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## FAMILY DATASHEET

# MT Cloud-Managed Sensors

## Overview

The MT sensor family intelligently monitors any environment to help organizations build a smarter, more sustainable future. With MT sensors, IT, facilities, and operations teams can minimize business disruptions, reduce unnecessary costs, maximize resources, and improve employee/customer experiences in any space.

## Smart sensors. Smarter businesses.

### Take control of your future

Stop environmental issues before they start with remote visibility and real-time alerts.

### See what's around every corner

Gain complete visibility by combining IoT sensor data with smart camera and Wi-Fi analytics.

### Integrate. Automate. Innovate.

Integrate with building management systems to digitally transform your organization.



## Product highlights

### Smart spaces start here

- Protect people, business assets, and more by monitoring environmental conditions
- Identify anomalies and trends with visualizations and minute-by-minute data reporting
- Create a smarter, more sustainable future with Meraki energy-saving charts

### Never miss an event

- Stay in-the-know with real-time alerts via email, SMS, push notification, or webhook
- Gain complete visibility by associating sensor events with MV camera footage
- Monitor and troubleshoot on-the-go with the Meraki mobile app

### Cloud-first architecture

- Cloud-based management eliminates the need for on-premises servers
- Visibility alongside other Meraki products on the dashboard empowers lean teams

### Simple and secure connectivity

- Accelerate deployment with automatic wireless connectivity to MR/MV gateways
- Secure device authentication and encryption with the Cisco Trust Anchor module

### Analytics tailored to your business

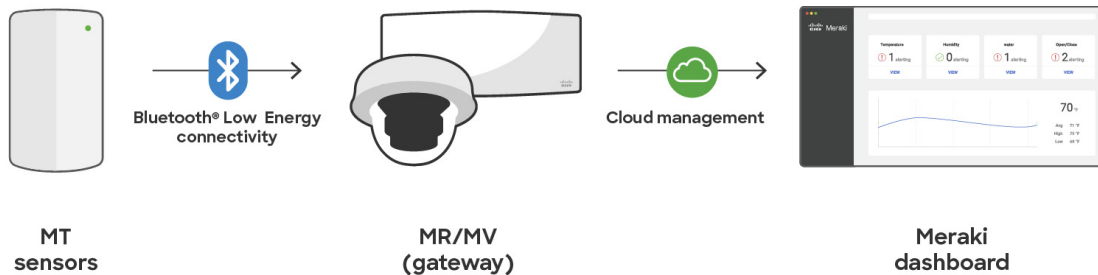
- Build custom applications for your business through the vast partner ecosystem
- Analyze data your way with .csv, .xls, API, or MQTT export options



## Take control of your future

Environmental monitoring is more than just collecting sensor data. The real value comes from using data to proactively address issues before they begin or maximize resources to increase efficiency. For example, an increase in temperature levels or power consumption could indicate equipment that is starting to fail, and monitoring access to a space could influence cleaning protocols. The MT sensor product family is designed to provide this rich contextual insight to help you prepare today for the unseen challenges of tomorrow.

The Meraki dashboard automatically creates sensor-specific visualizations to help you monitor your environments, understand trends, and detect anomalies. The visualizations show sensor data spanning the last two hours, last day, last week, last 30 days, or a custom range during the previous year. Sensor status information can also be overlaid on top of a map and floor plan view to quickly identify areas of concern. Data can be exported directly from the dashboard in the form of .xls or .csv for offline analysis or record keeping. The Meraki dashboard also has a separate reports feature that automatically compares sensor data from one week to the previous week, highlighting statistics and alert trends from the most active sensors.



