The OTP-A fiber optic temperature sensor offers the highest performances in the industry. The OTP-A sensor 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.

Combined with the WLPI signal conditioning technology (Patent #7,259,862) and with the inherent advantages of fiber optics, the OTP-A 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 OTP-A is from -40 °C to +250 °C. A high resolution and accuracy version is also available (see OTP-M model).

The OTP-A is compatible with all the 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.

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**Key features**
- Small and robust design
- Good accuracy
- Outstanding repeatability
- Low drift and low hysteresis
- EMI/RFI and microwave immune
- Intrinsically safe
- OEM-type and custom version

**Applications**
- EM, RF and microwave environments
- High voltage environments
- Nuclear and hazardous environments
- Medical applications (see OTP-M model)
- Microwave assisted chemistry
- Sterilization applications
- In-situ process control
- RF and microwave drying applications
- Civil engineering and geotechnical applications
### Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
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<tbody>
<tr>
<td>Temperature operating and calibrated range</td>
<td>-40 °C to +250 °C</td>
</tr>
<tr>
<td>Resolution</td>
<td>0.1 °C</td>
</tr>
<tr>
<td>Accuracy</td>
<td>±1.0 °C (±3.3 sigma limit (99.9% confidence level))</td>
</tr>
<tr>
<td>Response time</td>
<td>1.5 s typical (depends on packaging and measuring conditions)</td>
</tr>
<tr>
<td>Operating humidity range</td>
<td>0-100 %</td>
</tr>
<tr>
<td>EMI/RFI susceptibility</td>
<td>Complete immunity</td>
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<tr>
<td>Calibration</td>
<td>NIST traceable</td>
</tr>
<tr>
<td>Cable length</td>
<td>1.5 meters standard (maximum of 5 meters)</td>
</tr>
<tr>
<td>Optical connector</td>
<td>SC standard</td>
</tr>
<tr>
<td>Cable sheathing</td>
<td>Teflon™ PFA</td>
</tr>
<tr>
<td>Signal conditioner compatibility</td>
<td>All WLPI signal conditioners</td>
</tr>
</tbody>
</table>

*All specifications are subject to change without prior notification.*

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The information provided herein is to the best of our knowledge true and accurate, it is provided for guidance only. All specifications are subject to change without prior notification.

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