

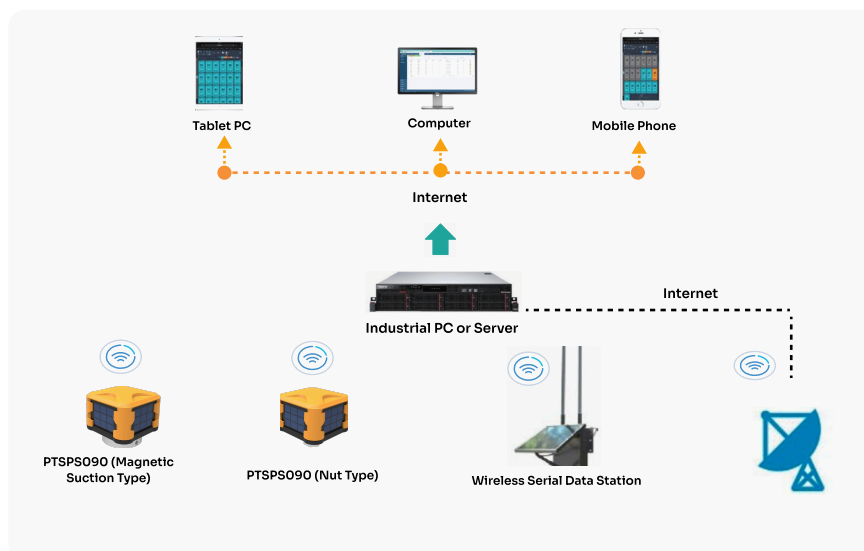
# PTSPS090 Solar Powered Wireless Overhead Cable Temperature Sensor

## Product Overview

The PTSenR™ PTSPS090 is a solar-powered wireless temperature sensor engineered for stable long-term performance under high voltage, high current, and elevated temperatures. It is specifically designed to address fault risks such as material ageing, poor contact, and current overload at electrical connection points in outdoor high-voltage line guide strands.

It features an ultra-low power design and utilizes solar energy harvesting technology, eliminating the need for batteries. It incorporates radio frequency communication and CRC verification to ensure secure, real-time data transmission to the monitoring terminal. The device offers complete electrical isolation, strong anti-interference capability, and requires no maintenance. Its sustainable energy approach, ease of installation, and robust reliability make it an ideal solution for accurate temperature monitoring in high-altitude and high-voltage environments.

## System Architecture



## Applications

Power Grid Monitoring

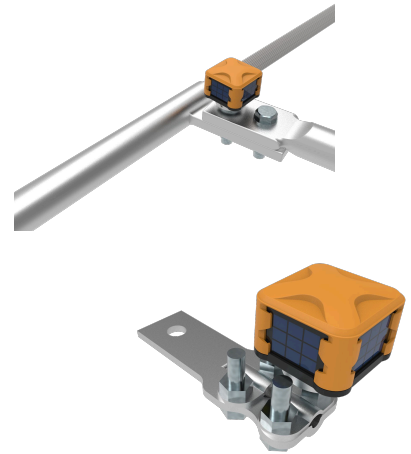
Smart Grid Optimization

Industrial Safety



## Characteristics

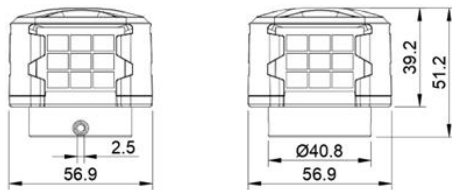
Building on its core capabilities, the PTSenR™ PTSPS090 also features wireless data transmission, ultra-low power consumption, and a solar-powered design that promotes sustainable energy use without the need for manual inspections. Its IP67-rated enclosure ensures protection against harsh environmental conditions, while strong anti-interference capability enhances signal reliability. The sensor's four-sided solar panel layout reduces installation direction constraints, and its overall plug-and-play setup allows for quick and effortless deployment in the field—solidifying its role as a smart, sustainable, and efficient solution for real-time temperature monitoring in high-voltage scenarios.



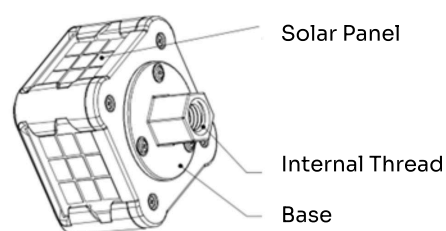
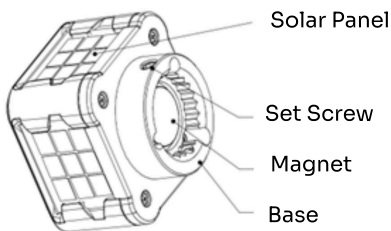
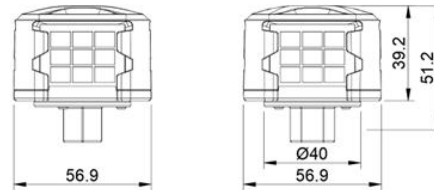
## Dimensions

(Unit: mm)

Magnetic Type



Nut Type



## Specifications

Operation Supply	Solar Powered
Energy Storage	Super Capacitor
Working Environment	-20°C~60°C
Wireless Operating Bandwidth	433.92 MHz or can be customized to 2.4 GHz
Transmission Power	10 dBm
Communication Rate	10 kbps
Transmission Distance	≤1000 meters (open space)
Allowable Max Fault Current	20 kA/1 second
Relative Humidity	≤95% RH (non-condensing)
Operating Temperature	-20°C ~ 85°C
Temperature Measuring Range	-55°C ~ +240°C
Temperature Measurement Type	Contact type
Measurement Accuracy	100°C hereinafter ±1°C, 100°C above ±2°C

Measurement Interval	30 seconds
Send Interval	10 minutes, the higher the temperature or sudden change, the shorter the sending interval
Protection Level	IP 67
Flammability Rating	V 0 (700°C 30 seconds)
Installation Mode	Magnetic suction/ Nut type/ Stripe Type (Need to confirm before ordering)
Compliance	EN 62479; EN 61326; EN 220, 300, 301, 400, 489

### Ordering Information

Part Number	Product Description
PTSPS090	PTSenR™ Solar Powered Wireless Overhead Cable Temperature Sensor