

7300 Remote Particle Counter

1.2 LPM



The Particles Plus® 7300 Remote Particle Counter measures 0.3 μm to 25.0 μm with a flow rate of 1.2 LPM and is the most versatile remote particle counter available.

The 7300 can be used as a stand-alone battery operated instrument or it can be easily integrated into a building automation and cleanroom management system via Ethernet or (optional) Wireless 802.11 b/g. The 7300 reports and displays 6 user-selectable particle size channels, as well as Temperature, Humidity and Barometric Pressure. Particles Plus counters can be controlled and monitored remotely via web browser. The 7300 has a mass concentration mode that approximates density in $\mu\text{g}/\text{m}^3$.

View data and generate ISO 14644-1, EU GMP Annex 1 or FS 209E reports on screen or via printer, USB key, real time through its versatile output options or export to Particles Plus® data-download software. Particles Plus® counters can be controlled and monitored remotely via web browser.

The 7300 particle counter stores up to 45,000 time stamped particle count and environmental data records which provides data redundancy on every instrument. The 7300 also has a mass concentration mode that approximates density in $\mu\text{g}/\text{m}^3$.

All Particles Plus® counters meet ISO 21501-4 and JIS B9921. The 7300 ensures compliance with an on-board pulse height analyzer.

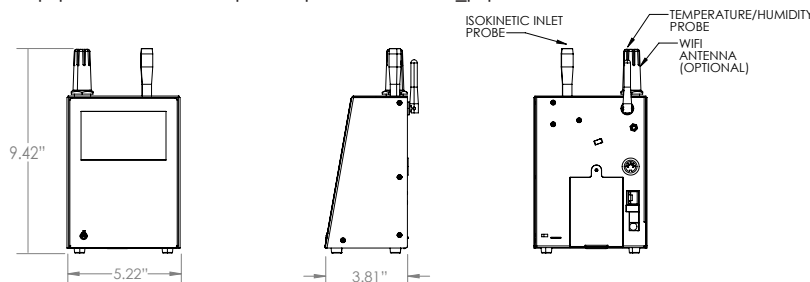
Features and Benefits

- 7300: Measures 0.3 μm to 25 μm
- 1.2 LPM flow rate
- Long life laser diode technology
- Measures up to 6 channels of simultaneous data
- Approximates mass concentration in $\mu\text{g}/\text{m}^3$ with density/refractive index corrections
- Large easy-to-use icon driven colour touch screen display
- Temperature and relative humidity probe included
- Stores up to 45,000 sample records, 1,000 sample locations and 50 recipes
- 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 802.11b/g, RS485 or RS232
- Static or dynamic IP address (DHCP)
- Remote diagnostics allows for remote service investigation through the internet
- Displays user-definable reports for ISO 14644-1, EU GMP Annex 1 and FS 209E
- 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
- Seamless integration into a facility monitoring system
- Light weight stainless steel enclosure
- 2 year limited warranty. Extended warranties available

Specifications

Model	7300
Size Range	0.3 to 25 µm
Size Channels	Factory calibrated at 0.5, 0.7, 1.0, 3.0, 5.0, 10.0 µm variable binning
Flow rates	1.2 LPM
Concentration Limits	27,000,000 particles/ft ³ @ 10% coincidence (per ISO 21501-4), 50,000,000 particles/ft ³ @ 10% coincidence (as tested and validated ¹)
Battery Run Time	>8 hours
Light Source	Long life laser diode
Counting Efficiency	50% @ 0.3 µm; 100% for particles >0.45 µm per JIS
Zero Count	<1 count / 60 minutes (<1 particles / 6 ft ³). No fault count subtraction.
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
Display	4.3" (10.9 cm) WQVGA (480×272) color touch screen
Printer (Optional)	External thermal printer available
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
Audible Alarm	Adjustable built-in alarm
Battery	Removable Li-ion
Battery Recharge Time	<2 hours
Reports	ISO 14644-1, EU GMP Annex 1, FS 209E
Recipes	50 user-configurable recipes
Communication Modes	Ethernet and USB
Optional Communication Modes	Wireless 802.11 b/g, RS485 or RS232
Environmental Sensor	Includes temperature 32° to 122°F (0° to 50°C) ±1°F (0.5°C) and relative humidity probe 15-90% ±2%
Alarm	Alarms on counts for all particle sizes, low battery, 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)	5.22" x 3.81" x 9.42" (14.0 cm x 9.7 cm x 23.9 cm) includes barb fittings
Weight	4 lb (1.8 kg)
Accessories	Operating manual on USB flash drive, isokinetic probe, temperature relative humidity sensor, purge filter, battery, data download software, USB cable, power supply & cable
Optional Accessories	Printed manual, spare battery, external battery charger, external printer and isokinetic probes
Buffer Memory	45,000 sample records (rotating buffer) including particle count data, environmental data, locations and times. Scrollable on screen or printout
Sample Locations	Up to 1,000 locations 20 characters long
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.

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



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REV 20230509-7300



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