



### GAAS-BASED FIBER OPTIC TEMPERATURE SENSOR FOR POWER TRANSFORMER APPLICATIONS

Compatible with PicoP and PowerSens II GaAs (SCBG) signal conditioners

#### Key Features

- Sensing body encapsulated in uniform protective tubing provides a robust and small size sensor
- Well defined round openings for proper oil wetting and best cable strength
- Offered with our standard 62.5/125 micron optical fiber or with 200/230 micron optical fiber

#### Applications

- Hot spot temperature monitoring of power transformer windings
- Temperature monitoring of power transformer top oil
- High voltage environments

#### Description

Opsens' OTG-T fiber optic temperature sensor offers the highest reliability and robustness in the industry. It uses the well proven technique based on the temperature-dependent bandgap of GaAs crystal as the temperature transduction mechanism. Its sensing GaAs crystal encapsulated in uniform protective tubing provides robustness and small size and ensures full protection against mechanical stress that may cause sensor damage when installed in the transformer isolation spacer.

The OTG comes with a specially designed fiber optic cable for oil wetting in the transformer. Well-defined round openings evenly spaced along the cable ensure proper oil wetting and provide the best cable strength. In fact, this design offers cable strength five times higher than the slit design used by other manufacturers.

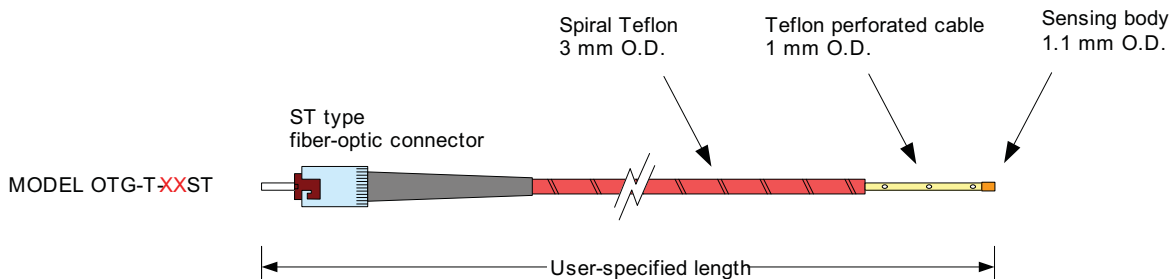
The OTG-T is offered with our standard 62.5/125 micron optical fiber or with 200/230 micron optical fiber.

**Note:** See Opsens' Transformer Hot Spot Temperature Monitoring Fiber Optic Sensor brochure for more information.

#### Opsens

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## Specifications

Temperature operating and calibrated range	- 40 °C to + 250 °C (other ranges available upon request)
Accuracy	± 0.8 °C (Total system accuracy over the full range including both signal conditioner and sensor errors - higher accuracy available on demand)
Resolution	0.1 °C
Response time	0.5 s typical
Operating humidity range	0 -100 %
EMI/RFI susceptibility	Complete immunity
Calibration	Fully traceable
Cable	See above schematics
Optical connector	ST (model no OTG-T-XXST)
Signal conditioner compatibility	PicoP, PowerSens II

All specifications are subject to change without prior notification