



FIBER OPTIC TEMPERATURE SENSOR

TS4

Key Features

- Temperature range: -200 °C to +300 °C
- Electrically non-conductive
- Immunity to RFI, EMI, NMR and micro-wave radiation
- High accuracy
- Stable and repeatable measurements
- GaAs-based temperature sensor

Applications

- Harsh chemical conditions, e.g. nuclear
- Temperature measurements in liquids
- Natural gas pipelines and storage tanks
- Battery testing



WEIDMANN

FIBER OPTIC
TEMPERATURE SENSOR

TS4

TECHNICAL SPECIFICATION

Name of sensor	TS4
Measurement range *1	-200 °C to +300 °C
Inertia	Up to 7 K/s
Accuracy *2	+/- 0.2 K
Fiber Ø	200 µm
Sensor standard lengths	2m up to 20m
Connector type	ST with metallic ferrule (-40 to 85 °C)
Signal conditioner	Compatible with all Weidmann fiber optic thermometers

DESCRIPTION

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

Its mechanical setup results in a immunity to RFI, EMI, NMR and microwave radiation. The temperature sensor guarantees a measuring range*1 from -200 °C to +300 °C with an accuracy*2 of +/-0.2 K.

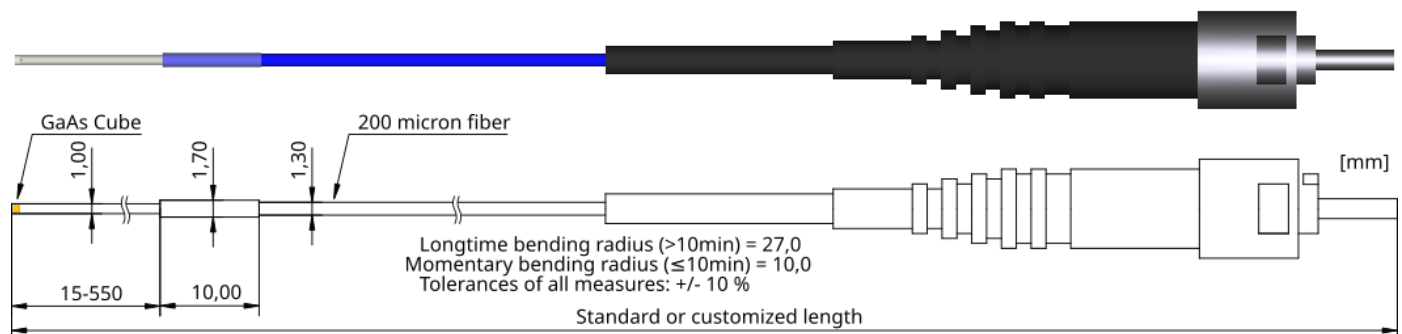
The fiber optic temperature probe is completely non-conductive. Thanks to its special PTFE protection the TS4 probe resists even aggressive chemical concentrations inside the measurement environment – with a maximum diameter of 1.0 mm.

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 850 nm GaAs (gallium arsenide) becomes optical translucent. Since the position of the band gap is temperature dependent, it shifts about 0.4 nm/K. The sensor cable can be produced in different lengths 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.

DIMENSION



*1 Long-term temperature range -200 °C up to +260 °C, short-term temperature range +260 °C up to +300 °C

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

DISCLAIMER – PLEASE READ CAREFULLY

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