

EMPOWERING SMART BUILDING WITH MILESIGHT IOT

The Silent Revolution Transforming Smart Buildings



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Milesight Profile

A fast-growing high-tech company delivering smart IoT products and solutions.

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Milesight IoT Smart building solution

People Sensing Driven Facility Management, Energy Management, and Space Management Solutions

03

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Comprehensive IoT solutions designed to enable smart building.

04

Success Stories

Worldwide success stories reveal how the solution truly satisfies customer needs for great performance.

01 MILESIGHT PROFILE

- About Milesight
- Milesight Product Portfolio

ABOUT MILESIGHT

Milesight offers multi-potential sensing products that accurately capture the most relevant and significant data for a growing variety of needs and applications.

Across AI, 5G, IoT, and other forward-thinking technologies, we innovatively extend the technological potential to unique niches and scenarios. With a keen perception of data value, we prioritize adaptive agility to quickly respond to customer-specific challenges and deliver safety, efficiency, and business insights.

In collaboration with a diverse partner ecosystem, we are committed to realizing data value and making real and positive impacts in the fields of smart building, intelligent traffic, intelligent security, smart city, and beyond.



74.76%+
CAGR



SENSING

56%

R&D Staff



>15%

Revenue invested in
R&D and innovation



120+

Serves to 120+
Countries and Regions



1,000,000 +

Milesight Devices Deployed
Globally

MILESIGHT PRODUCT PROFOLIO

Milesight

Milesight is a multi-dimensional sensing products iot provider transforming how the world is perceived and connected, and delivering safety, efficiency, and business insights.

Sensing Nodes



Indoor Air Quality



Occupancy & People Counting



Temp.&Humi. Detection



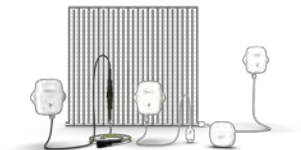
Energy Efficiency Control & Monitoring



Environmental Sensing



Distance Detection



Water Leak Detection



LoRa® Controllers



IoT Weather Station

Connection



LoRaWAN® Gateway



Industrial Cellular Routers



5G Suit

Vertical Industries



Smart Building



Smart Retail



Smart Agriculture



Smart City



Cold Chain& Logistic



Smart Industry



Cloud



DeviceHub



Milesight VPN



Milesight Development Platform




OPENSENSE®
FUTURE-PROOF TECHNOLOGIES

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02 MILESIGHT IOT SMART BUILDING SOLUTION

People Sensing Driven Facility Management,
Energy Management, and Space Management Solutions

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MILESIGHT PEOPLE SENSING DRIVEN SMART BUILDING

The three main modules in Buildings are the core, and People Sensing empowers, creating a differentiated advantage.



Milesight



Facility Management

Facility Protection
& Maintenance

Efficiently
Management

Meter
Retrofits

Smart Restroom
Management



Energy Management

HVAC Management

Lighting
Management

Energy Monitoring
& Management



Value-Driven Space Management

Environmental Comfort
Improvement

Office/Workspace
Space Management

Smart Restroom
Comfort

People Caring

Human Well-being Certification Assistance



Facility Management

Milesight



Facility Protection & Maintenance

Power Status Monitoring



CT Series

HVAC Performance Monitoring



WT Series



IAQ Series

HVAC Pipe Monitoring



TS Series



EM Series



Efficient Management

Centralized HVAC Control



WT Series

Centralized Lighting Control



WS Series



Meter Retrofits

Remote Metering



UC Series



EM300-DI



Smart Restroom Management

Restroom Cleaning Schedule Management



People Sensing



WS Series

Restroom Supplies Management



WS Series



EM Series



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Energy Management

Milesight



HVAC Management

Unified Manual Dispatch & Local Automation Adjustment



WT Series

Data-Driven Control: Real-Time Local Interaction



IAQ&WS Series



VS Series

**Data-Driven Control:
Energy-Saving Strategy Optimization**



CT Series



TS Series



EM Series



Lighting Management

Smart Lighting Control



WS Series



VS Series



Energy Monitoring

**Data-Driven Control:
Real-Time Local Interaction**



WS Series

**Data-Driven Control:
Energy-Saving Strategy Optimization**



WS Series



CT Series



Space Management



Milesight



Environmental Comfort

Temperature and Humidity Control



IAQ&EM Series



WT Series

VS Series

Noise Monitoring



WS302

(E-)Cigarette Detection



GS601



Workspace Management

Space Optimization



VS&DS Series

Footfall Monitoring



VS Series

Sanitation Management



VS Series



People Caring

Human Comfort & Safety



VS373
Fall Detection



Smart Restroom Comfort

Restroom Air Quality Management



GS301

User Satisfaction Management



VS350

Display



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03 MILESIGHT SMART BUILDING SOLUTION

