



Aeronode A100

Introduction

The Aeropulse Aeronode A100 is a versatile indoor air quality monitoring device capable of measuring a wide range of parameters, including CO₂, PM2.5, PM10, TVOC, temperature, humidity, light, noise, and air pressure. It features two interchangeable modules, allowing for flexible configurations with additional sensors or extended battery life.

The Aeronode Series supports WiFi (2.4G only) for cloud connections. It also integrates seamlessly with building automation systems through protocols such as Modbus, BACnet, and MQTT.

Designed for real-time insights, the Aeronode Series pairs with the Aeropulse dashboard to provide comprehensive data access and analysis.

Key Features

- Replaceable capsules
- Sensor and battery capsules are interchangeable
- Up to 16 measurements in one device
- Multiple connectivity options
- Flexible power supply options
- Over 1.5 years of local data storage
- Aeropulse App: A straightforward application for device configuration.
- Visual and Audio Indicators: Equipped with a traffic light and buzzer to signal threshold levels.
- Minimalist design

Specifications

Model Variants

- A100 for global markets

Sensors and Measurement Parameters

Sensor Type	Range	Accuracy	Resolution	Technology
PM2.5	0 - 1000 $\mu\text{g}/\text{m}^3$	0-100 μg (± 10 $\mu\text{g}/\text{m}^3$), 100-1000 μg ($\pm 10\%$)	1 $\mu\text{g}/\text{m}^3$	Light Scattering
PM10	0 - 1000 $\mu\text{g}/\text{m}^3$	0-100 μg (± 10 $\mu\text{g}/\text{m}^3$), 100 - 1000 μg ($\pm 10\%$)	1 $\mu\text{g}/\text{m}^3$	Light Scattering
Carbon Dioxide (CO ₂)	400 - 3000 ppm	± 40 ppm $\pm 3\%$ of reading	1 ppm	Non-dispersive Infrared
TVOC Index	0 - 500	$\leq \pm 15$	1	MOx(MEMS)
NOx Index	0 - 500	$\leq \pm 15$	1	MOx (MEMS)
Temperature	-40°C - 125°C	$\pm 0.2^\circ\text{C}$	0.1°C	Digital CMOSens® technology (MEMS)
Humidity	0% - 100% RH	$\pm 1.8\%$ RH	0.01% RH	Digital CMOSens® technology (MEMS)
Light	0.01 - 83,000 lux	$\pm 0.2\%$	0.01 lux	Photodiode
Noise	36 - 95 dB	$\pm 3\text{dB}$ @ $23\pm 5^\circ\text{C}$	1 dB	Digital
Air Pressure	300 - 1100 hPa	± 1 hPa	0.01 hPa	Piezoresistive Absolute Pressure Sensor (MEMS)

Ozone (O ₃) (selective)	0 - 5 ppm	±5%F.S	0.001ppm	Solid Polymer Electrochemical
Nitrogen Dioxide (NO ₂) (selective)	0 - 5 ppm	± 5%F.S	0.001ppm	Solid Polymer Electrochemical
Carbon Monoxide (CO) (selective)	0 - 1000 ppm	±5 ppm or ±10%	5 ppm	Micro Fuel Cell

Connectivity and Power Supply

- Wi-Fi: 2.4 GHz 802.11 b/g/n
- Modbus RTU/IP
- BACnet MSTP/IP
- MQTT
- Power Supply: 10-30V DC, 24V AC, PoE, Type-C

General Specifications

- Dimension: 150*112*32mm
- Weight: 235g
- Operating Temperature: 0°C - 50°C
- Operating Humidity: 10% - 90% RH (non-condensing)
- Data Storage: 1-minute data average, with over 1.5 years of storage capacity
- Installation: Wall or ceiling mount

Certification

- CE, FCC, RoHS, REACH, Works with WELL