

HIGH TEMPERATURE FIBER SENSORS

TEMPERATURE SENSORS PROBE (FBG)
UP TO +500°C

Probe-type sensors are implemented in the form of a cylindrical tube with a standard installation connectors, which allows them to be used in industrial equipment as an alternative to electrical thermometers.

Design of probe-type sensors can be adapted to the Customer requirements while maintaining their functionality.

The FORC-Photonics probe sensors have the following advantages:

- spectral multiplexing;
- possibility of remote measurements (no power supply requires at the measurement site);
- long-term stability of measurements;
- immunity to electromagnetic interference;
- fire safety;
- small dimensions and weight;
- wide temperature range of measurements;
- low error level within the entire measurement range.

FEATURES OF PROBE-TYPE SENSORS

- easy installation;
- high temperature resistant light guides;
- compatible with most FBG interrogators from various manufacturers.

APPLICATIONS

- Local and quasi-distributed thermal monitoring of objects, structures and systems in various fields of science and technology;
- buildings, roads, bridges and other constructions;
- hydro, wind, nuclear power stations;
- cars, railway and sea transportation;
- airplanes and space systems;
- oil and gas industries, including pipeline monitoring.



SENSORS SPECIFICATION	OSCT-313-200	OSMT-313-200	OSHT-313-200
Type sensor design	probe	probe	probe
Operation temperature range, °C	+ 150	+ 300	+ 500
Resonance wavelength, nm	1510 ÷ 1590		
Absolute accuracy, °C	± 0.5	± 1.5	± 1.5
Temperature constant, s	10		
Temperature sensitivity, ppm/ °C	6.5 ÷ 7.5	6.5 ÷ 8.0	6.5 ÷ 8.5
Sensor body material	SS 316L		
Probe diameter, mm	Ø 4		
Sensor connecting size	M20x1.5		
Probe length (on request), mm	200*		
Attachment method	Threaded connection		

*- at the request of the customer can be changed from 200 to 1000mm.