



**OTG-T+ FIBER OPTIC
TEMPERATURE SENSOR
WITH ALL-DIELECTRIC CONNECTOR
FOR POWER TRANSFORMER APPLICATIONS**

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

Key Features

- Innovative all-dielectric connectivity solution eliminates cumbersome cable handling
- 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

The OTG-T+ is paired with an all-dielectric fiber-optic connector which can be placed almost anywhere in the transformer. This concept permits the use of short length of OTG-T+ sensor cable. This unique connectivity solution eliminates the cumbersome and hazardous operation of cable spooling and handling during installation.

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-T+ 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.

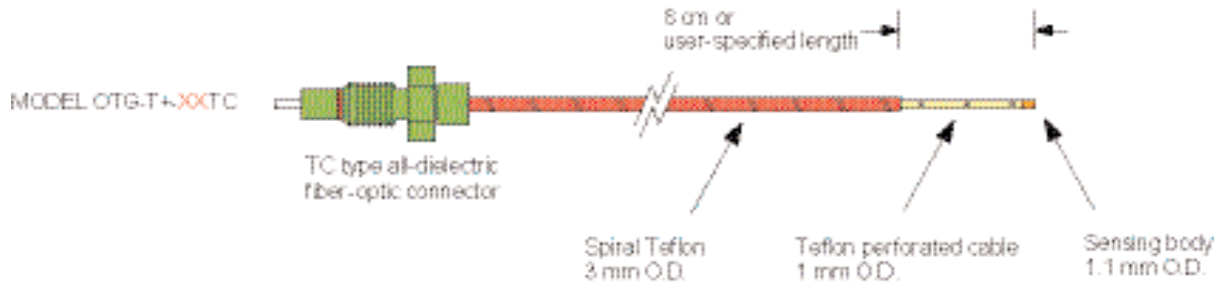
The OTG-T+ is offered with our standard 62.5/125 micron optical fiber or with 200/230 micron optical fiber.

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

Opsens

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Note: Complete the sensing system by ordering an OIC-SW-62TC-ST-xm Optical Internal Cable extension which includes the all dielectric TC mating.

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 schematic
Optical connector	TC all-dielectric (model no OTG-T+ -XXTC)
Signal conditioner compatibility	PicoP, PowerSens II

All specifications are subject to change without prior notification