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 0.2°C
- RS232, USB interface
- Analog Output

Applications

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

WEIDMANN
Technologies Deutschland GmbH

micronor sensors

FIBER OPTIC THERMOMETER

FOTEMP OEM

TECHNICAL SPECIFICATION

Number of Channels	1,2 or 4
Measurement Range	-200˚C to +300°C, depends on Calibration option
Measuring Time *1	< 250 ms per active channel
Accuracy (1σ) *2	0.2 K for Original Facotry Calibration, FOTEMP unit and TS sensors. 0.5 K for One-Point Calibration with difference TS sensor
Resolution	0.1 K
Analog Output	Option: 0-10 V (standard) or 4-20 mA
Communication	Standard: P0 (USB + RS232) Option: P1 (USB +RS485/Modbus)
Storage Temperature	-20˚C to +70˚C
Operating Temperature	+10˚C to +40˚C
Weight	0.5 kg
Dimensions	190 x 110 x 42 mm
Communication Protocols	ASCII over RS232 and USB, Modbus RTU over RS485
Power Supply	12 VDC, 350mA
Warranty	1 year
Probes	Compatible with all TS series fiber optic temperature probes
Mounting Option	DIN rail adapter kit available, EGT0276,

Specifications subject to change without notice

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 measurement 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 control and monitor FOTEMP-OEM directly.

The communication protocol is available for own software development.
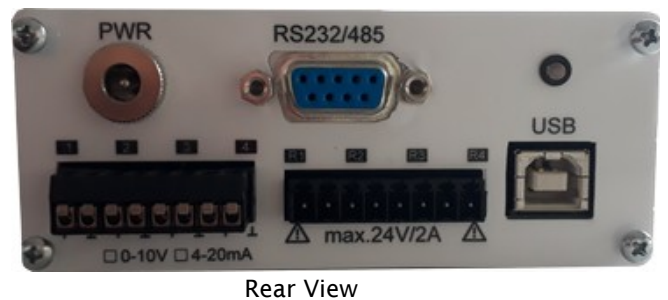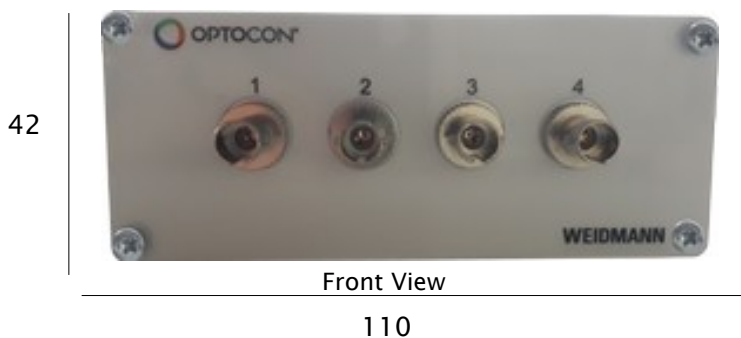
Depending on the measurement environment, several sensor designs are available with different ruggidization of the fiber tube and sensor tip (see specific data sheets). Customized sensors can be offered.

The system consisting of device and matched probe can be calibrated to achieve an improved accuracy of less than 0.1 K. A calibration report is provided with every FOTEMP system.

DIMENSIONS

Front View

110

42

Rear View

*1   Mean value. This value depends on the used sensor and its environmental temperature.
*2   Statement only possible with a calibrated analysis unit.

ORDERING CODE

FOTEMP-OEM-w-x-y-z

Example, **FOTEMP-OEM-4-P0-V-A2**
4 Channels, 0-10V AO, USB+RS232,
with A2 Calibration (-40C to +200C)

where **w**= **1, 2** or **4** channe**l**s
where **x**= **P0** (USB+RS232) or **P1** (USB+RS485/Modbus)
where **y**= **V** (0-10V) or **M** (4-10mA) analog output
where **z**= Calibration Option
A1= -20C to +150C, **A2**= -40C to +200C
B= -40C to +300C, **C**=-200C to +300C