**FIBER OPTIC
TEMPERATURE SENSOR
FOR THE HARSHEST ENVIRONMENTS**

Compatible with Opsens' WLPI series signal conditioners

Key Features

- Robust packaging
- EMI/RFI immunity; intrinsically safe
- Outsanding repeatability
- No shift over time, high stability
- Small size (4 TO 6 mm with housing)

Applications

- High temperature environments
- Industrial process-control and monitoring applications
- High voltage environments
- Hazardous environments
- Oil & Gas applications
- Temperature measurements conducted in confined spaces, hazardous or strong EMI/RFI/MRI environments

Description

Opsens' OTP-W fiber optic temperature sensor offers the highest performances in the industry. The sensor uses the temperature-dependent birefringence of specially selected crystal as the temperature transduction mechanism. Because of the pure monocrystalline material used, the OTP-W does not shows thermal creeping or aging as with other fiber optic sensors based on the thermal dilatation of glass optical fibers.

Combined with Opsens' WLPI signal conditioning technology (Patent #7,259,862) and with the inherent advantages of fiber optics, the OTP-W delivers unprecedented repeatability and reliability in the most adverse conditions such as high level of EM, RF, MR and microwavefields environments as well as with high voltage and rapid temperature cycling conditions.

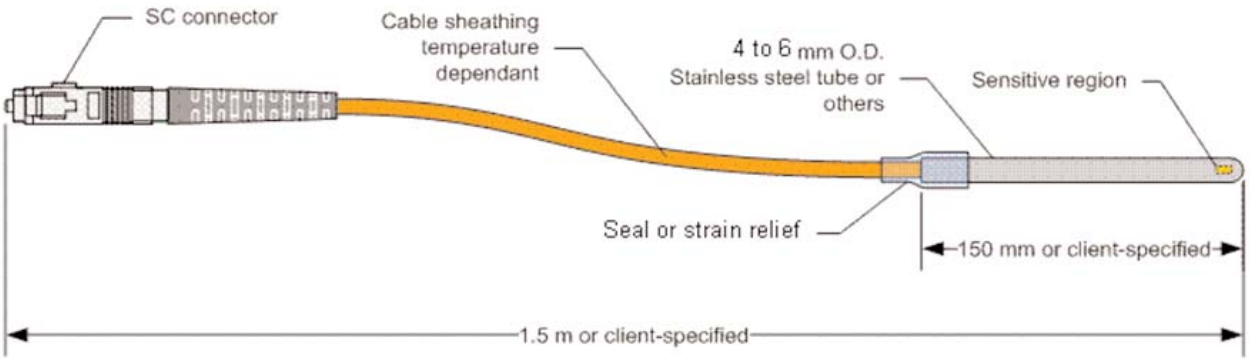
The standard operating range of the OTP-W is from -40 °C to +300 °C. High resolution and accuracy versions are also available for smaller range.

The OTP-W is compatible with all Opsens' WLPI signal conditioners. This compact and robust fiber optic temperature sensor, available in different cables and sheath options, is customizable according to customer specific applications or for OEM-type applications.

Opsens Solutions

319 Franquet Street,
Suite 110
Quebec City QC
G1P 4R4 Canada

☎ **1.418.682.9996**
1.418.682.9939
Info-solutions@opsens.com
www.opsens-solutions.com



Specifications

Temperature range	-40 °C to +300 °C
Resolution	0.1 °C at zero averaging (0.01 °C at 10 minutes averaging)
Precision	± 1.5 °C (-40 °C to +300 °C) - @ ±3.3 sigma limit (99.9% confidence level)
	± 0.8 °C (-40 °C to +250 °C) - @ ±3.3 sigma limit (99.9% confidence level)
	± 0.5 °C (-20 °C to +120 °C) - @ ±3.3 sigma limit (99.9% confidence level)
Operating humidity range	0-100 %
Cable length	Up to 3000 meter
Optical connector	SC standard (other connector available)
Cable sheathing	Customer specifications - from polyurethane to stainless steel
Signal conditioner compatibility	All Opsens WLPI signal conditioners

Product specifications are subject to change without prior notice IMP0152 OTP-W Rev 1.1 Printed in Canada