



4510 Remote Airborne Particle Counter

The Particles Plus 4510 Remote Particle Counter measures 0.5 μm to 25.0 μm with a flow rate of 1.0 CFM (28.3 LPM) while providing multiple outputs for 6 particle size channels. This instrument has a built-in vacuum pump and can be used for continuous mode monitoring applications without the necessity of running a vacuum system to the device. The enclosure, with its sloped top surface and enhanced internal materials design allows for superior Vaporized Hydrogen Peroxide (VHP) resistance in GMP controlled cleanrooms.

The small footprint makes the 4510 over 60% smaller than similar devices offered, and the sloped case design allows liquids to shed quickly from its top surface.

Easy system integration and numerous control options provide for a rich feature set not typically found in remote particle counters. Data for this robust 6 channel device is output through its Ethernet or (optional) Wireless 802.11 b/g utilizing various communications protocols. The modular internal design, combining the pump and optical block assembly in a single removable cradle, allows for easy hot-swapping of the device minimizing downtime during service and calibration. The onboard differential pressure sensor and pump flow controller protects the particle counter by sensing when the isokinetic probe is capped for wash down.

Unparalleled onboard 45,000 sample record storage provides data redundancy, maintaining compliance during either unforeseen network outages or monitoring system failures. Additionally, an internal USB On-The-Go port allows the user to interface directly with the remote for data retrieval or configuration changes during those unexpected network or monitoring system failures.

All Particles Plus counters meet ISO 21501-4 and JIS B9921. The 4510 ensures compliance with an on-board pulse height analyzer.

Features and Benefits

- Measures 0.5 μm to 25 μm
- 1.0 CFM (28.3 LPM) flow rate
- Long life laser diode technology
- Measures up to 6 channels of simultaneous data
- Internal redundant memory stores up to 45,000 sample records.
- Connect using Ethernet or (optional) Wireless 802.11 b/g
- Static or dynamic IP address (DHCP)
- User-selectable channel sizes
- Complies with ISO 21501-4 and JIS B9921 standards
- Sealed stainless enclosure allows for wash down where VHP disinfection is utilized
- Seamless integration into a facility monitoring system
- Light weight stainless steel enclosure with gasket sealed front cover
- 2 year warranty. Extended warranties available.



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Specifications

Model	4510
Size Range	0.5 to 25 μm
Size Channels	Factory calibrated at 0.5, 0.7, 1.0, 3.0, 5.0, 10.0 μm variable binning
Flow rate	1.0 CFM (28.3 LPM)
Concentration Limit	4,000,000 Particles/ ft^3 @ 5% coincidence loss
Light Source	Long life laser diode
Counting Efficiency	50% @ 0.5 μm ; 100% for particles >0.75 μm per JIS
Zero Count	<1 count / 5 minutes (<2 particles / ft^3) (per ISO 21501-4 & JIS)
Count Modes	Automatic, manual, real-time meter, cumulative/differential, mass concentration, count or concentration
Count Alarms	1 to 9,999,999 counts
Calibration	NIST traceable
Vacuum Source	Internal pump with automatic flow control
Filtered Exhaust	Internal HEPA filter
Number of Channels	6
Custom Size Channels	Calibration for custom size channels available
Communication Modes	Ethernet or (optional) Wireless 802.11 b/g
Standards	ISO 21501-4 and JIS B9921
Calibration	Recommended minimum once per year
External Surface	316L Stainless steel
Dimensions (L x W x H)	4.7" x 6.2" x 9.5" (11.9 cm x 15.7 cm x 24.1 cm) does not include isokinetic probe
Weight	9 lb (4.0 kg)
Accessories	Quick start guide, operating manual on USB flash drive, isokinetic probe, purge filter, power supply & cable
Optional Accessories	Printed manual, isokinetic probe, spare waterproof isokinetic cap, ethernet cable and spare lock key
Buffer Memory	45,000 sample records (rotating buffer) including particle count 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

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