



Aeronode A101

Introduction

The Aeronode A101 Series by Aeropulse is a SIM card-enabled device that provides seamless connectivity by simply inserting a SIM card. This advanced unit is capable of measuring up to 16 pollutants simultaneously.

The device features two replaceable capsules—one for the sensor and one for the battery. Depending on the use case, both capsules can either be sensors (for additional measurements) or batteries (for extended battery life).

Ideal for indoor environments such as offices, schools, stores, and hospitals, the Aeronode A101 series ensures accurate environmental monitoring.

Key Features

- SIM card for easy wifi connection
- 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

- A101C for China
- A101E for Europe
- A101N for US and Canada

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	$\pm(50\text{ppm}+3\%$ of reading) 3,000–10,000: $\pm 10\%$ of reading <i>*Compliant with ANSI/ASHRAE 62.1 (75 ppm) from 400–2,500 ppm</i>	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
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