

# FIBER OPTIC TEMPERATURE SENSOR

FOR DEMANDING APPLICATIONS AND ROUGH HANDLING USAGE



## KEY FEATURES

- Robust design
- Good accuracy
- Outstanding repeatability
- EMI/RFI/RFI and microwave immune
- Intrinsically safe
- -40 °C to +250 °C temperature range
- Can be deployed as a standard thermocouple

**OTG-P** Compatible with Opsens Solutions' GaAs (SCBG) signal conditioners

## DESCRIPTION

Opsens Solutions' OTG-P fiber optic temperature sensor is encapsulated in a rugged stainless steel tube (ceramic tube also available for microwave environment) for maximum protection in the most adverse handling conditions. The OTG-P sensor uses the well proven technique based on the temperature dependent bandgap of GaAs crystal as the temperature transduction mechanism.

Combined with Opsens Solutions' GaAs (SCBG) signal conditioning technology and with the inherent advantages of fiber optics, the OTG-P delivers unprecedented repeatability and reliability in the most adverse conditions. The spectrally encoded light signal is completely immune to EM, RF, MR and microwave fields.

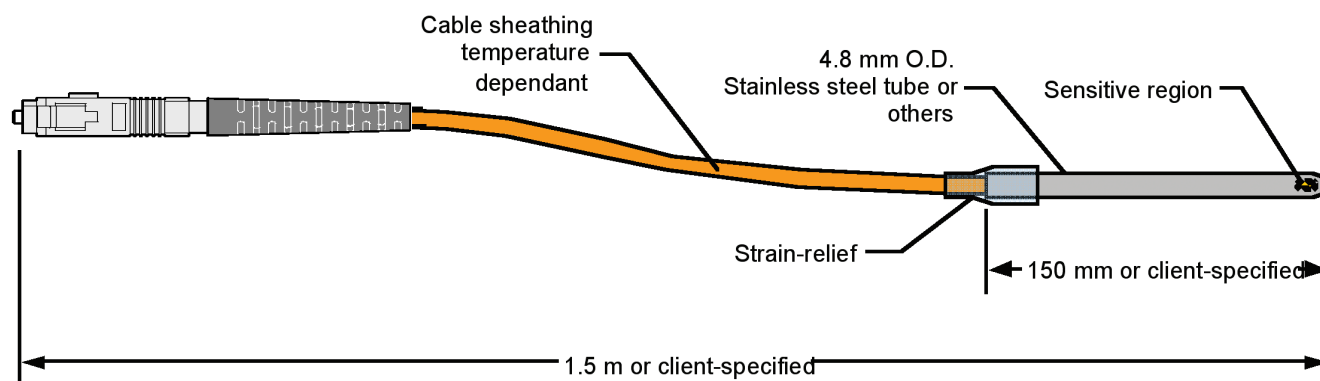
The standard operating range of the OTG-P is from -40 °C to +250 °C. Higher temperature ranges are available upon request. The OTG-P is made with industry standard 62.5/125 microns optical fiber and is compatible with all Opsens Solutions' GaAs (SCBG) signal conditioners. This robust fiber optic temperature sensor, available in different cables and sheath options, is customizable for customer-specific applications or for OEM applications.

## APPLICATIONS

- EM, RF and microwave environments
- Sterilization applications
- Pressurized systems
- Nuclear and hazardous environments
- Civil engineering and geotechnical applications
- Power substation and transformer ambient temperature monitoring.

# OTG-P

## FIBER OPTIC TEMPERATURE SENSOR



## SPECIFICATIONS

TEMPERATURE OPERATING AND CALIBRATED RANGE	-40 °C to +250 °C (other ranges available upon request)
ACCURACY	± 0.8 °C or better for other temperature range
THERMOWELL MATERIAL	Stainless steel (Ceramic or other materials available as an option)
OPERATING HUMIDITY RANGE	0-100 %
EMI/RFI SUSCEPTIBILITY	Complete immunity
CALIBRATION	NIST traceable
CABLE LENGTH	1.5 meters standard (other lengths available)
OPTICAL CONNECTOR	LCA, ST standard
CABLE SHEATHING	Operating temperature dependant (contact factory)
SIGNAL CONDITIONER COMPATIBILITY	All Opsens Solutions' GaAs (SCBG) signal conditioners