AE-3016PRO Laser Particle Counter

Application:

- The A E -3016PRO Laser Particle Counter (hereinafter referred to as the instrument) is used to measure the particle size distribution and number of dust particles per unit volume in clean environments, directly determining whether the clean environment is classified as Class A or Class B.
- The A E -3016PRO instrument offers first-class functionality and features, offering six channels for 0.3, 0.5, 1.0, 3.0, 5.0, and 10 µm, or specific particle sizes, and a flow rate of 2.83 L/min (0.1 ft^3/min).
- The counter can be equipped with optional high-precision (temperature/humidity) probes, providing a complete solution. The instrument utilizes a semiconductor laser light source and a large touchscreen LCD display. Its compact size and light weight offer high detection accuracy, simple operation, and microcomputer control, allowing for direct storage and printing of sampling and test results, making it extremely convenient for testing clean environments. The instrument can be connected to a PC for online control via the company's dedicated particle counter communication software, allowing convenient viewing, storage, and uploading of data on the PC. This model can be used as a standalone particle counter or integrated into an online equipment monitoring system.
- The instrument is widely used by manufacturers and scientific research departments in the electronics, pharmaceutical, semiconductor, optics, precision machining, food manufacturing, cosmetics manufacturing, healthcare, biological products, hospitals, environmental protection, testing laboratories, aerospace, and other industries, as well as authoritative institutions such as epidemic prevention stations, disease control centers, blood centers, and quality supervision institutes.
- This instrument uses the principle of light scattering, sensing light through a laser optical sensor. The intensity of the scattered light is proportional to the light flux of the particle size. When suspended particles in the air pass through the photosensitive area, the scattered light is received by the photosensor and generates a pulse signal. After photoelectric conversion, amplification, and processing, the equivalent diameter and number of the collected particles are obtained, thereby detecting the size and number of dust particles.

Features:

- Large touchscreen display and control.
- Sampling volume up to 2.83 L/min.
- UCL calculation (95% confidence level) directly displays particle concentration (particles/m^3).
- UCL report standard selection available.
- Selectable particle size channel display and printing options.
- Optional configurations available.
- Standard Bluetooth printing function.

- Communicates with a computer for data reading and storage.
- Intelligent data management with 20,000 data sets for loop storage.
- Sample data and UCL data are stored in partitions for independent query and concise viewing.
- Long-life laser light source for stable performance.
- External high-speed thermal printer.
- Selectable printing modes: automatic instant printing, manual printing, and selectable print content.
- Installation and internal air pump ensure stable sampling.
- Built-in high-capacity lithium-ion battery and intelligent management module for energy efficiency and safety.

Specifications:

- Light Source: Semiconductor Laser
- Lifespan: ≥30,000 hours
- Sampling Flow Rate: 2.83L
- Particle Size Channels: Six channels, 0.3, 0.5, 1.0, 3.0, 5.0, 10 μm
- Display and Operation: Large Touchscreen
- Detection Range: Class 1,000,000 to Class 1,000
- UCL Report: Complies with FS-209E and China GMP standards
- Sampling Cycle: 5s to 9,999s, customizable
- Sampling Delay: 1s to 100s, customizable
- Number of Sampling Points: 2 to 99 points, customizable
- Number of Sampling Times: 2 to 99 times, customizable
- Sampling Area: As required Any combination of letters and numbers or custom settings
- Sampling Concentration: ≤35,000 particles/L (dust particle size no larger than 0.5 μm)
- Sampling Unit: Selectable: particles, particles/m^3, or particles/FT^3
- Self-Purification Time: ≤10 minutes
- Working Environment: Temperature 10° C－35° C, Relative Humidity ≤75%, Atmospheric Pressure 86kPa－106kPa
- Sampling Conditions: The sampled gas must not contain acids, alkalis, or corrosive gases such as high temperatures
- Data Storage: 20,000 data sets in a loop
- Data Printing: External high-speed thermal printer
- Data Communication: USB 2.0 interface, baud rate 115200
- Battery Life: ≤10 hours (varies depending on season and instrument age)
- Charging Time: ≈4 hours (may vary depending on season and instrument age)
- Power consumption: 8W
- Dimensions: 140 × 280 × 100 (W × L × H) mm
- Weight: 1.05 kg
- Power supply: DC 8.4 V; AC 220 V ± 10%, 50 Hz ± 2 Hz
- Accessories: Specialized shock-resistant case, instruction manual, factory inspection report, certificate of conformity, zero-count filter (self-cleaner), power adapter, isokinetic sampling port, Bluetooth printer, dust cap, temperature and humidity sensor