



FIBER OPTIC THERMOMETER

# FOTEMP OEM-PLUS

## Key Features

- Easy OEM migration
- Rugged and easy to use
- Small footprint
- Measuring range - 200 °C to + 300 °C
- Possible standard deviation\* +/- 0.1°C
- RS232, USB interface
- Analog Output

## Applications

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



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# FOTEMP OEM-PLUS

## DIMENSIONS



## DESCRIPTION

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

The compact device has a 2.8" coloured display for current measurement values as well as a monitoring of the sensor integrity.

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

In addition, the "FOTEMP Assistant" software is available to controll and monitor FOTEMP-OEM-PLUS 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.



## TECHNICAL SPECIFICATION

Number of Channels	1,2 or 4
Power Supply	> 12 VDC, incl. power supply
Power Consumption	350 mA
Measurement Range	-200 .. 300 °C
Standard Deviation *	+/- 0.1 °K (-40 .. 150 °C)
Resolution	0.1 K
Measuring Time / Channel	< 250 ms
Analog Output	0-10 V or 4-20 mA
Communication	USB and RS232 or RS485
Calibration	16 points over measurement range
Display	2.8" color
Storage Temperature	-20 .. 70 °C
Operating Temperature	-10 .. 60°C
Weight	0.5 kg
Dimensions	190 x 110 x 90 mm
Communication Protocols	ASCII over RS232 and USB, Modbus RTU over RS485
Relays	4 relays (one per channel)
Warranty	2 years
Probes	Compatible with all Weidmann fiber optic temperature probes

\* 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 environmental temperature.