# Particle Sensing Monitor
# AES-FP Series

CLASS 1,000 10,000 100,000

ISO 6 7 8

POWER    REFERENCE

OFF ◼︎ ON    ◀ ▶

PARTICLE SENSING MONITOR
SHINYEI  **AES-FP**

**AES-FPS**(Sensor Unit)
57 × 83 × 23.7(mm)

**AES-FPM**(Monitor)    Image in Full-size
87 × 120 × 46.5(mm)

The best way to monitor cleanliness level in the manufacturing process of precision parts and work environments at low cost.

**Feature**

◉ **Capable to detect suspended particles at low cost.**

◉ **Easy-to-check 4 step LED display for cleanliness level Class 1,000 to 100,000.**

◉ **Detect particles over 0.3$\mu$m (or 0.5$\mu$m) and over a few $\mu$m\*** (\*reference value).

◉ **5 models available for suitable application and communication interface.**

◉ **Detachable sensor unit to maintain continuous measurement during calibration.**

◉ **Temperature and humidity sensor available as an option.**

SHINYEI

# Specification

| Model #(0.3μm)：AES-□□□<br>Model #(0.5μm)：AES-□□□-5□ | Particle Sensing Monitor | | | | Particle Sensor Unit |
|---|---|---|---|---|---|
| | FPM-1<br>FPM-51 | FPM-2<br>FPM-52 | FPM-3<br>FPM-53 | FPM-4<br>FPM-54 | FPS<br>FPS-5 |
| Optical Source | Laser Diode | | | | |
| Measurement Range | Class1,000 to Class100,000(*1) | | | | |
| Unit | pcs/㎥ (Default), pcs/cf, pcs/L(*2) | | | | |
| Data Update Time | 1s | | | | |
| Power | 12 to 24V(*3) | | | | |
| Power Consumption (max) | 600mA | | | | 200mA |
| Operating Temperature | 0 to 40℃ | | | | |
| Storage Temperature | -20 to 60℃ | | | | |
| Operating Humidity | 30 to 80%rh | | | | |
| Storage Humidity | Below 90%rh (No condensation) | | | | |
| Output — LED Level Display | ○ | ○ | ○ | ○ | — |
| Output — Reference LED | ○ | ○ | ○ | ○ | — |
| Output — Analog Voltage(1-5V) | — | — | ○ | — | — |
| Output — Digital (Interface) | — | ○<br>(Ethernet) | — | ○<br>(Ethernet) (Wi-Fi) | ○<br>(RS485) |
| Alarm Output | ○ | ○ | ○ | ○ | — |
| Temperature and Humidity Measurement(*4) | — | ○ | — | ○ | — |
| Weight | Approx. 210g | | | | Approx. 65g |
| Applicable Wire Size | AWG26 to 20 | | | | |

# Detachable Sensor Unit

Sensor unit is detachable and replaceable with new sensor unit to maintain continuous measurement during the sensor calibration.
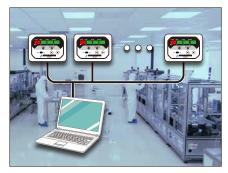


## Specification for AES-FPM-□ & AES-FPS

| Model #(0.3μm)：<br>AES-□□□ | Particle Sensing Monitor | | | | Particle Sensor Unit |
|---|---|---|---|---|---|
| | FPM-1 | FPM-2 | FPM-3 | FPM-4 | FPS |
| Detectable Particle Size | Over 0.3μm / Over a few μm（Reference） | | | | |
| Output Average Time | 60 s | | | | |

## Specification for AES-FPM-5□ & AES-FPS-5

| Model #(0.5μm)：<br>AES-□□□-5□ | Particle Sensing Monitor | | | | Particle Sensor Unit |
|---|---|---|---|---|---|
| | FPM-51 | FPM-52 | FPM-53 | FPM-54 | FPS-5 |
| Detectable Particle Size | Over 0.5μm / Over a few μm（Reference） | | | | |
| Output Average Time | 300 s | | | | |

# Application



**Multi-point Measurement in Cleanroom**
Capable to measure at multi ple points at the same time. Easy network construction.



**For Printing System Control to Keep Its Quality**
Continuous monitoring enabels to notify abnormal event occurrence and prevent contaminant particles adhesion to products.



**Monitoring at Data Center and Server Room**
Constant monitoring in places where particles accumulation is disliked. Contribute to managing cleaning frequency.

# Calibration Service

Annual calibration of sensor unit is recommended.
For details, please contact retailer or us directly.

● Issued Documents:
・Calibration Certificate
・Inspection Report
・Traceability System Diagram

# Temperature and Humidity Sensor (Optional)

Connect optional sensor（CHU-L151-11A-AES）to Particle Sensing Monitor for monitoring temperature and relative humidity continuously.