

FIBER OPTIC TEMPERATURE SENSOR

FOR DEMANDING APPLICATIONS AND ROUGH HANDLING USAGE



KEY FEATURES

- Very high robustness
- Good accuracy
- Thermowell design easy to deploy
- Fit for almost any challenging environment
- EMI/RFI/RFI and microwave immune
- Outstanding repeatability
- Intrinsically safe

OTP-P Compatible with Opsens Solutions' WLPI signal conditioners

DESCRIPTION

Opsens Solutions' OTP-P fiber optic temperature sensor offers the best robustness for almost any environments. Relying on the WLPI technology (Patent #7.259.862), it uses the temperature-dependent birefringence of specially selected crystal as the temperature transduction mechanism. Because of the pure monocrystalline material used, the OTP-A **does not show thermal creeping or aging** as with other fiber optic sensors based on the thermal dilatation of glass optical fibers.

The OTP-P series also delivers **unprecedented repeatability and reliability in the most adverse conditions** such as high level of EM, RF, MR and microwave fields environments as well as with high voltage and rapid temperature cycling conditions.

The standard operating range of the sensor is from **-40 °C to +250 °C**. Higher temperature ranges up to 350 °C are available upon request. The sealed thermowell design made with stainless-steel 316 can be deployed practically anywhere: from fresh concrete to corrosive liquid environment.

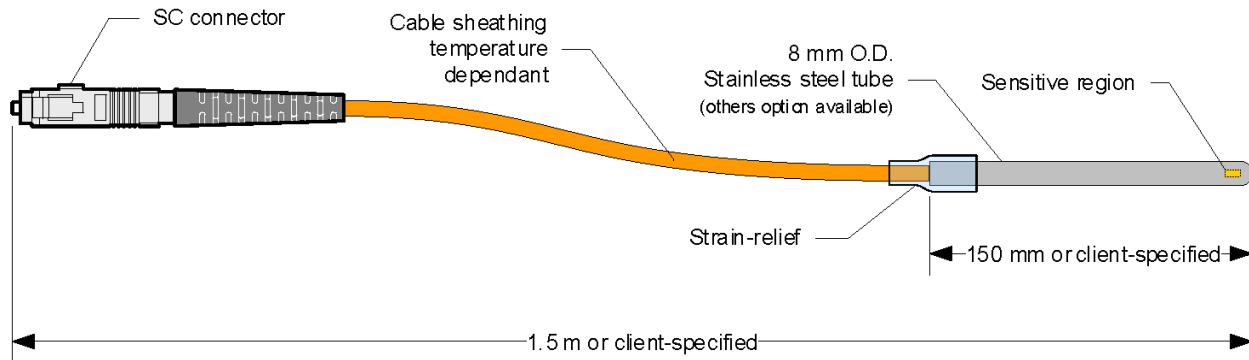
The OTP-P is compatible with all Opsens Solutions' WLPI signal conditioners. This compact and **robust fiber optic temperature sensor**, available in different cables and sheath options, is customizable according to customer specific applications or for OEM-type applications.

APPLICATIONS

- Concrete embeddable
- Underwater application
- Temperature monitoring in pipes
- Geotechnical permanent measurements
- Corrosive liquid
- Subsea applications

OTP-P

FIBER OPTIC TEMPERATURE SENSOR



SPECIFICATIONS

| | |
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| TEMPERATURE OPERATING AND CALIBRATED RANGE | -40 °C to +250 °C (other ranges available upon request) |
| ACCURACY | ±1.0 °C @ ±3.3 sigma limit (99.9% confidence level) |
| THERMOWELL MATERIAL | Stainless steel (Ceramic or other materials available as an option) |
| OPERATING HUMIDITY RANGE | 0-100 % - fully immersible |
| EMI/RFI SUSCEPTIBILITY | Complete immunity |
| CALIBRATION | NIST traceable |
| CABLE LENGTH | 1.5 meters standard (other lengths available) |
| OPTICAL CONNECTOR | LCA, SC standard |
| CABLE SHEATHING | Operating temperature dependant (contact factory) |
| SIGNAL CONDITIONER COMPATIBILITY | All Opsens Solutions' WLPI signal conditioners |