Industrial Temperature Sensor

Milesight

Featuring LoRaWAN®

EM500-PT100



EM500-PT100 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, EM500-PT100 can work up to 10 years with 19000 mAh battery. Combining with Milesight LoRaWAN® 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
- > IP67 waterproof enclosure for harsh environment applications
- Built-in 19000 mAh replaceable battery and work for 10 years without replacement
- > Store historical records locally and support retransmission
- > Equipped with NFC for easy configuration
- Compliant with standard LoRaWAN[®] 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 [®] , Milesight D2D					
Antenna	Internal Antenna					
Frequency	CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4					
Tx Power	16dBm(868MHz)/20dBm(915MHz)/19dBm(470MHz)					
Sensitivity	-137dBm @300bps					
Mode	OTAA/ABP Class A					
Measurement						
Connection Type	3-wire connection					
	T050: -200 °C~50 °C					
	T200: -50 °C~200 °C					
Range	T500: -50 °C~500 °C					
	T800: -50 °C~800 °C					
	(Customizable from -200 °C~ 800 °C)					
Accuracy	±0.5°C					
Resolution	0.1°C					
Others						
LED	1 × LED Indicator (Internal)					
Button	1 × Power/Reset Button (Internal)					
USB	1 × USB Type-C(Internal) for Configuration and Console					
Software						
Power On & Off	NFC, power button (Internal)					
Configuration	Mobile App (via NFC), PC software(via USB Type-C), Downlink					
	Data Storage (1,000 entries), Data Retransmission, Data Retrievability,					
Advanced Feature	Threshold Alarm, Change Alarm, Milesight D2D Controller					
Transceiver Physical Characteristics						
Power Supply	1 × 19000 mAh ER34615 Li-SOCL ₂ Battery					
Battery Life*	10 years (10 min interval, 25 °C)					
Operating Temperature	-30°C~70°C					
Relative Humidity	0% to 100% (non-condensing)					
Ingress Protection	IP67					
Housing&Color	ABS + PC, Grey					
Weight	362.7g (With battery, mounting bracket and probe)					

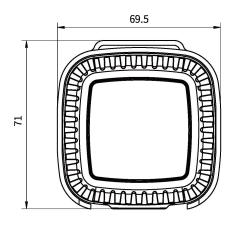
Dimension	105.4 × 71 × 69.5 mm (4.1 × 2.8 × 2.7 in)				
Installation	Pole, Wall or DIN Rail Mounting				
Sensor Physical Characteristics					
Probe Type	Straight tube (Customizable)				
Cable Length	1.5 m (Customizable)				
Installation	Contact				
Approvals					
Regulatory	CE, FCC, ISED, ICASA, Telec				
Environmental	RoHS				

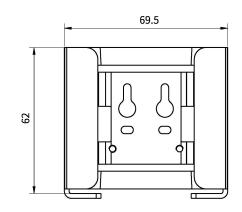
^{*} Tested under laboratory conditions and for guideline purposes only.

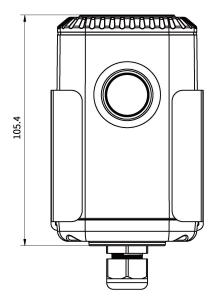
Ordering Information

Model	PN	Sensor Description			
		Range	Accuracy Class	Probe	Cable
EM500-PT100	T050	-200 °C~50 °C	А	304 Stainless Steel, Φ4*30 mm, IP30	Teflon, -200 °C~290 °C
	T200	-50 °C~200 °C	А	304 Stainless Steel, Φ4*30 mm, IP67	Teflon, -200 °C~290 °C
	T500	-50 °C~500 °C	А	304 Stainless Steel, Φ4*30 mm, IP30	Fiberglass, -50 °C~500 °C
	T800	-50 °C~800 °C	В	316 Stainless Steel, Φ5*50 mm, IP30	Fiberglass, -50 °C~800 °C

◆ Dimensions(mm)







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