Continuous Thermal Monitoring

CinchOne™ Continuous Thermal Monitoring

The Continuous Thermal Monitoring System is an advanced solution designed to ensure the safe and efficient operation of data centers by providing real-time temperature monitoring of critical electrical infrastructure. Equipped with high-precision infrared (IR) sensors, the system continuously tracks the thermal performance of *relay panels, bus bars, and other key electrical junction points*, enabling data centers to operate at optimal power capacity while preventing thermal overloads and equipment failures.

Contact Support@cinchiot.com for more info

Why Choose Cinch

The Cinch team has extensive experience designing, building and operating large scale IoT networks. Our low-voltage two-wire system combines power and communications on the same wired infrastructure making the solution easy to install and operate while providing standards based API access for data retrieval. We make it easy for facility operators to always know the condition of their infrastructure.

www.cinchiot.com
sales@cinchiot.com

Key Features

- High-Precision IR Sensors: Non-contact infrared sensors deliver accurate, real-time temperature readings of critical electrical components, ensuring early detection of potential thermal issues.
- Continuous Monitoring: 24/7 surveillance of relay panels, bus bars, and junction points to maintain safety and reliability.
- Scalable Design: Modular system architecture allows seamless integration into data centers of all sizes, from edge facilities to hyperscale environments.
- Real-Time Alerts: Instant alerts of temperature anomalies enable rapid response to prevent equipment damage and downtime.
- Data Analytics & Reporting: Comprehensive data generation enables analysis for predictive maintenance and optimization.
- Energy Efficiency: Enables data centers to operate near provisioned power capacity without exceeding thermal or current limits, maximizing resource utilization.
- Easy Integration: Compatible with existing data center management systems (DCIM) and supports standard communication protocols for streamlined deployment.

CINCH IOT

Thermal Sensor

System Benefits

- Enhance Safety: Proactively identify hot spots and thermal anomalies, reducing the risk of electrical fire and equipment failure.
- Optimize Performance: Enable data center operators to run the DC at higher power densities while improving efficiency and reducing operational costs.
- Minimize Downtime: Early detection of potential issues ensures uninterrupted service and protects mission-critical operations.
- Regulatory Compliance: Supports adherence to industry standards for electrical safety and thermal management in data centers.

Specifications

- Sensor Type: Non-contact IR thermal sensors
- 5V, .2 Watts each
- Temperature Range: -20°C to 150°C (-4°F to 302°F)
- Accuracy: ±1°C (±1.8°F)
- Sampling Rate: Continuous, with configurable intervals
- Operating Environment: 0°C to 75°C (32°F to 167°F), 10-90% RH (non-condensing)

IR Sensor ¼ 20 UNC gimbal mount

Thermal Sensor Micro Driver

Cinch 32 Port Controller

Mighty Micro Driver-Sensor-1-Port

The Cinch IR Sensor and 6 Port Mighty Micro Driver™ work together as an important data collection hub on the Cinch platform. Together they monitor real-time temperature of power panels, switch gear, bus bars and other mission critical power infrastructure. Continuous monitoring prevents downtime by providing operators with early insight into thermal failure. This allows hyperscalers to get more capacity from existing system.

Ordering	SKU
Mighty Micro Driver-Sensor-1 Port	CMMD-100W-S1
Mighty Micro Driver-Sensor-6-Port	CMMD-100W-S6
IR Sensor (one)	CIR-1
Magnetic IR Gimbal Mount	MGM-1
1 M IR Sensor Extension Cable	CIR-1M-EX
2 M IR Sensor Extension Cable	CIR-2M-EX

The Basics

Mighty Micro Driver™ Sensor Features

- Input: 15VA max, 57VDC max
- Micro driver to sensor: 18/2 or 16/2 wire, shielded, 20' max
- Output: Programmable 3.3 or 5.0VDC
- 1 or 6 I2C interfaces
- Operating temp: -4°F to 122°F (-20C to 50°C)
- Altitude: Up to 2000 m
- Humidity: 5-95% non-condensing
- Micro Drivers per circuit: 4 (24 sensors)
- Max distance: Up to 400' from controller
- 10 Year warranty with CinchOne™
- Dimensions: 7.3"L x 1"W x 1"H
- UL8750 Listed

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MADE IN USA