## Cutting-edge architecture with streamlined management

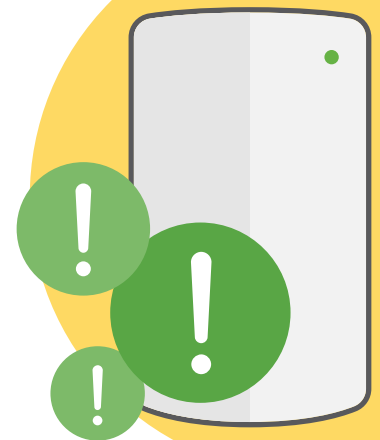
Meraki MT accelerates deployment, simplifies management, and provides data-driven business outcomes through the power of the Meraki platform. MT sensors automatically connect wirelessly via Bluetooth® Low Energy to MR access points or MV smart cameras in the same network, which act as the gateway to the Meraki dashboard. This simplified architecture and centralized cloud management makes it easy to provision thousands of sensors in a short amount of time so you can focus on your business objectives. Refer to the Meraki documentation for a list of [compatible MR and MV gateways](#).

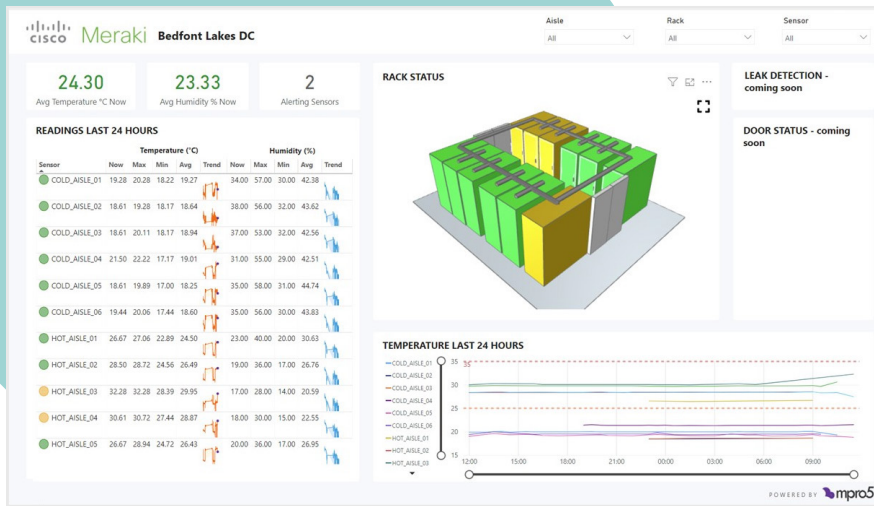
## Never miss an event

Organizations rely on a variety of critical assets that they need to protect in order to run their businesses effectively. A failed HVAC system could leak water onto critical IT equipment and take down the network, or a power surge could cause a freezer to fail and result in spoiled inventory. Proactive monitoring of these spaces and real-time alerts can help organizations identify and stop problems like these before they begin.

MT sensors sample power data every 15 seconds, and environmental data at least once every two minutes to track changes. Sensor data is sent to the gateway every 20 minutes, or immediately when an alert threshold is violated. Custom alert thresholds can be defined for each sensor so that users are notified immediately when an issue occurs. Upon violation, MT sensors can send customizable alerts via SMS, email, push notification, or webhook to immediately notify key stakeholders of the issue. For example, a notification can be configured to alert if the temperature exceeds 80 °F, a door is left open for five minutes, or power usage spikes.

Sensor data is normally sent to the gateway every 20 minutes, however it is immediately sent if an alert threshold is violated. Upon violation, MT sensors can send customizable alerts via SMS, email, push notification, or webhook to immediately notify key stakeholders of the issue. In the event that the MT loses connection to the gateway, the sensors have up to five days worth of onboard data storage and will send the data to the Meraki dashboard as soon as connection is reestablished.

