

FIBER OPTIC THERMOMETER FOTEMP

KEY FEATURES

- Modern compact, bench top design
- 1-4 measuring channels
- Temperature display in °C, F or K
- Measuring range: -200°C to +300°C
- High accuracy: $\pm 0.2^{\circ}\text{C}$
- Large 7.1cm (2,8") LCD-TFT color display
- Status LED
- Easy and intuitive user interface
- 1-4 relay output option
- 0-10V or 4-20mA analog output option
- Standard: USB + RS232 interface
- Optional: RS485/Modbus RTU
- Includes: FOTEMP-ASSISTANT data logging software

APPLICATIONS

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

FIBER OPTIC THERMOMETER

FOTEMP1-2-4

DESCRIPTION

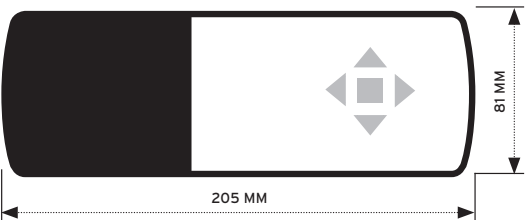
The bench top fiber optic thermometer FOTEMP1-2-4 combines innovative design with user-friendly functionality. The modern design makes the temperature measurement efficient and offers complete immunity to RFI, EMI, NMR and microwave radiation when used with TS series GaAs-based fiber optic temperature sensors.

The FOTEMP1-2-4 has an innovative appearance: It has a large screen and a modern keyboard for control of the instrument's operating parameters. The user-friendly display supports high-precision measurements, while the color LCD display offers excellent readout of the measurement values even in low light conditions. The menu supports two languages, German and English. With its compact design. Interface options, including analog and relay outputs, make the device very versatile. The supplied "FOTEMP-Assistant" data logging software allows a detailed evaluation via PC with direct export of data to an Excel spreadsheet.

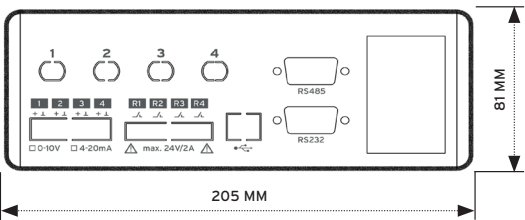
This FOTEMP instrument has a measuring range from -200°C to +300°C with accuracy of $\pm 0.2^\circ\text{C}$. The fiber optic thermometer offers immunity to RFI, EMI and microwave radiation, making it ideal for environments where the use of conventional temperature measuring instruments and thermocouples cannot be used. It is compatible with all TS series GaAs-based fiber optic temperature sensors and is ideal for any application in the lab and industry.

DIMENSIONS

FRONT VIEW



BACK VIEW



TECHNICAL SPECIFICATIONS

Number of channels	1-4
Power supply	100-240VAC / 50-60Hz, > 10 VA
Measuring range	-200°C to +300°C, actual range depends on calibration option chosen: Standard: -40°C to +200°C B Extended: -40°C to +300°C C Extended: -200°C to +300°C
Accuracy	$\pm 0.2^\circ\text{C}$ (1 σ)
Resolution	0.1°C
Sampling rate/Channel	250ms per Active Channel, i.e. 2 Hz update rate for 2 Active channels 1 Hz update rate for 4 Active channels
Analog output	0-10V or 4-20mA, 14-bit resolution
Digital interface	Standard: USB + RS232 (ASCII Protocol) USB + RS485/Modbus RTU available
Relays	Optional: Programmable limit settings, Contact Rating: 2A at 24 VDC, 2A at 120 VAC, Maximum 48W or 240 VA
Protocol	ASCII and Modbus protocol information available to assist custom programming applications.
Data logging	USB/RS232 (ASCII Protocol) models are supplied with FOTEMP-Assistant graphical display/data logging software. Provides Excel compatible output files. Support for National Instruments Lab-View available.
Display	7.1cm (2.8") LCD-TFT color display
Optical interface	ST, compatible with all TS series fiber optic temperature probes
Temperature	Storage: -20°C to +70°C Operating -20°C to +60°C
Dimensions/Weight/IP	205 x 267 x 81 mm, 1.2 kg, IP54
Material	ABS/PC in RAL9003
Warranty	2 years
Calibration Intervals	Under normal use, the instrument does not require recalibration. When sensors and cables are changed, a One-Point Calibration is required. Recommended calibration interval is 12 months for ISO systems.

Specifications subject to change without notice

FIBER OPTIC THERMOMETER

FOTEMP

Ordering Info

F O T E M P 4 - P 0 - V - - B

No. of Channels

2 2 Channels

4 4 Channels

Digital Interface Option

P0 USB + RS232 (ASCII Protocol)

P1 USB + RS485/Modbus RTU

Analog Output Option

M 4-20mA analog output

V 0-10V analog output

Control Interface Option

Blank None

R Relays

Calibration Options

A -40°C to +200°C

B -40°C to +300°C

C -200°C to +300°C

Quick Ship Model:

FOTEMP4-P0-V-B 4 Channels, USB+RS232, 0-10V, B_Calibration=-40°C to +300°C

Standard stock TS Temperature Probes:

TS2-02 General Purpose, Length=2m

TS2-06 General Purpose, Length=6m

TS3-10MM-02 General Purpose, L1 Length=10mm, Length=2m

TS3-10MM-06 General Purpose, L1 Length=10mm, Length=6m

TS4-02 For Harsh Chemicals and Radiation, Length=2m

TS4-06 For Harsh Chemicals and Radiation, Length=6m

TS5-20MM-02 For Medical, L1=20mm, Length=2m

TS5-20MM-06 For Medical, L1=20mm, Length=6m

Standard stock DIST FO Extension Cables:

DIST-C320-03 General Purpose, Length=3m

DIST-C320-05 General Purpose, Length=5m

DIST-C320-10 General Purpose, Length=10m

DIST-C900-03 Ruggedized, Length=3m

DIST-C900-05 Ruggedized, Length=5m

DIST-C900-10 Ruggedized, Length=10m



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