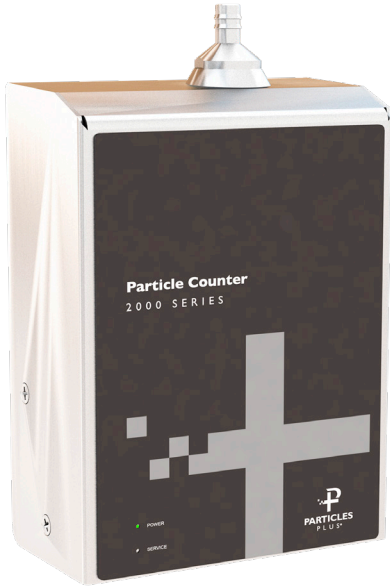




# 2301P and 2501P Remote Airborne Particle Counters

0.1 CFM (2.83 LPM)

**PARTICLES PLUS®**

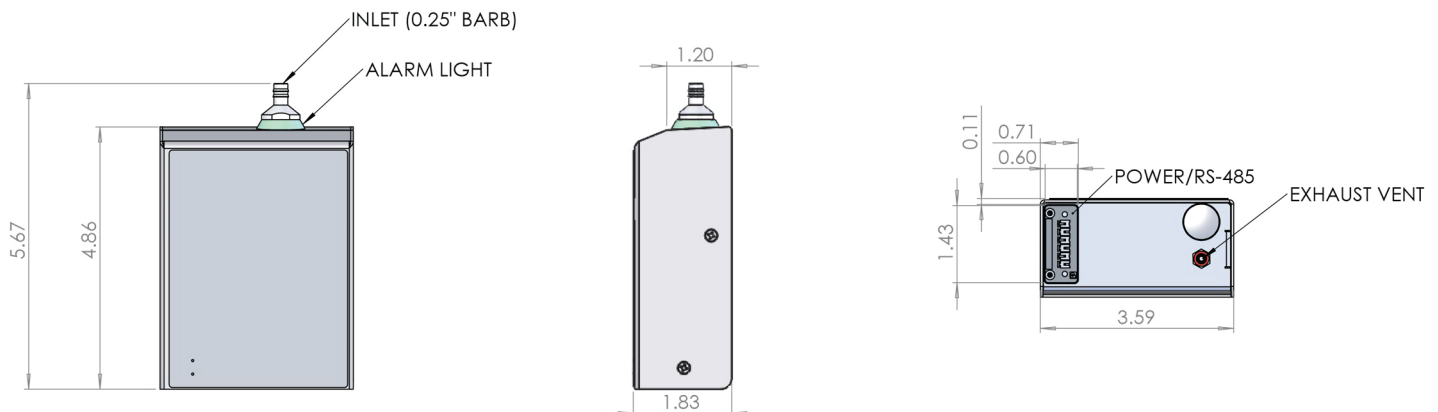


The 2301P and 2501P particle counters provide a range of particle size measurement from 0.3 to 25.0  $\mu\text{m}$  at 0.1 CFM (2.83 LPM) flow. These sensors allow for efficient particle counting with high accuracy and resolution that meet or exceed ISO 21501-4 and JIS B9921 for the calibration of a particle counter.

These units are equipped with an internal pump and manifold and do not require an external vacuum source. Integration into a building automation or facility monitoring system is easy via standard MODBUS RS-485 communication or (optional) 4-20 mA analog output.

## 2301P and 2501P: Features and Benefits

- 2301P: Measures 0.3  $\mu\text{m}$  to 25.0  $\mu\text{m}$
- 2501P: Measures 0.5  $\mu\text{m}$  to 25.0  $\mu\text{m}$
- 0.1 CFM (2.83 LPM) flow rate
- Long life laser diode technology
- Measures up to 4 channels of simultaneous data
- Accurate in high particle concentration environments
- Internal vacuum pump
- Internal HEPA filter
- Modbus RTU/ASCII over isolated RS-485 or (optional) 4-20 mA analog output
- Complies with ISO 21501-4 and JIS B9921 standards
- Easy to clean and wipe down with minimal particle traps
- Versatile mounting options
- Alarm light
- LED Indicators
- Seamless integration into a facility monitoring system
- Lightweight stainless steel enclosure
- 2 year limited warranty. Extended warranties available.





## Specifications

| Model                  | 2301P   | 2501P   |
|------------------------|---|---|
| Size Range             | 0.3 $\mu\text{m}$ to 25.0 $\mu\text{m}$   | 0.5 $\mu\text{m}$ to 25.0 $\mu\text{m}$                                   |
| Size Channels          | Factory calibrated at 0.3, 0.5, 1.0, 5.0 $\mu\text{m}$  | Factory calibrated at 0.5, 1.0, 2.5, 5.0 $\mu\text{m}$                    |
| Number of Channels     | 4 channels  | 4 channels  |
| Counting Efficiency    | 50% @ 0.3 $\mu\text{m}$ ; 100% for particles > 0.45 $\mu\text{m}$ per JIS   | 50% @ 0.5 $\mu\text{m}$ ; 100% for particles > 0.75 $\mu\text{m}$ per JIS |
| Flow Rate              | 0.1 CFM (2.83 LPM)  |   |
| Concentration Limits   | 10,000,000 particles/ft <sup>3</sup> @ 10% coincidence (per ISO 21501-4),<br>20,000,000 particles/ft <sup>3</sup> @ 10% coincidence (as tested and validated <sup>1</sup> ) |   |
| Light Source           | Long life laser diode   |   |
| Zero Count             | <1 count / 60 minutes (<1 particles / 6 ft <sup>3</sup> ). No fault count subtraction.  |   |
| Calibration            | NIST traceable  |   |
| Vacuum Source          | Internal vacuum pump with HEPA filter   |   |
| Filtered Exhaust       | Internal HEPA filter  |   |
| Airflow                | Internally monitored  |   |
| Alarm                  | Alarm LED ring  |   |
| Communication Modes    | MODBUS™ RTU, ASCII (over isolated RS-485), or (optional) 4-20 mA analog output  |   |
| Standards              | ISO 21501-4 and JIS B9921   |   |
| Instrument Calibration | Recommended minimum once per year   |   |
| External Surface       | Stainless steel   |   |
| Dimensions (L x W x H) | 3.59" x 1.83" x 5.66" (9.1 x 4.6 x 14.3 cm) including probes and connectors   |   |
| Weight                 | 1.94 lb. (0.88 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° to 104°F (5° to 40°C) / 20% to 95% non-condensing   |   |
| Storage Conditions     | 32° to 122°F (0° to 50°C) / Up to 98% non-condensing  |   |
| Warranty               | 2 year limited warranty. Extended warranties available.   |   |

1- Validated by independent analysis see paper available at [www.particlesplus.com/aac2022\\_paper](http://www.particlesplus.com/aac2022_paper)

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