FIBER OPTIC TEMPERATURE MEASUREMENT SYSTEM

InsuLogix®T

Key Features

- Easy integration of up to 16 channels
- Measuring range - 200 °C to + 300 °C
- Standard deviation 1.0 K
- RS485 and Ethernet interface
- Modbus RTU and Modbus TCP
- DNP3, IEC61850, IEC60870 optional
- Analog Output
- Up to 16 free programmable relays
- Temperature and logging

Applications

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

WEIDMANN

FIBER OPTIC TEMPERATURE
MEASUREMENT SYSTEM

InsuLogix® T

DESCRIPTION

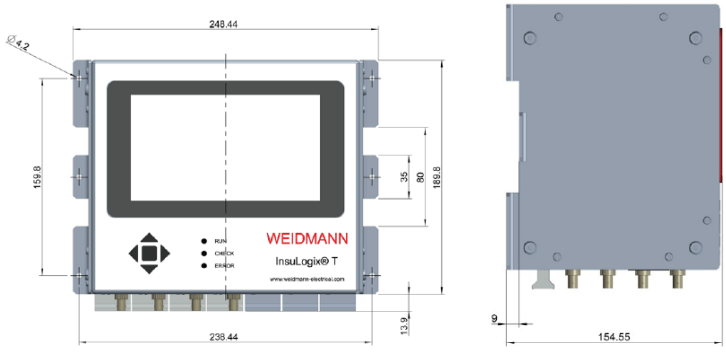
Power transformers often take the brunt of an overload condition. They are the most likely to be damaged without the appropriate control and protection.

The InsuLogix® T 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	1, 2 or 4 per Module
Modules	Up to 4 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	7” LCD with Touch
Analog	0 - 10 V or 4 - 20 mA
Relay	16 free programmable relays
Data Logging	Downloadable timed logging on internal SD
Protocols	Modbus, DNP3, IEC61850, IEC60870
Interfaces	RS485, Ethernet
Power Supply	24 VDC / 1000 mA
Operating Temperature	-20 °C to 60 °C
Storage Temperature	-20 °C to 70 °C
Dimension	238 x 190 x 155 mm
Weight	2,0 kg
Mounting Options	DIN Rail mounting bracket or standard mounting brackets
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.*

WEIDMANN
WEIDMANN Technologies Deutschland GmbH
Washingtonstraße 16/16A
01139 Dresden, Germany
info.wtde@weidmann-group.com
https://weidmann-optocon.com
Phone: +49 351 8435990