

FIBER OPTIC TEMPERATURE  
MEASUREMENT SYSTEM

## FOTEMP TRAFO 2

### Key Features

- Easy integration of up to 16 channels
- Measuring range - 200 °C to + 300 °C
- Standard deviation 1.0 K
- RS232 / RS485, USB, Ethernet interface
- Analog Output
- Relay
- Temperature logging

### Applications

- EHV/UHV/HVDC Transformers
- Power and Distribution Transformers
- Reactors, Generators
- Load Tap Charger



**WEIDMANN**

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# FOTEMP TRAFO 2

## DESCRIPTION

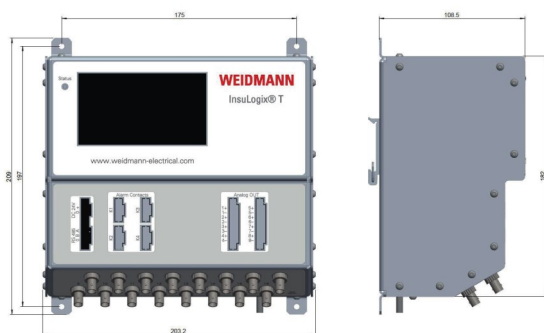
Power transformers often take the brunt of an overload condition. They are the most likely to be damaged without the appropriate control and protection.

The FOTEMP TRAFO 2 is designed to measure transformer winding hot spots in real time. The drift-free, re-calibration-free and maintenance-free device allows an optimized operation of the transformer at safe load capacity during normal and emergency conditions.

The temperature measurement is based on Gallium Arsenide crystal sensor mounted on 200 µm all-silica fiber. The probe consists of a glass fiber with PTFE sheath, which is also protected by a PTFE spiral wrap. The sensor possesses a resilient construction and has dielectric resistant materials featuring complete immunity to EMI and RFI environments. The optic cable is specially designed for permanent installation in a liquid-immersed transformer.

Unlike conventional top oil temperature measurements which can lag hours behind in response time, fiber optics provide direct, real-time accurate measurements of the transformer winding temperature, suitable for dynamic load control or as a valuable input to calibrate thermal models.

## DIMENSION



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

### DISCLAIMER – PLEASE READ CAREFULLY

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## TECHNICAL SPECIFICATION

|                       |   |
|-----------------------|---|
| Channel               | 2 to 16   |
| Modules               | ---   |
| Measurement Range     | -200 °C to 300 °C   |
| Measuring Time *1     | < 250 ms per Channel  |
| Accuracy *2           | 1.0 K   |
| Resolution            | 0.1 K   |
| Display               | 4.3" LCD  |
| Analog                | 0 - 10 V or 4 - 20 mA                                       |
| Relay                 | 2 programmable, 1 sensor fault, 1 watchdog                  |
| Data Logging          | Continuous or timed logging on microSD                      |
| Protocols             | ASCII, Modbus   |
| Interfaces            | RS232, RS485, USB, Ethernet                                 |
| Power Supply          | 24 VDC / 1000 mA  |
| Operating Temperature | -20 °C to 60 °C   |
| Storage Temperature   | -20 °C to 70 °C   |
| Dimension             | 209 x 203 x 109 mm  |
| Weight                | 2,0 kg  |
| Mounting Options      | DIN Rail mounting bracket                                   |
| Connector Type        | ST  |
| Probes                | Compatible with all Weidmann fiber optic temperature probes |
| Warranty              | 2 years   |

Depending on the measurement environment, several sensor designs are available with different types of tubing, sensor tip and also customized sensors can be offered.

We are always eager to adjust our offer to your special needs. In case of any further questions about individual measurement solutions, lengths of sensors or connector types, please contact us.

# WEIDMANN

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