

**FAST RESPONSE TIME GAAS-BASED  
FIBER OPTIC TEMPERATURE SENSOR  
FOR R&D AND INDUSTRIAL APPLICATIONS**

Compatible with Opsens' GaAs (SCBG) series of signal conditioners

### Key Features

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

### Applications

- Dynamic temperature monitoring
- EM, RF and microwave environments
- High voltage environments
- Sterilization applications
- In-situ process control
- RF ultrasound and electro surgery environment
- Low cost disposable sensor

### Description

Opsens' OTG-F fiber optic temperature sensor offers the highest performances in the industry. The OTG-F sensor uses the well proven technique based on the temperature-dependent bandgap of GaAs crystal as the temperature transduction mechanism. Its small sensing GaAs crystal located at the tip of the optical fiber makes it convenient for tip measurement applications.

Combined with Opsens' GaAs (SCBG) signal conditioning technology and with the inherent advantages of fiber optic, the OTG-F delivers unprecedented repeatability and reliability in the most adverse conditions such as high level of EM, RF, MR and microwave field environments.

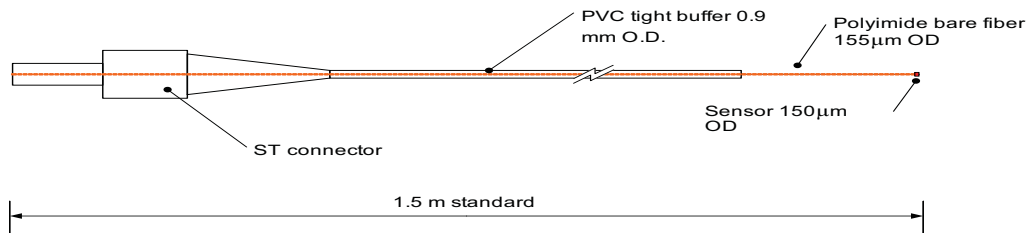
The OTG-F is made with industry standard optical fiber and is compatible with all Opsens' GaAs (SCBG) signal conditioners. This compact and robust fiber optic temperature sensor is available with different optical cables and sheath options and is customizable according to customer specific applications or for OEM-type applications.

† Patent pending

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## Specifications

Temperature operating and calibrated range	-40 °C to +250 °C (other ranges available upon request)
Resolution	0.05 °C
Accuracy	± 0.3 °C or better (Total accuracy from 20 °C to 45 °C range including both signal conditioner and sensor errors) ± 0.8 °C or better for other temperature range
Response time	5 ms
Operating humidity range	0-100 %
EMI/RFI susceptibility	Complete immunity
Calibration	NIST traceable
Cable length	1.5 meters standard (other lengths available)
Optical connector	ST standard
Cable sheathing	Teflon™ PTFE
Signal conditioner compatibility	All Opsens GaAs (SCBG) signal conditioners

All specifications are subject to change without prior notifications