Comprehensive IoT solutions designed to enable smart building

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FACILITY PROTECTION & MAINTENANCE

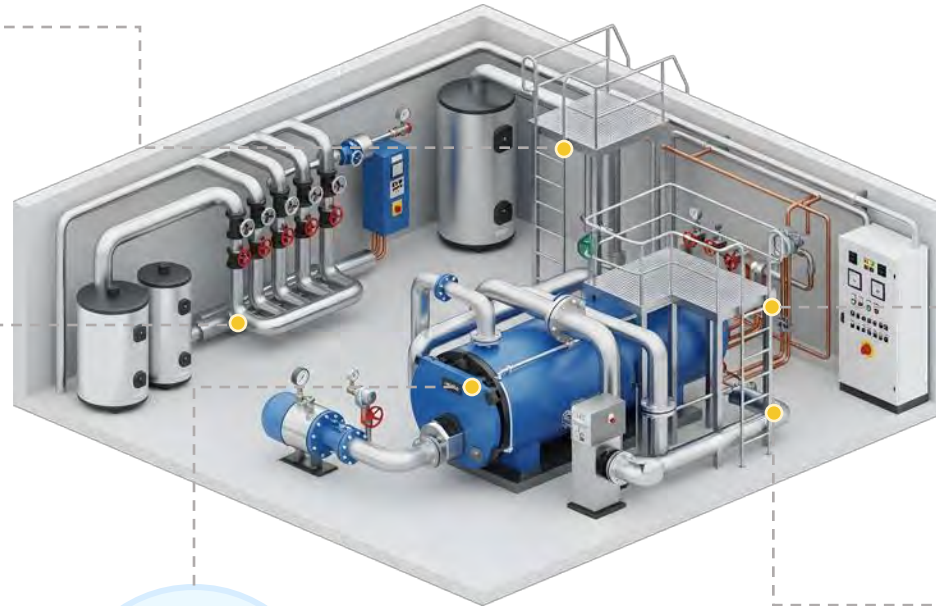
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TH & CO₂ Monitoring
AM103L



Pipe Pressure Monitoring
EM500-PP



Temperature Monitoring
TS30X



Mini Leak Detection Sensor
WS303



Leak Detection
EM300-ZLD/MLD/SLD

FACILITY MANAGEMENT IN BUILDING



Milesight

EM500-PP

Pipe Pressure Sensor



Pipe



EM500-PP

> Typical Application

- High Compatibility with Various Pipes
- **G 1/2" Male Connection**
- **Shock, Vibration and Corrosion Resistance**
- Measuring Range: **0 - 1600 kPa (16 Bar)**
- **Temperature Compensation** for High Accuracy
- IP67(Transceiver)/IP65(Pressure Probe)
- **10 Years** Battery Life

AM103L

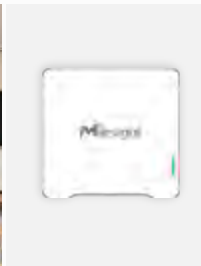
IAQ Sensor



Meeting Room



Class Room



AM103L

> Typical Application

- Detect Temperature & Humidity & CO₂
- On-site Alarm: **LED & Emotion**
- Battery Powered up to 4 Years
- Wireless Installation with Anti-Theft Protection

TS30X

Temperature Sensor



Food Production, Pharmaceutical Storage and Cold Chain



TS30X

> Typical Application

- Meet **HACCP and 21 CFR Part 11B**
- Certified for **EN12830** Standard
- Different Types of Temperature **Probes** and one Magnetic Sensor for Collections
- Rugged Protection with **IP65** Rating
- Average 3 Years Battery Life



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WATER DAMAGE PREVENTION | EM300 & WS303

Milesight

LoRaWAN

D2D

- IP67 & UV Resistance
- Easy Configuration via NFC
- Battery Life up to 10 years (except WS303)
- Data Storage, Retrieval and Retransmission

