

# EM500-PT100

## Temperature Sensor



EM500-PT100 resistance temperature sensor is designed for measuring wide range of temperature in harsh environments and transmitting data using LoRaWAN<sup>®</sup> technology. With this low power consumption technology, EM500-PT100 can work up to 10 years with 19000 mAh battery. Combining with Milesight LoRaWAN<sup>®</sup> gateway and Milesight IoT Cloud solution, users can manage all sensor data remotely and visually.

EM500-PT100 is widely used for temperature monitoring applications like industrial machines, ovens, pipes, etc.

### ◆ Features

- Corrosion resistance cable and multiple probe options
- 3 wire connection for high precision
- Ultra-wide-distance transmission up to line of sight of 10km
- IP66 waterproof enclosure for harsh environment applications
- Built-in 19000 mAh replaceable battery and work for 10 years without replacement
- Equipped with NFC for easy configuration
- Compliant with standard LoRaWAN<sup>®</sup> gateways and network servers
- Quick and easy management with Milesight IoT Cloud solution

### ◆ Applications

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

## ◆ Specifications

| Wireless Transmission    |  |
|--------------------------|--|
| Technology               | LoRaWAN®   |
| Frequency                | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923  |
| Tx Power                 | 16dBm(868)/20dBm(915)/19dBm(470)   |
| Sensitivity              | -147dBm @300bps  |
| Mode                     | OTAA/ABP Class A   |
| Measurement              |  |
| Connection Type          | 3-wire connection  |
| Range                    | T050: -200 °C to +50 °C<br>T200: -50 °C to +200 °C<br>T500: -50 °C to +500 °C<br>T800: -50 °C to +800 °C<br>(Customizable from -200 °C to +800 °C) |
| Accuracy                 | ±0.5°C   |
| Resolution               | 0.1°C  |
| Operation                |  |
| Power On & Off           | NFC, power button (Internal)   |
| Configuration            | Mobile APP(via NFC) or PC software(via USB Type-C)   |
| Physical Characteristics |  |
| Cable Length             | 1.5 m (Customizable)   |
| Probe Type               | Straight tube (Customizable)   |
| Power Supply             | 19000 mAh Li-SOCL <sub>2</sub> battery (ER34615)   |
| Battery Life*            | 5 years (10 min interval, SF12)<br>>10 years (10 min interval, SF7)  |
| Operating Temperature    | -30°C to +70°C   |
| Relative Humidity        | 0% to 100% (non-condensing)  |
| Ingress Protection       | IP66   |
| Dimension                | 105.4 × 71 × 69.5 mm (4.1 × 2.8 × 2.7 in)  |
| Installation             | Pole, wall or DIN Rail Mounting  |

\* Tested under laboratory conditions and for guideline purposes only.

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