

B 7501-30 Remote Airborne Particle Counter

0.1 CFM (2.83 LPM)

- Industry's highest concentration of 15,000,000 particles/ft³ @ 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 Airy Technology® B7501-30 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. 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 Airy Technology® Instrument Management Software.

Airy Technology® counters can be controlled and monitored remotely via web browser. The instruments' mass concentration mode approximates density in µg/m³ and allows for density and refractive index corrections to ensure accuracy.

The B7501-30 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.

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

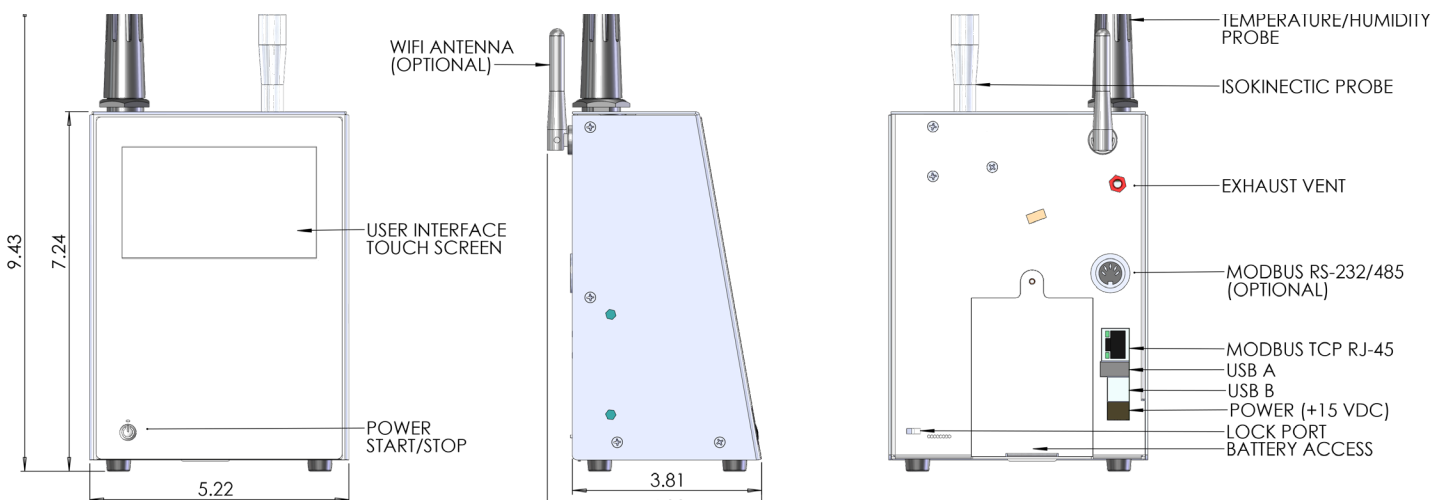
Features and Benefits

- Measures 0.5 µm to 75.0 µm
- 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 µg/m³ with density and refractive index corrections
- Integrated handle for one-handed operation
- Large easy-to-use icon driven color 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
- Remote diagnostics allows for remote service investigation through the Internet
- Static or dynamic IP address (DHCP)
- Easy configuration and transferable from instrument to instrument
- Connect using Ethernet, USB or (optional) Wireless 802.11 b/g, RS 485, or RS232
- Displays user-definable reports for ISO 14644-1, EU GMP Annex 1 and FS 209E
- Internal audible alarm with comprehensive alarm management
- 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 stainless steel enclosure
- 2 year limited warranty. Extended warranties available.

Specifications

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|------------------------|---|
| Model | B7501-30 |
| Size Range | 0.5 to 75 µm |
| Size Channels | Factory calibrated at 0.5, 1.0, 2.5, 5.0, 10.0, 30.0 µm variable binning |
| Flow rates | 0.1 CFM (2.83 LPM) |
| Concentration Limits | 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) |
| Battery Run Time | >10 hours continuous operation |
| Light Source | Long life laser diode |
| Counting Efficiency | 50% @ 0.5 µm; 100% for particles >0.75 µm per JIS |
| 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 (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 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, sensor failure, environmental sensors and flow |
| Standards | ISO 21501-4 and JIS B9921 |
| Instrument 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 | 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 and 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, annotations, 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 year limited warranty. Extended warranties available. |

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



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