Spot Leakage Detection Sensor

- **Spot** leak detection (2 Metal Probes)
- Built-in **Temp. & Humidity Sensor**
- Trigger once liquid level reaches **0.5mm**



Library



IT Server Room



EM300-SLD

Zone Leakage Detection Sensor

- **Zone** leak detection (3m Detection Rope)
- Built-in **Temp. & Humidity Sensor**
- **Non-locating** leak detection cable



Water Pipes



Underfloor Heating Tubing



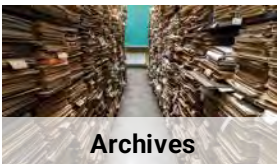
EM300-ZLD

Mini Spot Leak Detection Sensor

- **Spot** leak detection (2 Metal Probes)
- A **built-in buzzer** for immediate warning locally
- Up to **5 Years** Battery Life (1 x Coin Cell Battery)
- Trigger once liquid level reaches **0.5mm**
- **Capacitor** storage for **power failure alarm**



Museums



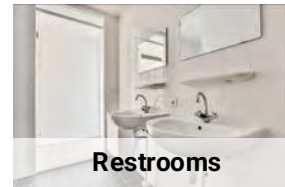
Archives



WS303

Membrane Leakage Detection Sensor

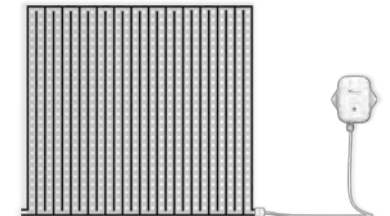
- **Broader Zone** leak detection (40x40cm default)
- **Customizable, reusable adhesive** membrane
- **Easy buckle connection**



Restrooms



Floors & Roofs



EM300-MLD

EFFICIENT & HVAC MANAGEMENT

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Temperature Monitoring

TS201



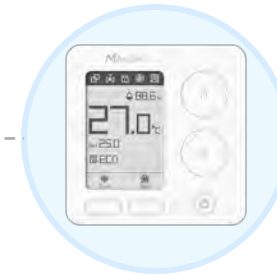
Multi-interface Controller

UC502



Smart Radiator Thermostat

WT101



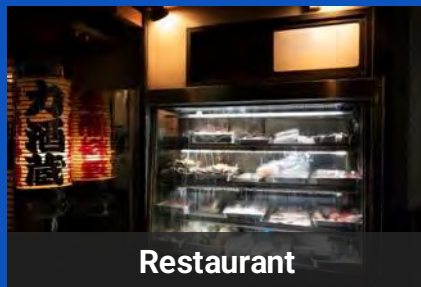
Smart Fan Coil Thermostat

WT30X

TS201 TEMPERATURE SENSOR

The TS201 is a compact temperature sensor. Its IP67 waterproof enclosure makes it ideal for applications in cold storage and various industrial processes. Experience precise temperature sensing with the versatile and durable TS201 sensor.

➤ Applications



Milesight



Glass Bead Thermal
Buffer Bottle

➤ Applications

- Provide **DS18B20** temperature probes (-55 ~ 125°C) with M12 interface
- Battery-powered with up to 3-year Battery Life
- Support optional **glass bead thermal buffer bottle** for insulation blocking and stable detection
- IP67 waterproof enclosure with high-quality probes enabling high stability and compatibility
- Support multiple mounting methods like magnetic mounting, 3M glue mounting and wall mounting for options



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WT101 SMART RADIATOR THERMOSTAT

WT101 is a LoRaWAN®-based radiator valve with visualized LED and smart moderation and communicative triggers to optimize the heating regulation and save both energy and cost.



M30 x 1.5mm Valve

Optional Valve Adapter Kit:



Modern Apartment



Nursing Home



Large Buildings

Milesight

➤ Radiator Management

Smart & Communicative

- Support up to **16 Heating Schedules** within **1 pre-set Date Period**
- Featuring **LoRaWAN®** for wireless transmission
- Support **Open-window Detection** and **Anti-frost Protection**

Reliable

- Provide **Protection-clip** for structural anti-theft protection
- **Child-lock** can prevent palm-rejection in public areas
- Support **multi-way calibration** while deploying it

Compatible

- Provide several **Valve Adapters** to be compatible with different types of valves
- Easy to deploy and configure **without further steps**

