Indoor Ambience Monitoring Sensor AM100 Series (AM103 & AM103L)

Milesight

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

➢ Equipped with traffic light indicator to indicate multi-level CO_2 threshold alarms

➢ More than 3 years work without replacing batteries

➢ Built-in NFC for easy configuration

➢ Compliant with standard LoRaWAN® gateways and network servers

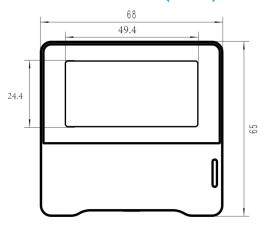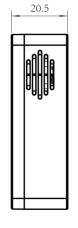➢ Quick and easy management with Milesight IoT Cloud solution

◆ 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	
Sensor Type	MEMS
Range	-20°C to + 70°C
Accuracy	0°C to + 70°C (+/- 0.3°C), -20°C to 0°C (+/- 0.6°C)
Resolution	0.1°C

Humidity	
Sensor Type	MEMS
Range	0% to 100% RH
Accuracy	10% to 90% RH (± 3%), below 10% and above 90% RH (± 5%)
Resolution	0.5% RH

Carbon Dioxide (CO_2)	
Sensor Type	Nondispersive Infrared (NDIR)
Range	400 to 5000 ppm
Accuracy (0°C to +50°C)	± (30 ppm + 3 % of reading)
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

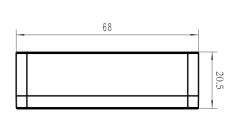| Physical Characteristics	
Power Supply	2 × 2700 mAh ER14505 Li-SOCl₂ Replaceable Batteries
Battery Life[1]	AM103: Around 3 Years

[1] Test under laboratory conditions and for guideline purposes only.

(10 min interval)	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

◆ Dimensions(mm)

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