Milesight LoRaWAN® Sensor

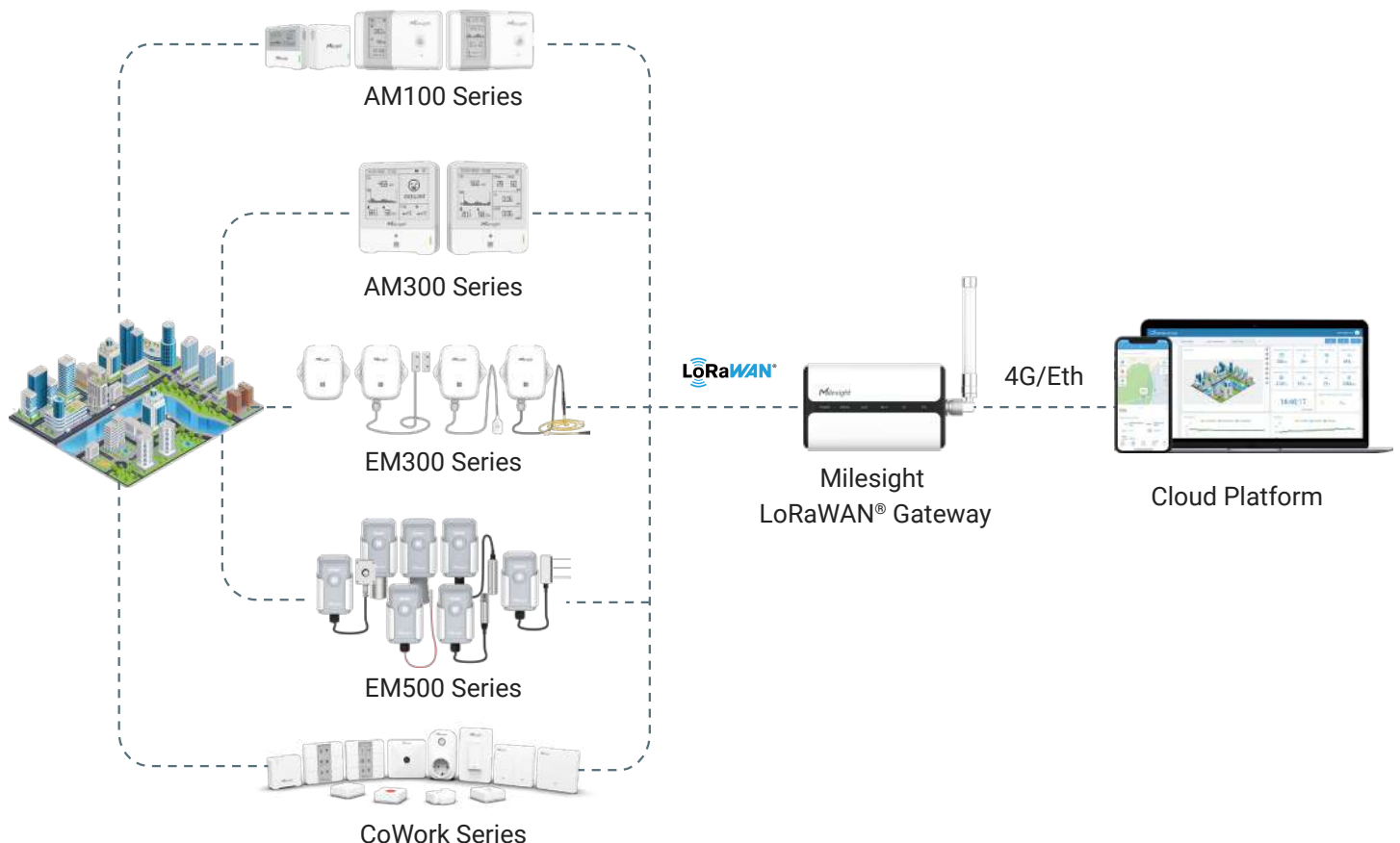## Collect Data and Monitor Environment with Ease

Milesight

Our range of sensors is the result of our know-how in the development of wireless IoT projects. They are all compatible with LoRaWAN® (Long Range Wide-Area Network) that enables ultra long range communication combined with low power consumption. Leveraging NFC technology, they are easy to use. With high quality and high performance, they are ideal for various application scenarios and are tested and used worldwide.

Build Solutions with Milesight LoRaWAN® Sensors

AM100 Series

AM300 Series

EM300 Series

EM500 Series

CoWork Series

LoRaWAN®

Milesight
LoRaWAN® Gateway

4G/Eth

Cloud Platform

Ambience Monitoring Sensor

- ## 3-in-1 IAQ Sensor

○ AM103   ○ AM103L

3-in-1 IAQ Sensor

AM103 is a compact indoor ambience monitoring sensor for the measurement of temperature, humidity and CO_2. These data will be shown on the E-ink screen (AM103 only) in real-time, which allows to quantifying the indoor environment and comfort. AM103 is widely used for offices, stores, classrooms, hospitals, etc.

