BOISWOOD
GAS AND LIQUID CONTROL TECHNOLOGIES
Pressure & Vacuum
Flow
Level & Temperature
Tube & Fittings
HVACR
Custom Services

AQM5000 & AQM7000 Series

Air Quality Monitor

Features

- Measures 0.3 µm to 25 µm
- 0.1 CFM (2.83 LPM) flow rate
- Large color touch screen display
- Approximates mass concentration in µg/m³ and indicates simultaneous PM values
- User-selectable, adjustable particle channel sizes
- Can measure CO_2, °C/°F, TVOC and RH with user alarm set points.
- Stores up to 45,000 sample records
- Connect using Ethernet, USB or (optional) WiFi
- Static or dynamic IP address (DHCP) connection
- Modbus RTU, ASCII or TCP connectivity
- Included software permits remote operations, data management, diagnostics & more
- Internal audible alarm with user selectable thresholds
- Long battery operation and patented sleep mode (AQM7000)
- User-friendly field calibration
- 2 year limited warranty, extended warranties available

2 YEAR WARRANTY
USA Made
RoHS
CE

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The Setra Systems AQM5000 and AQM7000 Series Air Quality Monitors measure 0.3 µm to 25 µm-sized particles with mass concentration and stores indoor air quality measurements of temperature, relative humidity, CO_2, and TVOC in select configurations.

Indoor air quality

Setra's AQM Series monitors make it easy and affordable to monitor indoor air quality in a single device - perfect for monitoring indoor air quality in healthcare facilities, cleanrooms, office building lobbies and other public spaces.

6 user-selectable particle size channels

The AQMs reports and displays 6 user-selectable particle size channels, as well as carbon dioxide (CO_2), temperature, and relative humidity. Select configurations included a PID Sensor for TVOC. The instrument monitors PM 1, PM 2.5, PM 5, PM 10 & TPM (and any other PM size value the user specifies) with an easy-to-use Channel Management control panel. The instrument also monitors flow, sensor status, date of last calibration, serial number, laser on-time, and date of manufacture for easy maintenance and warranty management.

User-friendly interface

User-friendly field calibration for the integrated environmental sensors allows for single or dual point offsets, and ensures accuracy for air quality investigations. View data and generate environmental reports in real time on screen, via printer or USB key, or export to Setra Systems Instrument Management Software. Setra Systems instruments can be controlled and monitored remotely via web browser from any PC, tablet or smartphone supporting 20 concurrent user sessions.

Advanced data storage

The AQM5000 and AQM7000 can store up to 45,000 time stamped particle counts and environmental data records which provides data redundancy on every instrument. The instruments' mass concentration mode approximates density in µg/m³ and allows for density and refractive index corrections to ensure accuracy. All Setra Systems particle counters and air quality monitors meet ISO 21501-4 and JIS B9921.

Power management & sleep modes

The AQM7000 series has advanced power management capabilities and the industry's first sleep mode, allowing for battery operation of periods that can exceed a month on a single charge. The AQM7000 Series can be used as a stand-alone battery operated instrument or it can be easily integrated into a building automation and facility monitoring system via Ethernet, USB or (optional) Wireless 802.11 b/g, RS485 or RS232 connection.

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Specifications

General

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	>4,000,000 Particles/ft³ @ 5% 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	Automatic, manual, beep, cumulative/differential, mass concentration, count or concentration
Count alarms	1 to 9,999,999 counts
Calibration	NIST traceable (Recommended minimum once per year)
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 brushless 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

Specifications subject to change without notice.

General (continued)

Environmental sensors	
TVOC Option "1":	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% relative humidity
TVOC Option "2":	Includes all sensors in option "1" 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
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	Quick start guide, operating manual on USB flash drive, isokinetic probe, temperature relative humidity sensor, purge filter, battery, 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
Buffer memory	45,000 sample records (rotating buffer) including particle count data, environmental data, locations and times
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 1-Year Limited Warranty for CO_2 & TVOC Sensors

Ordering information

Example part number: AQM73016RWPBHME;
AQM7000 Series, 0.3 µm particle size, 0.1 CFM, 6 channels, Standard connectivity with RS232-485 & WiFi, Internal pump, Benchtop form factor, On board RH, Temp, CO2 & TVOC sensors, Extended warranty:

A	Q	M		3	0	1	6			P				
[1]				[2]	[3]		[4]	[5]		[6]	[7]	[8]		[9]

[1]

