

Next Generation Particulate Matter OEM Sensor - PM1 | PM2.5 | PM10



NextPM has been designed to meet the very highest performance standards in all applications. Featuring advanced technical specifications that enable ultra-precise measurements to be obtained, even in extreme climatic conditions.

Key Features

- Real time PM1, PM2.5, PM10 & TSP1.2
- Humidity shield
- 2 detection angle
- Anti-contamination design
- 5 channel in pcs/L
- Airflow 2.5 L/min
- Lifetime >10,000 hours
- Communication UART, I2C & Modbus (RS485)

Typical Applications

- Urban air quality
- Indoor air quality monitoring
- HVAC & building control
- Industrial health & safety
- Semiconductor
- Construction
- Laboratory
- Environmental
- Fence line
- Fugitive emissions

Technical Specifications & Performance

Technology	Optical
Targeted pollutants	Particulate Matter
Particle size detection range	0.3—10 µm diameter
Concentration detection range / PM1, PM2.5 & PM10	0—10,000 µg/m ³ (Arizona dust A1 equivalent)
Total Suspended Particle (TSP) detection range	0—40,000 µg/m ³ (Arizona dust A1 equivalent)
Detection limit	<1 µg/m ³ (Arizona dust A1 equivalent)
Lifetime (MTTF)	>10,000 hours
Airflow	2.5 L/min (Provided by external pumping system)
Refresh rate	1 / 10 / 60 seconds
Warm-up time	10 seconds
Linerity error	<5%
Repeatability error	<3% (Calculated with 15 min moving average output)
Detection efficiency with 0.3 µm diameter particles	>50%
Temperature influence	-20—0 °C (<+1.0% / °C) 0—30 °C (0% / °C) 30—70 °C (<-0.8% / °C)

Electrical Specification

Power supply	5.0 VDC
Power consumption in operation	<80 mA 300 mA (maximum)
Power consumption in sleep mode	<5 mA

Operation & Storage Conditions

Temperature	-20—70 °C
Humidity	0—95 uncondensed (%)
Pressure	500—1500 hPa

Other

Communication	UART, I2C & Modbus (RS485)
Dimensions and weight	L 62 x W 52 x H 26.6 mm / 45 g
Certifications	CE and RoHS compliant

Drawings