Overall Features

- ### 3 Sensors in One
  Temperature, humidity and CO_2

- ### Vivid Emoticon Indication (AM103)
  Indicate comfort level by emoticon on screen

- ### Traffic Light Status Indicator
  Indicate the ambience conditions

Ambience Monitoring Sensor

- 4/7-in-1 IAQ Sensor

AM104   AM107

4/7-in-1 IAQ Sensor

Milesight 4/7-in-1 IAQ Sensor consists of multiple smart sensors that are built specifically for indoor air quality monitoring. It has a clean and modern design that makes it discrete in indoor ambience.

Overall Features

- **Multiple Sensors in One**
  AM104: Temperature, humidity, activity level (PIR), light
  AM107: Temperature, humidity, activity level (PIR), light, CO_2, TVOC, barometric pressure

- **Clean and Modern Design**
  Bring "less is more" concept to indoor or HVAC environment

- **NFC Technology**
  Enable easy configuration & on/off operation

- **E-ink Screen**
  Offer high display clarity & sunlight readability

- **AA Alkaline Batteries**
  Last for 1 year & easy to replace

- **Smart Screen Mode**
  Save more power & prolong the use life of batteries

- **Compliant with Milesight IoT Cloud**

Ambience Monitoring Sensor

- 7/9-in-1 IAQ Sensor

AM307   AM319

7/9-in-1 IAQ Sensor

Milesight 7/9-in-1 IAQ Sensor is an all-around ambience monitoring device designed for indoor air quality monitoring. It collects more indoor ambience conditions through 9 built-in sensors, delivers the data to both mobile app and has 4.2 inch E-ink screen, helping you to understand the indoor comfort & health level visually.

Overall Features

- **Multiple Sensors in One**
  AM307: Temperature, humidity, PIR, light, TVOC, barometric pressure, CO_2
  AM319: Temperature, humidity, PIR, light, TVOC, barometric pressure, CO_2, PM2.5 & PM10, HCHO/O_3

- **Emoticon Indication**
  Indicate comfort level by emoticon on screen

- **Traffic Light Indicator & Buzzer**
  Indicate the ambience conditions & threshold alarms

- **Better Screen Display**
  Support light & dark color theme with three display styles

- **Anti-Theft Design**
  Prevent the device from being taken away thoughtlessly

Environment Monitoring Sensor

- EM300 Series

EM300-TH EM300-SLD EM300-ZLD EM300-MCS EM310-UDL EM310-TILT

EM300 Series - Environment Monitoring Sensor

Featuring a simple yet modern design, compact size and waterproof capability, the EM300 series is ideal to ideal to fit into the indoor or outdoor environment.

Overall Features

- **Industrial-grade Digital Sensor**
  - Support extra temperature and humidity detection (except UDL & TILT)
  - High accuracy of detection
  - Rated at IP 67

- **LoRaWAN® Capabilities**
  With a range of up to 15 km in rural areas and 2 km in urban areas

- **2 x ER18505 4000 mAh Li-SOCl$_2$ Battery Lasting over 10 years**

- **Easy Configuration via NFC**

Environment Monitoring Sensor

Features Comparison

Model	Features
EM300-TH Temperature & Humidity Sensor	**Embedded with high-precision sensor chip** Measure range from -30 °C to 70 °C & 0% to 100% RH
EM300-SLD/ZLD Leak Detection Sensor	**Detect water leakage based on the principle of liquid conduction** (SLD: by a small water probe ZLD: by a long cable) Prevent potential water damage to properties or assets
EM300-MCS Magnetic Contact Switch Sensor	**High sensitivity with door & window security detection** Alarm for intrusion or unauthorized entry to your monitored conditions
EM310-UDL Ultrasonic Distance/ Level Sensor	**Non-contact distance detection** 3-450cm measurement range and short blind zone **Built-in 3-axis accelerometer sensor** Detect device gesture to monitor device tilt status
EM310-TILT Tilt Sensor	**3-Axis angle detection via MEMS accelerometer & built-in zero adjustment** 36 customized trigger rules & IP67 waterproof NFC configuration & easy installation

Environment Monitoring Sensor

- ## EM500 Series

EM500-SMTC

EM500-LGT

EM500-PP

EM500-SWL

EM500-PT100

EM500-UDL

EM500-CO$_2$

EM500 Series - Outdoor Environment Monitoring Sensor

The EM500 Series are LoRaWAN® sensors designed for different professional applications. These sensors adopt a high ingress protection rating enclosure for use in the most challenging outdoor environmental conditions, and are powered by built-in batteries for years-long use life.

