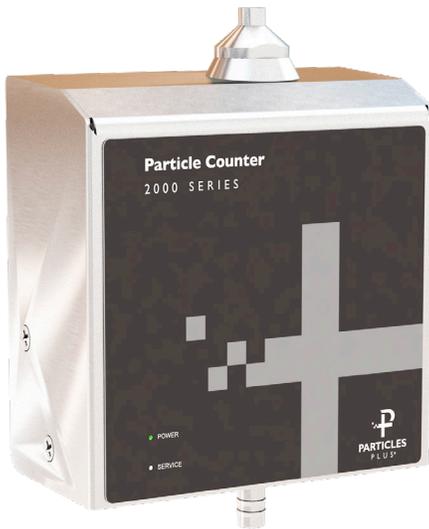




PARTICLES
PLUS®

2510 and 2510-2 Remote Airborne Particle Counters 1.0 CFM (28.3 LPM)



The Particles Plus® 2510 and 2510-2 Remote Particle Counters provide a range of particle size measurement from 0.5 to 25.0 μm at a flow rate of 1.0 CFM (28.3 LPM) and are designed for continuous monitoring in cleanrooms and other controlled environments. With two or four particle size channels, these instruments deliver targeted contamination detection with real-time data collection and configurable alarms for immediate incident reporting and local visual alerts.

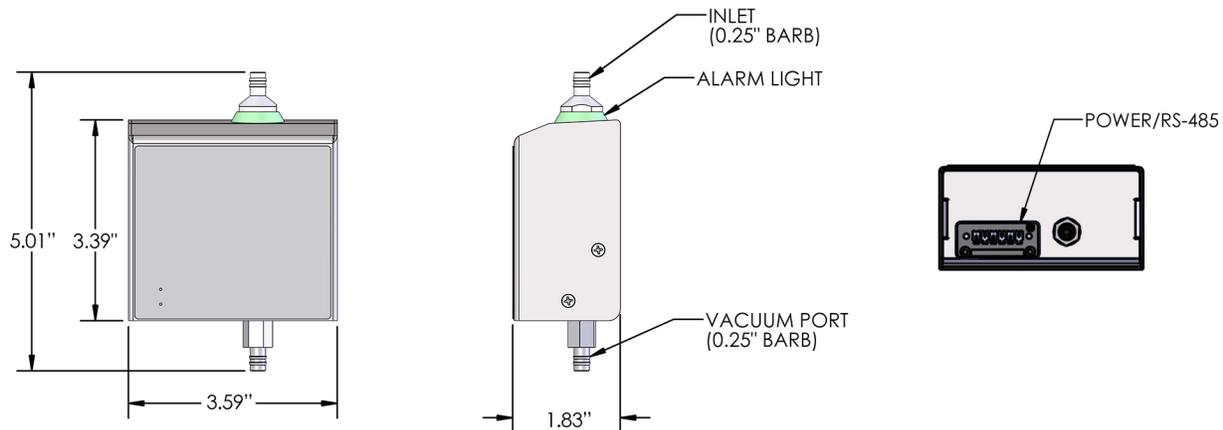
The compact, angled enclosures enable installation in tight locations while minimizing disruption to unidirectional airflow. These sensors are equipped with an integral critical orifice and flow sensor to provide a stable flow rate from an external vacuum source.

Built for scalability and long-term reliability, these models utilize durable laser diodes backed by a lifetime warranty and deliver exceptional zero-count performance. The 2000 Series sensors allow for efficient particle counting with specifications that exceed the ISO 21501-4 and JIS B9921 calibration standards.

With seamless connectivity, remote diagnostics, and a standardized architecture, they offer simplified integration and a lower total cost of ownership for critical monitoring applications.

Features and Benefits

- 2510: Measures 0.5 μm to 25.0 μm (up to 4 channels)
- 2510-2: Measures 0.5 μm to 25.0 μm (up to 2 channels)
- 1.0 CFM (28.3 LPM) flow rate
- Long life laser diode technology for reliable performance
- Measures 2 or 4 channels of simultaneous data
- Accurate in high particle concentration environments
- Modbus RTU/ASCII data communication over isolated RS-485
- Complies with ISO 21501-4 and JIS B9921 standards
- Easy to clean, lightweight stainless steel enclosure with minimal particle traps
- Versatile mounting options
- User configurable alarm light and LED indicators for real-time alerts
- Seamless integration into a facility monitoring system
- 2 Year Limited Warranty (Extended and Lifetime Warranties available)



Specifications

| Model | 2510 | 2510-2 |
|------------------------|---|---|
| Size Range | 0.5 μm to 25.0 μm | 0.5 μm to 25.0 μm |
| Size Channels | Factory calibrated at 0.5, 1.0, 2.5, and 5.0 μm | Factory calibrated at 0.5 and 5.0 μm |
| Number of Channels | 4 channels | 2 channels |
| Counting Efficiency | 50% @ 0.5 μm ; 100% for particles > 0.75 μm per JIS | |
| Flow Rate | 1.0 CFM (28.3 LPM) | |
| Concentration Limits | 1,500,000 particles/ft ³ @ 10% coincidence (per ISO 21501-4), 3,000,000 particles/ft ³ @ 10% coincidence (as tested and validated ¹) | |
| Light Source | Long life laser diode | |
| Zero Count | < 1 count / 5 minutes (< 1 particles / 15ft ³). No fault count subtraction. | |
| Calibration | NIST traceable | |
| Vacuum Requirements | External vacuum > 15" (38.1cm) of Hg | |
| Airflow | Internally monitored | |
| Alarm | Alarm LED ring | |
| Communication Modes | MODBUS™ RTU, ASCII outputs (over isolated RS-485) | |
| Standards | ISO 21501-4 and JIS B9921 | |
| Instrument Calibration | Recommended minimum once per year | |
| External Surface | Stainless steel | |
| Dimensions (L x W x H) | 1.83" x 3.59" x 5.01" (4.6 x 9.1 x 12.7 cm) including probes and connectors | |
| Weight | 1.65 lb. (0.75 kg) | |
| Accessories | Wiring Connector, operating manual on USB flash drive | |
| Optional Accessories | Power Supply, Remote Mounting Bracket, Isokinetic Probe, Filter Assembly, and Sample & Vacuum Tubing | |
| Sample Time | 1 second to 18 hours | |
| Power | 9 - 24 VDC (< 2.5 watts) | |
| Operating Conditions | 41-104°F (5-40°C) / 20% to 95% non-condensing | |
| Storage Conditions | 32-122°F (0-50°C) / Up to 98% non-condensing | |
| Warranty | 2 Year Limited Warranty (Extended and Lifetime Warranties available) | |

1- Validated by independent analysis see paper available at www.particlesplus.com/aac2022_paper