



MT14 Datasheet - Indoor Air Quality Monitor

Overview

Indoor air quality has become increasingly more important to schools, businesses, and other organizations as they look to create smart, sustainable buildings that provide safe and comfortable environments to people. Poor air quality, on the other hand, can decrease productivity or cause adverse health effects ranging from mild to severe.

The Cisco Meraki MT14, part of the Meraki MT sensor portfolio, provides real-time indoor air-quality monitoring to promote smart spaces and create safe environments. MT14 can detect the presence of chemicals, debris, extreme temperature, humidity, and noise. If air quality decreases for any reason, MT can notify you immediately or automate the building HVAC system to increase ventilation and keep people safe.

Smart sensors. Smarter businesses

Meraki MT sensors accelerate deployment, simplify management, and provide data-driven business outcomes. Flexible mounting, battery or wired power options, and automatic Bluetooth® pairing make it easy to provision thousands of sensors in a short amount of time. Centralized cloud management enables MT sensors to be managed alongside other networked devices, while open APIs allow MT to integrate with any business system.

Smart spaces start here

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

Technical Specifications:

Sensors

| | |
|---------------------------------|--|
| Temperature | <p>Range: 0°C to +55°C / +32°F to +131°F</p> <p>Accuracy: +/- 0.3°C</p> |
| Humidity | <p>Range: 0 to 95% RH</p> <p>Accuracy: +/- 2.5% RH</p> |
| Total volatile organic compound | <p>Excellent: <300 µg/m³</p> <p>Good: 300 to 1,000 µg/m³</p> <p>Fair: 1,000 to 3,000 µg/m³</p> <p>Poor: 3,000 to 10,000 µg/m³</p> <p>Inadequate: ≥ 10,000 µg/m³</p> <p>Accuracy: within 1 qualitative range</p> |
| Particulate matter (PM 2.5) | <p>Range: 0 to 100ug/m³</p> <p>Accuracy: +/- 10 ug/m³</p> |
| | <p>Range: 100 to 1,000ug/m³</p> <p>Accuracy: +/- 10% measured value</p> |
| Ambient noise | 20 to 120 dBA |

Wireless capabilities

Bluetooth® Low Energy [Compatible MV smart cameras and MR access points](#)

Operating frequency 2.400–2.4835 GHz

IEEE standard 802.15.1 (Bluetooth Low Energy 4.2)

Data logging

Temperature: every two minutes

Humidity: every two minutes

Data sampling PM 2.5: every five minutes

TVOC: every 90 seconds

Ambient Noise: every 5 minutes

Data reporting to gateway Every 20 minutes or immediately upon threshold violation

Onboard data storage Up to five days of data storage

Security Secure Bluetooth Low Energy messaging using long-term key (LTK)

Power

Four AA batteries or USB-C power adapter

Battery life up to two years

Power ratings: 5V; 0.2A

Physical characteristics

Dimensions: 130.0 mm (L) x 75.4 mm (W) x 31.6 mm (H)

Weight (excluding batteries): 102g

Battery compartment

Multicolor, multifunction status LED

General-purpose button

Reset button

USB-C port (receptacle connector)

Operating environment

Temperature: 0°C to +55°C (+32°F to +131°F)

Relative humidity: 0 to 95% RH

Warranty

Three-year hardware warranty with advanced replacement

Ordering information

| | |
|---------------|---|
| MT14-HW | Meraki indoor air quality sensor |
| LIC-MT-XY | Meraki MT Enterprise License (X = 1, 3, 5, 7 years) |
| MA-PWR-USB-XX | External power adapter* (XX= US, EU, UK, or AU) |
| MA-PWR-ETH | USB-C to Ethernet adapter* |

*External power is required to monitor PM2.5

Note: Each Meraki MT sensor requires a license to operate, however every dashboard organization comes standard with five free MT licenses to get started.

In the box

MT14-HW

Quick-start and installation guide

Four AA batteries (preinstalled with pull tab)

Wall-mount backplate

Magnet

Mounting equipment VHB tape

Two mounting screws

Two drywall anchors