

InsuLogix® T HOT SPOT TEMPERATURE MONITOR

FIBRE BASED SPOT TEMPERATURE MEASUREMENT FOR LIQUID IMMERSED TRANSFORMERS

Now available for use with WEIDMANN Certified SmartSpacer® monitoring up to 18 measurement channels, the WEIDMANN InsuLogix® T offers reliable, proven hot spot winding temperature monitoring and control at a cost effective price.

SYSTEM DESCRIPTION

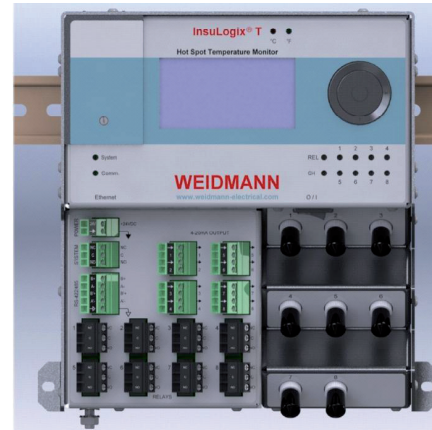
- Highly configurable instrument with internal memory, relay board, analog output board, LCD and Keypad and communication gateway
- Choice of 2,4,6,8,12,16 or 18 measurement channels
- Up to 32 monitors can be daisy chained which gives the possibility of having up to 576 channels in a single monitoring system
- Watchdog function, system fault relay and status indicator
- The fibre optic probes and sensors are immune to RF and EMI
- No drift, no calibration required, light source does not change for the life of the transformer
- MODBUS, DNP3, IEC 61850, IEC 60870 communication protocols available
- Supplied with WEIDMANN Certified Smart Spacer®
- Autodiagnostic features
- 5 years warranty

Bundled with WEIDMANN eNamePlate™ (transformer load margins software), the InsuLogix® T provides actionable information for utility load dispatchers.

TEMPERATURE MEASUREMENT APPLICATIONS

- EHV/UHV/HVDC Transformers
- Power Transformers
- Distribution Transformers
- Reactors, Generators
- Load Tap Changers
- Switchgear
- Power Cables

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



InsuLogix® T Monitor

WEIDMANN InsuLogix® T thermal monitor is designed to measure transformer winding hot spots in real time. The drift-free, calibration-free and maintenance-free InsuLogix® T allows for optimum operation of the transformer at safe load capacity during normal and emergency conditions.

The temperature measurement is based on TPT-62 Gallium Arsenide sensor. The sensor possesses a resilient construction and has dielectric resistant materials featuring complete immunity to EMI and RFI environments. The fiber 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.

The InsuLogix® T system, including WEIDMANN Certified SmartSpacer® is the most comprehensive system in the market for winding hot spot measurements.

STANDARD InsuLogix® T CONFIGURATION

- Instrument equipped with RS485 port and MODBUS communication protocol
- Up to 18 WEIDMANN Certified Smart Spacer®
- System fault relay
- LED display and keypad
- Tank wall plate with connectors pre-installed
- External fiber optic extension cables
- 24 V DC power supply

Specifications

Number of Channels	2, 4, 6 or 8 Up to 18 channels in special configuration
Temperature Range	-40 °C to 225 °C
Accuracy	± 1 °C
Resolution	0.1 °C
Sampling rate	1 Hz
Operating temperature	-20 °C to 65 °C
Storage temperature	-30 °C to 85 °C
Light source	Life of the Transformer
EMI/RFI Susceptibility	Immune
Humidity	95% RH Non-Condensing
Display	Optional Large 7" TFT Color Display (800x480)
Software protection	Password
Communication Port	USB, RS-485 & Ethernet
Communication Protocol	Modbus over RS-485 is standard; IEC61850*, IEC60870-5-104*, DNP3.0*, TCP/IP/Modbus*, TCP/IP/Serial*, *Optional, over RJ45 Ethernet connector
Analog Output (Optional)	4-20 mA Configurable, 0.2-1.5 mm ² (IEC) / 28-14 AWG
Relays (Optional)	8 user-configurable Form-C 0.2-2.5 mm ² (IEC) / 26-12 AWG
System fault relay	1 Dedicated System Fault Relay
System Status Indicator	LED
Internal memory (Optional)	4 GB Memory Card > 30 Years at 1 measurement/minute
Auto diagnostic	Light Level, Signal Level
Power supply	24 VDC** **Optional AC to 24V DC converter
Power consumption	40 Watts
Instrument mounting	DIN Rail Note: the instrument can be mounted inside the optional NEMA 4 enclosure, or inside an enclosure provided by the OEM or utility

Environmental standards

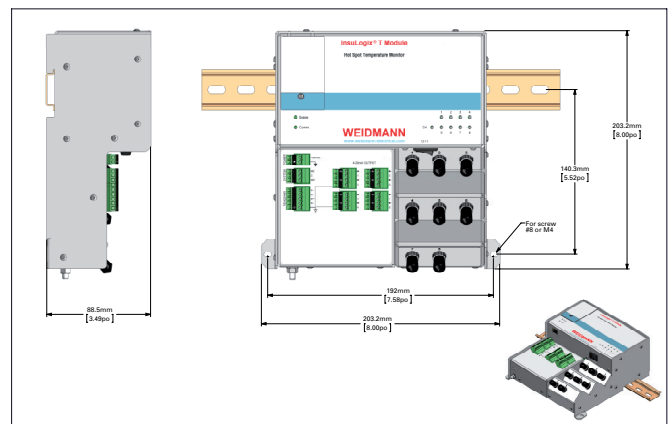
IEC 60068-1 Environment Testing: General
 IEC 60068-2-1 Test A: Cold
 IEC 60068-2-2 Test B: Dry Heat
 IEC 60068-2-14 Test N: Change of Temperature
 IEC 60068-2-30 Test Db and Guidance: Damp
 IEC 60068-2-78 Test Cab: Damp Heat, Steady
 MIL-STD-810F Vibration and Shock

Immunity standards

IEEE C37.90.1-2002 (4 kV) Surge Protection
 EN 61326
 EN 55011 Class A (Industrial)
 EN 61000-4-2 EN 61000-4-5
 EN 61000-4-3 EN 61000-4-6
 EN 61000-4-4 EN 61000-4-11

OPTIONAL FEATURES

- Large 7" TFT color display
- Internal memory
- Relays board
- Analog outputs board
- AC to DC power supply
- Steel ring for attaching the connectors' plate to tank wall
- IEC61850, IEC60870-5-104, DNP3.0, TCP/IP/Modbus, TCP/IP/Serial over RJ45
- NEMA 4 cover for tank wall plate protection
- NEMA 4 enclosure for instrument protection



InsuLogix® T dimensions

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