# Temperature\&Humidity Sensor <br> <br> Featuring LoRaWAN ${ }^{\circledR}$ 

 <br> <br> Featuring LoRaWAN ${ }^{\circledR}$} EM300-TH


EM300-TH is a compact environment monitoring sensor for measurement of temperature and humidity and transmitting data using LoRaWAN ${ }^{\circledR}$ technology. With this low power consumption technology, EM300-TH can work up to 5 years with 4000 mAh battery. Combining with Milesight LoRaWAN ${ }^{\circledR}$ 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 10 km
> IP67 UV-resistant and waterproof enclosure for harsh environment applications
> Built-in 4000 mAh replaceable battery and works for 5 years without replacement
> Equipped with NFC for easily configuration
> Compliant with standard LoRaWAN ${ }^{\circledR}$ gateways and network servers
> Quick and easy management with Milesight loT Cloud solution

## Specifications

## Wireless Transmission

| Technology | LoRaWAN ${ }^{\circledR}$ |
| :--- | :--- |
| Frequency | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923 |
| Tx Power | $16 \mathrm{dBm}(868) / 20 \mathrm{dBm}(915) / 19 \mathrm{dBm}(470)$ |
| Sensitivity | -137 dBm @300bps |
| Mode | OTAA/ABP Class A |
| Measurement |  |
| Temperature | $-30^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$ |
| Range | $0^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}\left(+/-0.3^{\circ} \mathrm{C}\right),-30^{\circ} \mathrm{C}$ to $0^{\circ} \mathrm{C}\left(+/-0.6^{\circ} \mathrm{C}\right)$ |
| Accuracy | $0.1^{\circ} \mathrm{C}$ |
| Resolution |  |
| Humidity |  |


| Range | $0 \%$ to $100 \% \mathrm{RH}$ |
| :--- | :--- |
| Accuracy | $10 \%$ to $90 \% \mathrm{RH}(+/-3 \%)$, below $10 \%$ and above $90 \% \mathrm{RH}(+/-5 \%)$ |
| Resolution | $0.5 \% \mathrm{RH}$ |
| Operation |  |
| Power On \& Off | NFC, Power Button (Internal) |
| Configuration | NFC Configuration via Mobile App |

## Physical Characteristics

| Power Supply | $1 \times 4000 \mathrm{mAh}$ ER18505 Li-SOCL2 |
| :--- | :--- |
| battery (extendable to 2 batteries) |  |
| Battery Life* | $>5$ years $(10 \mathrm{~min}$ interval, SF10) |
| Operating Temperature | $-30^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$ |
| Relative Humidity | $0 \%$ to $100 \%$ (non-condensing) |
| Ingress Protection | $I P 67$ |
| Dimension | $88.5 \times 85.3 \times 27 \mathrm{~mm}(3.48 \times 3.36 \times 1.06 \mathrm{in})$ |
| Installation | Wall Mounting |

* Tested under laboratory conditions and for guideline purposes only.

