HIGH ACCURACY GAAS-BASED FIBER OPTIC TEMPERATURE SENSOR FOR TEMPERATURE MEASUREMENT IN MRI APPLICATIONS

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

Key Features

- ± 0,3 °C total system accuracy
- Robust design
- Outstanding repeatability
- MRI/EMI/RFI and microwave immune
- Intrinsically safe
- OEM-type and disposable version available

Applications

- Surface or core temperature monitoring in MRI environments
- RF, ultrasound and electro surgery environments
- Temperature monitoring for preclinical and research applications

Description

Opsens' OTG-M3000 fiber optic temperature sensor offers the highest performances in the industry. The OTG-M3000 sensor uses the well proven technique based on the temperature-dependent bandgap of GaAs crystal as the temperature transduction mechanism. Its robust yet flexible packaging is highly suitable for making core temperature sensor in both reusable and disposable OEM application.

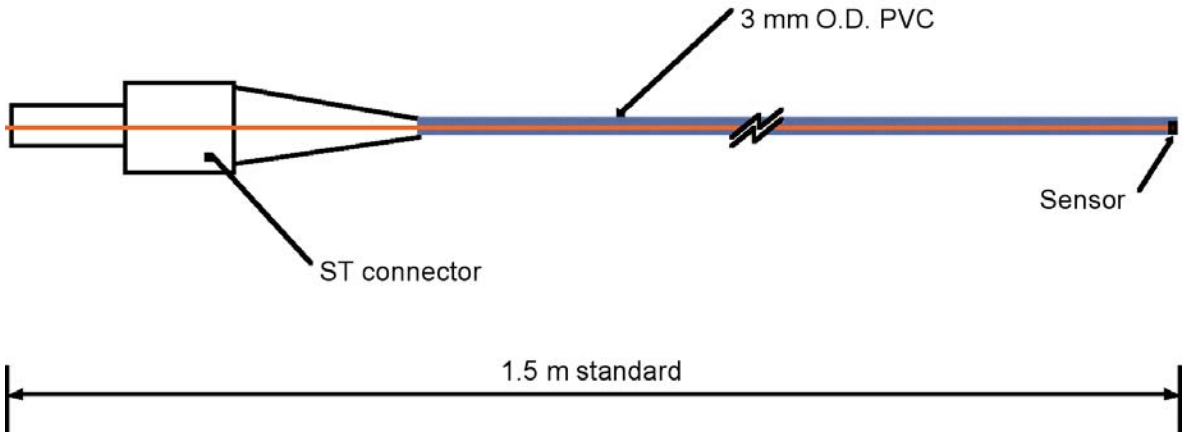
Combined with Opsens' GaAs (SCBG) signal conditioning technology and with the inherent advantages of fiber optic, the OTG-M3000 delivers unprecedented repeatability and reliability in the most adverse conditions such as high level of EM, RF, MR and microwave field environments.

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.

Opsens

2014 Cyrille-Duquet Street
Suite 125
Quebec City QC
G1N 4N6 Canada

☏ **1.418.682.9996**
1.418.682.9939
Info@opsens.com
www.opsens.com



Specifications

Typical temperature operating range	20 °C to +45 °C (other ranges available upon request)
Resolution	0.01 °C
Accuracy	± .3°C (Range from 20 °C to 45 °C including both signal conditioner and sensor errors)
Response time	1.5 s typical
Operating humidity range	0-100 %
MRI/EMI/RFI susceptibility	Complete immunity
Calibration	NIST traceable
Cable length	1.5 meters standard (other lengths available)
Optical connector	ST standard
Cable sheathing	3mm O.D. PVC
Signal conditioner compatibility	All Opsens GaAs (SCBG) signal conditioners

Product specifications are subject to change without prior notice

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