MULTI-PURPOSE
FIBER OPTIC TEMPERATURE SENSOR

Compatible with Opsens' WLPI series of signal conditioners

Key Features

- Small and robust design
- Good accuracy
- Outstanding repeatability
- Low drift and low hysteresis
- EMI/RFI and microwave immune
- Intrinsically safe
- OEM-type and custom version

Applications

- EM, RF and microwave environments
- High voltage environments
- Nuclear and hazardous environments
- Medical applications (see OTP-M model)
- Microwave assisted chemistry
- Sterilization applications
- In-situ process control
- RF and microwave drying applications
- Civil engineering and geotechnical applications

Description

Opsens' OTP-A fiber optic temperature sensor offers the highest performances in the industry. The OTP-A sensor† uses the temperature-dependent birefringence of specially selected crystal as the temperature transduction mechanism. Because of the pure monocrystalline material used, the OTP-A does not shows thermal creeping or aging as with other fiber optic sensors based on the thermal dilatation of glass optical fibers.

Combined with Opsens' WLPI signal conditioning technology (Patent #7,259,862) and with the inherent advantages of fiber optics, the OTP-A delivers unprecedented repeatability and reliability in the most adverse conditions such as high level of EM, RF, MR and microwavefields environments as well as with high voltage and rapid temperature cycling conditions.

The standard operating range of the OTP-A is from -40 °C to +250 °C. A high resolution and accuracy version is also available (see OTP-M model)

The OTP-A is compatible with all Opsens' WLPI signal conditioners. This compact and robust fiber optic temperature sensor, available in different cables and sheath options, is customizable according to customer specific applications or for OEM-type applications.

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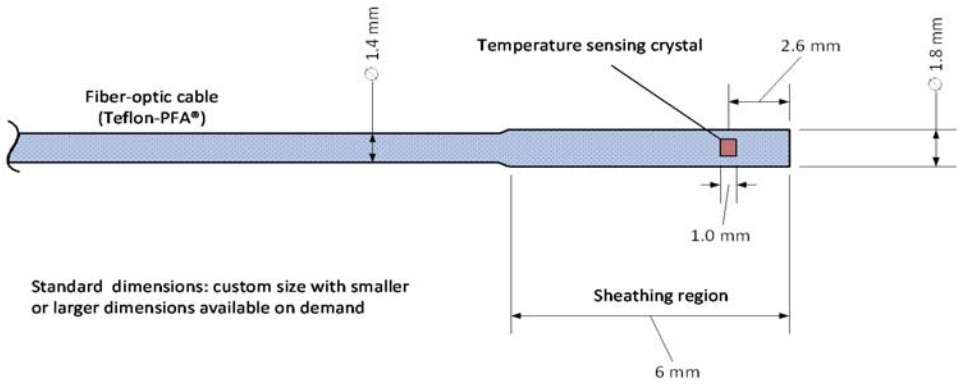

Specifications

Temperature operating and calibrated range	-40 °C to +250 °C
Resolution	0.1 °C
Accuracy	±1.0 °C @ ±3.3 sigma limit (99.9% confidence level)
Response time	1.5 s typical (depends on packaging and measuring conditions)
Operating humidity range	0-100 %
EMI/RFI susceptibility	Complete immunity
Calibration	NIST traceable
Cable length	1.5 meters standard (maximum of 5 meters)
Optical connector	SC standard
Cable sheathing	Teflon™ PFA
Signal conditioner compatibility	All Opsens WLPI signal conditioners

All specifications are subject to change without prior notifications

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