

5501P-30 Remote Airborne Particle Counter

0.1CFM (2.83 LPM)



The Particles Plus® 5501P-30 Remote Airborne Particle Counter measures particles from 0.5 to 75.0 μ m at a flow rate of 0.1 CFM (2.83 LPM). These user-friendly instruments display up to six selectable particle size channels, along with optional temperature and relative humidity measurements.

Designed for cleanroom monitoring, indoor air quality, industrial hygiene, research, and health & safety applications, the 5000 Series offers exceptional versatility. From the cleanest labs to the dirtiest worksites, confidently monitor any environment thanks to the industry's highest particle concentration limits.

One of the key advantages of the 5000 Series as a remote particle counter is its built-in touchscreen display. It provides real-time visual feedback for technicians working in critical areas, enabling immediate identification of elevated particle counts. Adjustable audible alarms offer an additional layer of awareness in critical environments. The Particles Plus® Real-Time Monitoring technology enables dynamic particle investigations, displaying data in particles per second to help users quickly locate contamination sources in controlled environments.

Data can be managed directly on the device, through a facility monitoring system or through the free Particles Plus® software. Export raw data in .CSV format or generate reports (ISO 14644-1, EU GMP Annex 1, or FS 209E). Remote diagnostics are also available from anywhere with an internet connection. The 5000 Series can function as a fully portable, battery-operated solution or be easily integrated into building automation and cleanroom management systems with multiple communication options.

Features and Benefits

- Stores up to 45,000 sample records, 1,000 sample locations and 50 recipes
- · Long life laser diode technology for reliable performance
- Approximates mass concentration in µg/m³ with density and refractive index corrections
- User selectable PM sizes from 0.5 μm to 10 μm including TPM of up to 75 μm
- · Large, intuitive color touch screen display with an easy-to-use icon-driven interface
- Resolve issues quickly from any location with internet-enabled remote diagnostics
- · Annotation function allows user to save 32 character notations to a live sample record
- Seamlessly integrates into facility monitoring and building automation systems
- Connect using Ethernet, USB, Wi-Fi (optional), RS 485 or RS232
- Export user-definable reports for ISO 14644-1, EU GMP Annex 1 and FS 209E
- Built-in visual and audible alarms with comprehensive alarm management
- Complies with ISO 21501-4 and JIS B9921 standards
- Seamlessly integrates into facility monitoring and building automation systems
- Easy to clean, lightweight stainless steel enclosure with minimal particle traps
- 2 year Limited Warranty (Extended and Lifetime warranties available)

Specifications

 Model
 5501P-30

 Size Range
 0.5 to 75.0 μm

Size Channels Factory calibrated at 0.5, 1.0, 2.5, 5.0, 10.0, 30.0 µm variable binning

Flow rates 0.1 CFM (2.83 LPM)

Concentration Limits 15,000,000 particles/ft³ @ 10% coincidence (per ISO 21501-4),

30,000,000 particles/ft3 @ 10% coincidence (as tested and validated1)

Aerosol Concentration Range 0.01 to 20,000 µg/m³ 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 ft³). No fault count subtraction. No appreciable drift.

Count Modes Particles/second, Real-Time Meter, cumulative/differential (count/m³ and count/ft³) 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

Optional Printer 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

Reports ISO 14644-1, EU GMP Annex 1, FS 209E

Recipes 50 user-configurable recipes

Communication Modes Ethernet, USB, RS485, RS232, and (optional) 802.11b/g wireless

Optional Environmental Sensor Temperature (32-122°F, ±1°F / 0-50°C, ±0.5°C) and relative humidity probe (15–90% RH, ±2%)

Alarm Integrated alarms for particle counts (any size channel), sensor failure, environmental sensors, and flow rate

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 in (14.0 x 9.7 x 23.9 cm) includes barb fittings

Weight 2.6 lb (1.18 kg)

Accessories User manual + Instrument Management Software (IMS) on USB flash drive, isokinetic probe, zero-count filter, USB cable,

and power supply

Optional Accessories Printed manual, temperature relative humidity probe, carrying case, external printer, barbed fittings, and tubing Buffer Memory Securely stores up to 45,000 sample records with particle counts, environmental data, locations, and timestamps

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 41-104°F (5-40°C) / 20% to 95% non-condensing Storage Conditions 32-122°F (0-50°C) / Up to 98% non-condensing

Warranty 2 year Limited Warranty (Extended and Lifetime warranties available)

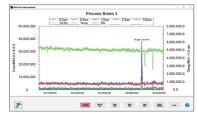
1- Validated by independent analysis see paper available at www.particlesplus.com/aac2022 paper



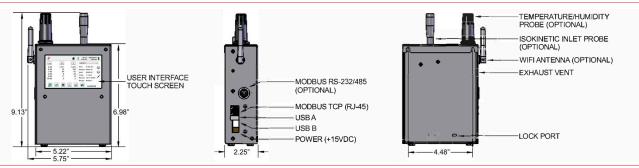




Icon Driven Menus for Ease-of-Use



Control and Manage Remotely with IMS



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