Efficient & HVAC Management Solution

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UC 502 Multiple-interface Controller



- Rich Interfaces: **GPIO, AI, Serial & SDI-12**
- **SDI-12 Interface** for Environmental Data Acquisition (connect with weather sensors, hydrological sensors, soil sensors, etc.)
- IP68 rated enclosure for harsh environment
- Automatic triggering alerts and notifications
- External antenna(optional): LoRaWAN® version
- Support **LoRaWAN®** and **NB-IOT/ LTE-M**

WT30X Smart Fan Coil Thermostat

110 ~ 250VAC & L/N



WT303/304 Replacement Principle

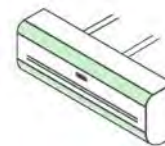
It can replace existing programmable thermostats for FCU fan coil units.

- Requires **110–250V AC** power supply
- Must be connected with both **Live and Neutral wires**

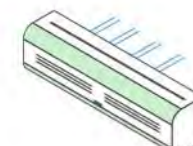
Model Selection (WT303 vs. WT304)

Depends on system configuration:

- 2-pipe or 4-pipe system
- 2-wire/3-wire On/Off Motorized valve or 0–10V PI modulating valve
- 1–3 speed fan or ECM fan (electronically commutated)



Fan Coil Units with 2-pipes



Fan Coil Units with 4-pipes

HVAC CONTROL & OPTIMIZATION

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Smart Radiator Thermostat
WT102



Temperature Monitoring
EM500-PT100



Wireless Smart Thermostat
WT401



Cold Chain Monitoring
TS60X

SMART RADIATOR THERMOSTAT

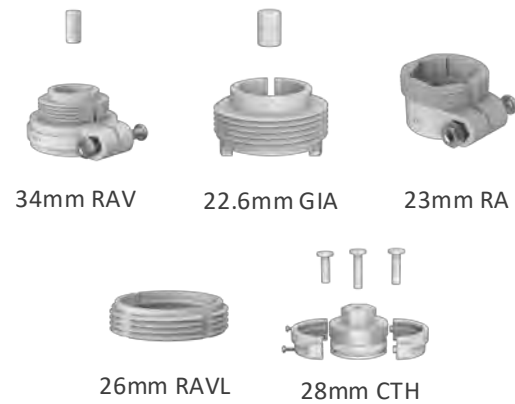


WT101 and WT102 deliver **intelligent heating control** based on precise room temperature monitoring, offered as **coexisting models** with distinct market positioning.

WT101



2 x 1.5V Li-FeS2 AA Replaceable Batteries
(3000 mAh in Total)



NTC Temp. -20°C ~ 60°C

Shared Features

LED Display with White Light

Built-in Temperature Sensor

Up to 16 Heating Schedules
within 1 Pre-set Date Period

LoRaWAN OTAA/ABP

Anti-theft Clip

Protective Cover

Freeze Protection

Open-Window Detection

Child-lock

Unique Features in WT102

TEG Energy Harvesting

Energy Storage in Capacitor

Supports Class A /B

USB Type-C Power On
(~ 30min)

External NTC Sensor

Data Storage (1,000 Entries)

Data Retransmission

Data Retrievalability

Extreme (High/Low) Temp.
Alarm

WT102



Battery-free, Power Button



NTC Temp. -20°C ~ 65°C



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WT401 WIRELESS SMART THERMOSTAT



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① User-friendly Operation Panel

- 2.7-inch E-ink screen with intuitive operation panel for both convenience and aesthetics
- Wireless design with up to 3-year **Battery Life** and flexible **wall-mount compatibility (60/86/118/120mm boxes)**
- Integrated **temperature, humidity, and PIR sensors** for precise climate and presence detection
- Support **open-window** detection and **freeze protection** for improved energy efficiency and user comfort
- Support up to 8 **programmable temperature plans** and **customizable button functions** for scenario-based operation
- Wall-mounted **anti-theft** design and **child lock** function for secure and worry-free usage

② High Compatibility & Flexible Connectivity

- Support **NFC (Toolbox)** or **BLE Configuration**
- Support **BLE or PowerBus for Communicating** with UC7xx Controllers; **LoRaWAN Communication** with WT101/102
- Support Multiple Power Sources: **Battery, Powerbus (24V DC), 24V AC, or Type-C Interface**
- Support Matching with Different HVAC Controllers Covering Different HVAC Systems

