

# AQM60

## Air Quality Monitoring Station



### Accurate real-time air quality information, made affordable.

For those needing to measure and manage common outdoor air pollutants, the AQM60 enables near-analyser levels of performance at a fraction of the cost of traditional reference monitoring stations.

The AQM60 is a totally configurable instrument platform able to measure common air pollutants including ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), sulphur dioxide (SO<sub>2</sub>), volatile organic compounds (VOC), hydrogen sulphide (H<sub>2</sub>S), non-methane hydrocarbons (NMHC), carbon dioxide (CO<sub>2</sub>), particulate matter (TSP, PM<sub>10</sub>, PM<sub>2.5</sub>, PM<sub>1</sub>), noise and meteorological parameters such as temperature, humidity, wind speed and direction.

### Key Features

- Continuous measurement of common air pollutants
- Information available in real-time
- Compact and light enough to be carried by one person
- Quick and easy to install and relocate
- Flexible integration of meteorological and noise sensors
- On-board data-logging and remote data retrieval
- Gas modules allow for ease of maintenance
- Robust, temperature-controlled enclosure
- Automated calibration optional
- Calibrated against USEPA (40 CFR Part 53) and EU (2008/50/EC) certified equivalent method instruments

### Applications

- Urban air quality monitoring
- Perimeter: petrochemical, power plants, waste sites, industrial point sources
- Airport, ports, railways, construction sites
- Short term monitoring of 'hot spots'
- Community exposure: epidemiological studies, microenvironment, residential, schools, hospitals
- Near road: motorways, street canyons, traffic information systems
- Environmental impact assessments



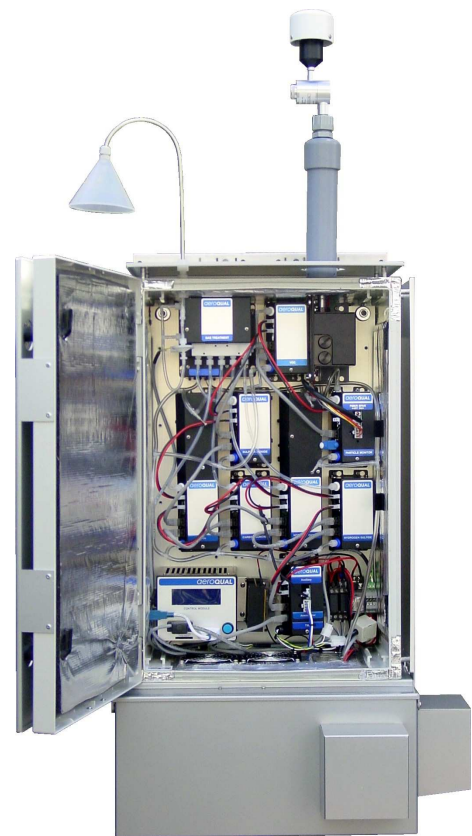
### Selected Customers

- Dubai Municipality, UAE
- Vale, Brazil
- URS Corporation, Australia
- Repsol YPF, Argentina
- Directorate General of Traffic, Spain
- Saudi Electricity Company, Saudi Arabia
- Cape Town City, South Africa
- Bengkalis Municipality, Indonesia
- Qingdao Government, China

## AQM60 Specifications

Typical configuration: 1 to 6 gas modules, particle monitor, weather sensor and auto-calibration system.

