

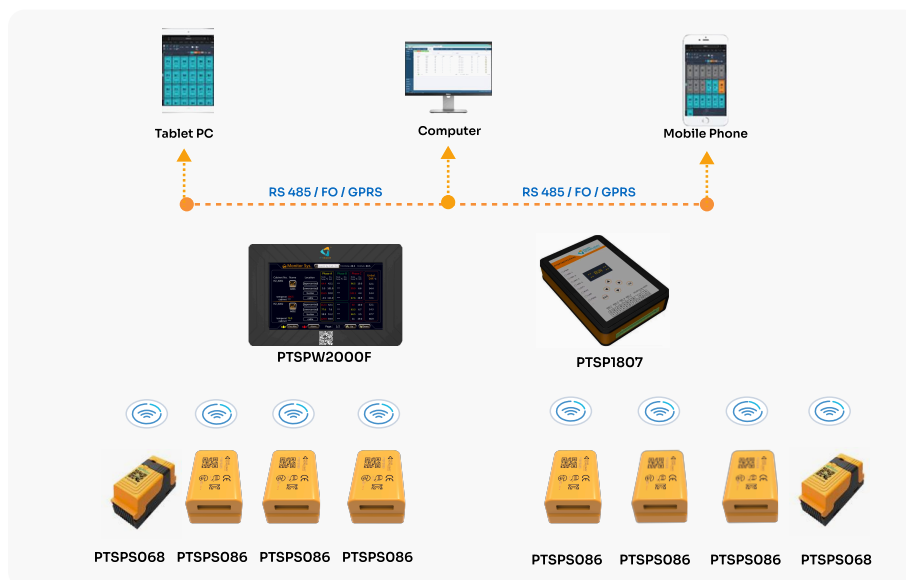
PTSPS086 World's Smallest Energy Harvesting Wireless Temperature Sensor

Product Overview

The PTSenR™ PTSPS086 Energy Harvesting Wireless Temperature Sensor is an advanced solution for monitoring temperature in electrical junctions within high and low voltage Switchgear. This sensor effectively mitigates the risks associated with high temperature rise caused by aging materials, poor contact, and current overload. It excels in harsh environments with high electromagnetic fields and high current conditions, ensuring stable long-term operation at elevated temperatures.

The PTSPS086 features ultra-low power Wireless Protocol design and micro electromagnetic energy harvesting technology, allowing it to function without a battery. Its radio frequency communication and CRC verification ensure reliable data transmission. PTSPS086 requires no maintenance and no calibration. The PTSPS086 is suitable for various applications, including high and low voltage Switchgear contacts, knife switches, high voltage cable ends, dry transformers, and low voltage high current cabinets.

System Architecture



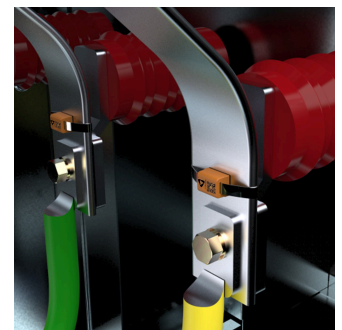
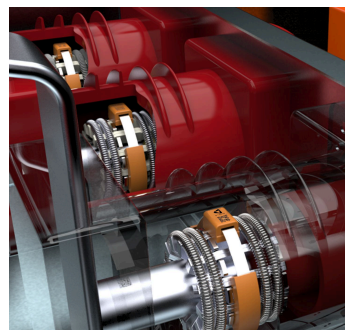
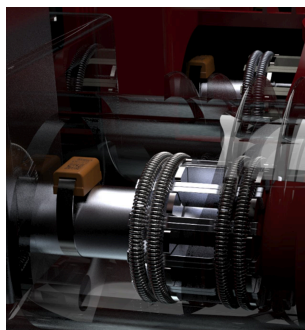
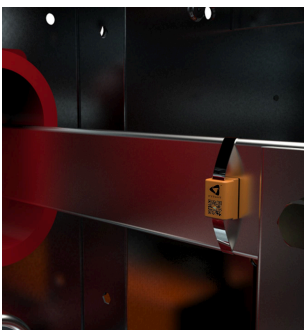
Applications

HT Switchgear

Moving Contact

Static Contact

Cable Joint



Characteristics

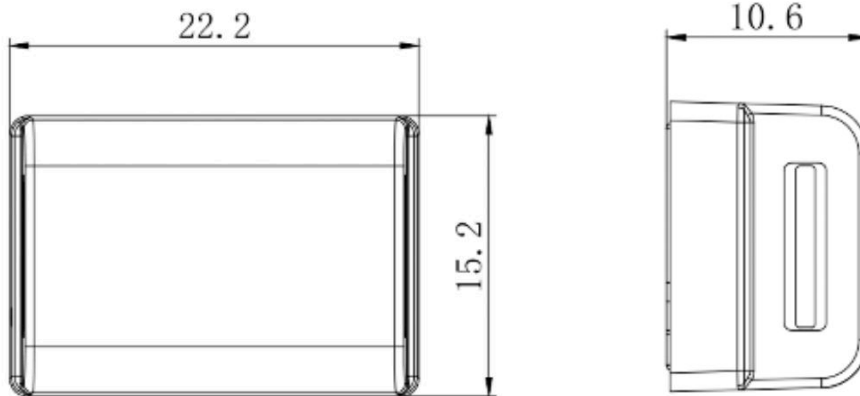
The PTSenR™ PTSPS086 offers green environmental protection, maintenance-free operation, complete electrical isolation, and strong anti-interference capabilities. The sensor's compact size and easy installation make it ideal for use in high voltage scenarios, providing real-time temperature data to the monitoring terminal for precise measurement.

PTSPS086 is designed with durability and precision in mind, offering a wide operating temperature range that can withstand extreme cold and heat. It provides accurate temperature measurement with a high degree of precision. The sensor utilizes innovative micro electromagnetic energy harvesting technology, making it battery-free and significantly reducing maintenance requirements. With an extended service life, the PTSPS086 stands out as a reliable and sustainable solution for temperature monitoring in high voltage environments.



Dimensions

(Unit: mm)



Specifications

Power Supply and Input Voltage	Voltage Free & Battery Free	Measurement Accuracy	±1.0 °C
Energy Harvesting	≤5 A ~ 10,000 A	Measurement Interval	10 seconds
Operational Voltage	110 V ~ 500 kV (VAC)	Transmission Interval	180 seconds
Wireless Operating Bandwidth	2.4 GHz	Protection Level	IP 67
Transmission Power	10 dBm	Service Life	≥10 years
Wireless Transmission Distance	0.4 ~ 10 meters (Enclosed) / 200 meters (Open Space)	Compliance	EN 62479; EN 61326; DNVGL-CG-0339; EN 220, 300, 301, 400, 489 UL508; MIC
Communication Rate	10 Kbps	Ordering Information	
Temperature Measurement Type	Direct Contact-Type	Part Number	Product Description
Relative Humidity	≤95% RH (Non-condensing)	PTSPS086	PTSenR™ Energy Harvesting Wireless Temperature Sensor
Storage Temperature	-40°C ~ 85°C		
Operating Temperature	-40°C ~ 85°C		
Temperature Measuring Range	-40°C ~ 125°C		
Flammability Rating	V 0 (700°C 30 seconds)		