



FIBER OPTIC THERMOMETER FOTEMP-TRAFO

KEY FEATURES

- Robust & durable DIN rail mount, industrial design
- 8 measuring channels
- Measuring range: -200°C to $+300^{\circ}\text{C}$
- High accuracy: $\pm 0.2^{\circ}\text{C}$
- Status LED and optional LCD display
- 0-10V or 4-20mA analog output option
- 1-8 control relay option, freely assignable to any channel
- Standard: USB interface
- Optional: RS232/RS485-Modbus RTU/Ethernet-Modbus TCP
- Includes FOTEMP-ASSISTANT data logging software

APPLICATIONS

- Multichannel test and process applications, including: medical, chemical, biomedical, microwave, food, semiconductor and downhole
- Monitoring temperature inside high voltage transformers, capacitors, and generators
- Temperature measurements on high voltage distribution power lines, gas insulated switchgears, power breakers, and power factor adjustment capacitors
- Economical multichannel solution

FIBER OPTIC THERMOMETER

FOTEMP-TRAFO

DESCRIPTION

The DIN rail mount FOTEMP-TRAFO is an 8-channel fiber optic thermometer, which is ideal for multichannel temperature monitoring of industrial processes, down hole, medical experiments, food processing, semiconductor manufacturing, transformers, generators, and other industrial processes. This multi-channel instrument together with the TS series fiber optic temperature probes enable accurate and precise real-time monitoring.

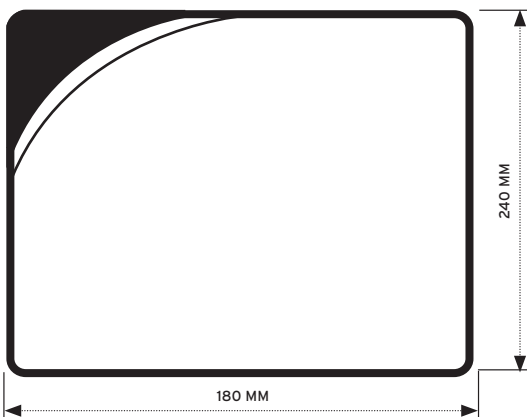
A wide selection of interface options insure an interconnection solution for PC, SCADA, and Local Area Networks. An update rate of 250ms per channel allows for fast response to overloads. The compact unit size and the height-adjustable DIN-rail-clip provides an easy installation in the control cabinet.

The TS fiber optic temperature probes consist of a length of large core fiber onto which a GaAs crystal has been mounted at the tip, which makes the probe entirely passive. Starting at 850nm, GaAs becomes optically translucent for which the band gap position is temperature dependent. The FOTEMP unit contains a light source and a device for spectral detection of the band gap.

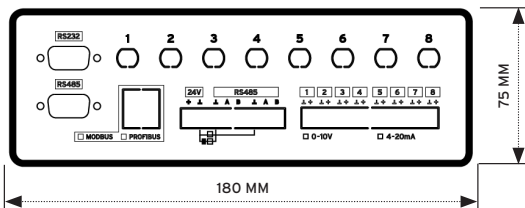
Optocon fiber optic sensors offer immunity to RF and microwave radiation with extreme high/low temperature range, inherent safety, and non-invasive use. Probes are also designed to withstand harsh and corrosive environments.

DIMENSIONS

FRONT VIEW



BACK VIEW



TECHNICAL SPECIFICATIONS

| | |
|------------------------------|---|
| Number of channels | 8 |
| Power supply | 24V (DIN rail mount unit provided) |
| Measuring range | -200°C to +300°C, actual range depends on calibration option chosen: B Standard: -40°C to +300°C C Extended: -200°C to +300°C |
| Accuracy | ± 0.2°C (1σ) |
| Resolution | 0.1°C |
| Sampling rate/channel | 250ms per Active Channel (i.e. total for 4 Channels=1s, for 8 Channels=2s). Use supplied FOTEMP-ASSISTANT software to Disablechannels for fastest update rate. |
| Analog output | Optional: 0-10V or 4-20mA, 14-bit resolution |
| Relays | Optional: Programmable limit settings, Contact Rating: 2A at 24 VDC, 2A at 120 VAC, Maximum 48W or 240 VA |
| Interfaces | Standard: USB (ASCII) Options: RS232 (ASCII), RS485/Modbus RTU and Ethernet/Modbus TCP |
| Protocol | ASCII and Modbus protocol information available to assist custom programming applications |
| Data logging | USB and RS232 (ASCII Protocol) models are supplied with FOTEMP-ASSISTANT graphical display/data logging software. Provides Excel file compatible output files. |
| Optical Interface | ST, compatible with all TS series probes |
| Temperature | Storage: -20°C to +70°C, Operating: -20°C to +60°C |
| Dimensions/Weight/IP | 240 x 180 x 75 mm, 1.2 kg, IP54 |
| Material | PC-ABS / Aluminium casting RAL 9003 |
| Warranty | 2 years |
| Calibration Interval | Under normal use, the instrument does not require recalibration. When sensors and cables are changed, a One-Point Calibration is required. Recommended cal interval is 12 months for ISO quality systems. |

Specifications subject to change without notice

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FOTEMP-TRAFO

Ordering Info

F O T E M P 8 - T R A F O - P 0 - M - - -

No. of Channels
8 8 Channels

Digital Interface Options
P0 USB + RS232
P1 USB + RS485/Modbus RTU
P2 USB + Ethernet/Modbus TCP

Analog Output Options
M 4-20mA analog output

Control Interface Option
 Blank None
R Relays

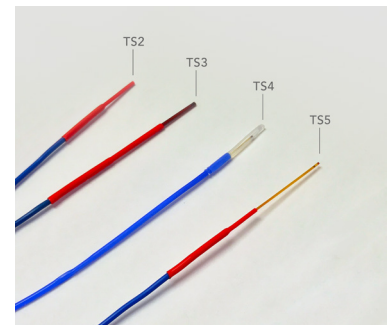
Calibration Options
 Blank -40°C to +300°C
C -200°C to +300°C

Quick Ship Models:

FOTEMP8-TRAFO-M-P0 8 Channels, USB+RS232, 4-20mA, Calibrated -40°C to +300°C
FOTEMP8-TRAFO-M-P1 8 Channels, USB+RS485/Modbus RTU, 4-20mA, Calibrated -40°C to +300°C
FOTEMP8-TRAFO-M-P2 8 Channels, USB+Ethernet/Modbus TCP, 4-20mA, Calibrated -40°C to +300°C

Quick Ship 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-02 For Medical, L1=20mm, Length=6m



Quick Ship DIST series Fiber Optic 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



MICRONOR INC, 900 Calle Plano, Suite K,
 Camarillo, CA 93012 USA
 T +1 805 389 6600 F +1 805 389 6605
 sales@micronor.com www.micronor.com