Wireless Group Control



Water Radiator

UC701 Controller



Split AC

UC711 Controller



HVAC

TS60X TEMPERATURE & HUMIDITY SENSOR

CAT.1

Upcoming

Highly Adaptable to Cold Chain Transportation Applications

- ① **Multiple Sensors Ensure the Reliability of Product Transportation**
 - **Light Sensor:** Monitors unpacking and light changes, aids refrigeration system detection and **lighting threshold alarming** make anti-theft alarming while open the truck door abnormally
 - **Tilt Sensor:** Detects cargo tipping, alerts promptly, ensures transportation safety.
- ② **Supports Various External Probes, including PT100、DS18B20、TH Probes**
- ③ **Automatic Historical Data Retransmission** secure local data.
- ④ Batter-powered Device with Up to **3-year Battery Life**
- ⑤ High scenario adaptability with high **IP67** rating and **FDA-approved materials**

Data Effectiveness & Security

- ① Certified for **EN12830** Standard
- ② Store up to **5,000** historical records locally

Milesight

NEW
ARRIVAL



TS601



TS602

Probe	PT100		DS18B20	TH Probe
Probe Model	SP11 B05-125-200 SP11 A03-050-150	SP11 AF10-125-150 SP11 A05-500-150	SP12-125-150	SP13-125-200
Measurement Range	-40°C~125°C -50°C~500°C	-200°C~50°C	-40°C~125°C	-40.0°C ~ +125.0°C (RH)0.0% ~ 100.0%

Cellular Triangulation Positioning



POWER CONSUMPTION MONITORING

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WS502 SMART WALL SWITCH D2D™

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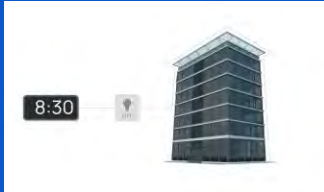
Electricity Consumption Monitoring and Light Control

86-Type

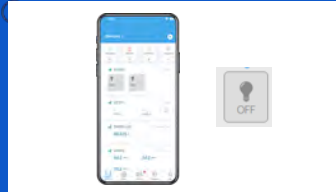


2 or 3-Wire

▶ Time-Based ON/OFF



▶ Remote ON/OFF



▶ D2D ON/OFF



- Various Types with 3-Wire with Neutral / 2-Wire without Neutral
- Turn on/off devices on site and create timing switch-on/off **schedules remotely**
- Collect **current(mA)**, **voltage(VAC)**, **power factor(%)**, **power(W)** and **power consumption(kWh)** (3-wire with Neutral only)
- Support **surge and overload protection**
- Support local or remote control via **high-reliability relay**
- **Built-in LED indicator**, easy to use in dark environment

CT105 SINGLE-PHASE CURRENT TRANSFORMER



Powered directly by the circuit under testing, no batteries are required (USB Type-C also available)



Non-intrusive and quick installation process ensures no damage to the circuit or disruption of power supply.



Support up to **3.3kHz sampling frequency** for reaching a higher accuracy for current value measurement



Allows for determining energy consumption direction and offers **automatic calculation of cumulative ampere-hour values** once per second.



Users are allowed to input the nominal voltage(V) & power factor(cosΦ) to calculate the **general power consumption (W)** and get informed by the **tendency of changes and abnormalities**. (will be supported by cloud)



With its compact design and powerful features, it is easily installed in various settings.



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ENVIRONMENTAL COMFORT

Milesight



Indoor Air Quality Monitoring
AM308



Vape Detector
GS601



AI Workplace Occupancy Monitoring
VS121



Noise Monitoring
WS302

PEOPLE COUNTING & INDOOR AMBIENCE MONITORING

Milesight

VS121 AI Workplace Occupancy Sensor

- **Accurate Counting using Stereo Vision**
- **Type-C (LoRaWAN®) or PoE versions**
- Up to 98% High Accuracy
- Large detection area: 3 Height (78m²)
- 100% Anonymous Detection (Compliant with GDPR)
- **Low Ceiling, Strong Shadow, Hovering Passenger**

