



### Remote Airborne Particle Counters 0.1 CFM (2.83 LPM)

The Particles Plus 5301 and 5501 Remote Particle Counters are the most feature-advanced remote particle counters available. Integration is easy into a building automation and cleanroom management system via Ethernet, or (optional) Wireless 802.11 b/g, RS485 or RS232

The 5301 and 5501 remote particle counters display and report 6 user-selectable particle size channels, as well as (optional) temperature and relative humidity, flow and sensor status, date of last calibration, serial number, laser on-time and date of manufacture for easy maintenance and warranty management.

These remote particle counters store up to 45,000 time stamped particle count and environmental data records which provides data redundancy on every instrument. Particles Plus counters can be controlled and monitored remotely via web browser.

All Particles Plus counters meet ISO 21501-4 and JIS B9921. The 5301 and 5501 ensure compliance with an on-board pulse height analyzer.

### Features and Benefits

- 5301: Measures 0.3 µm to 25 µm
- 5501: Measures 0.5 µm to 25 µm
- 0.1 CFM (2.83 LPM) flow rate
- Long life laser diode technology
- Measures up to 6 channels of simultaneous data
- Approximates mass concentration in µg/m<sup>3</sup>
- Large easy-to-use icon driven color touch screen display
- (Optional) temperature and relative humidity probe
- (Optional) internal vacuum pump
- Stores up to 45,000 sample records for on-board data redundancy
- Annotation function allows user to save 32 character notations to a sample record
- Easy configuration and transferable from instrument to instrument
- Connect using Ethernet, USB or (optional) Wireless 802.11 b/g, RS485 or RS232
- Static or dynamic IP address (DHCP)
- Internal audible alarm
- User-selectable channel sizes
- Complies with ISO 21501-4 and JIS B9921 standards
- Easy to clean and wipe down with minimal particle traps
- Versatile mounting options
- Seamless integration into a facility monitoring system
- Light weight stainless steel enclosure
- 2 year warranty. Extended warranties available.



## Specifications

| Models                        | 530I  | 550I  |
|-------------------------------|---|---|
| Size Range                    | 0.3 to 25 µm  | 0.5 to 25 µm  |
| Size Channels                 | Factory calibrated at 0.3, 0.5, 1.0, 3.0, 5.0, 10.0 µm  | Factory calibrated at 0.5, 0.7, 1.0, 3.0, 5.0, 10.0 µm    |
| Flow rates                    | 0.1 CFM (2.83 LPM)  | 0.1 CFM (2.83 LPM)  |
| Concentration Limit           | 4,000,000 Particles/ft <sup>3</sup> @ 5% coincidence loss   | 4,000,000 Particles/ft <sup>3</sup> @ 5% coincidence loss |
| Counting Efficiency           | 50% @ 0.3 µm; 100% for particles >0.45 µm per JIS   | 50% @ 0.5 µm; 100% for particles >0.75 µm per JIS         |
| Light Source                  | Long life laser diode   |   |
| Zero Count                    | <1 count / 5 minutes (<2 particles / ft <sup>3</sup> ) (per ISO 21501-4 & JIS)  |   |
| Count Modes                   | Automatic, manual, real-time meter; cumulative/differential, count or concentration   |   |
| Count Alarms                  | 1 to 9,999,999 counts   |   |
| Calibration                   | NIST traceable  |   |
| Display                       | 4.3" (10.9 cm) WQVGA (480x272) color touch screen   |   |
| Vacuum Requirements           | External vacuum >15" (38.1 cm) of Hg  |   |
| Optional Internal Vacuum Pump | Internal pump with automatic flow control   |   |
| Number of Channels            | 6   |   |
| Custom Size Channels          | Calibration for custom size channels available  |   |
| Airflow                       | Internally monitored  |   |
| Audible Alarm                 | Adjustable built-in alarm   |   |
| Communication Modes           | Ethernet and USB  |   |
| Optional Communication Modes  | Wireless 802.11 b/g, RS485 or RS232   |   |
| Environmental Sensor          | (Optional) temperature and relative humidity probe 32° to 122°F (0° to 50°C) ±1°F (0.5°C), 15-90% ±2% relative humidity               |   |
| Alarm                         | Alarms on counts for all particle sizes, sensor failure, environmental sensors and flow   |   |
| Standards                     | ISO 21501-4 and JIS B9921   |   |
| Calibration                   | Recommended minimum once per year   |   |
| External Surface              | Stainless steel   |   |
| Dimensions (L x W x H)        | 5.2" x 2.3" x 8.9" (13.3 cm x 5.8 cm x 22.6 cm) includes barb fittings  |   |
| Weight                        | 2.6 lb (1.18 kg)  |   |
| Accessories                   | Quick start guide, operating manual on USB flash drive, isokinetic probe, power supply & cable  |   |
| Optional Accessories          | Printed manual, temperature relative humidity sensor, isokinetic probes, purge filter, data cable, mounting bracket and sample tubing |   |
| Buffer Memory                 | 45,000 sample records (rotating buffer) including particle count data and environmental data  |   |
| Sample Time                   | 1 second to 99 hours  |   |
| Power                         | 110 to 240 VAC 50/60 Hz universal in-line power supply  |   |
| 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 Years. Extended warranties available.   |   |