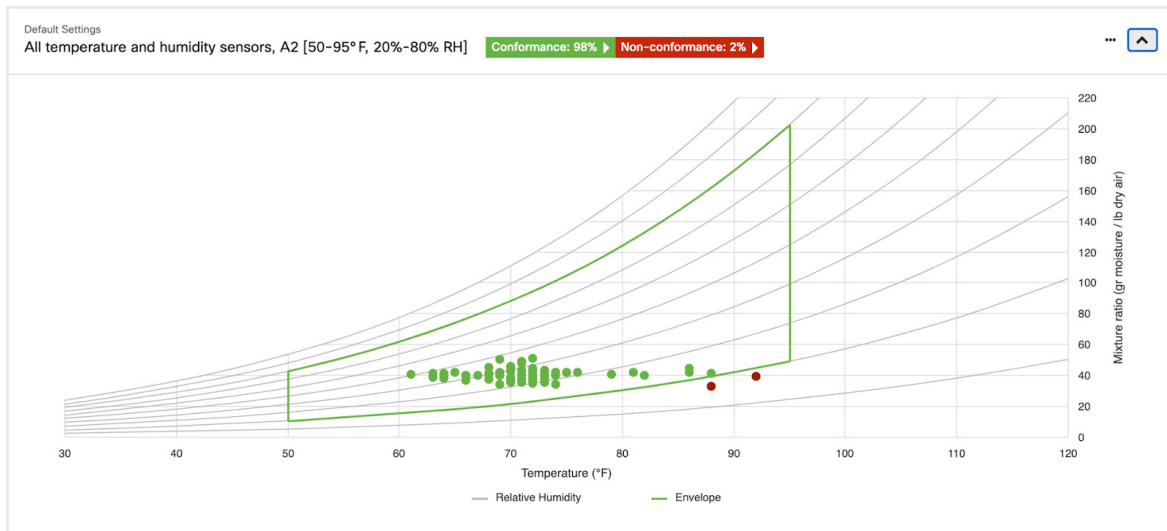




## Ecosystem-ready with an API-first architecture

The true value of IoT comes from the ability to connect data from various sources across your business in a meaningful way. For this reason, MT sensor data can be made available via webhook, API, or MQTT telemetry stream. With webhooks, API calls, and MQTT, you can create custom visualizations for analysis, integrate sensor data with building management systems to increase efficiency, or store in a long-term cloud database for historical record keeping. The MT30 smart automation button offers an easy way to get started with IoT by using webhooks to automate common tasks at the press of a button.

If you have an idea for a custom integration but require additional assistance, Meraki ecosystem partners have [hundreds of applications](#) already available to help meet your business objectives.



## Sustainability starts with Meraki

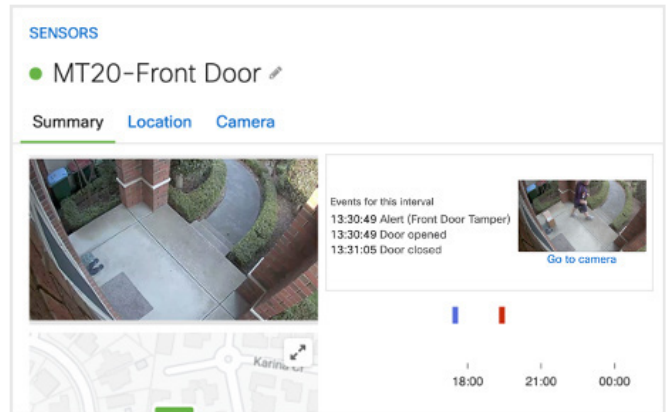
Data centers and server rooms are air-conditioned and humidified to ensure uptime and reliability of business-critical equipment. These spaces, however, are generally kept colder than necessary, leading to excessive mechanical cooling and wasted energy consumption. Meraki energy-savings charts provide an intelligent new way to visualize the energy efficiency of an environment and ultimately reduce your overall carbon footprint. The energy-savings chart, combined with today's best practices, can help organizations realize energy savings from 20-50%. To learn more, read the whitepaper, [Six Ways for IT Leaders to Reduce Their Carbon Footprint](#).

MT sensors can also help you monitor and measure your energy usage. This helps provide a benchmark to measure the impact of sustainability initiatives, as well as alert you to power outages and anomalous energy consumption, which could be a sign of impending equipment failure.

## See what’s around every corner

While MV smart cameras are a gateway for MT, they can also add additional value by acting as a sensor working harmoniously with MT through a feature called Meraki Sensor Sight. Meraki Sensor Sight directly associates MV video footage with MT environmental events. For example, any time the door to a restricted area is opened, the MV camera can take a snapshot and help security teams investigate unauthorized access. The integration of MT and MV through Meraki Sensor Sight turns any environment into a smart space by offering complete visibility into the digital and physical world.

