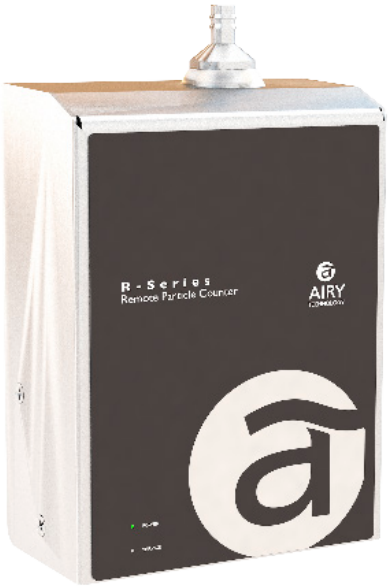
R9300P IoT Remote Airborne Particle Counter

0.3 – 25.0 µm @ 0.1 CFM



The 9300P IoT particle counter provides a range of particle size measurement from 0.3 to 25.0 µm at a flow rate of 1.2 LPM. These sensors allow for efficient particle counting with specifications that exceed the ISO 21501-4 and JIS B9921 calibration standards.

These sensors have 30 user-selectable particle size channels and are equipped with an internal pump and manifold and do not require an external vacuum source. Integration into a building automation or facility monitoring system is easy via isolated RS-485 Modbus communication, TCP/IP over RJ45, Power over Ethernet, or WiFi (802.11 b/g)

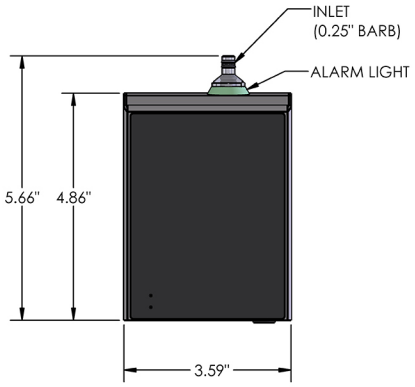
R9300P: Features and Benefits

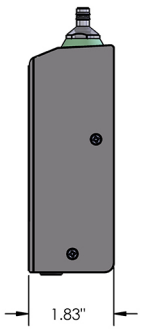
- Measures 0.3 µm to 25 µm
- 1.2 LPM flow rate
- Long life laser diode technology
- Measures up to 30 channels of simultaneous data
- Accurate in high particle concentration environments
- Internal vacuum pump
- Internal HEPA filter
- User-selectable channel sizes
- Stores up to 65,000 sample records for on-board data redundancy
- (Optional) temperature and relative humidity probe available
- Connect via Modbus RTU/ASCII over isolated RS-485, TCP/IP, PoE, or WiFi
- Complies with ISO 21501-4 and JIS B9921 standards
- Easy to clean and wipe down with minimal particle traps
- Versatile mounting options
- Alarm light
- LED Indicators
- Seamless integration into a facility monitoring system
- Lightweight stainless steel enclosure
- 2 year limited warranty. Extended warranties available.

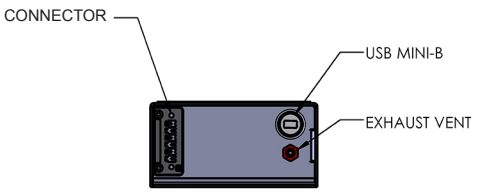
Specifications

Model	R9300P
Size Range	0.3 µm to 25 µm
Size Channels	Factory calibrated at 0.3, 0.5, 1.0, 2.5, 5.0, 10.0 µm
Number of Channels	Up to 30 channels
Counting Efficiency	50% @ 0.3µm; 100% for particles > 0.45 µm per JIS
Flow Rate	1.2 LPM
Concentration Limits	27,000 particles/ft^3 @ 10% coincidence (per ISO 21501-4), 50,000 particles/ft^3 @ 10% coincidence (as tested and validated[1])
Light Source	Long life laser diode
Zero Count	< 1 count / 60 minutes (< 1 particles / 6ft^3). No fault count subtraction.
Alarms	Channel alarms on Raw counts, concentrations or mass (alarms on environmental sensors optional)
Calibration	NIST traceable
Vacuum Source	Internal vacuum pump with Internal HEPA filter
Filtered Exhaust	Internal HEPA filter
Airflow	Internally monitored
Configuration/Download	USB mini-B
Alarm	Alarm LED ring
Communication Modes	MODBUS™ RTU or ASCII outputs (over isolated RS-485), TCP/IP, PoE, or WiFi
Environmental Sensor	(Optional) Temp and RH probe 32º to 122ºF (0º to 50ºC) ±1ºF (0.5ºC), 15-90% ±2% relative humidity
Standards	ISO 21501-4 and JIS B9921
Instrument Calibration	Recommended minimum once per year
External Surface	Stainless steel
Dimensions (L x W x H)	3.59” x 1.83” x 5.01” (9.1 cm x 4.6 cm x 12.7 cm) including probes and connectors
Weight	1.71 lb. (780 grams)
Accessories	Operating manual on USB flash drive, isokinetic probe, power supply and cable, IMS-9K Software
Optional Accessories	Printed manual barb fittings, mounting bracket and sample tubing, IMS-RT monitoring system
Buffer Memory	65,000 sample records (rotating buffer) including particle count data and environmental data
Sample Time	1 second to 99 hours
Power	9 - 24 VDC (< 1.5 watts)
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







REV 20240603-R9300P_IOT

Made in USA

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