

# PTSPS067 Infrared Temperature Sensor (Wired/Wireless)

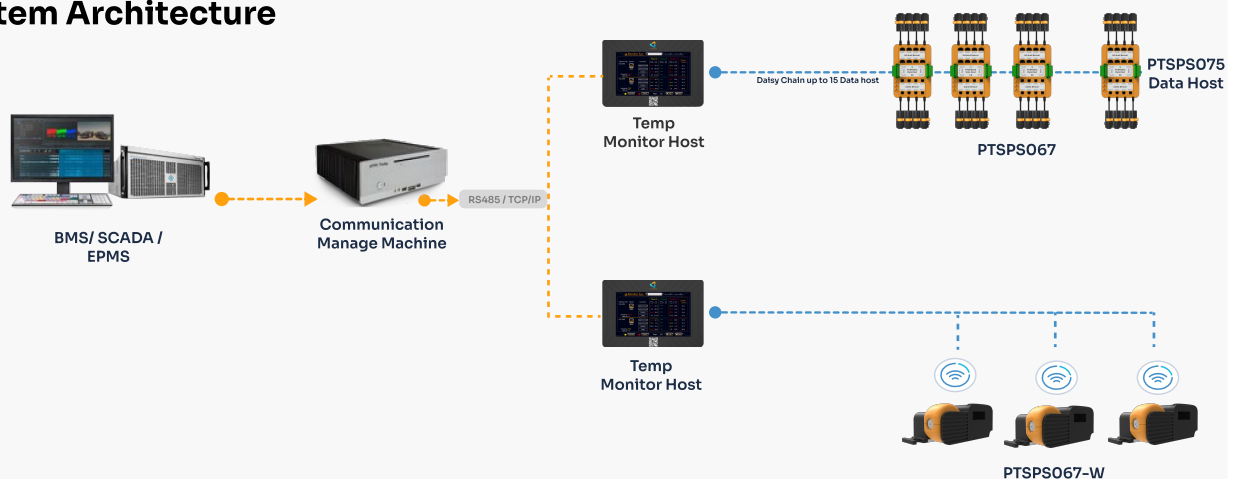
## Product Overview

The PTSenR™ PTSPS067 is an intelligent infrared temperature monitoring system specifically engineered to proactively protect low- and medium-voltage electrical infrastructure from potential failures. By continuously monitoring the temperature of electrical contacts, it detects anomalies caused by oxidation, corrosion, loose connections, and other common fault conditions. This proactive capability helps prevent overheating, equipment degradation, short circuits, and unplanned power outages, thereby enhancing overall system reliability and grid stability.

The system incorporates advanced features such as industrial-grade sensor arrays for accurate and reliable temperature measurement, as well as state-of-the-art wired or wireless communication modules for seamless data transmission and integration with existing power management systems. A rotating infrared sensing mechanism further enhances coverage and detection accuracy within complex electrical enclosures.

Combining precision sensing, intelligent diagnostics, and robust communication capabilities, the PTSPS067 is a critical solution for ensuring the safe, efficient, and continuous operation of electrical assets, while supporting the advancement of modern smart grid infrastructure.

## System Architecture



## Applications

Non-intrusive temperature monitoring



Supports both wired and wireless data transmission for enhanced intelligence and flexibility



Single-point or Multi-point measurement



## Characteristics

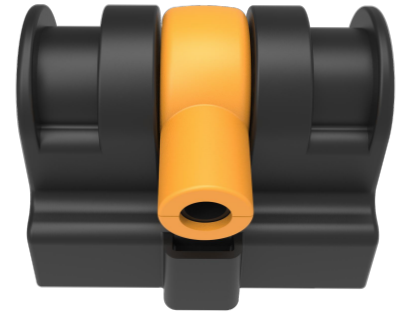
The PTSPS067 delivers a range of advanced capabilities, including planar thermal imaging for simultaneous single- or multi-point temperature assessment. Its intuitive, user-friendly interface ensures seamless operation and efficient data interpretation, while compatibility with a wide range of industrial communication protocols enables easy integration into existing systems.

