

# FIBER OPTIC THERMOMETER FOTEMP1-OEM- MNT

## KEY FEATURES

- Easy OEM Migration
- Very small size, small footprint
- Modular electronic for various device configurations
- Measuring range:  $-200\text{ }^{\circ}\text{C}$  to  $+300\text{ }^{\circ}\text{C}$
- High accuracy:  $\pm 0.2\text{ }^{\circ}\text{C}$
- Various serial interfaces
- Privat label option
- Attractive volume discounts

## APPLICATIONS

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

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## DESCRIPTION

Due to its very small design and modular components the fiber optic thermometer FOTEMP1-OEM-MNT is ideal for your OEM usage!

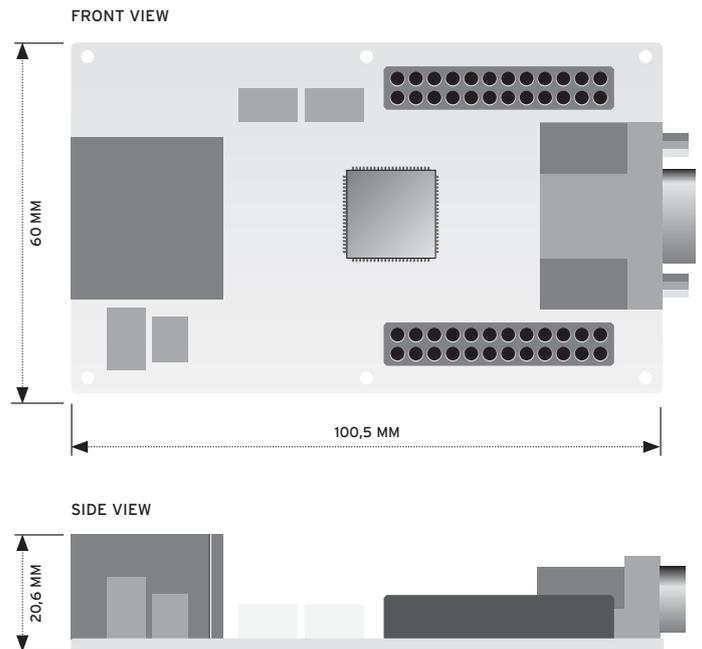
FOTEMP1-OEM-MNT was designed to be integrated into your own system. Due to its very small and compact design even more applications are possible and a retrofit into existing model series is possible. It is ideal for fiber optic temperature measurement in high electromagnetic interfered environment, in microwave fields and other environments, where measurement with common electric temperature sensors is not possible.

The modular electronic components allow an individual OEM usage and device configuration. The standard analog output and RS-232 communication port allow for a real-time data acquisition. With additional modules, e.g. LCD-Display, Touch Graphicdisplay and SD-Cardslot this OEM device is individually expandable. The FOTEMP1-OEM-MNT, Single-channel-OEM miniature signal conditioner can be controlled directly using the „FOTEMP-Assistent“ software. Hence, complex temperature profiles can be realized and an excellent monitoring of the results is possible.

The outer jacket of the fiber optic temperature sensors is made out of teflon, at the sensor tip a GaAs-crystal (gallium arsenide) is attached. The probe sensor is completely non-conductive. Optocon's fiber optic sensors offer complete immunity to RF and microwave radiation with high temperature operating capability, intrinsic safety, and non-invasive use. The sensors are also designed to withstand harsh and corrosive environments. Due to its characteristics, it is perfectly suitable for installation in microwave or drying ovens.

Starting at a light wave length of 850 nm GaAs becomes optical translucent. Since the position of the band gap is temperature dependent, it shifts about 0.4 nm/Kelvin. The measurement device contains a light source and a device for the spectral detection of the band gap. This guaranties fast, repeatable and reproducible measurements.

## DIMENSIONS



## TECHNICAL SPECIFICATIONS

<b>Number of channels</b>	1
<b>Power supply</b>	12 VDC
<b>Power supply</b>	350 mA
<b>Display range</b>	- 200 °C to + 300 °C
<b>Accuracy</b>	+/- 0.2 °C
<b>Resolution</b>	0,1 °C
<b>Channel sampling rate</b>	2 Hz
<b>Analog output</b>	0 to 10 V or 4-20 mA (programmable) BNC
<b>Communication</b>	RS-232 / RS-485 / USB / Profibus DP via plug-in
<b>Calibration</b>	One-point calibration via Software
<b>Display</b>	none
<b>Storage temperature</b>	- 20 °C to + 70 °C
<b>Operating temperature</b>	0 °C to + 50 °C
<b>Weight</b>	80g
<b>Dimensions</b>	100 x 60 x 20 mm
<b>Material</b>	Aluminium, Plastic
<b>Software</b>	FOTEMP-Assistent
<b>Communication protocols</b>	ASCII over RS-232, USB
<b>Warranty</b>	2 years
<b>Probes</b>	Compatible with all Optocon AG fiber optic temperature probes.