WEIDMANN

InsuLogix® T

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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

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FIBER OPTIC TEMPERATURE MEASUREMENT SYSTEM
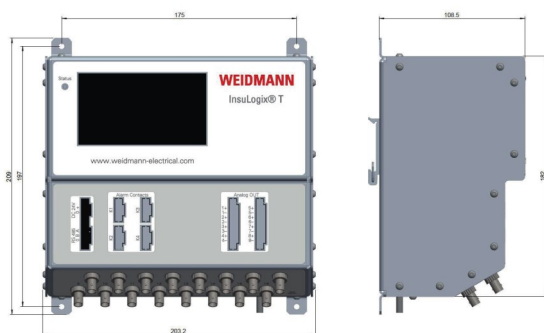
FOTEMP TRAFO 2

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

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.

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