



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

The Particles Plus 530I and 550I 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 530I and 550I 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 530I and 550I ensure compliance with an on-board pulse height analyzer.

### Features and Benefits

- 530I: Measures 0.3  $\mu\text{m}$  to 25  $\mu\text{m}$
- 550I: Measures 0.5  $\mu\text{m}$  to 25  $\mu\text{m}$
- 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  $\mu\text{g}/\text{m}^3$
- 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	5301	5501
Size Range	0.3 to 25 $\mu\text{m}$	0.5 to 25 $\mu\text{m}$
Size Channels	Factory calibrated at 0.3, 0.5, 1.0, 3.0, 5.0, 10.0 $\mu\text{m}$	Factory calibrated at 0.5, 0.7, 1.0, 3.0, 5.0, 10.0 $\mu\text{m}$
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 $\mu\text{m}$ ; 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
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) $\pm$ 1°F (0.5°C), 15-90% $\pm$ 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.	

Patent Pending

Particles Plus, Inc. reserves the right to change specifications without notice.  
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