The full circle of connectivity provided by Meraki Sensor Sight enables you to troubleshoot issues faster, increase physical security, automate business operations, and digitally transform your organization. Refer to the Meraki documentation to learn more about [Sensor Sight](#).



## Designed for a mobile experience

Anytime an environmental event occurs, it is extremely important to have access to the latest information to quickly mitigate the issue. For this reason, MT sensor data is readily available via the Meraki mobile app so that technicians can troubleshoot issues the moment they receive an alert, regardless of where they are in the world.

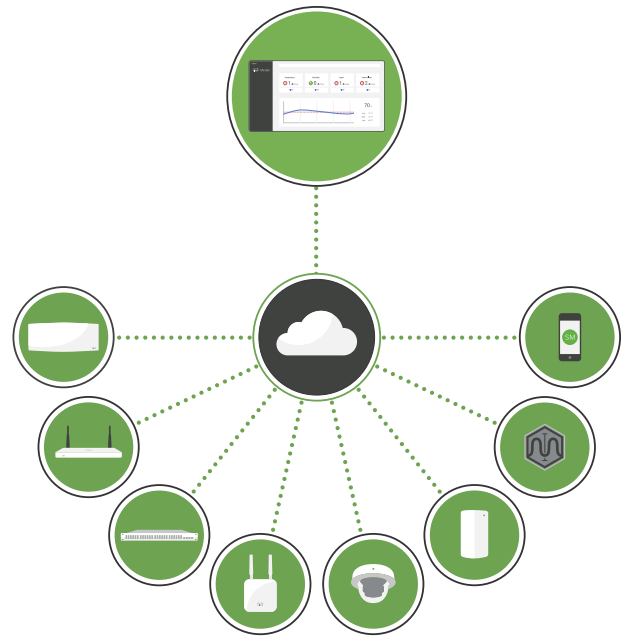




## Secure and always up-to-date

Today's sophisticated cyberattacks increasingly seek to compromise the network infrastructure by attacking IoT devices. To keep your network locked down and secure, all MT sensors are equipped with the Cisco Trust Anchor module (TAm). The TAm provides a secure unique device identifier, highly secure storage, a random bit generator, and secure key management. These added layers of security protect against counterfeit and software modification; enable secure, encrypted communications; and verify that Cisco network devices are operating as intended.

With the centralized cloud management of the Meraki platform, all software updates are managed automatically and firmware updates are sent over the air for the delivery of new features and rapid security updates.



## Ordering information

### Hardware

MT10-HW	Indoor temperature and humidity sensor
MT11-HW	Indoor temperature probe sensor
MT12-HW	Indoor water leak detection sensor
MT14-HW	Indoor air quality sensor
MT20-HW	Indoor door open/close sensor
MT30-HW	Indoor/outdoor smart automation button
MT40-HW	Indoor smart power controller

### Software licenses

LIC-MT-XY	Meraki MT Enterprise license (X = 1, 3, 5, 7 years)
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### Accessories

MA-CBL-TEMP-ME-1	Bare metal temperature probe for MT11
MA-CBL-TEMP-GL-1	Glycol-encased temperature probe for MT11
MA-CBL-LEAK-1	8 ft (2.4 m) water leak detection cable for MT12
MA-CBL-LEAK-2	Spot leak detection cradle for MT12
MA-PWR-USB-XX	External power adapter (XX= US, EU, UK, or AU)

#### Notes:

- Each Meraki MT sensor requires a software license to operate, however every dashboard organization comes standard with five free MT licenses to help get started
- MT11-HW requires either MA-CBL-TEMP-ME-1 or MA-CBL-TEMP-GL-1 for operation
- MT12-HW requires either MA-CBL-LEAK-1 or MA-CBL-LEAK-2 for operation
- MT14-HW requires MA-PWR-USB-XX to monitor PM2.5

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visit [www.btigroup.com](http://www.btigroup.com)