Series	
AQM5	AQM5000
AQM7	AQM7000

[2]

Min. particle size	
3	0.3 µm

[3]

Flow rate	
01	0.1 CFM

[4]

Channels	
6	6 channels

[5]

Connectivity	
SD[1]	Standard
RS	Standard w/ RS232-485
WF	Standard w/ WiFi
RW[2]	Standard w/ RS232-485 & WiFi

[6]

Pump	
P	Internal pump

[7]

Form factor	
W[3]	Wall mount
B	Benchtop

[8]

On board sensor	
HC	RH, Temp, & CO_2
HM	RH, Temp, CO_2 & TVOC

[9]

Warranty	
S	Standard
E	Extended

[1] Standard option includes USB client, USB Go, and Ethernet.
[2] Only available with Series code "AQM7"
[3] Only available with Series code "AQM5". Wall mount option includes mounting bracket SPCAS99001

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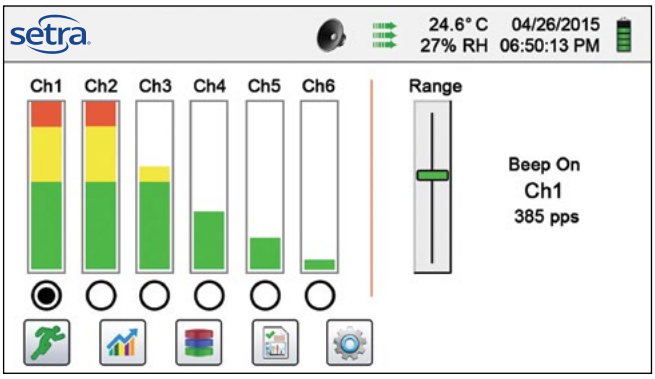
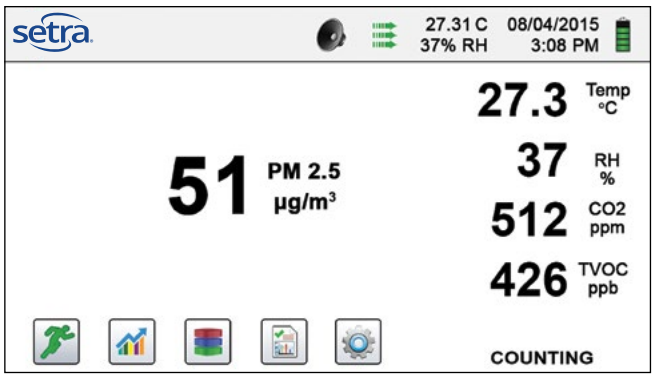
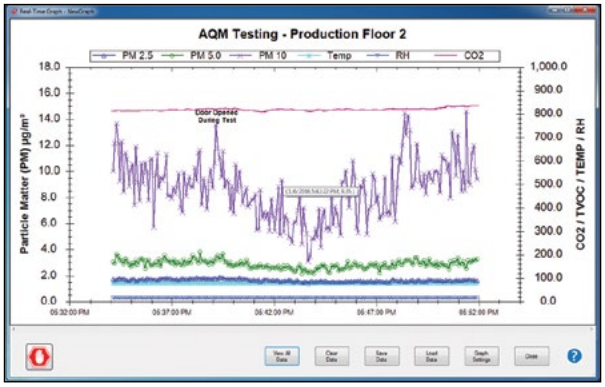
User experience



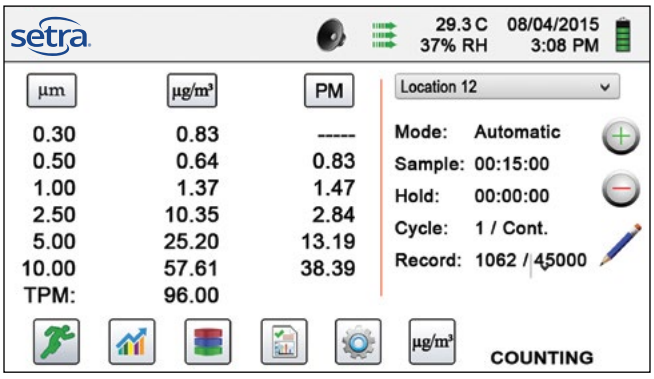
Real-Time Meter™ Pinpoints Particle



Configurable Environmental Sensor Display



Control, monitor & graph from a remote PC



Simultaneous display of multiple PM Sizes

SSP-AQM5000-AQM7000 Rev. B 06/2018

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