Indoor Ambience Monitoring Sensor AM100 Series (AM103 & AM103L)



AM103 is a compact indoor ambience monitoring sensor for measurement of temperature, humidity and CO_2. These data will be shown on the E-ink screen in real-time, which allow to quantify the indoor environment and comfort. AM103 is widely used for office, store, classroom, hospital, etc.

Apart from screen display, sensor data can also be transmitted using LoRaWAN®. With this low-power technology, AM103 can work for more than 3 years with 2 replaceable batteries. Combining with Milesight LoRaWAN® gateway and Milesight IoT Cloud solution, users can manage all sensor data remotely and visually.

◆ Features

- Integrated with multiple sensors like humidity, temperature and CO_2
- Visual data and clear emoticon to understand the comfort level easily via E-ink screen
- Smart hibernate mode schedulely to save battery power
- Equipped with traffic light indicator to indicate multi-level CO_2 threshold alarms
- More than 3 years work without replacing batteries
- Store locally 560 historical records and support retransmission to prevent data loss
- Built-in NFC for easy configuration
- Compliant with standard LoRaWAN® gateways and network servers

➢ Quick and easy management with Milesight IoT Cloud solution

◆ Specifications

Wireless Transmission	
Technology	LoRaWAN®
Frequency	CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4
Tx Power	16 dBm (868 MHz)/22 dBm (915 MHz)/19 dBm (470 MHz)
Sensitivity	-137dBm @300bps
Mode	OTAA/ABP Class A
Sensors	
Temperature	
Operating Principle	Digital CMOSens® technology (MEMS)
Range	-20°C - 60°C
Accuracy[1]	± 0.2°C
Resolution	0.1°C
Humidity	
Operating Principle	Digital CMOSens® technology (MEMS)
Range	0% - 100% RH
Accuracy	± 2% RH
Resolution	0.5% RH
Carbon Dioxide (CO_2)	
Sensor Type	Nondispersive Infrared (NDIR)
Range	400 to 5000 ppm
Accuracy	± (30 ppm + 3 % of reading) (0°C to +50°C)
Resolution	1 ppm
Display & Configuration	
Display	AM103: 2.13-inch Black & White E-Ink Screen AM103L: Not Support
Button	1 × Power Button
LED	1 × Traffic Light Status Indicator
Configuration	Mobile App via NFC
Physical Characteristics	
Power Supply	2 × 2700 mAh ER14505 Li-$SOCl_2$ Replaceable Batteries
Battery Life*	AM103: Around 3 Years

(10 min interval, 25°C)	AM103L: Around 4 Years
Operating Temperature	-20°C to +60°C (E-Ink Screen: 0°C - 40°C)
Relative Humidity	0% to 95% (non-condensing)
Ingress Protection	IP30
Dimension	68 × 65 × 20.5 mm (2.68 × 2.56 × 0.81 in)
Installation	Wall Mounting

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

◆ Dimensions(mm)

