Do more than watch a gauge.

TAKE CONTROL OF ASSET HEALTH.

The reliable and cost-effective B100 Series Electronic Temperature Monitor (ETM) provides exceptional measurement accuracy, asset control and secure communications for your transformer. While gauges have been the default cooling control device for decades, their lenses can become unreadable and the needles often stick, causing inaccurate measurements and preventing proper cooling control. Unlike gauges, the B100 stores the long term history of temperature data and alarm activations in real time or for download later.

The B100 features two RTD inputs for top oil temperature and ambient or LTC temperature. Three CT inputs are provided for load current. The winding hot spot temperature is calculated for up to three windings. Cooling control with built in fan exercise functionality can be controlled by top oil temperature, winding temperature and/or load current. The LTC Delta T analytic detects problems in the LTC compartment while filtering out false alarms. The relay output contacts can be configured for any individual temperature alarm, LTC alarm, load threshold or a combination thereof. The B100 provides SCADA communications via DNP, Modbus or IEC 61850.

- Top oil plus up to three winding temperatures, cooling circuit control, alarms, relay trips, and LTC differential allows the B100 to replace up to five mechanical gauges (top oil, LTC oil and up to three winding hot spots).
- Backlit LCD screen visible from 60 feet (18 meters) cycles through critical temperature measurements making it easy to read at night and in bright sunlight with no need to open the enclosure.
- On-unit configuration with secure access allows users to uniquely configure and combine alarm and setpoint triggers. No computer required to change settings. Combination of alarms and setpoints significantly reduces wiring complexity compared to meters.
- The B100 is available in multiple mounting options:
  - IP66 (NEMA-4) enclosure - rugged, durable enclosure designed for long life and to protect against harsh environments created by water, dirt, dust and temperature extremes.
  - IP31 (NEMA-2) surface mount or through panel mount fits into existing control cabinets for new and retrofit applications and provides easy access to wiring terminals and status LEDs.
How To Order

Base Unit

Each B100 Series ETM includes the following I/O: 2 x RTD, 3 x CT, 1 x Digital Input, 6 x Digital Outputs, 2 x Analog Outputs, 1 x System Alarm

Ethernet Communications Options

N  None
L  100Base-FX Fiber Ethernet with SC connectors
S  100Base-FX Fiber Ethernet with ST connectors
R  100Base-T Copper Ethernet with RJ45 connector

Serial Communications Options

N  None
4  RS-485 Copper Serial Port
F  Serial Fiber with ST connectors

Mounting Options

E  IP66 (NEMA-4 Equivalent) Enclosure
T  IP31 (NEMA-2 Equivalent) Through Panel Mount
P  IP31 (NEMA-2 Equivalent) Surface Panel Mount

Unit with iBridge Communications

Unit with iBridge Communications includes an IP66 Enclosure with integrated iBridge Communications System for Ethernet and Serial Communications over existing power wire. Installed iBridge replaces Ethernet and Serial options.

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Sensors and Accessories

<table>
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<tr>
<th>Part #</th>
<th>Description</th>
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<tbody>
<tr>
<td>CT-054</td>
<td>Auxiliary CT: Split Core CT 1000:1 Ratio w/5A Primary</td>
</tr>
<tr>
<td>CT-055</td>
<td>Auxiliary CT: Fixed Core CT 1000:1 Ratio w/5A Primary</td>
</tr>
<tr>
<td>MMTS-3C</td>
<td>One Magnetic Mount Temperature Sensor (3 wire PT-100 RTD) includes 1/2&quot; NPT conduit connection.</td>
</tr>
<tr>
<td>MMTS-3Wxx</td>
<td>One Magnetic Mount Temperature Sensor (3 wire PT-100 RTD) includes stainless steel armored cable with flying leads connection. Specify length of 7.62 m, 15.24 m or 22.86 m (25 ft, 50 ft or 75 ft).</td>
</tr>
<tr>
<td>SE-060</td>
<td>RTD temperature sensor probe for 1/2&quot; NPT Thermal Well</td>
</tr>
<tr>
<td>CE-520</td>
<td>Receiving iBridge for Communications to Control Room over any existing power wire</td>
</tr>
<tr>
<td>CE-530</td>
<td>Receiving Gateway for Communications to Multiple iBridge units over any existing power wire</td>
</tr>
<tr>
<td>IND2000N (9 mm), IND2020N (13 mm), IND2040N (18 mm), IND2100N (25 mm)</td>
<td>iBridge Communications System Inductive Coupler for coupling communications to existing power wire when wire size exceeds included 9 mm coupler</td>
</tr>
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</table>

1 Includes one IND2000N 9 mm Inductive coupler (for most power wire sizes). Couplers for other wire sizes available. Requires a new or existing receiving iBridge (CE-520) or Gateway (CE-530) for communications to control room.

2 A separate inductive coupler is required.
Product Specifications

**Power Requirements:** 48 - 240 VDC or 110 - 240 VAC (50 – 60 Hz)

**Temperature Range:** -40°C to 70°C (-40°F to 158°F)

**Communications:** USB, Ethernet, RS485 (optional), Serial Fiber (optional), DNP, Modbus, IEC 61850

The B100 Series Electronic Temperature Monitor is programmable from Windows 7 or later.