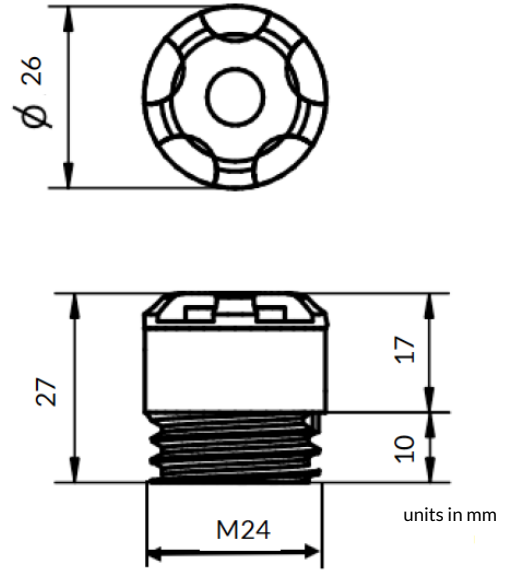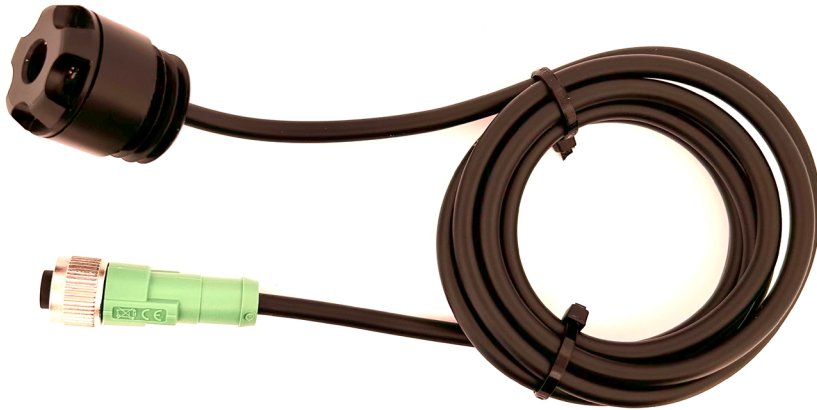# Thermography Sensor - Cylindrical Series (C-THIMG-SM)



The C-THIMG-SM is a compact thermal image sensor designed for switchgear, offering a comprehensive solution to monitor all bus bars with its 768 discrete temperature measurement points and 4 reporting zones. It's mountable inside switchgear or onto existing IR windows.

## Certification

| To UL61010 standard pending |
| --- |

## Sensor Metrics:

| | |
| --- | --- |
| FIR target temperature range | -40°C to 300°C (-40°F to 572°F) |
| FIR temperature accuracy | ±1°C (±1.8°F) |
| FIR temperature scanning | 4 seconds |
| FIR Field of View (FoV) | 110° horizontal (wide)<br>75° vertical |
| FIR max object distance | Up to 5m |
| FIR resolution | 32x24 pixels (768 temperature measurement points) |

## Technical Specifications:

| | |
| --- | --- |
| Powered by and communicates with | EXP-CHUB (required- which supports up to two C-THIMG-SM) |
| Sensor power usage | 80 mW |
| Connectivity | Connects to the EXP-CHUB via Female Connector |

