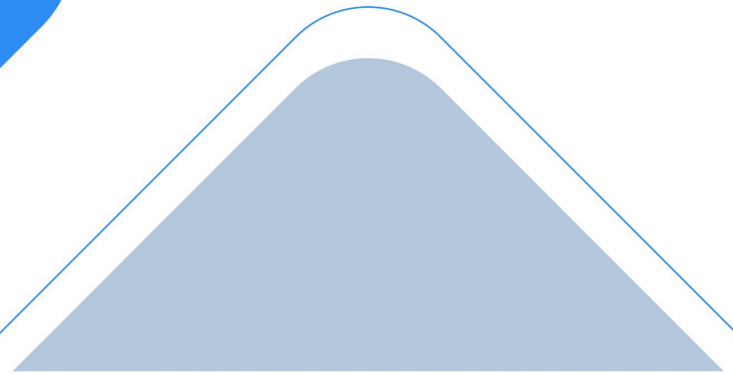




AM100 Series

Ambience Monitoring Sensors



◆ Introduction

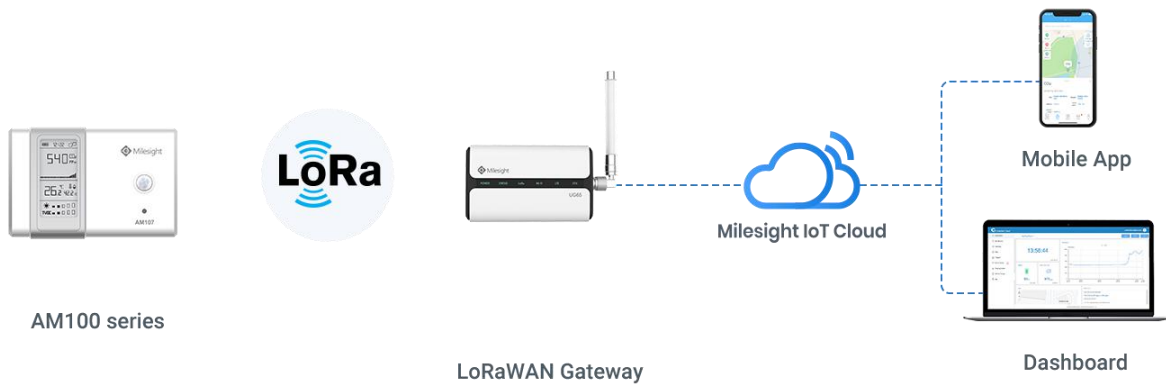
AM100 series is a compact indoor ambience monitoring sensor for measurement of temperature, humidity, light, CO₂ concentration, TVOC, barometric pressure and motion. These data will be shown on the E-ink screen in real-time, which allow to quantify the indoor environment and comfort. AM100 series is widely used for offices, stores, classrooms, hospitals, etc.

Apart from screen display, sensor data is also transmitted using LoRaWAN[®] technology. With this low power consumption technology, AM100 series can work for one year with 2 AA 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, CO₂, light, barometric pressure, etc.
- Visual display via E-ink screen
- Standard AA batteries
- One year work without replacing batteries
- Equipped with NFC and type-C port for easy configuration
- Compliant with standard LoRaWAN[®] gateways and network servers
- Quick and easy management with Milesight IoT Cloud solution

