5301-AQM1 and 5301-AQM2 Air Quality Monitor

(PM, CO_2, Temp, RH and TVOC)

- Industry's highest concentration for an air quality monitor reporting particle size distribution
- Ideal for indoor air quality and industrial health and safety applications
- The most comprehensive internal self-diagnostics of any air quality monitor
- Remote diagnostics allow for remote service investigation through the Internet
- Can be used as bench-top or wall-mounted for fixed installation
- Internet of Things (IoT) communication allows for network or cloud-based data options

The Particles Plus® AQM Series Remote Particle Counter and Environmental Monitor measures 0.3 µm to 25 µm particles with mass concentration and stores indoor air quality measurements of temperature, relative humidity, CO_2, and TVOC in the 5301-AQM2. This instrument is the most versatile remote Air Monitor available, and can be used as a stand-alone instrument or easily integrated into a building automation and facility monitoring system via Ethernet, USB, or (optional) Wireless 802.11 b/g, RS485 or RS232 connection.

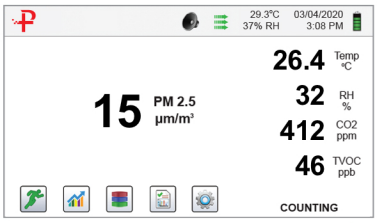
The AQM reports and displays 6 user-selectable particle size channels, as well as carbon dioxide (CO_2), temperature, and relative humidity. The model 5301-AQM2 includes a PID Sensor for TVOC.The instrument monitors PM1, PM2.5, PM5, PM10 and TPM. An easy-to-use Channel Management control panel allows user defined channel sizes.

Features and Benefits

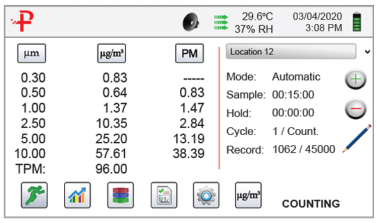
- Measures 0.3 µm to 25 µm
- 0.1 CFM (2.83 LPM) flow rate
- Large easy-to-use icon driven color touch screen display
- Approximates mass concentration in µg/m3 and indicates simultaneous PM values
- User-selectable, adjustable particle channel sizes
- 5301-AQM1 measures CO_2, temperature, and humidity. The 5301-AQM2 includes TVOC.
- Stores up to 45,000 sample records
- Connect using Ethernet, USB or (optional) Wireless 802.11 b/g, RS485 or RS232
- Static or dynamic IP address (DHCP) connects to a local network or the Internet
- Seamless integration into a facility monitoring system with MODBUS RTU, ASCII or TCP
- Internet of Things JSON output allows for cloud based data storage and retrieval
- Included software permits remote operations, data management, diagnostics and more
- Displays and externally prints information with optional printer
- Internal audible alarm with user selectable thresholds for all environmental parameters
- Easy configuration and transferable from instrument to instrument
- User friendly field calibration with single or dual point offsets for all sensors
- Remote diagnostics allows for remote service investigation through the Internet
- Long life laser diode technology
- Lightweight stainless steel enclosure
- 2 year limited warranty, extended warranties available.