Overall Features

- IP67/65 rating

- Built-in 19000 mAh High-capacity Battery

- Equipped with NFC for Easy Configuration

- Ultra-wide-distance transmission up to 15 km at rural area

Features Comparison

Model	Features
EM500-SMTC/SMT Soil Moisture, Temperature and Electrical Conductivity Sensor	• Research-grade Accuracy in Multiple Soil Media • Corrosion Resistance & Tough Probe • Rapid Monitoring of Growing Conditions • IP67 Waterproof Enclosure
EM500-LGT Light Sensor	• Measuring Ranges from 0 to 100, 000 lux with High Precision • 10-year Battery Life with Low Maintenance Cost • Accurate Detection of Any Light Changes • IP67 Waterproof Enclosure
EM500-PP Pipe Pressure Sensor	• Shock & Vibration & Corrosion Resistant • Measuring Accuracy around ±0.5% FS to Prevent Leakage danger • Temperature Compensation for Correcting Temperature Changes • IP67 Waterproof Enclosure
EM500-SWL Submersible Water Level Sensor	• Customizable Measuring Range Up to 200 m • Submersible Pressure Sensor not Affected by Foam, Wind, or Rain • IP67 Full Sealed Plastic Waterproof Design • Customizable for Oil and Other Non-Corrosive Media
EM500-PT100 Industrial Temperature Sensor	• Vibration-resistant Construction • Three-wire Circuit • Customizable Temperature (-200 ~ 800℃) • Terminal Heads Varying from the Straight Tube, Armored, SMT, Threaded, Magnet • IP67 Waterproof Enclosure
EM500-UDL Ultrasonic Distance/Level Sensor	• Measuring Ranges: 0.3-5m/0.5-10m • Measurements in Very Small Containers or Openings • Suitable for Measuring Benign & Chemical Mediums • Non-contact Detection for Any Corrosive Liquid Chemicals or Combustibles • IP67 Waterproof Enclosure
EM500-CO₂ Carbon Dioxide Sensor (4 in 1)	• Measuring Ranges (0 to 50°C): 400 ppm to 5000 ppm • Easy Installation in Any Enclosed Areas or Outdoor Environment • 4 in 1 (CO_2, barometric pressure, humidity, temperature) • IP65 Waterproof Enclosure

CoWork Series

CoWork Series Featuring LoRaWAN®

CoWork Series is specially designed for office efficiency improvement and carbon footprint reduction. Empowered by AI and IoT technology, these sensors help to transform work environment into a smart, interconnected and comfortable space with the help of gateway and cloud platform.

Features Comparison

Model	Features
VS121 AI Workplace Sensor	● **Anonymous Detection** No image data is collected, free from privacy concerns ● **＞95% Recognition Rate** Based on advanced AI identification and analysis technology ● **Custom Detection Region** Support up to 16 mapped regions for detection & 78m² coverage ● **Equipped with Wi-Fi for Web GUI Configuration & Compatible with GDPR**
WS101 Smart Button	● **Support Multiple Press Actions** Control devices, trigger a scene or send emergency alarms ● **Convenient Size** Easy to install ● **Built-in LED Indicator & Buzzer** Indicate press actions, network status, low battery ● **Support Milesight LoRa D2D Protocol** Enable ultra-low latency and directly control without gateway
WS136 & WS156 Smart Scene Panel	● **Support Milesight LoRa D2D Protocol** Enable ultra-low latency and directly control without gateway ● **Battery-powered & Wire-free** Long battery life lasts for more than 5 years ● Customizable display with E-Ink screen for WS156 ● Customizable display with E-Ink screen for WS156

CoWork Series

WS202
PIR & Light Sensor

- Occupancy or Motion Detection
  Based on passive infrared and fresnel lens
- Convenient Size
  Easy to install
- Built-in Light Sensor & PIR Sensor
  Built-in sensors to achieve triggers
- Support Milesight LoRa D2D Protocol
  Enable ultra-low latency and directly control without gateway

WS301
Magnetic Contact Switch

- 100% Wire-Free
  Suitable for various doors/windows of different materials
- Tamper Detection
  Alert administrator to any attempts to dismount the device
- Built-in 1200 mAh Replaceable Battery
  Long battery life lasts for more than 4 years
- Built-in LED Indicator
  Indicate network status, open/close status, tamper and low battery indication
- Support Milesight LoRa D2D Protocol
  Enable ultra-low latency and directly control without gateway

WS52x
Portable Socket

- Remote & Time-Based ON/OFF
  Create schedules to turn the remote appliances on/off automatically
- Measurement of Power Consumption, Current, Voltage etc.
  Save power & lower electric bills
- Overload Protection
  Prevent connected appliances, safety fuse and the smart socket itself
  from damage of overcurrent
- Support Multicast
  Control switch of devices in bulk

WS302
Sound Level Sensor

- **Flexible Sound Level Measurement**
  Peak, average and latest value

- **LED Indicator**
  Indicate sound level by green, red and blink light

- **NFC Configuration & Wire-free Installation**
  Enable easy configuration & on/off operation

WS50x
Wall Switch

- **Time-delay, Schedule, Remote and Scene-based Control**
  Multicast for remote control in bulk

- **1/2-gang & Multinational Versions**
  AU, EU, UK &US versions to choose from

- **Power Consumption Statistics**
  Measurement of power consumption, current, voltage etc.

- **Support Milesight LoRa D2D Protocol**
  Enable ultra-low latency and direct control without gateway

Milesight IoT Cloud

Milesight IoT Cloud provides unparalleled levels of vertical integration with Milesight LoRaWAN® sensors. Through field data visualization, it allows users to monitor and control remote assets on an intuitive dashboard. What's more, it enables trigger reception, report, sharing, transferring etc., offering extraordinary flexibility of managing connected devices.

Free Trial