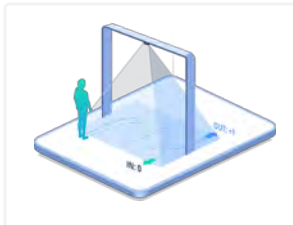
LoRaWAN®



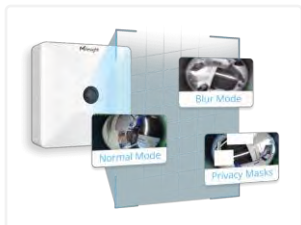
AI PoE D2D



Region People Counting



Line Cross Counting



Blur Mode & Privacy Mask



People Flow Analysis



AM308 8-in-1 IAQ Sensor

- 8 Sensors in 1
- Optional 4.2 Inch E-ink Screen
- Traffic Light Indicator & Buzzer
- Anti-theft Protection
- Vivid Emoticon Indication
- Battery Life up to 1 Year



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WORKSPACE MANAGEMENT

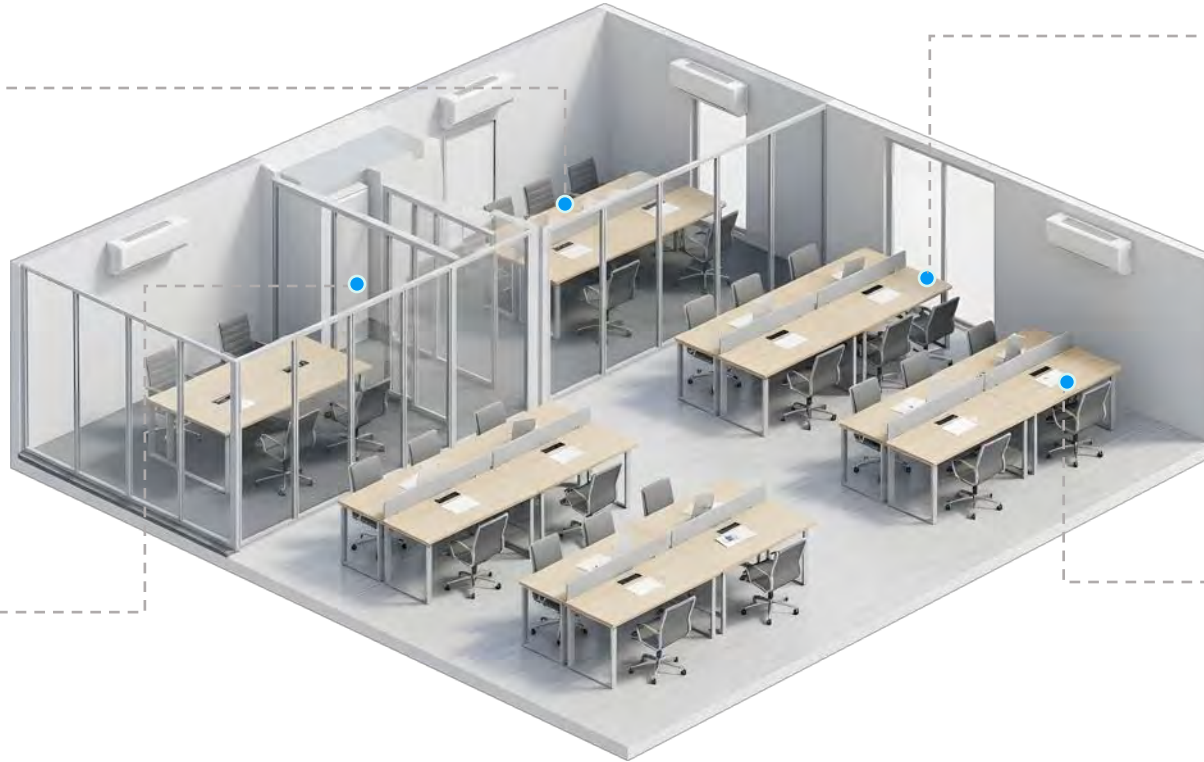
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LoRaWAN® Smart Button
WS101



