7501-30 Remote Airborne Particle Counter

0.1CFM (2.83 LPM)

- Industry's highest concentration of 15,000,000 particles/ft^3 @ 10% coincidence loss
- Ideal for use in research, industrial health and safety, indoor air quality, and cleanroom applications
- Up to 10 hours continuous operation on a fully charged battery
- Industry's first Sleep Mode and Power Conservation Mode with Intelligent Battery
- The 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 (IoT) communication allows for network or cloud-based data options

The Particles Plus® 7501-30 Remote Particle Counter measures 0.5 to 75.0 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® Instrument Management Software.

Particles Plus® counters can be controlled and monitored remotely via web browser. The instruments' mass concentration mode approximates density in µg/m^3 and allows for density and refractive index corrections to ensure accuracy.

The 7501-30 can be used as stand-alone battery operated instruments or they can be easily integrated into a building automation and cleanroom management system via Ethernet, USB, or (optional) Wireless 802.11 b/g, RS485 or RS232.

All Particles Plus® counters meet ISO 21501-4 and JIS B9921. The 7501-30 ensures compliance with an on-board pulse height analyzer.

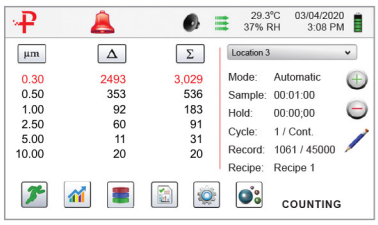
Features and Benefits

- 7501-30: Measures 0.5 µm to 75 µm
- 0.1 CFM (2.83 LPM) flow rate
- Long life laser diode technology
- Measures up to 6 channels of simultaneous data
- Approximates mas concentration in µg/m^3 with density/refractive index corections
- 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 alows user to save 32 character notations to a sample record
- Easy configuration and transferable from instrument to instrument
- Connect using Ethernet, USB or (optional) Wireles 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 facitilty monitoring system
- Light weight stainles steel enclosure
- 2 year limited waranty. Extended waranties available.

Specifications

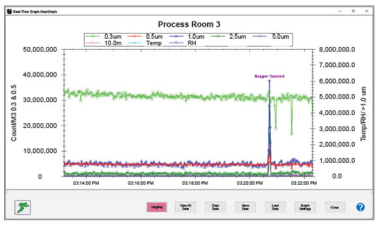
Model	**7501-30**
Size Range	0.5 to 75.0 µm
Size Channels	Factory calibrated at 0.5, 1.0, 2.5, 5.0, 10.0, 30 µm variable binning
Counting Efficiency	50% @ 0.5 µm; 100% for particles >0.75 µm per JIS
Concentration Limit	15,000,000 particles/ft^3 @ 10% coincidence (per ISO 21501-4), 30,000,000 particles/ft^3 @ 10% coincidence (as tested and validated[1])
Flow rates	0.1 CFM (2.83 LPM)
Battery Run Time	>10 hours
Light Source	Long life laser diode
Zero Count	<1 count / 60 minutes (<1 particles / 6 ft^3). No fault count subtraction.
Count Modes	Real-Time Meter and graph, cumulative/differential count/m^3 and count/ft^3, and mass concentration (PM)
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	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	Ethernet and USB (Optional) Wireless 802.11 b/g, RS485 or RS232.
Environmental Sensor	Includes temperature 32º to 122ºF (0º to 50ºC) ±1ºF (0.5ºC) 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 fitings
Weight	2.6 lb (1.18 kg)
Accessories	Operating manual on USB flash drive, isokinetic probe, temperature relative humidity sensor, 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	41º to 104ºF (5º to 40ºC) / 20% to 95% non-condensing
Storage Conditions	32º to 122ºF (0º to 50ºC) / Up to 98% non-condensing
Warranty	2 year limited warranty. Extended warranties available.

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

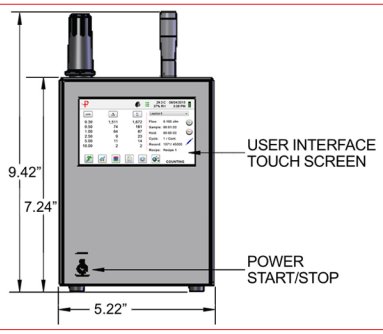


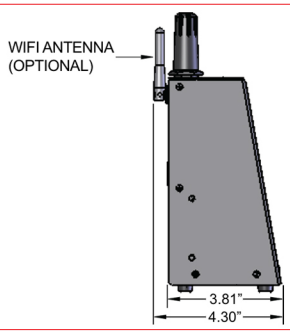
Audible and Visual Alarm Management

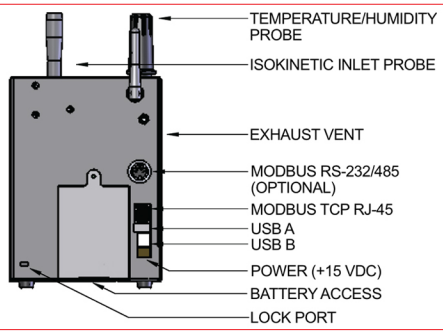
Icon Driven Menus for Ease-of-Use



Control and Manage Remotely with IMS







PAT. https://particlepatents.com/ Additional Patents Pending.
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