

# Temperature & Humidity Sensor

Featuring LoRaWAN®

**EM300-TH**

*Milesight*



EM300-TH is a compact environment monitoring sensor for measurement of temperature and humidity and transmitting data using LoRaWAN® technology. In addition to LoRaWAN® technology with low power consumption, it has a built-in high-capacity battery available for several years without replacement. Combining with Milesight LoRaWAN® gateway and Milesight Development Platform solution, users can manage all sensor data remotely.

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 several years without replacement
- Store locally 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 and Milesight Development Platform

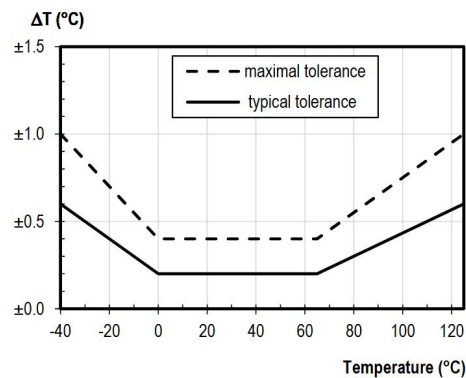
## ◆ Specifications

<b>Wireless Transmission</b>	
Technology	LoRaWAN <sup>®</sup> , Milesight D2D
Antenna	Internal Antenna
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
<b>Measurement</b>	
<b>Temperature</b>	
Range	-30°C to + 70°C
Accuracy <sup>[1]</sup>	Typ.: ±0.6°C (-30°C ~ 0°C) ±0.3°C (0°C ~ 70°C)
Resolution	0.1°C
<b>Humidity</b>	
Range	0% to 100% RH
Accuracy <sup>[2][3]</sup>	Typ.: ±3% (10% ~ 90% RH @25°C) ±5% (0% ~ 10% RH @25°C, 90% ~ 100% RH @25°C )
Resolution	0.5% RH
<b>Others</b>	
LED	1 × LED Indicator (Internal)
Button	1 × Power/Reset Button (Internal)
<b>Software</b>	
Power On & Off	NFC, Power Button (Internal)
Configuration	NFC via Mobile App, Downlink
Advanced Feature	Threshold Alarm, Milesight D2D Controller, Data Storage (2, 800 entries), Data Retransmission, Data Retrievability
<b>Physical Characteristics</b>	
Power Supply	1 × 4000 mAh ER18505 Li-SOCL <sub>2</sub> Battery (8000 mAh Version Optional)
Battery Life <sup>[4]</sup> (10 min interval, 25°C)	Over 10 Years (SF7, EU868 & US915) Around 5.8 Years (SF10, EU868)

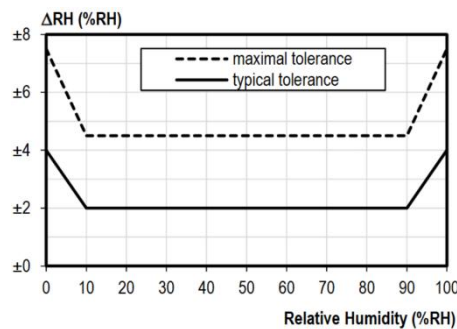
	Around 4.2 Years (SF10, US915)
Operating Temperature	-30°C to +70°C
Relative Humidity	0% to 100% (non-condensing)
Ingress Protection	IP67
Housing&Color	ABS + PC(Flame Retardant), White
Weight	95.6g (with 1 battery)
Dimension	88.5 × 85.3 × 27 mm (3.48 × 3.36 × 1.06 in)
Installation	Wall Screw Mounting, 3M Tape Mounting, Cable-Tie Mounting
<b>Approvals</b>	
Regulatory	CE, FCC, ISED, RCM, Telec, ICASA, EN12830
Environmental	RoHS

**Note:**

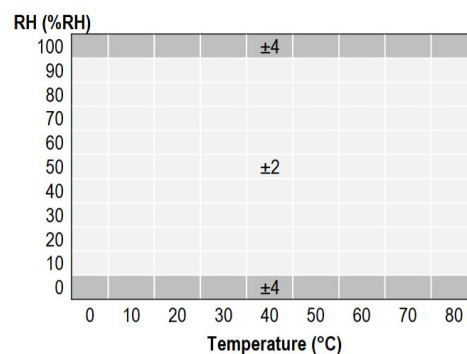
1. Accuracy corresponding to the temperature:



2. Accuracy corresponding to the relative humidity:



3. Typical RH accuracy corresponding to the temperature:



4. The battery life is tested under laboratory conditions and for guideline purposes only.

◆ Dimensions (mm)

