

8303 and 8503 Handheld Airborne Particle Counter

- Industry's highest concentration of 15,000,000 particles/Ft³ @ 10% coincidence loss
- Ideal for use in Cleanrooms, Industrial Health & Safety, and Air Quality applications
- >10 hours continuous operation on a fully charged battery
- Industry's first Sleep Mode and Power Conservation Mode with intelligent battery
- Unparalleled and most comprehensive internal self-diagnostics of any handheld particle counter
- Real-Time Meter detects particle contamination sources with visual and audible indication
- Internet of Things (JSON) communication standard allows for network or cloud-based data options



The Particles Plus 8303 and 8503 Handheld Particle Counters measure 0.3 or 0.5 to 25.0 μm with a flow rate of 0.1 CFM (2.83 LPM). Easy to configure, this instrument displays up to 6 user-selectable size channels as well as temperature and relative humidity. 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. Their mass concentration mode approximates density in $\mu\text{g}/\text{m}^3$ and allows for density and refractive index corrections to ensure accuracy.

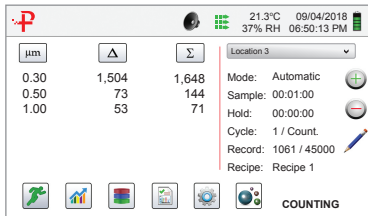
All Particles Plus counters meet ISO 21501-4 and JIS B9921. The 8303 and 8503 ensure compliance with an on-board pulse height analyzer.

Features and Benefits

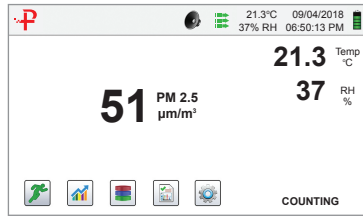
- 8303 Measures 0.3 μm to 25.0 μm
- 8503 Measures 0.5 μm to 25.0 μm
- 0.1 CFM (2.83 LPM) flow rate
- Long life laser diode technology
- Measures up to 3 channels of simultaneous data
- Approximates mass concentration in $\mu\text{g}/\text{m}^3$ with density and refractive index corrections
- Integrated handle for one-handed operation
- Large easy-to-use icon driven color touch screen display
- 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 USB or (optional) Ethernet, Wireless 802.11 b/g
- Displays reports for ISO 14644-1, EU GMP Annex 1, and FS 209E
- Internal audible alarm
- User-definable reports
- 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
- Lightweight high-impact injection molded plastic enclosure
- 1 year warranty. Extended warranties available

Optional Features and Benefits

- Temperature and relative humidity probe
- Ethernet, Wireless 802.11 b/g, RS485 or RS232 output
- Additional 3 size channels (easily add at any later time)
- External printer and printing option



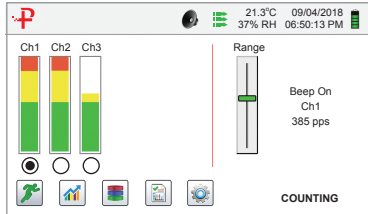
4.3" Color Touch Screen



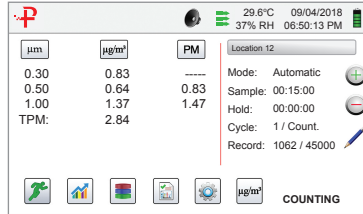
Configurable Environmental Sensor Display



Icon Driven Menus for Ease-of-Use



Real-Time Meter Pinpoints Particle Sources



Simultaneous Display of Multiple PM Sizes



Control, & Manage from a Remote Device

Specifications

Models

	8303	8503
Size Range	0.3 to 25 μm	0.5 to 25 μm
Size Channels	Factory calibrated at 0.3, 0.5, 1.0, μm	Factory calibrated at 0.5, 1.0, 5.0 μm
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
Flow rates	0.1 CFM (2.83 LPM)	
Concentration Limit	15,000,000 Particles/ft ³ @ 10% coincidence loss	
Light Source	Long life laser diode	
Battery Run Time	>10 hours continuous operation	
Zero Count	<1 count / 5 minutes (<2 particles / ft ³) (per ISO 21501-4 & JIS)	
Count Modes	Real-Time Meter & graph, cumulative/differential count/m ³ & count/ft ³ , and mass concentration (PM)	
Count Alarms	1 to 9,999,999 counts	
Calibration	NIST traceable	
Display	4.3" (10.9 cm) WVQVGA (480x272) color touch screen	
Printer (Optional)	External thermal printer	
Vacuum Source	Internal pump with automatic flow control	
Filtered Exhaust	Internal HEPA filter	
Number of Channels	3	
Custom Size Channels	Calibration for custom size channels available	
Audible Alarm	Adjustable built-in alarm	
Battery	Removable Li-ion	
Battery Recharge Time	4 hours within instrument (<2 hours with external battery charger)	
Reports	ISO 14644-1, EU GMP Annex 1, FS 209E	
Recipes	50 user-configurable recipes	
Communication Modes	USB	
Optional Communication Mode	Ethernet, Wireless 802.11 b/g, RS485, or RS232	
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	High impact injection molded plastic	
Dimensions (L x W x H)	10" x 5" x 4.5" (25.4 cm x 12.9 cm x 11.4 cm) includes handle and does not include probes	
Weight	2.2 lb (1.0 kg)	
Accessories	Operating manual on USB flash drive, isokinetic probe, purge filter, battery, data download software, USB cable, power supply & cable	
Optional Accessories	Printed manual, carrying case, spare battery, external battery charger, external printer, isokinetic probes and temperature relative humidity sensor	
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	1 Year. Extended warranties available	

Patents US 9,140,638, US 9,140,639, US 9,157,847, US 9,158,652, US 9,677,990. Additional Patents Pending.

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