Ultra ToF People Counter
VS135



Desk Occupancy Detection
VS340



E-ink Display
DS3604

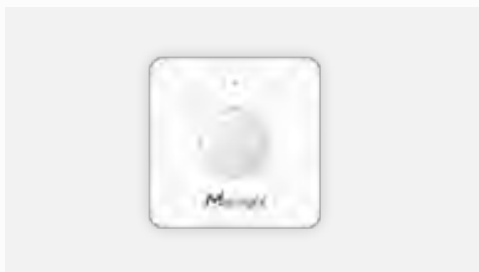
IMPROVING CONVENIENCE AND COMFORT

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WS101 LoRaWAN® Smart Button



Meeting Room Curtain Control



WS101

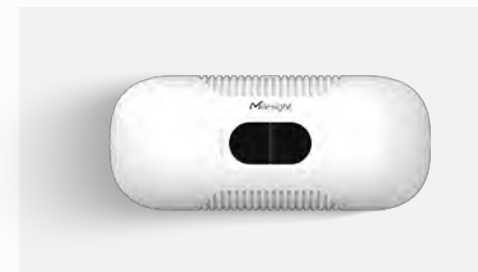
> Typical Application

- No Wires, No Charging, No SIM
- Work as a control, trigger or alarm device
- Multiple Actions (single, double, long press)
- Support Milesight D2D (Master)
- **Built-in LED indicator and buzzer**
- **Over 5 of Years Battery Life** (10 presses/day)

VS135 AI ToF People Counting Sensor




Retail Store, Shopping Mall



VS135

> Typical Application

- Up to 99.8% accurate counting
- **Better Heat Dissipation**
- Higher Ceiling Mount Version (**up to 6.5m**)
- **Multi-sensor Integration**
 - a) Radar Sensor: Detect and quickly switch from sleep to work mode.
 - b) Triaxial Sensor: Automatic compensation of person height values when the device is mounted at a tilt.

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04 SUCCESS STORIES

Worldwide success stories reveal how the solution truly satisfies customer needs for great performance

SUCCESSFUL CASES

REVITALIZING ENERGY EFFICIENCY AT THE HISTORIC THEATER



Location

Rome, Italy



Background & Challenges

A historic theater in Rome faced difficulties optimizing energy use and managing guest flow due to its aged infrastructure, thick walls, and preservation constraints. Challenges included poor air quality, limited occupancy data, and cabling difficulties.



Solutions & Products & Benefits

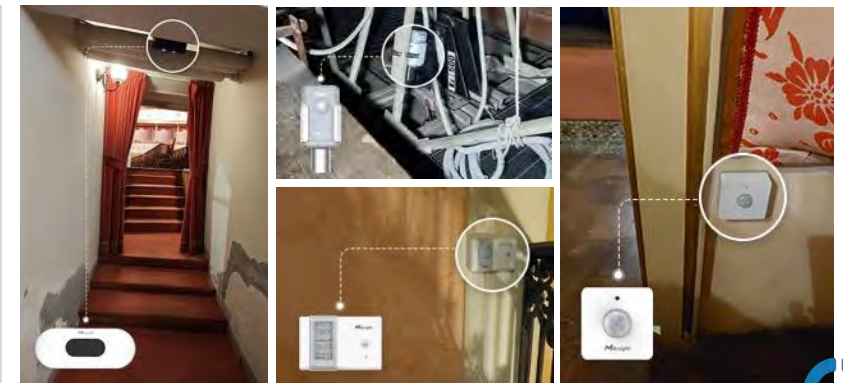
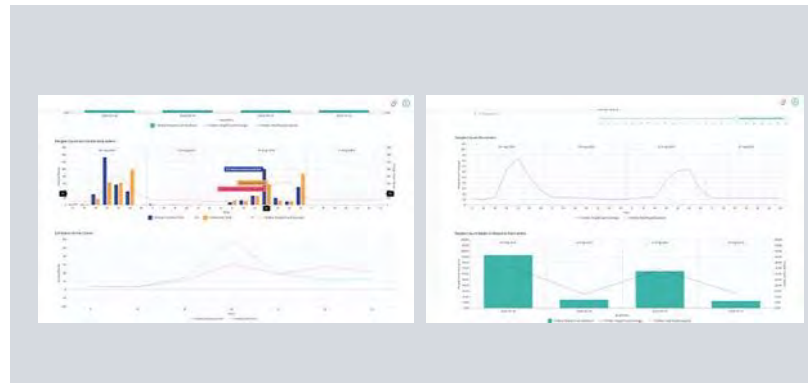
[LEARN MORE](#)

This project helped enhance the theater's sustainability, improve the guest experience, and increase operational efficiency.

- **Reduced energy costs:** Optimized HVAC and lighting systems lowered overall energy consumption
- **Enhanced guest comfort and flow management:** Real-time occupancy and people counting improved space utilization and visitor experience
- **Preserved historic building integrity:** Wireless, battery-powered sensors avoided invasive installations and maintained the theater's heritage

How it Works?

