

Empowering Your Business with

# CONTINUOUS THERMAL MONITORING (EXERTHERM)



POWERING CONNECTIONS



## Real-Time Thermal Monitoring for Critical Electrical Assets

- ✓ **Real-time Temperature Monitoring of Critical Assets:** Deployment of advanced continuous thermal monitoring systems utilizing wireless infrared (IR) or Surface Acoustic Wave (SAW) sensors for non-intrusive, 24/7 temperature surveillance of electrical connections, busbars, transformers, and motor windings.
- ✓ **Early Detection of Thermal Anomalies:** Implementation of intelligent algorithms and machine learning to analyze thermal data, establish baseline operating temperatures, and identify subtle deviations or hot spots that indicate impending equipment failure, enabling proactive intervention before critical breakdowns occur.
- ✓ **Wireless and Non-Intrusive Sensor Technology:** Utilization of battery-less, self-powered SAW sensors or compact, wireless IR sensors that can be easily installed on energized equipment without requiring shutdowns, providing continuous data transmission via secure wireless protocols (e.g., Zigbee, LoRaWAN).
- ✓ **Integration with Existing SCADA/BMS Systems:** Seamless integration of thermal monitoring data into existing Supervisory Control and Data Acquisition (SCADA) or Building Management Systems (BMS) via standard communication protocols (Modbus RTU/TCP, IEC 61850, OPC UA), providing a unified view of asset health.

## Technical Specifications

### Features

- ✓ System Type
- ✓ Sensor Technology
- ✓ Measurement Range
- ✓ Accuracy
- ✓ Resolution
- ✓ Data Acquisition Rate
- ✓ Communication Protocol
- ✓ Gateway/Receiver
- ✓ Software
- ✓ Alerts
- ✓ Applications
- ✓ Compliance

### Specifications

- ✓ Continuous Thermal Monitoring (CTM) System
- ✓ Wireless Surface Acoustic Wave (SAW) or Infrared (IR) Sensors
- ✓ -40°C to +250°C (SAW); -20°C to +500°C (IR)
- ✓  $\pm 1^\circ\text{C}$  to  $\pm 2^\circ\text{C}$  (depending on sensor type and range)
- ✓ 0.1°C
- ✓ Configurable, typically every 1-5 minutes
- ✓ Wireless (e.g., 2.4GHz, LoRaWAN), Modbus RTU/TCP, IEC 61850, OPC UA
- ✓ Industrial-grade gateway with multiple sensor input channels
- ✓ Web-based SCADA/HMI, Advanced Analytics, Trend Analysis, Alarming Dashboard
- ✓ SMS, Email, SCADA integration for critical temperature thresholds
- ✓ Switchgear, Transformers, Busbars, Cable Joints, Motor Terminals, Capacitor Banks
- ✓ IEC 60068 (Environmental Testing), IEEE C57.12.00 (Transformers)

## Why Choose Us?

- 01. Proactive Failure Prevention:** Our continuous thermal monitoring systems provide unparalleled early detection of thermal anomalies, allowing you to identify and address potential equipment failures before they escalate into costly outages, thereby maximizing uptime and operational continuity.
- 02. Enhanced Safety and Risk Mitigation:** By continuously monitoring for overheating components, our solutions significantly reduce the risk of electrical fires, arc-flash incidents, and other safety hazards, creating a safer working environment for your personnel and protecting valuable assets.
- 03. Optimized Asset Performance and Lifespan:** Real-time thermal data and predictive analytics enable optimized maintenance scheduling, prevent thermal degradation, and extend the operational lifespan of your critical electrical infrastructure, leading to substantial long-term cost savings.

### GET IN TOUCH WITH US

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