

# PTSPS061 Self-Powered Wireless Temperature Sensor

## Data Sheet



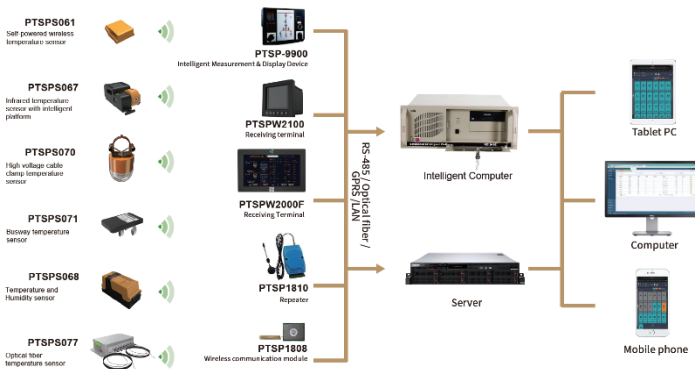
### Product Overview

The PtsenR PTSPS061 Self powered Wireless Temperature Sensor is mainly applied in temperature measurement of electrical junction which inside high and low voltage switchgear. With 20 years of practical application and seven times technical upgrading, the sensor has been in the leading level in comprehensive aspects like product stability, anti-interference ability, practicability, lifetime, volume and so on, successfully applied in thousands of Industrial scenes globally.

The product adopts ultra-low power Zigbee Green Protocol design, micro electromagnetic energy collection technology, no battery, radio frequency communication, CRC check and other technologies. It has the characteristics of green environmental protection, no maintenance, complete electrical isolation, convenient installation, strong anti-interference ability, reliable work, small volume and so on, which can solve the problem of temperature measurement in high voltage state.

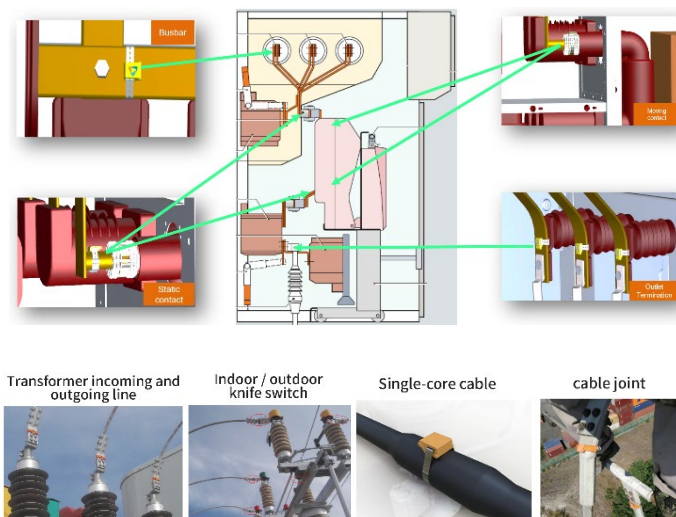
Temperature online monitoring for all kinds of high and low voltage switchgear contacts, knife switch, high voltage cable middle end, dry transformer, low voltage high current cabinet and other electrical equipment's.

### The System Architecture



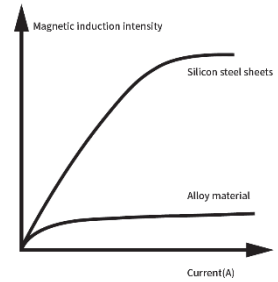
### Application

#### HT Switchgear

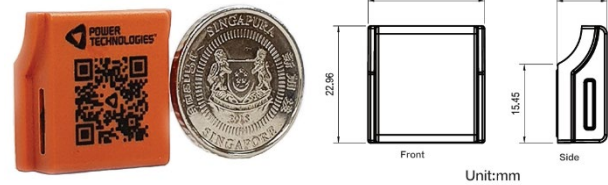


### Characteristic

- The linear region of silicon steel sheet is a necessary characteristic of measurement, but for power supply, this characteristic leads to too much energy release, which will make the equipment heating up.
- There is almost no linear region in alloy material, so it reaches magnetic saturation very soon. Even in high current condition, there is only a weak energy out to avoid heating and shaking.



### Dimensions



### Specification

Power Supply Input Voltage	Voltage Free & Battery Free
Energy Harvesting	≤5A ~ 6000A
Operational Voltage	110V ~ 500kV (VAC)
Wireless Operating Bandwidth	433MHz (Zigbee)
Transmission Power	10dBm
Wireless Transmission Distance	0.4 ~ 20 meter (enclosed) / 500meter (open space)
Communication rate	10 kbps
Temperature measurement type	Direct Contact-type
Relative Humidity (RH)	≤95%RH (non-condensing)
Storage Temperature	-40°C ~ 85°C
Operating Temperature	-40°C ~ 85°C
Temperature measuring range	-40 ~ 125°C
Measurement accuracy	±1.0°C
Measurement interval	10 sec
Transmission interval	20 to 100 seconds, the higher the temperature of the sudden change, the shorter the transmission interval
Protection level (IP)	IP68
Flame retardant grade	V0 (700°C 30 Sec)
Service life	≥20 years
Certification	CE – EN 61000-6-2:2005+AC; 2014/35/EU LOW VOLTAGE DIRECTIVE; 2014/30/EU ELECTROMAGNETIC COMPATIBILITY DIRECTIVE EN 61000-6-4:2007+A1:2011; EN 62366-1:2014+A11:2017

### Ordering Information

Part Number	Product Description
PTSPS061	PTSenR Temperature Wireless Sensor

**Busbar** – Secure it on the busbar joint, accurate temperature measurement. Ultra-small volume will not void the safety crimpage safety distance of phase to phase and phase to ground.

**Static Contact** – Secure it on the fixed contact, accurate temperature measurement. With elastic mounting parts, which ensure the occlusion of the fixed and moving contact. Inside the contact box, not affecting the insulation.

**Moving Contact** – Secure it on the fixed contact, accurate temperature measurement. With elastic mounting parts, which ensure the occlusion of the fixed and moving contact. Inside the contact box, not affecting the insulation spacing, easy for maintenance and no need busbar power off.

**Outlet** – Secure it on the cable joint, accurate temperature measurement. Ultra-small volume will not void the safety crimpage safety distance of phase to phase and phase to ground.

