

PTSPS020 Wireless Temperature Sensor

Product Overview

The PTSenR™ PTSPS020 Wireless Temperature Sensor is designed by Power Technologies for applications requiring real-time temperature monitoring, including UPS batteries, electrical panel boxes, dry-type transformers, ESS DC Switchgear, low-voltage and high-current cabinets, and high & low voltage Switchgear and cables. The sensor addresses challenges such as high wiring costs, complex installations, and the need for regular inspections. It transmits current temperature and humidity data via SUB-G wireless communication to a monitoring terminal or background system for continuous oversight.

The PTSPS020 utilizes ultra-low power Wireless Protocol, RF communication, and data verification technologies to ensure reliable performance. It features complete isolation, easy installation, strong anti-interference capabilities, and the ability to operate reliably in high voltage environments. This sensor is suitable for harsh environments and offers high temperature resistance, ensuring long-term, uninterrupted, and accurate temperature measurement.

System Architecture



Applications

Measuring Temperatures in Switchgear and Cables



Monitoring UPS Batteries and Electrical Panels



Temperature Tracking for Dry-type Transformers



Characteristics

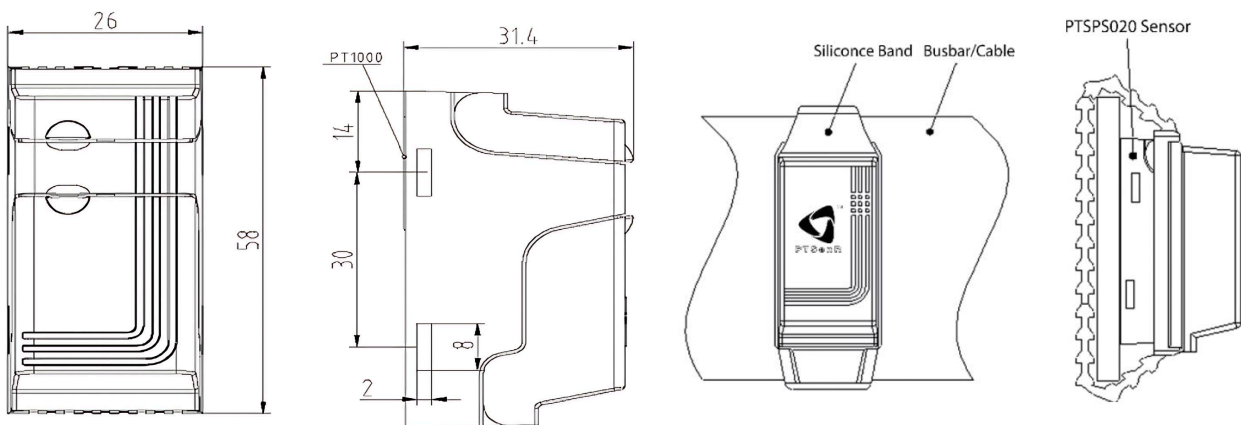
The PTSenR™ PTSPS020 Wireless Temperature Sensor is engineered for durability and reliability, featuring an ultra-low power design with wireless protocol for efficient energy usage. Its RF communication and data verification technologies provide robust wireless transmission over considerable distances, ensuring uninterrupted and precise temperature monitoring. The sensor's direct contact-type measurement system is highly accurate and capable of withstanding extreme temperature ranges, making it suitable for harsh environments.

It is designed to operate in high-voltage settings with strong anti-interference capabilities, providing continuous performance even under challenging conditions. The PTSPS020 is easy to install using silicone or strip bands and meets stringent safety and environmental standards, including IP20 protection and V0 flame retardancy. Additionally, it offers a long operational lifespan and low maintenance requirements, making it a reliable choice for critical temperature monitoring applications.



Dimensions

(Unit: mm)



Specifications

Power Supply and Input Voltage	3.6 V (14250) (High-capacity Li/ SOC12)	Measurement Accuracy	±1.0°C
Transmitting Current	< 15 mA	Measurement Interval	30 seconds
Operational Voltage	1.9 V ~ 3.6 V (DC)	Transmission Interval	120 to 420 seconds, the higher the temperature of the sudden change, the shorter the transmission interval
Wireless Operating Bandwidth	433.92 MHz	Protection Level	IP 20
Transmission Power	10 dBm	Battery Service Life	3~5 years (depend on transmission frequency)
Wireless Transmission Distance	0 ~ 20 meters (Enclosed) / 150 meters (Open Space)	Installation Mode	Silicone Band, Strip band
Communication Rate	10 Kbps	Compliance	EN 62479; DNVGL-CG-0339; EN 61326; EN 220, 300, 301, 400, 489
Temperature Measurement Type	Direct Contact-Type	Ordering Information	
Relative Humidity	≤95% RH (Non-condensing)	Part Number	Product Description
Storage Temperature	-40°C ~ 85°C	PTSPS020	PTSenR™ Wireless Temperature Sensor
Operating Temperature	-40°C ~ 85°C		
Temperature Measuring Range	-40°C ~ 200°C		
Flammability Rating	V0 (700°C 30 seconds)		