

# R5300P Remote Airborne Particle Counter

## 1.2 LPM



The Airy Technology® R5300P Remote Airborne Particle Counter measures particles from 0.3 to 25.0  $\mu\text{m}$ . These compact and user-friendly instruments are purpose-built for ambient and indoor air quality monitoring, industrial hygiene, environmental research, and health & safety applications. Featuring a 1.2 LPM flow rate, the R5300P is optimized for high-concentration environments providing improved accuracy, reduced coincidence loss, and extended instrument lifespan in comparison to higher-flow models.

Built for research, industrial hygiene, indoor air quality, and cleanroom applications, the R5000 Series delivers reliable, high-performance monitoring across a wide range of environments. 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 R5000 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.

Designed for continuous, powered operation, the R5000 Series is ideal for fixed installations where uninterrupted monitoring is essential. Data can be managed directly on the device, through a facility monitoring system or through the free Airy Technology® software. Export raw data in .CSV or generate custom reports (ISO 14644-1, EU GMP Annex 1, or FS 209E). Remote diagnostics are available through the software from anywhere with an internet connection. The R5000 Series can function as a standalone unit or be seamlessly integrated into building automation and cleanroom management systems.

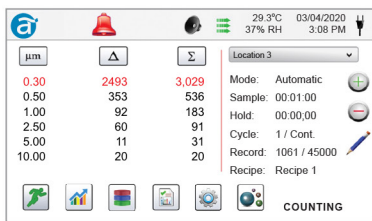
### Features and Benefits

- 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  $\mu\text{g}/\text{m}^3$  with density and refractive index corrections
- User selectable PM sizes from 0.3  $\mu\text{m}$  to 25  $\mu\text{m}$  including TPM of up to 25.0  $\mu\text{m}$
- Large, intuitive color touch screen display with an easy-to-use icon-driven interface
- Versatile mounting options
- 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
- Common interface ensures ease of use across all products
- Connect using Ethernet, USB, Wi-Fi (optional), RS 485 or RS232
- Displays 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
- Easy to clean, lightweight stainless steel enclosure with minimal particle traps
- 2 year Limited Warranty (Extended and Lifetime warranties available)

# Specifications

<b>Model</b>	<b>R5300P</b>
Size Range	0.3 to 25 $\mu\text{m}$
Size Channels	Factory calibrated at 0.3, 0.5, 1.0, 2.5, 5.0, 10.0 $\mu\text{m}$ variable binning
Counting Efficiency	50% @ 0.3 $\mu\text{m}$ ; 100% for particles >0.45 $\mu\text{m}$ per JIS      50% @ 0.5 $\mu\text{m}$ ; 100% for particles >0.75 $\mu\text{m}$ per JIS
Flow rates	1.2 LPM
Concentration Limits	27,000,000 particles/ft <sup>3</sup> @ 10% coincidence (per ISO 21501-4), 50,000,000 particles/ft <sup>3</sup> @ 10% coincidence (as tested and validated <sup>1</sup> )
Aerosol Concentration Range	0.01 to 20,000 $\mu\text{g}/\text{m}^3$
Light Source	Long life laser diode
Counting Efficiency	50% @ 0.5 $\mu\text{m}$ ; 100% for particles >0.75 $\mu\text{m}$ per JIS
Zero Count	<1 count / 60 minutes (<1 particles / 6 ft <sup>3</sup> ). No fault count subtraction.
Count Modes	Real-Time Meter and graph, cumulative/differential count/m <sup>3</sup> and count/ft <sup>3</sup> , and mass concentration (PM)
Count Alarms	1 to 9,999,999 counts
Calibration	NIST traceable
Display	4.3" (10.9 cm) WQVGA (480x272) 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 integrated alarm
Reports	ISO 14644-1, EU GMP Annex 1, FS 209E
Recipes	50 user-configurable recipes
Communication Modes	Ethernet, USB, Wireless 802.11 b/g (Optional), RS485 or RS232
Optional Environmental Sensor	Temperature (32-122°F, $\pm 1^\circ\text{F}$ / 0-50°C, $\pm 0.5^\circ\text{C}$ ) and relative humidity probe (15-90% RH, $\pm 2\%$ )
Alarm	Alarms on counts for all particle sizes, low battery, 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 2.25 x 9.13 in (13.3 x 5.8 x 22.6 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, external printer and isokinetic probes
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° 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 and Lifetime warranties available)

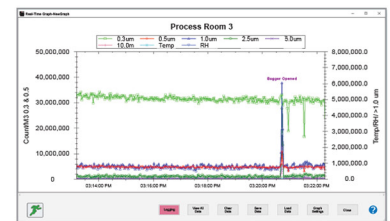
1- Validated by independent analysis see paper available at [www.particlesplus.com/aac2022\\_paper](http://www.particlesplus.com/aac2022_paper)



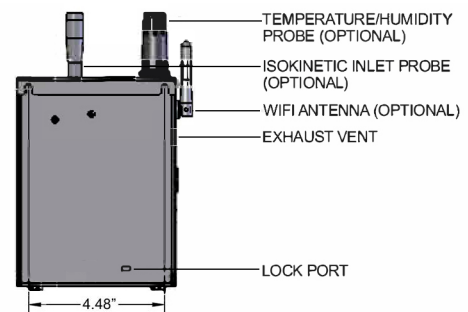
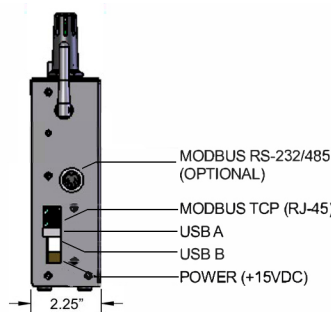
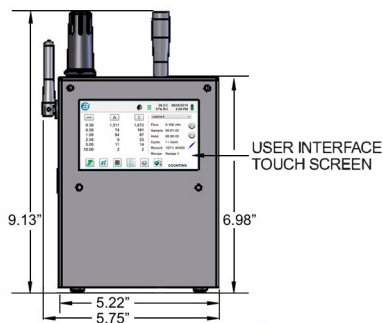
Audible and Visual Alarm Management



Icon Driven Menus for Ease of Use



Control and Manage Remotely with IMS



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