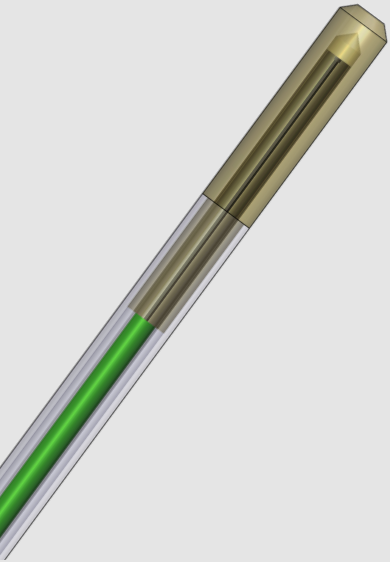


## LSENS-U FIBER OPTIC TEMPERATURE SENSOR



- Heavy duty protection gives longevity to sensors under harsh and dynamic operating conditions
- Complete immunity to RFI, EMI, NMR and microwave radiation
- Outstanding repeatability improves accuracy of testing instruments
- Plug and Play operation, does not require recalibration or complex input to operate
- Liquid proof and withstands aggressive chemical solutions

**A Heavy duty fiber optic temperature sensor for measurement in a wide range of demanding applications where robustness of sensors, immunity to electromagnetic fields and explosion proof requirements are mandatory**

### Product Summary

A heavy duty fiber optic temperature sensor specially designed for harsh and dynamic operating conditions where stress on the Fiber Optic Cable is more than normal. The sensor offers complete immunity to RFI, EMI, NMR, Corrosive and microwave radiation making it the best choice for all demanding applications. The standard temperature sensor has a response time of 0.2 s. with a standard deviation of  $\pm 0.2$  °C. Each sensor allows precise and repeatable measurements. The coating of the temperature sensor is made of heavy duty material, while the fiber tip has a diameter of 1.1mm and has a stainless steel ST-connector. For mechanical stability and applications e.g. in oil special protective coatings and hoses are available. 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 immune to external fields, therefore probes are explicitly suitable for use in high temperature ranges as well as in aggressive operating environments. The sensor cable can be from several meters to kilometers long without influencing the accuracy of the measurement result. Other sensor lengths and connector types are available upon request.

### Applications

- RF and microwave drying applications
- Food Processing and sterilization applications
- Electric Vehicle and Battery Testing
- Medical Applications
- Industrial process control and monitoring applications
- Nuclear, Magnetic and hazardous environments
- High voltage environments
- Aggressive Chemical environments

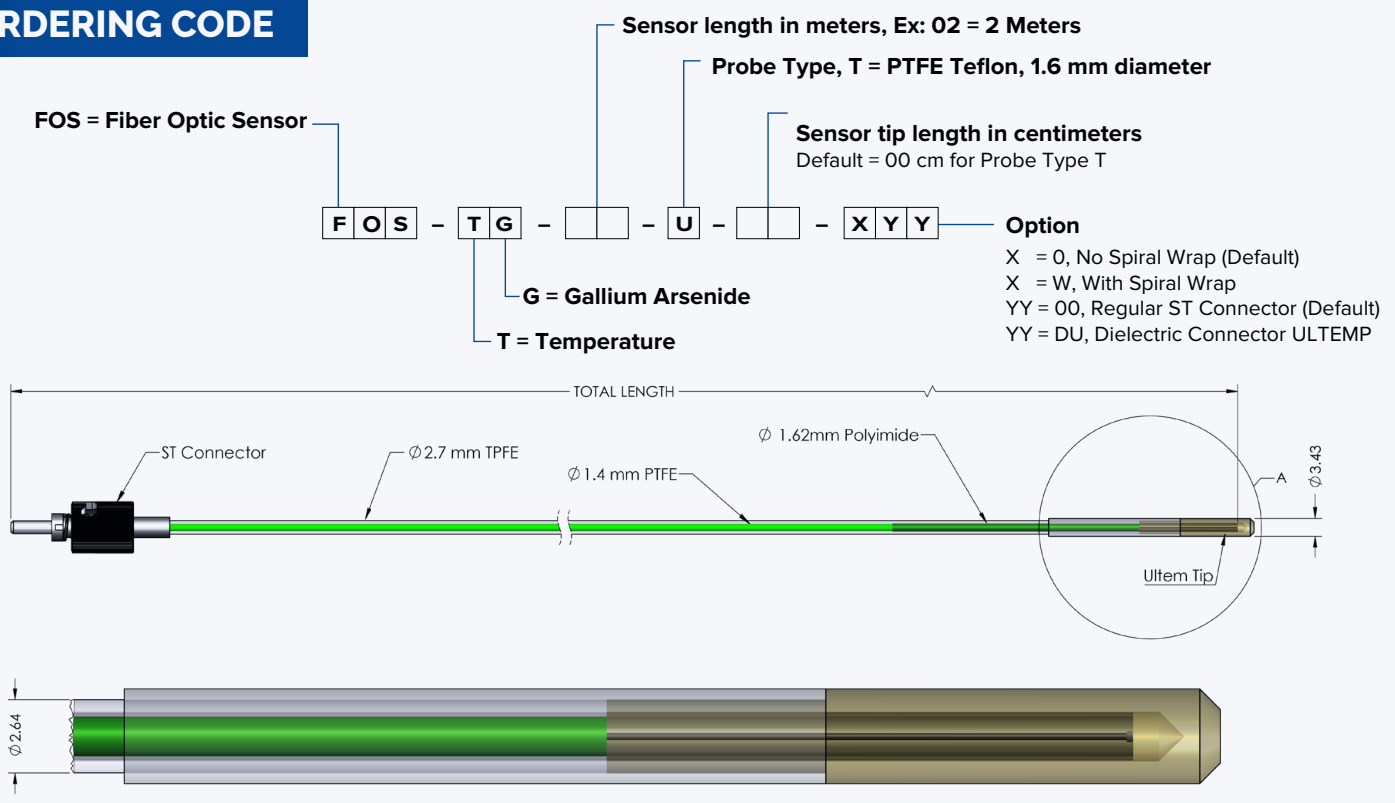
## Benefits

- Longer life of sensors under harsh and dynamic operating conditions
- Cost saving on recalibration; sensor does not require any recalibration
- Customizable to meet different requirements of customer applications
- Optional spiral wrap reinforces robustness of sensor cable
- Suitable for OEM-type applications and during operation of machines
- Higher accuracy and repeatability increase confidence of validation and measurement
- Faster support from industry known fiber optic experts
- Available in different cables and sheath options

## TECHNICAL SPECIFICATIONS

Temperature range	-200 °C to +250 °C
Measurement 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
Connector	Stainless Alloy / Optional - Dielectric
Response time	Up to 0.2 Sec
Probe sensitive area - Diameter	1.6 mm

## ORDERING CODE



### 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.