



FIBER OPTIC TEMPERATURE SENSOR TS4

KEY FEATURES

- Temperature Range: -200°C to $+200^{\circ}\text{C}$
- Standard deviation*: $\pm 0.2^{\circ}\text{C}$
- Completely non-conductive
- Complete immunity to RFI, EMI, NMR and microwave radiation
- Resistance to extreme temperatures
- High accuracy
- Stable and repeatable measurement
- GaAs-based temperature sensor

APPLICATIONS

- Harsh chemical conditions, e.g. nuclear
- Offshore temperature measurements
- Natural gas distribution pipelines and storage tanks
- Battery testing

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 OPTOCON®
OPTICAL SENSORS AND SYSTEMS

FIBER OPTIC TEMPERATURE SENSOR TS4

DESCRIPTION

The fiber optic temperature probe TS4 is especially designed for the use in chemical aggressive and nuclear environments. Its increased resistance comes with no loss in accuracy and the temperature range.

Its PTFE-jacket results in a complete immunity to RFI, EMI, NMR and microwave radiation. The temperature sensor guarantees a measuring range from -200°C to +200°C with a standard deviation* of +/- 0.2°C. The fiber optic temperature probe is completely non-conductive.

Thanks to its special protection the TS4 probe resists even high aggressive chemical concentrations inside the measurement environment - with a maximum diameter of 2mm.

All fiber optic temperature sensors can be connected to the fiber optic temperature measurement devices (FOTEMP), delivers accurate and complete reliable, stable and repeatable values.

Starting at a light wave length of 850nm GaAs becomes optical translucent. Since the position of the band gap is temperature dependent, it shifts about 0.4nm/Kelvin.

The sensor cable can be up to several meters and kilometers long without influencing the accuracy of the measurement result.

We are always anxious to adjust our offer to your special needs. In case of any further questions about individual measurement problems, lengths of sensors or connector types, please contact us.

TECHNICAL SPECIFICATIONS

Name of sensor	TS4, The resistant
Temperature range	-200°C to +200°C
Standard deviation*	+/- 0.2°C
Response time	≤ 2,0s
Fiber Ø	200µm

Sensor length	2m standard (Other lengths on customer request)
Connector type	ST
Signal conditioner	Compatible with all Optocon AG fiber optic thermometers

*Statement only possible with analysis unit. See data sheet of the measurement device for information about technical data.

DIMENSIONS

All dimensions in mm.