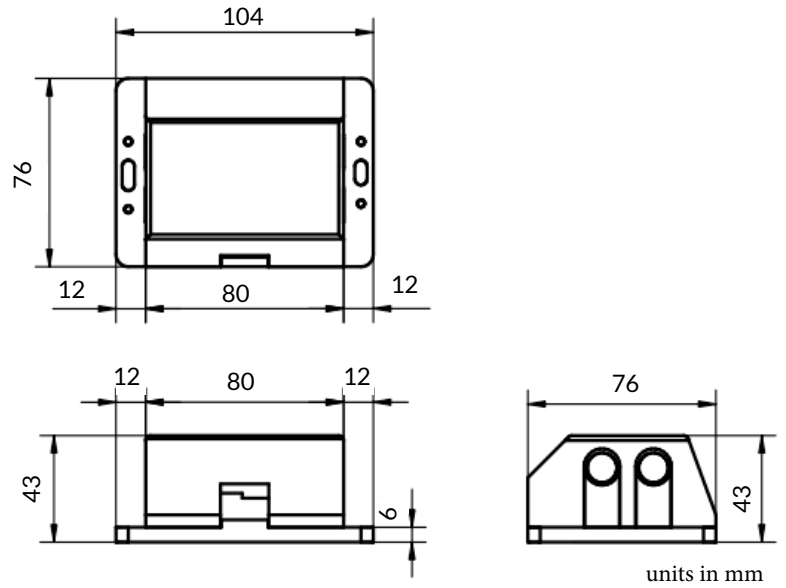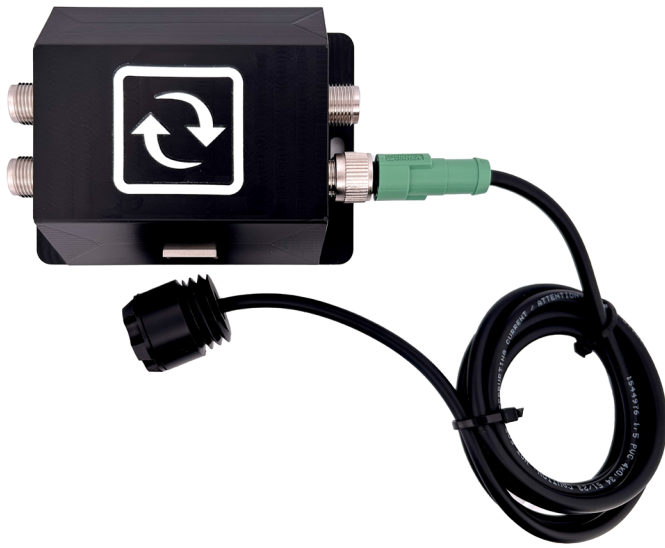## Environmental Specifications:

| | |
| --- | --- |
| Operating temperature range | -40°C to +85°C (-40°F to 185°F) |
| Humidity (operating and storage) | <90% RH (non-condensating) |

## Physical Specifications:

| | |
| --- | --- |
| Sensor enclosure | Industrial plastic enclosure |
| Mounting option | Can be secured by M24 nuts |
| Dimensions | L:  27.5mm (1.08")<br>Ø:  26mm (1.02") |
| Weight | 70g (0.17lbs) |
| Cable specification | 1.5m  PVC sensor cable with female connector |

The visual appearance and dimensions presented on this datasheet are for illustrative purposes only and are subject to change without prior notice. Actual product appearance and dimensions may vary due to continuous product improvement and manufacturing

# Expansion Hub (EXP-CHUB)

104

76

12    80    12

12    80    12

43

6

76

43

units in mm

The EXP-CHUB-L features a built-in THUM and supports up to two cylindrical thermal image sensors, providing seamless integration for precise monitoring in critical applications.

## Certification:

| To UL61010 standard pending |
| --- |

## Sensor Metrics:

| | |
| --- | --- |
| Cylindrical hub | A standalone hub that supports up to 4 cylindrical sensors, including up to 2 thermal image sensors |
| Temperature measurement range | -40°C to 125°C (-40°F to 257°F) |
| Temperature accuracy | ±0.48°C (±0.86 °F) |
| Relative humidity measurement range | 0 to 100% RH |
| Relative humidity accuracy | 2% RH |

## Technical Specifications:

| | |
| --- | --- |
| Powered by and communicates with | 12-24V DC (when using RS-485) or powered by BASE-XX |
| Power usage | 500 mW (with 4 cylindrical sensors connected) |
| Protocol | Modbus RTU over RS485<br>Integration with BASE-XX over RJ45 (serial data) |
| Connectivity | RJ45 cable transmitting data & power from BASE-XX to EXP-CHUB<br>Modbus cables connecting from the EXP-CHUB to Modbus master |
| Sensor connectivity | Four male connectors for Cylindrical sensors |

## Environmental Specifications:

| | |
| --- | --- |
| Operating temperature range | 0°C to +75°C (32°F to +167°F) |
| Humidity (operating and storage) | <90% RH (non-condensating) |

## Physical Specifications:

| | |
| --- | --- |
| Sensor enclosure | Industrial plastic enclosure |
| Mounting option | 0U rack, DIN rail, magnetic, or wall mountable sensor |
| Dimensions | 104mm (4.09") x 76mm (2.99") x 43mm (1.7") |
| Weight | 119g (0.26lb) |
| Cable specification | RJ45 CAT 6/7 recommended |