

# InsuLogix® DTM – Distribution Transformer Monitor

PROVIDES ACTIONABLE INFORMATION ABOUT OVER-CURRENT OR OVER TEMPERATURE CONDITIONS CAUSED BY AGING, POWER THEFT, OR OVERLOADED TRANSFORMERS

InsuLogix® DTM is Weidmann’s low cost solution for converting analog signals from oil temperature and load current sensors into digital stream that is transferred to SCADA via wire or wireless and using DNP3 or Modbus. In the process the device also calculates the transformer’s Hotspot and Loss of Life.

### DEVICE CHARACTERISTICS

The InsuLogix® DTM provides a cost-effective method for temperature monitoring of liquid-filled transformers. This smart monitor is designed to monitor pole type and pad mount transformers to provide actionable information due to over-current or over temperature conditions caused by aging transformers, power theft, or overloaded transformers.

The InsuLogix® DTM provides analog, dry contact, DNP3, and MODBUS communication to SCADA. It can be mounted with four high power molybdenum magnets to the base of a transformer or with a pole or Unistrut hardware.

The device includes a power supply that can be connected to an AC or DC power source within the ranges of 90 to 264 VAC (47 to 63 Hz) or 120 to 370 VDC. An optional solar panel can be used in remote locations or where power connectivity is not convenient.



### THE InsuLogix® DTM ADVANTAGE

An important advantage of the InsuLogix® DTM is that it monitors liquid temperature and load current and can calculate Hotspot and Loss of Life of the transformer core. Installation is simple, since it only requires one magnetic RTD and a Rogowski coil for load current measurement. With these measurements, and using a mathematical model based on IEEE or IEC standards, it is possible to calculate the winding temperature and the loss of life of the transformer. The maximum recorded temperatures are stored in non-volatile memory.

The InsuLogix® DTM can communicate to SCADA over a host of wireless options, and can communicate locally via Bluetooth to any hand held device.

### SPECIFICATIONS

Application	Use	Measured / Calculated Variables	Inputs/Outputs	Displays	Communication
Transformer Monitor	Outdoor NEMA 4 IP 66	<ul style="list-style-type: none"><li>1 RTD liquid temperature sensor</li><li>1 Rogowski coil current sensor</li><li>2 calculated variables:<ul style="list-style-type: none"><li>– Winding Temperature</li><li>– Loss of Life</li></ul></li></ul>	INPUT 1 1000hm RTD 1 Rogowski coil OUTPUT 5 Solid State Relays (6A/250 VAC)	Tri-color LED	DNP3 and Modbus Optional wireless (radio or modem)

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