



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&5G) 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 - 10,000 ppm	$\pm 30\text{ppm} \pm 3\%$ of reading	1 ppm	Non-dispersive Infrared
TVOC Index	1 - 500	$\leq \pm 15$	1	MOx(MEMS)
NOx Index	1 - 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
Formaldehyde (HCHO) (selective)	0-1ppm	±5%F.S	0.001ppm	Solid Polymer Electrochemical

Connectivity and Power Supply

- Wi-Fi: 2.4&5 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