5301-AQM and 5302-AQM
Air Quality Monitor (PM, CO2, Temp, RH and TVOC)

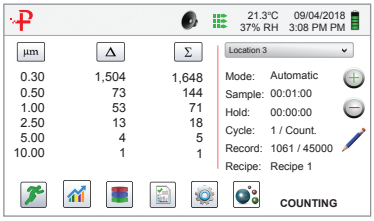
- Industry's highest concentration of 15,000,000 particles/ft³ @ 10% coincidence loss
- Ideal for use in research, industrial health & safety, and indoor air quality applications
- The most comprehensive internal self-diagnostics of any air quality monitor
- Remote diagnostics allow for remote service 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, CO2, and TVOC in the 5302-AQM. 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.

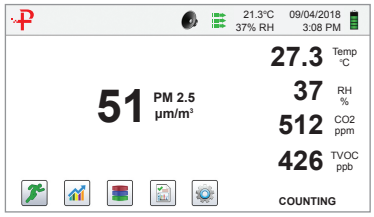
The AQM reports and displays 6 user-selectable particle size channels, as well as carbon dioxide (CO2), temperature, and relative humidity. The model 5302-AQM includes a PID Sensor for TVOC. The instrument monitors PM1, PM 2.5, PM5, PM 10 & TPM (and any other PM size value the user specifies) with an easy-to-use Channel Management control panel.

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-AQM measures CO2, temperature and relative humidity with user alarm set points. The 5302-AQM 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 & retrieval
- Included software permits remote operations, data management, diagnostics & 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
- Long life laser diode technology
- 2 year limited warranty. Extended warranties available

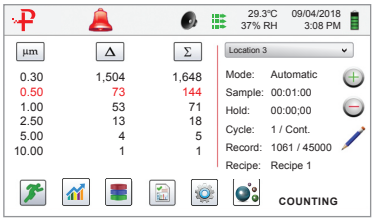


4.3" Color Touch Screen

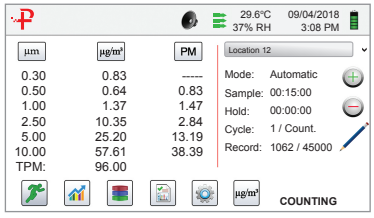


Configurable Environmental Sensor Display

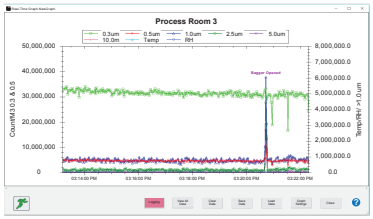
Icon Driven Menus for Ease-of-Use



Audible & Visual Alarm Management



Simultaneous Display of Multiple PM Sizes



Control, & Manage from a Remote Device

Specifications

Model	**5301-AQM and 5302-AQM**
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	0.1 CFM (2.83 LPM)
Concentration Limit	15,000,000 Particles/ft³ @ 10% coincidence loss
Light Source	Long life laser diode
Counting Efficiency	50% @ 0.3 µm; 100% for particles >0.45 µm per JIS
Zero Count	<1 count / 5 minutes (<2 particles / ft³) (per ISO 21501-4 & JIS)
Count Modes	Real-Time Meter & graph, cumulative/differential count/m³ & count/ft³, 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
Printer (Optional)	Optional external thermal printer available. Prints in all available languages.
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 Communication Modes	Wireless 802.11 b/g, RS485 or RS232
Environmental Sensors 5301-AQM	Includes NDIR CO2 (0-5000 ppm, resolution 1 ppm, accuracy ±1% FS, Response rate 20 seconds), temperature and relative humidity probe 32° to 122°F (0° to 50°C) ±1°F (0.5°C), 15-90% ±2% relative humidity
Environmental Sensors 5302-AQM	Includes all sensors in the 5301-AQM and TVOC PID (standard on the 5302-AQM), 0-50 ppm / min. 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
Calibration	Recommended minimum once per year. Gases, temperature & humidity sensors field calibratable.
External Surface	Stainless steel
Dimensions (L x W x H)	5.2" x 4.15" x 8.25" (13.3 cm x 10.5 cm x 21 cm) includes barb fittings
Weight	4 lb (1.8 kg)
Accessories	Operating manual on USB flash drive, isokinetic probe, temperature relative humidity sensor, purge filter, Instrument Management Software, USB cable, power supply & cable
Optional Accessories	RS232/RS485 Connector, Printed manual, spare battery, external printer, isokinetic probes, AQM Field Calibration Cap for gas sensor & analytical calibration gases, cloud-based data monitoring services, IMS-RT monitoring system
Buffer Memory	45,000 sample records (rotating buffer) including particle count data, environmental data, locations and times 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	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. 1-Year Limited Warranty for CO2 & TVOC Sensors