FIBER OPTIC THERMOMETER

FOTEMP OEM

Key Features

- Easy OEM migration
- Rugged and easy to use
- Small footprint
- Measuring range - 200 °C to + 300 °C
- Standard deviation* less than 0.3°C
- RS232, USB interface
- Analog Output

Applications

- EMI, RFI and microwave environments
- High voltage environments
- Process monitoring
- Medical applications (MRT)

WEIDMANN
Technologies Deutschland GmbH

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FOTEMP OEM

DIMENSIONS

42

110

DESCRIPTION

The thermometer FOTEMP-OEM with fiber optic sensors is ideal for the use in microwave, high frequency, high voltage and magnetic field or aggressive environments where measurement with metal temperature sensors (RTC, TC, capillary,...) is not possible.

The measure principle use the change of the optical properties of a gallium arsenide crystal (GaAs) with the temperature.

The FOTEMP-OEM contains a light source, an optical analyzer and belonging electronic with interface and display.

Standard analog output (one per channel) and serial communication port can be used for real-time data acquisition.

The "FOTEMP Assistant" software is available to controll and monitor FOTEMP-OEM directly .

The communication protocol is available for own software development.

Depending on the measurement environment, several sensor designs are available with different ruggisation of the fiber tube and sensor tip (see specific data sheets). Customized sensors can be offered.

The system consisting of device and matched probe can be calibrated to achieve an improved accuracy of less than 0.1 K. On request a back-tracing according ISO 17025 can be offered.
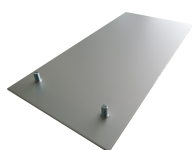
Software can be found here:
https://weidmann-optocon.com/products/software/

Bottom plate variants

Threaded bolts

Pressed nuts

TECHNICAL SPECIFICATION

Number of Channels	1,2 or 4
Power Supply	12 VDC
Power Cunsumption	350 mA
Measurement Range	-200 .. 300 °C
Standard Deviation * at calibrated temperatures	+/- 0.3 K
Resolution	0.1 K
Measuring Time per Channel **	< 250 ms
Analog Output	0-10 V (OPV-output) or 4-20 mA
Communication	USB and RS232 (standard) or RS485
Calibration	16 points over measurement range
Display	none
Storage Temperature	-20 .. 70 °C
Operating Temperature	10 .. 40°C
Weight	0.5 kg
Dimensions	190 x 110 x 42 mm
Communication Protocols	ASCII over RS232 and USB, Modbus RTU over RS485
Relays	4 relays, optional
Warranty	2 years
Probes	Compatible with all Weidmann fiber optic temperature probes
Probes	Compatible

* The "expanded uncertainty of measurement" is the product of the reported standard deviation and the coverage factor k=2. It corresponds to a normal distribution to a coverage probability of approximately 95 %.

**Mean value. This value depends on the used sensor and its enviromental temperature.