

A200-CM Specification

Introduction

The Aeropulse A200-CM is a battery-powered indoor air quality monitor designed for reliable, long-term measurement of particulate matter, carbon dioxide, TVOC, NOx, temperature, humidity, and air pressure.



Key Features

- Eight environmental parameters in one compact device
- More than 300 days of operation on six AAA batteries at a 60-minute measurement interval
- Dual-band 2.4 GHz and 5 GHz Wi-Fi connectivity
- Wall-mount, ceiling-mount, and tabletop installation
- Configurable measurement and upload intervals
- Aeropulse Dashboard and mobile app for remote monitoring
- 3.7-inch display, multi-level indicator, and buzzer alerts
- Works with WELL certified monitoring platform

Sensors and Measurement Parameters

Sensor Type	Range	Accuracy	Resolution	Technology
PM2.5	0-1000 $\mu\text{g}/\text{m}^3$	$\pm 5 \mu\text{g}/\text{m}^3 + 20\%$ at 0-100 $\mu\text{g}/\text{m}^3$; $\pm 10\%$ at 101-1000 $\mu\text{g}/\text{m}^3$	1 $\mu\text{g}/\text{m}^3$	Light Scattering
PM10	0-1000 $\mu\text{g}/\text{m}^3$	$\pm 5 \mu\text{g}/\text{m}^3 + 20\%$ at 0-100 $\mu\text{g}/\text{m}^3$; $\pm 10\%$ at 101-1000 $\mu\text{g}/\text{m}^3$	1 $\mu\text{g}/\text{m}^3$	Light Scattering
Carbon Dioxide (CO ₂)	400-5000 ppm	$\pm 30 \text{ ppm} \pm 3\%$ of reading	1 ppm	Photoacoustic NDIR
TVOC (Index)	1-500	± 15	1	MOx (MEMS)
TVOC ($\mu\text{g}/\text{m}^3$)	1-2000 $\mu\text{g}/\text{m}^3$	$\pm 20 \mu\text{g}/\text{m}^3 + 15\%$ at 1-500 $\mu\text{g}/\text{m}^3$	1 $\mu\text{g}/\text{m}^3$	MOx (MEMS)
NOx Index	0-500	± 15	1	MOx (MEMS)
Temperature	-40°C to 125°C	$\pm 0.2^\circ\text{C}$	0.1°C	Digital CMOSens® technology (MEMS)
Humidity	0-100% RH	$\pm 1.8\% \text{ RH}$	0.01% RH	Digital CMOSens® technology (MEMS)
Air Pressure	300-1100 hPa	$\pm 1 \text{ hPa}$ absolute; $\pm 0.12 \text{ hPa}$ typical relative	0.01 hPa	Piezoresistive pressure sensor (MEMS)

TVOC defaults to Index. TVOC ($\mu\text{g}/\text{m}^3$) can be selected under Units in the Aeropulse Dashboard or through the API.

Connectivity and General Specifications

Item	Specification
Connectivity	Wi-Fi 2.4 GHz and 5 GHz, 802.11 b/g/n
Power Supply	Six AAA batteries or USB Type-C
Battery Life	More than 300 days at a 60-minute measurement interval under specified conditions
Operating Temperature	0°C to 50°C
Operating Humidity	10% to 90% RH, non-condensing
Local Data Storage	Two months at a 15-minute interval
Cloud Data Storage	Two years
Dimensions	120 × 94 × 25 mm
Weight	235 g, excluding batteries
Display and Alerts	3.7-inch display, AQI level indicator, and buzzer alarm
Installation	Wall mount, ceiling mount, or tabletop stand
Modbus	Customizable
Certifications	CE, FCC, RoHS, REACH, Works with WELL

Battery-life performance depends on measurement interval, upload interval, Wi-Fi signal strength, display behavior, environmental conditions, and battery capacity.