The PTSPS067 is unique as it can be installed inside electrical panels to monitor key busbar or cable terminations according to NFPA70B & IEEE2969 to complement or replace traditional periodic infrared thermographic survey.

## Related Products

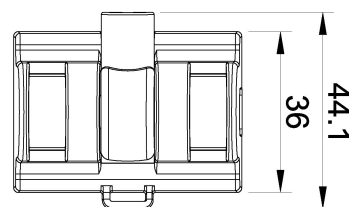
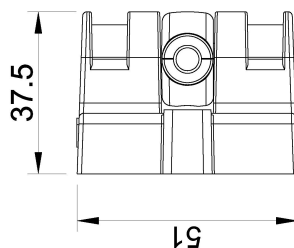
In addition to the PTSPS067 Infrared Temperature Sensor, product line includes:

- **PTSPS067-M:** A cutting-edge multi focal point infrared temperature sensor, providing comprehensive temperature monitoring and analysis.
- **PTSPS067-W:** A cutting-edge wireless infrared thermal sensor, offering versatile temperature monitoring and analysis without wired data transmission.



## Dimensions - PTSPS067

(Unit: mm)

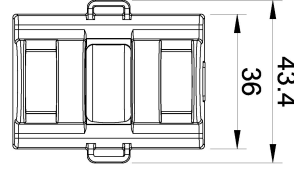
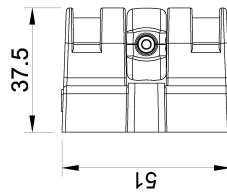


## Specifications - PTSPS067

|                              |                                            |                             |                                                        |
|------------------------------|--------------------------------------------|-----------------------------|--------------------------------------------------------|
| Temperature Measurement      | Non-Contact Infrared                       | Measurement Accuracy        | ±1°C                                                   |
| Focus Point                  | Nominal 1:1<br>(distance : spot-size) 3.5° | Emissivity                  | 0.95 ± 0.01                                            |
| Spectral response            | 5 to 14 μm                                 | Protection level            | IP 40                                                  |
| Operational Voltage          | 5VDC (min 3VDC; max 5.5VCD)                | Operating Temperature       | -20°C ~ 80°C                                           |
| Consumption                  | Operation Mode: 1.8mA<br>Sleep Mode: 1.5uA | Temperature Sensing Range   | -20°C ~ 300°C (-4°F ~ 540°F)                           |
| Data Transmission            | RS 485                                     | Storage Temperature         | -20°C ~ 65°C                                           |
| Material Flammability Rating | V 0 (700°C 30 Seconds)                     | Measurement Resolutions     | 0.1°C                                                  |
| Response time                | Nominal 1 sec / time                       | Compliance                  | EN 62479;<br>EN 61326;<br>EN 220, 300, 301, 400, 489   |
| Altitude                     | ≤4000 meters                               | Installation Mode           | Cable Tie                                              |
| Relative Humidity            | ≤95% RH (non-condensing)                   | <b>Ordering Information</b> |                                                        |
| Measurement Distance         | 10 cm - 50 cm                              | Part Number                 | Product Description                                    |
| Transmission interval        | 30 seconds to 180 seconds                  | PTSPS067                    | PTSenR™ Single FOV Infrared Temperature Sensor (Wired) |

## Dimensions - PTSPS067-M

(Unit: mm)