Specifications

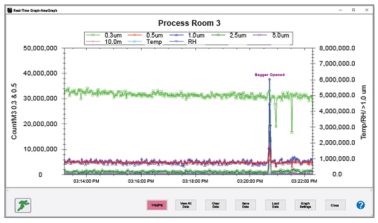
Models	**5301-AQM1 and 5301-AQM2**
Size Range	0.3 to 25 µm
Size Channels	Factory calibrated at 0.3, 0.5, 1.0, 2.5, 5.0, 10.0 µm variable binning
Flow Rate / Accuracy	0.1 CFM (2.83 LPM) / +/- 3%
Aerosol Concentration Range	0.01 to 20,000 µg/m³
Light Source	Long life laser diode
Resolution	.00003 µg/m³
Zero Stability	No appreciable drift
Count Modes	Real-Time Meter and graph, cumulative/differential count/m³ and count/ft³, and mass concentration (PM)
Log Interval	Minimum 1 second with no hold time, maximum 99 hours
Calibration	NIST traceable
Display	4.3" (10.9 cm) WQVGA (480x272) color touch screen
Printer	(Optional) External thermal printer available
Internal Vacuum Pump	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
Communication Modes	Ethernet, USB. (Optional) Wireless 802.11 b/g, RS485 or RS232.
Environmental Sensors 5301-AQM1	Includes NDIR CO_2 (0-5000 ppm, resolution 1 ppm, accuracy ±1% FS, Response rate 20 seconds), temperature and relative humidity probe 32º to 122ºF (0º to 50ºC) ±1ºF (0.5ºC), 15-90% ±2% RH
Environmental Sensors 5301-AQM2	Includes all sensors in the 5301-AQM1 and TVOC PID (standard on the 5301-AQM2), 0-50 ppm / minimum detection level 5 ppb, accuracy ±1.5%, Response rate <3 seconds
Alarm	Alarms on counts for all particle sizes, low battery, sensor failure, environmental sensors and flow
Standards	ISO 21501-4 and JIS B9921
Instrument Calibration	Recommended minimum once per year. Gases, temperature and humidity sensors field calibratable.
External Surface	Stainless steel
Dimensions (L x W x H)	5.22" x 2.25" x 9.13" (13.3 cm x 5.7 cm x 23.2 cm) includes barb fittings
Weight	4 lb (1.8 kg)
Accessories	Operating Manual and IMS Software on USB flash drive, isokinetic probe, temperature relative humidity sensor, purge filter, battery, USB cable, and power supply
Optional Accessories	Calibration cap for gas sensor, carrying case, external printer, isokinetic probes, barb fittings, spare battery, external battery charger, printed manual, and IMS-RT monitoring system
Data Storage	45,000 sample records (rotating buffer) includes particle count data, environmental data, locations, times and annotations, scrollable on screen or printout
Sample Time	1 second to 99 hours
Power	110 to 240 VAC 50/60 Hz universal in-line power supply
Operating Conditions	41º to 104ºF (5º to 40ºC) / 20% to 95% non-condensing
Storage Conditions	32º to 122ºF (0º to 50ºC) / Up to 98% non-condensing
Warranty	2 year limited warranty. Extended warranties available.



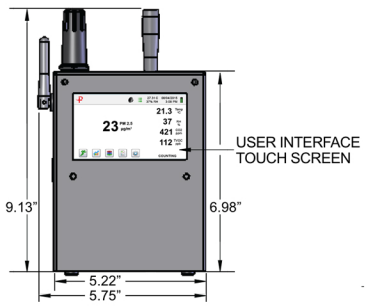
Configurable Environmental Sensor Display

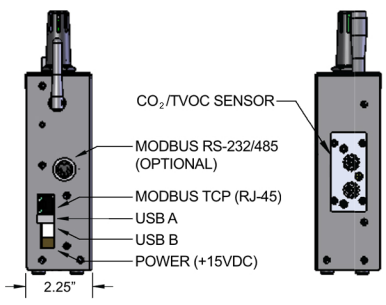


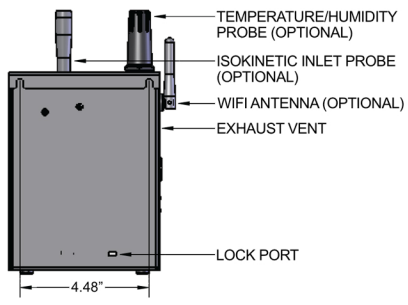
Simultaneous Display of Multiple PM Sizes



Control and Manage Remotely with IMS







PAT. https://particlepatents.com/ Additional Patents Pending.

Particles Plus, Inc. reserves the right to change specifications without notice.
Contact hello@particlesplus.com or your local distributor for more details.

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