



KANOMAX
The Ultimate Measurements

AEROSOL PARTICLE MONITOR AES-FP Series

The Kanomax Particle Sensing Monitor AES-FP Series provides a cost-effective solution for continuously monitoring airborne particles in precision manufacturing processes, controlled environments, and other contamination-sensitive applications.

Available in configurations for particles larger than 0.3 μm or 0.5 μm , the system also detects particles larger than several micrometers as a reference measurement. A four-step LED display provides an immediate indication of cleanliness levels ranging from Class 1,000 to Class 100,000.

The compact sensor unit can operate independently or connect to a monitor with application-specific communication and output options. Its detachable design also allows the sensor to be replaced during calibration, helping facilities maintain continuous environmental monitoring.



AES-FPM PARTICLE SENSING MONITOR

87 × 120 × 46.5 mm



AES-FPS PARTICLE SENSOR UNIT

57 × 83 × 23.7 mm

APPLICATIONS

- ❖ **Cleanrooms and Controlled Environments** — Monitor cleanliness at multiple locations throughout cleanrooms, production areas, laboratories, and other contamination-sensitive facilities.
- ❖ **Paint and Coating Booths** — Detect airborne particles that may settle on painted or coated surfaces.
- ❖ **Glass Manufacturing and Inspection** — Monitor particle contamination that may affect glass surface quality during manufacturing, handling, or inspection.
- ❖ **Printing Operations** — Identify airborne dust and particles that may interfere with print quality, contaminate products, or affect printing equipment.
- ❖ **Electrical Panels and Sensitive Equipment** — Monitor contamination around electrical panels, control systems, server rooms, and other sensitive equipment.
- ❖ **Other Industrial Processes** — Track larger airborne particles in environments where contamination may affect product quality, process consistency, or equipment performance.

FEATURES AND BENEFITS

- ❖ **Cost-Effective Monitoring** — Continuously detect airborne particles without the complexity of a portable particle counter.
- ❖ **Clear Visual Indication** — A four-step LED display provides an at-a-glance indication of environmental cleanliness.
- ❖ **Multiple Particle-Size Options** — Choose models designed to detect particles larger than 0.3 μm or 0.5 μm .
- ❖ **Compact, Flexible Design** — Install the compact sensor in confined spaces or operate it independently through its RS-485 interface.
- ❖ **Continuous Calibration Coverage** — Replace the detachable sensor unit with a spare to continue monitoring while the original sensor is being calibrated.
- ❖ **Flexible Connectivity** — Select from Ethernet, Wi-Fi, RS-485, analog voltage, and alarm outputs, depending on the monitor configuration.
- ❖ **Environmental Monitoring** — Compatible models support optional temperature and relative humidity measurement with Temperature and RH Probe – Model AES-TRH.

PRODUCT SPECIFICATIONS

Main Specifications							
Product Type		Particle Sensing Monitor				Particle Sensor Unit	
Model # (0.3 μm / 0.5 μm)		FPM-1 / FPM-51	FPM-2 / FPM-52	FPM-3 / FPM-53	FPM-4 / FPM-54	AES-FPS	AES-FPS-5
Primary Detectable Particle Size		Larger than 0.3 μm / 0.5 μm	Larger than 0.3 μm / 0.5 μm	Larger than 0.3 μm / 0.5 μm	Larger than 0.3 μm / 0.5 μm	Larger than 0.3 μm	Larger than 0.5 μm
Additional Particle Detection		Larger than several micrometers (*5)					
Output Averaging Time		60 s / 300 s	60 s / 300 s	60 s / 300 s	60 s / 300 s	60 s	300 s
Optical Source		Laser diode					
Cleanliness Measurement Range		Class 1,000 to Class 100,000 (*1)					
Measurement Unit		pcs/m³ (default), pcs/cf, or pcs/L (*2)					
Data Update Time		1 s					
Power Supply		12–24 V DC (*3)					
Maximum Current Draw		600 mA				200 mA	
Operating Temperature		0°C to 40°C					
Storage Temperature		–20°C to 60°C					
Operating Humidity		30% to 80% RH					
Storage Humidity		Below 90% RH, non-condensing					
Dimensions (W × H × D)		87 × 120 × 46.5 mm				57 × 83 × 23.7 mm	
Weight		Approximately 210 g				Approximately 65 g	
Applicable Wire Size		AWG 26 to AWG 20					
Output	LED Level Display	○	○	○	○	—	—
	Reference LED	○	○	○	○	—	—
	Analog Voltage Output (1–5 V)	—	—	○	—	—	—
	Ethernet	—	○	—	○	—	—
	Wi-Fi	—	—	—	○	—	—
	RS-485	—	—	—	—	○	○
	Alarm Output	○	○	○	○	—	—
	Temperature and Humidity Measurement (*4)	—	○	—	○	—	—
Notes							
(*1)	Class 1,000 measurements are provided as reference information.						
(*2)	Measurement units can be changed only on the FPM-2, FPM-52, FPM-4, and FPM-54. For particles larger than several micrometers, the unit is fixed at pcs/min.						
(*3)	A dedicated AC adapter is available separately as an option.						
(*4)	Temperature and humidity measurement requires the optional CHU-L151-11A-AES sensor.						
(*5)	Measurements of particles larger than several micrometers are provided as reference values.						

*Specifications are subject to change without notice.

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