Gas Modules	Range	Minimum Detection Limit	Accuracy of Factory Calibration	Precision	Resolution
Ozone O <sub>3</sub> (GSS)	0-0.5 ppm	0.001 ppm	<±0.008ppm 0 to 0.1 ppm; <±10% of reading above 0.1 ppm	0.005 ppm	0.001 ppm
Nitrogen Dioxide NO <sub>2</sub> (GSS)	0-0.2 ppm	0.001 ppm	<±0.01 ppm 0 to 0.1 ppm; <±10% of reading above 0.1 ppm	0.005 ppm	0.001 ppm
Nitrogen Oxides NO <sub>x</sub> (GSS)	0-0.5 ppm	0.001 ppm	<±0.01 ppm 0 to 0.1 ppm; <±10% of reading above 0.1 ppm	0.005 ppm	0.001 ppm
Carbon Monoxide CO (GSE)	0-25 ppm	<0.04 ppm	<±0.1ppm, 0 to 1 ppm <±10% of reading above 1 ppm	0.1 ppm	0.01 ppm
Carbon Dioxide CO <sub>2</sub> (NDIR)	0-2000 ppm	<10 ppm	<±(10 ppm + 5% of reading)	10 ppm	1 ppm
Hydrogen Sulphide H <sub>2</sub> S (GSE)	0-10 ppm	<0.03 ppm	<±0.05ppm 0 to 0.5 ppm <±10% of reading above 0.5ppm	0.03 ppm	0.01 ppm
Sulphur Dioxide SO <sub>2</sub> (GSE)	0-10 ppm	<0.03 ppm	<±0.05ppm 0 to 0.5 ppm <±10% of reading above 0.5 ppm	0.05 ppm	0.01 ppm
Volatile Organic Compounds (PID)	0-20 ppm	0.01 ppm	<±0.02ppm 0 to 0.2 ppm <±10% of reading above 0.2 ppm	0.03 ppm	0.01 ppm
Non-methane Hydrocarbon (GSS)	0-25 ppm	<0.1 ppm	<±0.1ppm, 0 to 1 ppm <±10% of reading above 1 ppm	0.1 ppm	0.01 ppm
Particle Monitor (nephelometer)	Sizes PM <sub>1</sub> , PM <sub>2.5</sub> or PM <sub>10</sub>	Range 0-2000 µg/m <sup>3</sup>	Accuracy <±(2 µg/m <sup>3</sup> + 5% of reading)	Flow rate 2.0 LPM	Resolution 0.01 µg/m <sup>3</sup>
Particle Profiler (OPC)	Sizes PM <sub>1</sub> , PM <sub>2.5</sub> and PM <sub>10</sub>	Range 0-5000 µg/m <sup>3</sup>	Accuracy <±(5 µg/m <sup>3</sup> + 15% of reading)	Flow rate 1.0 LPM	Resolution 0.01 µg/m <sup>3</sup>
Control Module	Communication RS 232	Data Storage 2 GB SD card	Data- logging Interval 2 to 255 minutes	Display VFD 4 x 20	Status Event Log
Gas Treatment Module	Sampling Pump 12V diaphragm	Inlet Manifold PTFE/PVDF	Zero Scrubber Media Purafil chemisorbant, activated carbon & hopcalite		
Thermal Management System	Setpoint controlled A/C system				
Software	PC software for configuration, calibration and data acquisition				
Manual Gas Calibration (optional)	AIRCAL 1000 portable calibrator with gas dilution module and zero air source				
Automatic Gas Calibration (optional)	AIRCAL 8000 integrated calibration system with gas dilution module, zero air source and span gas storage				
Wireless communication (optional)	Cellular IP Gateway RF Modem GSM Modem				
Third party sensors (optional)	Gill WindSonic (ultrasonic wind sensor) Vaisala WTX520 (weather transmitter) ACO Pacific SA6000 (noise monitor)				
Power Requirements	100-240V AC; 100-150W (depends on configuration)				
Enclosure	IIP65 fibre reinforced polycarbonate with aluminium solar shielding and compressor housing				
Dimensions (H x W x D) in mm	900 x 555 x 400 Height with PM <sub>10</sub> inlet : 1300				
Environmental Operating Range	Temperature: -20°C to +50°C; RH: 10 to 95%				
Weight	25-40 Kg				



Power Supply : EN55015, EN55022 Class B,  
EN61000-3-2,3, EN61000-4-2,3,4,5,6,8,11,  
EN50204, EN61547, EN61347-1, EN61347-2-  
13; UL 1012, UL60950-1; TUV EN60950-1  
Gas Modules : Part 15 FCC Rules, 2004/108/EC;  
EN 61000-6-1: 2001, EN 61000-6-3: 2001  
Particle Monitor & Profiler : Class 1 laser;  
IEC 60825-1:1998; 72/23/EEC; EN 61010-1;  
EN 60825-1:1996; US 21 CFR 1040.10