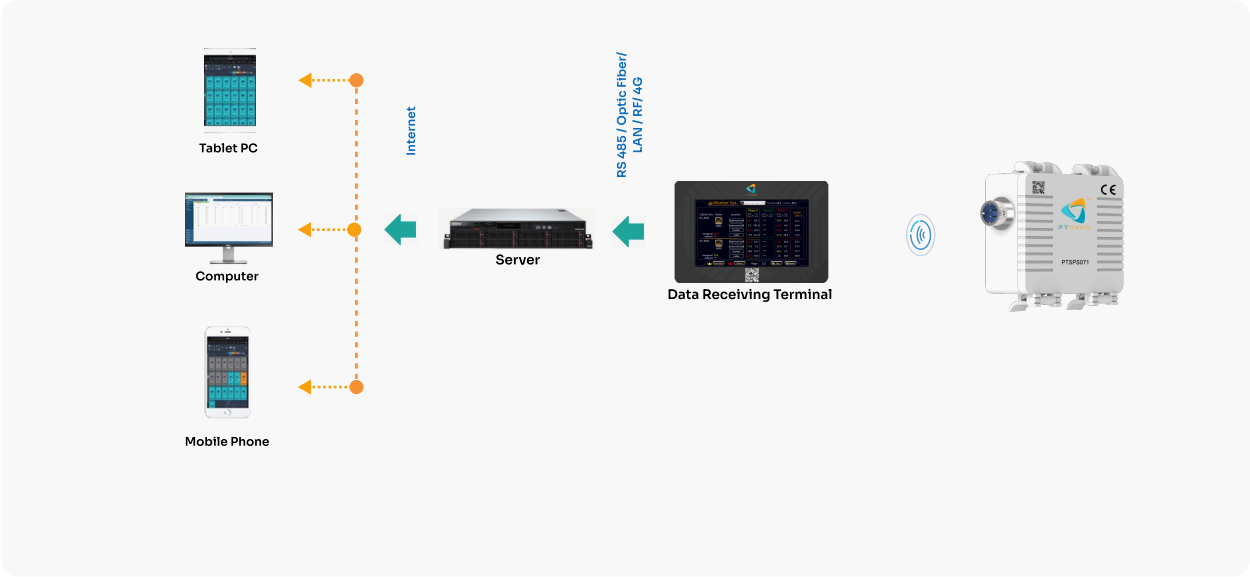
PTSPS071 Bus Duct Infrared Temperature Sensor

Product Overview

The PTSenR™ PTSPS071 bus duct temperature monitoring system is designed for online temperature monitoring of various bus ducts, low-voltage bus cables, and other electrical equipment. In power systems, temperature is crucial for assessing the operational status of primary equipment. Increased contact resistance at connection points, due to factors such as manufacturing issues, environmental pollution, prolonged operation, serious overload, oxidation, and arcing, can lead to heating during power transmission. If unchecked, this heating can compromise insulation performance and reduce equipment lifespan.

The growing electricity demand has complicated traditional circuit wiring methods, making the bus duct wiring scheme a preferred solution despite its associated heating risks at multiple connectors and plug points. This system addresses these issues by enabling 24/7 monitoring, issuing alarms when temperature limits are exceeded, improving management efficiency, reducing costs, and providing early warnings to prevent accidents. The product adheres to the energy international industry standard for wired and wireless temperature measurement devices.

System Architecture



Applications

Online Temperature Monitoring

Busducts

Low Voltage Bus Cables

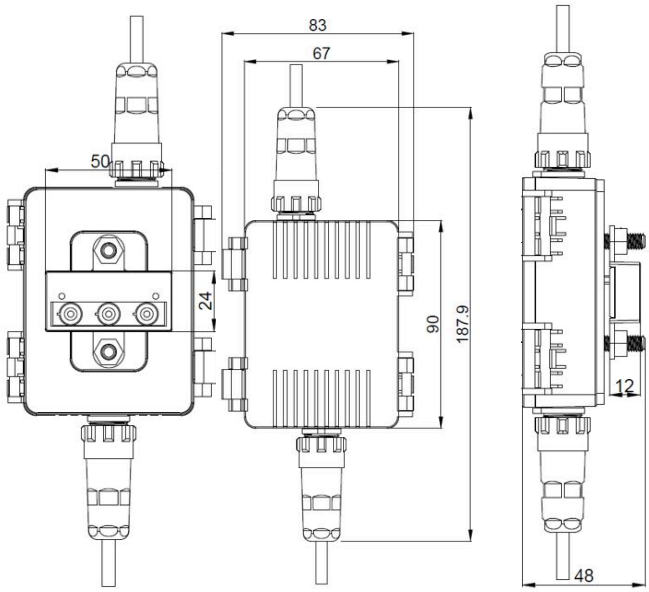
Characteristics

The PTSenR™ PTSPS071 system features wired and wireless data transmission, eliminating the need for manual inspections and reducing associated risks. It has strong anti-interference capability providing flexibility for different installation environments. Supporting wireless ad hoc networks, it enhances communication reliability. Using non-contact infrared technology for temperature measurement, the system ensures high safety standards.

Additionally, it stores temperature data for each node, facilitating easy access and analysis for better maintenance planning. This robust monitoring solution improves management efficiency, reduces enterprise costs, and includes an early warning alarm system to detect and prevent potential accidents.

Dimensions

(Unit: mm)



Specifications

Power Supply Voltage	DC 24 V
Working Power	≤0.3 W
Working Environment	-20～85℃，≤95% RH
Temperature Measurement Method	Infrared (non-contact)
Temperature Measurement Distance	10 - 20 mm is best
Temperature Measurement Range	-20～+150℃
Measurement Accuracy	±1.0℃
Resolution	0.1℃
Measurement Interval	30 seconds
Sending Interval	180 seconds, the temperature rises by 2℃ and the package is sent immediately

Wireless Operating Bandwidth	433.92 MHz or can be customized to 2.4 GHz (Optional)
Communication Method	RS 485 (daisy chain up to 50 sensor points), supports wireless self-organizing network (battery power not supported)
Communication Distance	≤300 meters (open space)
Protection Level	IP 50
Flammability Rating	V 0
Compliance	EN 62479; EN 61326; EN 220, 300, 301, 400, 489

Ordering Information

Part Number	Product Description
PTSP071	PTSenR™ Bus Duct Infrared Temperature Sensor