◆ Application Example



◆ Specifications

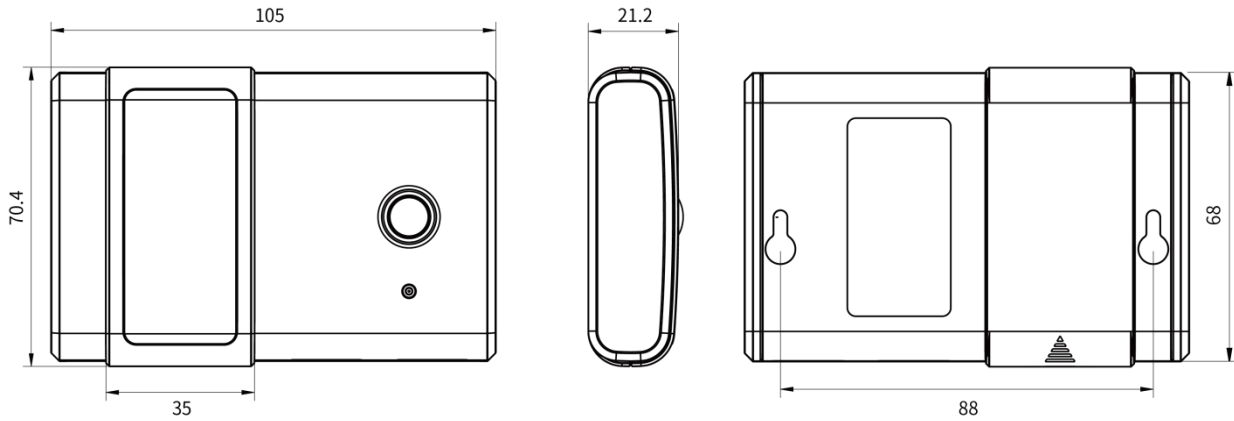
| Model | AM104 | AM107 |
|--|---|-------|
| Wireless Transmission | | |
| Technology | LoRaWAN® | |
| Frequency | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923 | |
| Tx Power | 16dBm(868)/20dBm(915)/19dBm(470) | |
| Sensitivity | -147dBm @300bps | |
| Mode | OTAA/ABP Class A | |
| Sensors | | |
| Temperature | | |
| 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 | | |
| Range | 0% to 100% RH | |
| Accuracy | 10% to 90% RH (+/- 3%), below 10% and above 90% RH (+/- 5%) | |
| Resolution | 0.5% RH | |
| PIR | | |
| Detection Area | 94 ° Horizontal, 82 ° Vertical | |
| Detection Distance | 5 m | |
| Output Range | 0-65535 | |
| Light | | |
| Range | 60000 lux (Visible + IR, IR) | |
| Accuracy | ±30% | |
| Carbon Dioxide (CO₂) | | |

| | | |
|------------------------------------|--|--|
| Range | — | 400 - 5000 ppm |
| Accuracy | — | ±30 ppm or ±3 % of reading |
| Resolution | — | 1 ppm |
| TVOC | | |
| Range | — | 0 - 60000 ppb |
| Accuracy | — | ±15 % |
| Resolution | — | 1 ppb |
| Long-term Stability | — | 1.3 % accuracy drift per year |
| Barometric Pressure | | |
| Range | — | 300 - 1100 hPa (-40°C - 85°C) |
| Accuracy | — | ±1 hPa |
| Resolution | — | 0.1 hPa |
| Display & Configuration | | |
| Display | 2.13-inch Black & White E-Ink Screen | |
| Configuration | <ol style="list-style-type: none"> 1. Mobile APP via NFC 2. PC software via NFC or USB Type-C port | |
| Physical Characteristics | | |
| Power Supply | 2 × AA Alkaline battery or Type-C port power supply | |
| Battery Life* (10 min interval) | 1.5 years (SF7) 1.2 years (SF10) | 0.9 years (SF7) 0.7 years (SF10) 1.1 years (VOC disabled, SF7) 0.9 years (VOC disabled, SF10) |
| Operating Temperature | 0°C to +45°C | |
| Relative Humidity | 0% to 100% (non-condensing) | |
| Ingress Protection | IP30 | |
| Dimension | 105 × 70.4 × 21.2 mm (4.1 × 2.8 × 0.8 in) | |
| Installation | Wall Mounting | |
| Approvals | | |
| Regulatory | CE, FCC, LoRaWAN® Certified | |
| EMC | EN 55032, EN 55035 | |
| EMS | IEC 61000-4-2 Level 3 IEC 61000-4-3 Level 2 IEC 61000-4-4 Level 4 IEC 61000-4-5 Level 3 IEC 61000-4-6 Level 3 | |

| | |
|-----------------|---|
| | IEC 61000-4-8 Level 4 |
| Radio Frequency | FCC Part 15B, FCC Part 15.247, EN 300 330, EN 301 489-1/3, EN 300 220-1/2 |
| Safety | EN62368-1 |

* Tested under laboratory conditions and for guideline purposes only.

◆ Dimensions(mm)



◆ PIR Area

