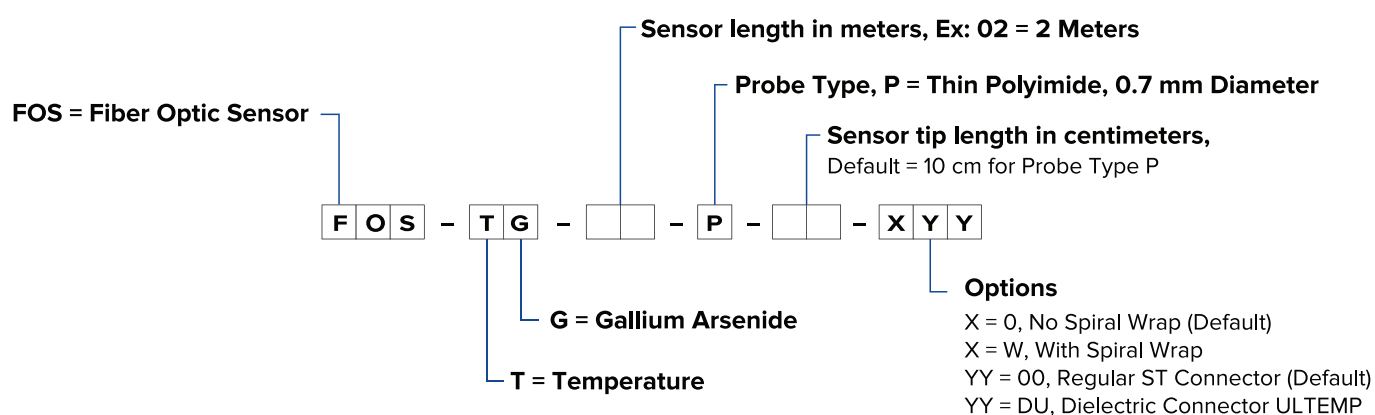
» Technical Specifications

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, with Polyimide protection for sensor tip
Connector	Stainless Alloy / Optional - Dielectric
Response time	Up to 0.2 Sec
Probe sensitive area - Diameter	0.7 mm
Protective Tube - Diameter	Teflon / 1.4 mm
Longevity	Probe accuracy & repeatability constant over time

» Product Drawing



» Ordering Code



CERTIFICATIONS



ISO 9001



ISO 14001



OHSAS
18001



Lloyd's
Register



Atex
Certification



NIST
Certification



1415 Frank-Carrel, Sulte , 230, Quebec, QC-G1N , 4N7, CANADA

Asia Pacific | China | India | Middle East & Africa | Europe | North America | Latin America

+1-418-767-0111

info@ruggedmonitoring.com

www.ruggedmonitoring.com