- **175 * WS202 PIR & Light Sensors** - Occupancy monitoring & light control in balconies and bathrooms
- **50* AM307/ EM500-CO₂/ EM300-TH Sensors** - Real-time air quality monitoring for optimal audience comfort
- **17 * VS133 People Counting Sensors** - GDPR-compliant people counting at bar and entrance for people flow management
- **11 * UC100/ UC300 IoT Controllers** - Integrate sensors for centralized environment and energy control
- **4 * UG65 LoRaWAN® Gateways** - Wireless data transmission for reliable connectivity



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FUTURE-PROOF TECHNOLOGIES

SUCCESSFUL CASES

SMART ENERGY & HEAT CONSUMPTION MONITORING FOR BETTER EFFICIENCY

Milesight



Location

Trieste, Italy



Background & Challenges

Over 100 residential buildings needed a **non-intrusive** way to monitor electricity and heat usage. Due to tenant presence and high retrofit costs, a **wireless** solution compatible with **Niagara BMS** was required for real-time and centralized monitoring.



Solutions & Products & Benefits

[LEARN MORE](#)

This project helped the building management efficiently digitize legacy boiler rooms and improve energy operations with seamless **BACnet** over LoRaWAN® integration.

- **Seamless BMS Integration:** BACnet/IP gateways connected legacy Modbus meters to Niagara BMS without rewiring
- **Centralized Energy Oversight:** Real-time consumption and heat data from 100+ buildings consolidated on a single platform
- **Non-Intrusive & Cost-Efficient:** Wireless setup avoided tenant disruption, reduced retrofit time and expense

How it Works?

- **121* UC100 LoRaWAN® Controllers** - Collect data via Modbus from the field instruments in mechanical rooms and boiler rooms
- **84 * UG56 LoRaWAN® Gateways** - Transmit data over LoRaWAN® and convert to BACnet/IP for BMS integration



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SUCCESSFUL CASES

REVOLUTIONIZING THE MANAGEMENT OF A CONCERT HALL

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Location

Spain



Background & Challenges

In the entertainment industry, venue management faces increasing demands for **energy efficiency**, **environmental quality**, and **customer experience**. A renowned concert hall in Spain turned to IoT solutions to address these challenges.



Solutions & Products & Benefits

[LEARN MORE](#)

This project helped the concert hall in Spain enhance operational efficiency and improve the overall audience experience.

- **Optimized Energy Management:** Real-time electricity monitoring for smarter energy usage and cost savings
- **Improved Environmental Comfort:** Better air quality and sound level control for enhanced visitor comfort
- **Smarter Space Management:** Accurate people counting for efficient crowd control

How it Works?

- **VS133 AI ToF People Counting Sensor** - Real-time foot traffic monitoring for efficient crowd management
- **CT101 Smart Current Transformer** - Non-intrusive, real-time power consumption monitoring for efficient energy control
- **AM103 IAQ Sensor** - Real-time air quality monitoring for enhanced comfort
- **WS302 Sound Level Sensor** - Noise monitoring for optimal sound level



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SUCCESSFUL CASES

TEMPERATURE MONITORING IN SUPERMARKETS

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Location

Austria



Background & Challenges

A leading supermarket chain in Austria needed reliable, automated temperature monitoring to ensure food safety, comply with regulations, and quickly detect refrigeration issues across 150+ stores.



Solutions & Products & Benefits

[LEARN MORE](#)

This project helped ensure safe food storage and operational efficiency by deploying over **4,000** sensors across **150+** supermarket branches in Austria.

- **Safer Food Storage Conditions:** Accurate temp & humidity monitoring keeps food safe and compliant
- **Increased Operational Efficiency:** Centralized monitoring and real-time alerts for quick response
- **Energy Savings:** Data-driven adjustment of cooling systems to reduce energy consumption
- **Failure Prevention:** Early detection of refrigeration issues minimized product loss and downtime



How it Works?

- **3000+ pcs EM300-TH Temperature & Humidity Sensor** - Temp & humidity monitoring in refrigerated counters and shelves for safe storage
- **1000+ pcs EM500-PT100 Temperature Sensor** - Precise freezer temperature tracking with early fault detection



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