



FIBER OPTIC TEMPERATURE SENSOR

TS5

Key Features

- Temperature range: -200°C to +300°C
- Electrically non-conductive
- Immunity to RFI, EMI, NMR and microwave radiation
- Usable with Throw-away catheter with Luer-Lock
- Stable and repeatable measurements
- GaAs-based temperature sensor

Applications

- Animal health environments
- Catheter instrumentation
- Monitoring of animal body temperatures



DESCRIPTION

The fiber-optic temperature probe TS5, combines high resilience with a minimal probe diameter – especially suitable for catheter applications within a modern animal-health technology setup.

The fiber-optic probe TS5, provides measurement data at the speed of light with a response time of up to 15 K/s and a standard deviation ^{*)}^{*)} of +/- 1 K. The sensor tip with GaAs-Crystal (gallium arsenide) comes with a diameter of 0.55mm being the thinnest fiber optic temperature probe of the Weidmann-optocon product line.

Moreover TS5 offers a customizable tip-length (L1) selectable between 10mm to 130mm for a measurement range of 0 to 300 °C and a tip length of 10 mm to 550 mm for a measurement range of -200 to 200 °C. The small size of the TS5 temperature sensor enables for the usage in animal health applications, e.g. body temperature monitoring. The need for flexibility along with smallest diameter of sensor-tip (L1) for such application, has been ascertained.

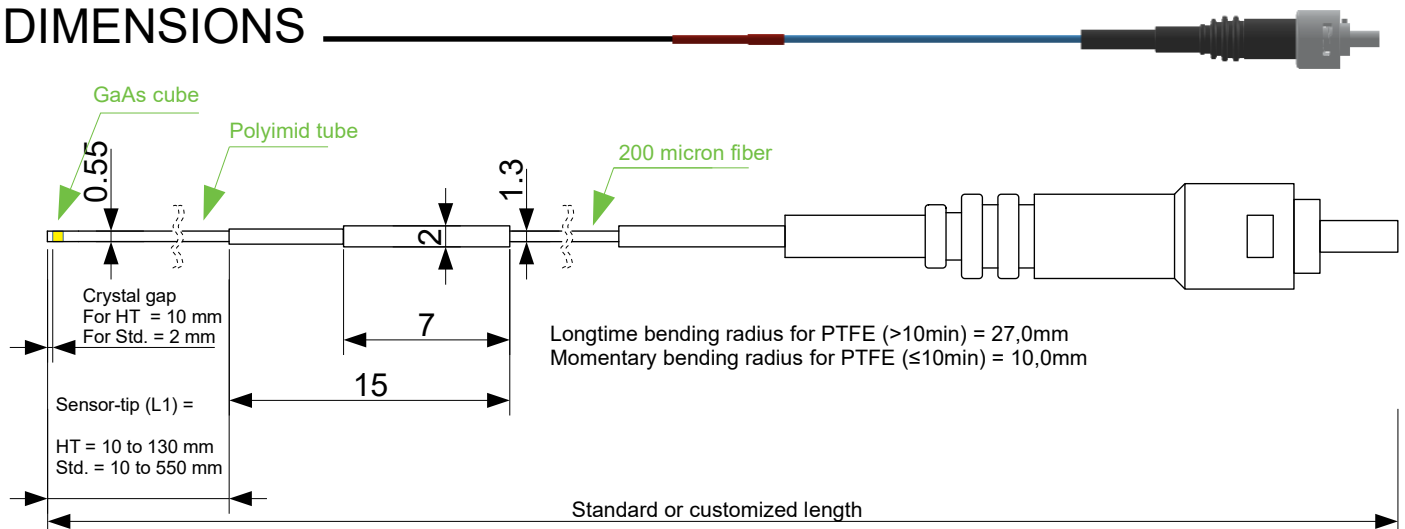
Through its mechanical setup it is immune to RFI, EMI, NMR and microwave radiation. All fiber-optic temperature sensors can be connected to the fiber-optic temperature measurement devices (FOTEMP) and provide accurate, reliable and repeatable data. The sensor cable can be offered in different lengths without influencing the accuracy of the measurement result. Alternative sensor-cables and connector types are also available upon request.

We are always ready and eager to fine-tune our offered products to your special needs. In case of any further questions about individual measurement challenges, lengths of sensors or connector types etc., please feel free to contact us.

IMPORTANT NOTE: This product has not been certified to be used in human body!

Name of sensor	TS5
Temperature ranges	TS5: - 200°C to 200°C *2) TS5HT: 0°C to 300°C *2)
Standard deviation	+/- 1 K *1), *3)
Response time	Up to 15 K/s
Fiber Ø	200 um
Standard lengths	2m and 10m (Other lengths on request)
Connector type	Type: ST Operating range -40 to 85 °C Material: metal
Signal conditioner	Compatible with all Optocon and Weidmann fiber optic thermometers

DIMENSIONS



*1) Statement only possible along with measurement device. See data sheet of the measurement device for information about technical data.
*2) Long-term temperature range -200°C up to +260°C, Short-term temperature range +260°C up to +300°C
*3) Measurement accuracy and standard deviation depend on calibration range and spreading of calibration points