EM500-PT100

Platinum Resistance Temperature Detector

▶ Introduction

EM500-PT100 resistance temperature sensor is a long range wireless sensor compatible with standard LoRaWAN protocol. Combining with the advanced LoRa technology and 19000mAh battery make it a low power consumption product with years-long use life. It offers excellent accuracy over a wide temperature range from -200°C to 800°C to suit most applications.

▶ Features

- Large measurement range of multiple temperature detection applications
- Up to 11km communication range
- Standard LoRaWAN protocol
- Easy Configuration via NFC
- Ursalink Cloud and third-party platform compliant
- Low power consumption with 19000 mAh replaceable battery
- 1-Year Warranty Included

▶ Applications

- ✓ Liquid or gas temperature monitoring
- ✓ Industrial machine temperature monitoring
- ✓ Oven and cooking device monitoring
- ✓ Chimney and boiler temperature monitoring
- ✓ Medical or laboratory use

▶ Specifications

LoRaWAN	
Frequency	EU433/CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923
Tx Power	16dBm(868)/20dBm(915)/19dBm(470)
Sensitivity	-147dBm @300bps
Mode	OTAA/ABP Class A
Antenna	Integrated ceramic antenna
Temperature Measurement	
Range	EM500-PT100-T50: -200 °C to +50 °C EM500-PT100-T200: -50 °C to +200 °C EM500-PT100-T500: -50 °C to +500 °C EM500-PT100-T800: -50 °C to +800 °C (Customizable from -200 °C to +800 °C)
Accuracy	±0.5°C
Connection Type	3-wire connection
Physical Characteristics	
Cable Length	1.5m (Customizable)
Probe Type	Straight tube (Customizable)
Power Supply	19000 mAh Li-SOCL$_2$ battery (ER34615)

Battery Life	6 years (10 min interval, SF12)
	>10 years (10 min interval, SF7)
Operating Temperature	-30°C to +70°C
Ingress Protection	IP66 (IP67 as required)
Dimension	105.4 ×71 × 69.5 mm (Probe and cable are not included)
Mounting	Pole, wall, DIN rail
Operation	
Power On & Off	NFC, power button (Internal)
Configuration	Mobile APP or PC software via NFC or USB Type-C

▶ Order Information

Model	Measuring Range
EM500-PT100-T50	-200 °C to +50 °C
EM500-PT100-T200	-50 °C to +200 °C
EM500-PT100-T500	-50 °C to +500 °C, non-waterproof
EM500-PT100-T800	-50 °C to +800 °C, non-waterproof

▶ Probe Type

Straight Tube (Default)   Pressure Ring   Magnet

Please contact us for wider temperature range or other shapes of probes.