## Specifications - PTSPS067-M

|                              |                                            |
|------------------------------|--------------------------------------------|
| Temperature Measurement      | Non-Contact Infrared                       |
| Focus Point                  | 90° x 90° (1024 points)                    |
| Spectral response            | 5 to 14 um                                 |
| Operational Voltage          | 5VDC (min 3VDC; max 5.5VCD)                |
| Consumption                  | Operation Mode: 1.8mA<br>Sleep Mode: 1.5uA |
| Data Transmission            | RS 485                                     |
| Material Flammability Rating | V 0 (700°C 30 Seconds)                     |
| Response time                | Nominal 1 sec / time                       |
| Altitude                     | ≤4000 meters                               |
| Relative Humidity            | ≤95% RH (non-condensing)                   |
| Measurement Distance         | 10 cm - 50 cm                              |
| Transmission interval        | 30 seconds to 180 seconds                  |

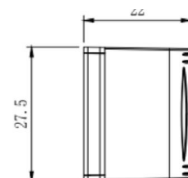
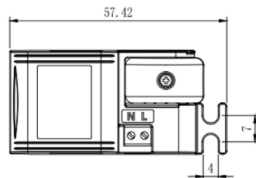
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|---------------------------|------------------------------------------------------|
| Measurement Accuracy      | ±1°C                                                 |
| Emissivity                | 0.91 ± 0.01                                          |
| Protection level          | IP 40                                                |
| Operating Temperature     | -20°C ~ 80°C                                         |
| Temperature Sensing Range | -20°C ~ 300°C (-4°F ~ 540°F)                         |
| Storage Temperature       | -20°C ~ 65°C                                         |
| Measurement Resolutions   | 0.1°C                                                |
| Compliance                | EN 62479;<br>EN 61326;<br>EN 220, 300, 301, 400, 489 |
| Installation Mode         | Cable Tie                                            |

### Ordering Information

| Part Number | Product Description                                   |
|-------------|-------------------------------------------------------|
| PTSPS067-M  | PTSenR™ Multi FOV Infrared Temperature Sensor (Wired) |

## Dimensions - PTSPS067-W

(Unit: mm)



## Specifications - PTSPS067-W

|                                |                                                                                    |
|--------------------------------|------------------------------------------------------------------------------------|
| Temperature Measurement        | Non-Contact Infrared                                                               |
| Focus Point                    | 2.1 mm                                                                             |
| Aperture                       | 0.8                                                                                |
| FOV                            | 90° x 90° (1024 points)                                                            |
| Energy Harvesting              | 5 A ~ 10,000 A (Optional)                                                          |
| Operational Voltage            | EH or 7.5 Vac ~ 275 Vac (direct)<br>or 5 ~ 9 Vdc (direct)                          |
| Wireless Operational Bandwidth | 433.92 MHz                                                                         |
| Transmission Power             | 10 dBm                                                                             |
| Wireless Transmission Distance | 0 meters ~ 20 meters (Enclosed) /<br>300 meters (Open Space)                       |
| Altitude                       | ≤4000 meters                                                                       |
| Measurement Accuracy           | ±1°C (Spacing 10cm)                                                                |
| Measurement Distance           | 10 cm - 50 cm                                                                      |
| Transmission interval          | 30 seconds to 180 seconds<br>(the higher the temperature, faster the data sending) |

|                              |                                                            |
|------------------------------|------------------------------------------------------------|
| Relative Humidity            | ≤95% RH (non-condensing)                                   |
| Measurement Interval         | 10 sec / time                                              |
| Protection level             | IP 50                                                      |
| Operating Temperature        | -20°C ~ 65°C                                               |
| Temperature Measuring Range  | -20°C ~ 500°C                                              |
| Storage Temperature          | -20°C ~ 65°C                                               |
| Material Flammability Rating | V 0 (700°C 30 Seconds)                                     |
| Compliance                   | EN 62479;<br>EN 61326;<br>EN 220, 300, 301, 400, 489       |
| Installation Mode            | Alloy Strip Bundling / Screw Fastening / Magnet absorption |

### Ordering Information

| Part Number | Product Description                            |
|-------------|------------------------------------------------|
| PTSPS067-W  | PTSenR™ Infrared Temperature Sensor (Wireless) |