The compact size, immunity to EMI/RFI/Lightning, resistance to corrosive environments, makes the FOT the best choice for temperature measurements in harsh environments.

**Description**

FOT temperature transducer combines all the desired characteristics expected from the ideal sensor. Its compact size, immunity to EMI/RFI/lightning, resistance to corrosive environments, high accuracy and reliability makes it the best choice for temperature measurements in harsh environments. Our fiber optic temperature gauges are based on the thermal expansion of highly stable glass, allowing precise, stable, and repeatable measurements.

**Key Features**

- Reliability
- Good Repeatability
- Intrinsically safe
- Immune to EMI/RFI/Lightning
- Robust sensor
- Compact size

**Applications**

- Buildings
- Tunnel linings
- Dams and bridges
- Nuclear power plants
- Microwaves and RF
- In-situ process monitoring
- Harsh and hazardous environments
- High temperature/voltage/pressure environments

**FOT** is mainly used for embedment in concrete or in open air. It is fitted with the extrinsic Fabry-Perot fiber optic transducers enclosed inside a protective PVC or stainless steel tube.

Our readout units and dataloggers are designed for civil engineering, R&D, industrial applications and have a built-in datalogging capability for up to 50,000 measuring points.
### Specifications

<table>
<thead>
<tr>
<th></th>
<th>FOT-N</th>
<th>FOT-T / FOT-T-SS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transducer Type</strong></td>
<td>FOT-N</td>
<td>FOT-T / FOT-T-SS</td>
</tr>
<tr>
<td><strong>Range</strong></td>
<td>−40 to +85°C (cable dependent)</td>
<td>−40 to +85°C (cable dependent)</td>
</tr>
<tr>
<td><strong>Accuracy/Repeatability</strong></td>
<td>±1°C</td>
<td>±1°C</td>
</tr>
<tr>
<td><strong>Resolution</strong></td>
<td>0.1°C</td>
<td>0.1°C</td>
</tr>
<tr>
<td><strong>Response time</strong></td>
<td>Less than 1.5 seconds (tube dependent)</td>
<td>-</td>
</tr>
<tr>
<td><strong>EMI/RFI susceptibility</strong></td>
<td>Intrinsic immunity</td>
<td>Intrinsic immunity</td>
</tr>
<tr>
<td><strong>Fiber optic cable</strong></td>
<td>CFO-3STD (3 mm diameter)*</td>
<td>CFO-3STD (3 mm diameter)*</td>
</tr>
<tr>
<td><strong>Protection tube</strong></td>
<td>Stainless steel</td>
<td>PVC (Model FOT-T)</td>
</tr>
<tr>
<td><strong>Diameter</strong></td>
<td>1.27 mm O.D.</td>
<td>16 mm O.D.</td>
</tr>
<tr>
<td><strong>Length</strong></td>
<td>25 mm</td>
<td>50 mm</td>
</tr>
<tr>
<td><strong>Connector</strong></td>
<td>SC/APC (standard) or ST (optional)</td>
<td>SC/APC (standard) or ST (optional)</td>
</tr>
</tbody>
</table>

*Other fiber optic cables available upon request.

![FOT-N Diagram](image1)

![FOT-T Diagram](image2)

![FOT-T-SS Diagram](image3)

### Ordering Information

Please specify:
- Transducer type
- Cable length
- Connector: SC/APC or ST
- Fiber optic readout instruments