



AQM 60

Ambient Air Quality Monitors



The New Benchmark for Cost Effective Air Quality Monitoring.

AQM 60 Ambient Air Quality Monitors fill the gap between full reference monitoring stations and simple diffusion samplers. Typical applications include traffic/roadside monitoring, urban air quality measurement and fence line monitoring of industrial air pollution sources. Aeroqual utilises proprietary Analytic GSS Technology to provide high performance within a flexible cost effective package. AQM 60 monitoring stations are discreet, highly compact, and deliver precise measurement data for a wide range of airborne pollutants including O₃, NO₂, CO, SO₂, CO₂, VOC, plus PM₁₀ and environmental parameters such as temperature, humidity, wind speed and direction, noise and other meteo sensors. Data is stored internally and available in rapid real-time sampling via GSM modem, Ethernet, wireless or other communication options.

Features

- Analytic GSS Technology
- Multiple gas sensors (up to six)
- Factory certified with NIST traceability
- Temperature and humidity sensors
- Rapid real-time data sampling (2-minute)
- Large data storage capacity (>15 years)
- RS 232 with PC data logging software
- Zero and span calibration facility
- Remote diagnostics capabilities
- Weatherproof and compact enclosures
- Particulate monitor (PM_{2.5} or PM₁₀) *
- Wind speed and direction anemometer *
- Noise and meteorological sensors *
- Modem (RF, GSM, GPRS, UMTS) or Ethernet (LAN, WLAN) communication *

* Optional features available

Applications

- Urban air quality monitoring
- Roadside and tunnel monitoring
- Fenceline and point source monitoring
- Trend analysis and hotspot screening
- Substitution of manual sampler networks
- Commercial indoor air quality monitoring





AQM 60 Specifications

Gas Sensor Modules		Calibrated Range	Lowest Detection	Accuracy	Precision	Resolution
Ozone *		0 - 150 ppb	1 ppb	<± 0.005 ppm	0.002 ppm	0.001 ppm
Nitrogen dioxide		0 - 200 ppb	1 ppb	<± 0.010 ppm	0.005 ppm	0.001 ppm
Carbon monoxide		0 - 100 ppm	0.5 ppm	<± 5 ppm	1 ppm	0.1 ppm
Sulphur dioxide		0 - 10 ppm	0.2 ppm	<± 0.5 ppm	0.4 ppm	0.01 ppm
Non-methane hydrocarbon		0 - 25 ppm	0.1 ppm	<± 0.5 ppm	0.2 ppm	0.1 ppm
Volatile Organic Compounds		0 - 25 ppm	0.1 ppm	<± 10%	0.2 ppm	0.1 ppm
VOC (PID)		0 - 20 ppm	10 ppb	< 10%	0.02 ppm	0.01 ppm
Hydrogen sulphide		0 - 10 ppm	10 ppb	<± 0.5 ppm	0.02 ppm	0.01 ppm
Carbon dioxide (NDIR)		0 - 2000 ppm	6 ppm	< 40 ppm + 3%	6 ppm	1 ppm
* Also available in 0 - 500 ppb						
Temperature & Humidity			Range	Sensitivity	Resolution	
		Temperature sensor	-20°C to 100°C	0.01°C	0.01°C	
		Relative humidity sensor	0 - 100% RH	1% RH	1% RH	
Particulate Monitor (option)		Forward light scatter nephelometer (laser-diode precise optical engine) Available cut points (cyclones) TSP, PM ₁ , PM _{2.5} , PM ₁₀	Range	Sensitivity	Precision	
			0 - 2 mg/m ³	0.001 mg/m ³	0.003 mg/m ³	
			Particle Size	Accuracy	LT Stability	
			0.1 - 100 micron	8% NIOSH 0600	5% reading	
Anemometer (option)		Ultrasonic or mechanical options Wind speed Wind direction	Range	Accuracy	Resolution	
			0 - 60 m/s	± 2% (12 m/s)	0.01 m/s	
			0 - 359°	± 3° (20 m/s)	1°	
Approvals		Electrical Safety & Conformity CE UL E215312	Gas Sensors Part 15 FCC Rules EN50082-1:1997 EN50081-1:1992 IPC A 610D Class 2	Particle Monitor Class 1 laser IEC 60825-1 Ed. 1.1 (1998-01)	GSM Group 3 FAX support-Class 1/2 CE 0681	
		<div><div><div><div><div><div></div></div></div><div><div><div></div></div></div><div><div><div></div></div></div></div></div></div>				
Environment Operating Range		-10°C to 40°C (standard) -20°C to 60°C (with heater cooler) 5 to 95% RH (non condensing)				
Maintenance Checks Routine		3 6 12 months (subject to application)				
Zero Air Scrubber		Activated carbon Alumina				
Sampling System		Brushless DC diaphragm pumps Valcor Scientific solenoid valves Particulate inlet filter (5 micron)				
Zero Calibration		Auto-program or external activation				
Span Calibration		Software and protocol provided				
Communication		RS 232 DB 9 connection				
Data Storage		SD card 1GB (<15 years @ 5 min. freq.)				
Data Sampling Rate		Programmable (minimum 2 minutes)				
Display		4 x 20 vacuum florescent display				
Power Requirements		12VDC 25W (subject to configuration) AC module switching 100 - 250 VAC				
Outdoor Enclosure (AQM 60)		Fibre reinforced polycarbonate IP66 Standard 515H x 415W x 230D (mm) (size subject to configuration)				
Weight (AQM 60)		< 15 Kg (subject to configuration)				
Communications (option)		GSM GPRS UMTS RF modem Ethernet LAN (direct or wireless)				
Other Options		Enclosure heater Thermoelectric cooler Noise Meteorological sensors Locks Metal enclosures				
Contact Aeroqual		Auckland - New Zealand Tel: + 64 9 623 3013 Fax: + 64 9 623 3012 Email: sales@aeroqual.com Website: www.aeroqual.com				



