

Temperature&Humidity Sensor

Featuring LoRaWAN®

EM300-TH





EM300-TH is a compact environment monitoring sensor for measurement of temperature and humidity and transmitting data using LoRaWAN® technology. With this low power consumption technology, EM300-TH can work up to 5 years with 4000 mAh battery. Combining with Milesight LoRaWAN® gateway and Milesight IoT Cloud solution, users can manage all sensor data remotely and visually.

EM300-TH is widely used for both indoor and outdoor applications such as offices, hospitals, factories, greenhouses, etc.

Features

- > Embedded with Sensirion high-precision sensor chip
- Ultra-wide-distance transmission up to line of sight of 10km
- > IP67 UV-resistant and waterproof enclosure for harsh environment applications
- > Built-in 4000 mAh replaceable battery and works for more than 5 years without replacement
- Store locally 3, 000 historical records and support retransmission to prevent data loss
- Support Milesight D2D protocol to enable ultra-low latency and direct control without gateways
- Equipped with NFC for easily configuration
- > Compliant with standard LoRaWAN® gateways and network servers
- Quick and easy management with Milesight IoT Cloud solution



Specifications

Technology LoRaWAN®, Milesight D2D Frequency CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4 Tx Power 16dBm(868 MHz)/20dBm(915 MHz)/19dBm(470 MHz) Sensitivity -137dBm @300bps Mode OTAA/ABP Class A Measurement Temperature Range -30°C to + 70°C Accuracy 0°C to + 70°C (+/- 0.3°C), -30°C to 0°C (+/- 0.6°C) Resolution 0.1°C Humidity Range 0% to 100% RH Accuracy 10% to 90% RH (+/- 3%), below 10% and above 90% RH (+/- 5%) Resolution 0.5% RH Operation Power On & Off NFC, Power Button (Internal) Configuration NFC Configuration via Mobile App Milesight D2D Controller, Data Storage, Data Retransmission Physical Characteristics Power Supply 1 × 4000 mAh ER18505 Li-SOCL2 Battery (extendable to 2 batteries) Battery Life* 10 years (10 min interval) Operating Temperature -30°C to +70°C		
Frequency CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4 Tx Power 16dBm(868 MHz)/20dBm(915 MHz)/19dBm(470 MHz) Sensitivity -137dBm @300bps Mode OTAA/ABP Class A Measurement Temperature Range -30°C to + 70°C Accuracy 0°C to + 70°C (+/- 0.3°C), -30°C to 0°C (+/- 0.6°C) Resolution 0.1°C Humidity Range 0% to 100% RH Accuracy 10% to 90% RH (+/- 3%), below 10% and above 90% RH (+/- 5%) Resolution 0.5% RH Operation Power On & Off NFC, Power Button (Internal) Configuration NFC Configuration via Mobile App Milesight D2D Controller, Data Storage, Data Retransmission Physical Characteristics Power Supply 1 × 4000 mAh ER18505 Li-SOCL2 Battery (extendable to 2 batteries) Battery Life* 10 years (10 min interval) Operating Temperature -30°C to +70°C	Wireless Transmission	
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Measurement Temperature Range	Tx Power	16dBm(868 MHz)/20dBm(915 MHz)/19dBm(470 MHz)
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Accuracy 10% to 90% RH (+/- 3%), below 10% and above 90% RH (+/- 5%) Resolution 0.5% RH Operation Power On & Off NFC, Power Button (Internal) Configuration NFC Configuration via Mobile App Advanced Feature Milesight D2D Controller, Data Storage, Data Retransmission Physical Characteristics Power Supply 1 × 4000 mAh ER18505 Li-SOCL2 Battery (extendable to 2 batteries) Battery Life* 10 years (10 min interval) Operating Temperature -30°C to +70°C	Humidity	
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Operation Power On & Off NFC, Power Button (Internal) Configuration NFC Configuration via Mobile App Advanced Feature Milesight D2D Controller, Data Storage, Data Retransmission Physical Characteristics Power Supply 1 × 4000 mAh ER18505 Li-SOCL ₂ Battery (extendable to 2 batteries) Battery Life* 10 years (10 min interval) Operating Temperature -30°C to +70°C	Accuracy	10% to 90% RH (+/- 3%), below 10% and above 90% RH (+/- 5%)
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Advanced Feature Milesight D2D Controller, Data Storage, Data Retransmission Physical Characteristics Power Supply 1 × 4000 mAh ER18505 Li-SOCL ₂ Battery (extendable to 2 batteries) Battery Life* 10 years (10 min interval) Operating Temperature -30°C to +70°C	Power On & Off	NFC, Power Button (Internal)
Physical Characteristics Power Supply 1 × 4000 mAh ER18505 Li-SOCL ₂ Battery (extendable to 2 batteries) Battery Life* 10 years (10 min interval) Operating Temperature -30°C to +70°C	Configuration	NFC Configuration via Mobile App
Power Supply 1 × 4000 mAh ER18505 Li-SOCL ₂ Battery (extendable to 2 batteries) Battery Life* 10 years (10 min interval) Operating Temperature -30°C to +70°C	Advanced Feature	Milesight D2D Controller, Data Storage, Data Retransmission
Battery Life* 10 years (10 min interval) Operating Temperature -30°C to +70°C	Physical Characteristics	
Operating Temperature -30°C to +70°C	Power Supply	1 × 4000 mAh ER18505 Li-SOCL ₂ Battery (extendable to 2 batteries)
	Battery Life*	10 years (10 min interval)
Relative Humidity 0% to 100% (non-condensing)	Operating Temperature	-30°C to +70°C
	Relative Humidity	0% to 100% (non-condensing)
Ingress Protection IP67	Ingress Protection	IP67
Dimension 88.5 × 85.3 × 27 mm (3.48 × 3.36 × 1.06 in)	Dimension	88.5 × 85.3 × 27 mm (3.48 × 3.36 × 1.06 in)
Installation Wall Mounting	Installation	Wall Mounting
Approvals		
	Regulatory	CE, FCC
Environmental RoHS	Environmental	RoHS

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













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