LINOVISION

IOT-S500PT

Temperature Sensor

Data Sheet





IOT-S500PT resistance temperature sensor is designed for measuring wide range of temperature in harsh environments and transmitting data using LoRaWAN® technology. With this low power consumption technology, IOT-S500PT can work up to 10 years with 19000 mAh battery. Combining with Linovision LoRaWAN® gateway and Linovision IoT Cloud solution, users can manage all sensor data remotely and visually.

IOT-S500PT 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[®] gateways and network servers
- > Quick and easy management with Linovision 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

LoRaWAN®	Wireless Transmission	
CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923		
Tx Power		
Sensitivity		
Mode OTAA/ABP Class A Measurement Connection Type 3-wire connection T050: -200 °C to +50 °C C T200: -50 °C to +200 °C C Range T500: -50 °C to +500 °C T800: -50 °C to +800 °C C (Customizable from -200 °C to +800 °C Accuracy ±0.5 °C Resolution 0.1 °C Operation Power On & Off Power On & Off NFC, power button (Internal) Configuration Mobile APP(via NFC) Physical Characteristics Cable Length Cable Length 1.5 m (Customizable) Probe Type Straight tube (Customizable) Power Supply 19000 mAh Li-SOCL ₂ battery (ER34615) Battery Life* 5 years (10 min interval, SF12) >10 years (10 min interval, SF7) Operating Temperature -30 °C to +70 °C Relative Humidity 0% to 100% (non-condensing) Unigress Protection IP66 Dimension 105.4 × 71 × 69.5 mm (4.1 × 2.8 × 2.7 in)	Tx Power	
Measurement Connection Type 3-wire connection T050: -200 °C to +50 °C T200: -50 °C to +200 °C T200: -50 °C to +500 °C T800: -50 °C to +800 °C (Customizable from -200 °C to +800 °C) C(Customizable from -200 °C to +800 °C) Accuracy ±0.5 °C Resolution 0.1 °C Operation NFC, power button (Internal) Configuration Mobile APP(via NFC) Physical Characteristics Cable Length Cable Length 1.5 m (Customizable) Probe Type Straight tube (Customizable) Power Supply 19000 mAh Li-SOCL2 battery (ER34615) Battery Life* 5 years (10 min interval, SF12) >10 years (10 min interval, SF7) Operating Temperature -30 °C to +70 °C Relative Humidity 0% to 100% (non-condensing) Ungress Protection 105.4 × 71 × 69.5 mm (4.1 × 2.8 × 2.7 in)	Sensitivity	-147dBm @300bps
Connection Type 3-wire connection T050: -200 °C to +50 °C T200: -50 °C to +500 °C T200: -50 °C to +500 °C T200: -50 °C to +500 °C T800: -50 °C to +500 °C T800: -50 °C to +800 °C (Customizable from -200 °C to +800 °C)	Mode	OTAA/ABP Class A
T050: -200 °C to +50 °C T200: -50 °C to +200 °C T200: -50 °C to +500 °C T800: -50 °C to +500 °C T800: -50 °C to +800 °C (Customizable from -200 °C to +800 °C) 40.5 °C Resolution 0.1 °C Operation Power On & Off NFC, power button (Internal) Configuration Mobile APP(via NFC) Physical Characteristics Cable Length 1.5 m (Customizable) Probe Type Straight tube (Customizable) Probe Type Straight tube (Customizable) Battery Life* 5 years (10 min interval, SF12) >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)	Measurement	
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Range T500: -50 °C to +500 °C T800: -50 °C to +800 °C (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) Physical Characteristics Cable Length 1.5 m (Customizable) Probe Type Straight tube (Customizable) Power Supply 19000 mAh Li-SOCL2 battery (ER34615) Battery Life* 5 years (10 min interval, SF12)	Range	T050: -200 °C to +50 °C
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Resolution Operation Power On & Off		(Customizable from -200 °C to +800 °C)
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Dimension $105.4 \times 71 \times 69.5 \text{ mm } (4.1 \times 2.8 \times 2.7 \text{ in})$	Relative Humidity	0% to 100% (non-condensing)
	Ingress Protection	IP66
nstallation Pole, wall or DIN Rail Mounting	Dimension	105.4 × 71 × 69.5 mm (4.1 × 2.8 × 2.7 in)
1 old, fruit of Birt fluit frounting	Installation	Pole, wall or DIN Rail Mounting

^{*} Tested under laboratory conditions and for guideline purposes only.