

9510 Modbus Remote Airborne Particle Counter

1.0 CFM (28.3 LPM)

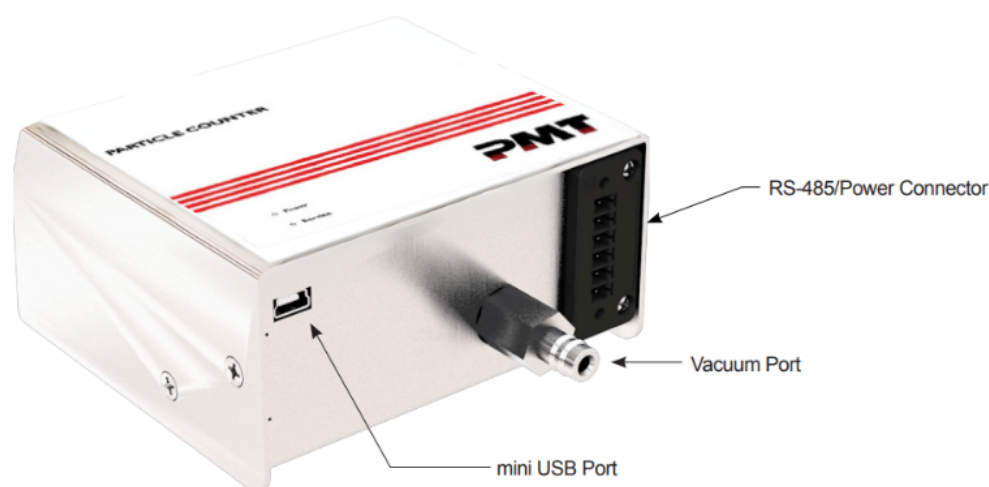


The 9510 Modbus particle counters provide a range of particle size measurement from 0.5 to 25.0 μm at a flow rate of 1.0 CFM (28.3 LPM). These sensors allow for efficient particle counting with specifications that exceed the ISO 21501-4 and JIS B9921 calibration standards.

These sensors have 6 user-selectable particle size channels (up to 30 channels optional) and are equipped with an integral critical orifice and flow sensor to provide a stable flow rate from an external vacuum source. Integration into a building automation or facility monitoring system is easy via isolated RS-485 Modbus communication.

9510: Features and Benefits

- 0.5 μm to 25 μm
- 1.0 CFM (28.3 LPM) flow rate
- Long life laser diode technology
- Up to 30 channels of simultaneous data
- Particle concentrations up to 1,500,000 Particles/ ft^3 @ 10% coincidence loss
- Internal critical orifice
- User-selectable channel sizes
- Stores up to 65,000 sample records for on-board data redundancy
- (Optional) temperature and relative humidity probe available
- Connect using Modbus RTU/ASCII over isolated RS-485
- Complies with ISO 21501-4 and JIS B9921 standards
- Easy to clean and wipe down with minimal particle traps
- Alarm light
- LED Indicators
- Seamless integration into a facility monitoring system
- Lightweight stainless steel enclosure
- 5 year limited warranty.



Specifications

Model	9510 Modbus
Size Range	0.5 µm to 25 µm
Size Channels	Factory calibrated at 0.5, 1.0, 2.5, 5.0, 10.0 µm
Number of Channels	6 channels (up to 30 optional)
Counting Efficiency	50% @ 0.5µm; 100% for particles > 0.75 µm per JIS
Flow Rate	1.0 CFM (28.3 LPM)
Concentration Limits	1,500,000 particles/ft ³ @ 10% coincidence (per ISO 21501-4), 3,000,000 particles/ft ³ @ 10% coincidence (as tested and validated)
Light Source	Long life laser diode
Zero Count	< 1 count / 5 minutes (< 1 particles / 15ft ³). No fault count subtraction.
Alarms	Channel alarms on Raw counts, concentrations or mass (alarms on environmental sensors optional)
Calibration	NIST traceable
Vacuum Requirements	External vacuum > 15" (38.1cm) of Hg
Airflow	Internally monitored
Configuration/Download	USB mini-B
Alarm	Alarm LED ring
Communication Modes	MODBUS™ RTU or ASCII outputs (over isolated RS-485)
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 1.80" x 3.39" (9.1 cm x 4.5 cm x 8.6 cm)
Weight	1.08 lb. (494 grams)
Accessories	Wiring Connector, operating manual on USB flash drive
Optional Accessories	Power Supply, Remote Mounting Bracket, Stainless Steel Barbed Isoprobe (1.0 CFM/28.3 LPM), Filter Assembly, and Sample & Vacuum Tubing, isokinetic probe
Buffer Memory	65,000 sample records (rotating buffer) including particle count data and environmental data
Sample Time	1 second to 99 hours
Power	7 - 15 VDC (<2 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	5 year limited warranty.

