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IQM 60

ANALYTIC G.S.S. TECHNOLOGY

Indoor Air Quality Monitor

The complete instrument for analysis of indoor air quality.

The IQM 60 Indoor Air Quality Monitor by Aeroqual enables simultaneous monitoring of common air quality parameters with a single instrument.

Aeroqual's proprietary Analytic Gas Sensitive Semiconductor (GSS) Technology plus photo-ionization detector (PID) and non-dispersive infra-red (NDIR) optical sensors are used to achieve cost effective and precise measurement of Carbon Dioxide (CO_2), Carbon Monoxide (CO), Total Volatile Organic Compounds (TVOC), Nitrogen Dioxide (NO_2), Ozone (O_3), Temperature, Humidity and Particulate Matter.

Air quality data is logged to a removable SD card or PC and can be exported to other programs for generating reports. Applications include IAQ and HVAC analysis, IAQ complaint investigation, and Sick Building Syndrome (SBS) assessment. The IQM 60 offers the complete package for performing in-depth analysis of indoor air quality.

Features

- Multiple Gas Measurement Sensors
- Analytic GSS Technology
- Optical Sensor Technology (PID / NDIR)
- Factory Certified – NIST Traceable
- Temperature and Humidity Sensors
- Particulate Measurement Options
  - Particulate Profiler (Dual or 8-channel counter)
  - Particle Monitor (TSP, PM1, PM2.5 or PM10)
- Active-air Sampling System
- Zero and Span Calibration Facility
- Rapid Real-time Data Sampling
- Large Removable Data Storage
- PC Data-logging Software (included)
- Wireless Communication (optional)
- Compact and Portable
- Low Maintenance

Applications

- IAQ Complaint Investigation and Analysis
- HVAC System Performance Monitoring
- Sick Building Syndrome (SBS) Surveys
- Health and Comfort Assessment
- Odour Investigation and Remediation
- Testing the Efficiency of Air Purifiers
- Clean Room Monitoring, Verification and Filter Testing
- Process Control Monitoring
- Residential and Commercial Buildings
- Airport Lounges and Shopping Malls
- Schools and Kindergartens
- Hospitals and Elderly Care Facilities
- Epidemiological Studies
- Re-entrainment Studies

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IQM 60 Specifications

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Gas Sensor Modules (code)	*Sensor*	*Range*	*Lowest Detection*	*Accuracy*	*Precision*	*Resolution*
Carbon dioxide (CD)	NDIR	0-2000 ppm	6 ppm	<40 ppm + 3%	6 ppm	1 ppm
Carbon dioxide (CE)	NDIR	0-5000 ppm	6 ppm	<150 ppm + 5%	6 ppm	1 ppm
Carbon monoxide (CN)	GSS	0-100 ppm	0.2 ppm	<±2 ppm <20; <±10% >20 ppm	1 ppm	0.1 ppm
Total VOC IsoB (VM)	GSS	0-25 ppm	0.1 ppm	<±10%	0.2 ppm	0.1 ppm
Total VOC IsoB (PD)	PID	0-20 ppm	10 ppb	<10%	0.02 ppm	0.01 ppm
Non-methane hydrocarbon (VN)	GSS	0-25 ppm	0.1 ppm	<±0.5 ppm	0.2 ppm	0.1 ppm
Hydrogen sulphide (HS)	GSS	0-10 ppm	10 ppb	<±0.5 ppm	0.02 ppm	0.01 ppm
Nitrogen dioxide (NW)	GSS	0-0.200 ppm	1 ppb	<±0.010 ppm	0.005 ppm	0.001 ppm
Ozone (UZ)	GSS	0-0.150 ppm	1 ppb	<±0.005 ppm	0.002 ppm	0.001 ppm
Ozone (LZ)	GSS	0-0.500 ppm	1 ppb	<±0.008 ppm	0.004 ppm	0.001 ppm

Other calibrations also available

Temperature and Relative Humidity Probe	*Sensor*	*Range*	*Accuracy*	*Resolution*
	Temperature	-20 to 100°C	±0.3°C @ 25°C	0.1°C
	Relative Humidity	0-100% RH	±2% RH @ 25°C	0.1% RH

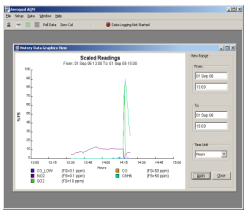
Particulate Profiler Options	*Counter Options*	*Range*	*Accuracy*	*Sensitivity*	*Resolution*
Right angle light scatter principle	*Dual-channel:* >0.3µm | >2.5µm	0-100,000 particles/L	±10%	0.3µm	Particles/L
Isokinetic inlet	*Eight-channel:* 0.3µm to 10µm		to calibration aerosol		

Particle Monitor Options	*Sharp Cut Cyclone Options*	*Range*	*Accuracy*	*Precision*	*Resolution*
Right angle light scatter principle	TSP | PM1 | PM2.5 | PM10	0-2000 µg/m^3	8% of NIOSH 0600	3 µg/m^3	1 µg/m^3

Approvals	EN50082-1:1997 | EN50081-1:1992 Part 15 FCC Rules | IPC A 610D Class 2
Environment Operating Range	0°C to 50°C | 5 to 95% RH (non-condensing)
Sampling Method	Diaphragm pump and built-in zero-air scrubber with replaceable media
Inlet Filter	Replaceable PTFE 5 µm
Zero | Span Calibration	PC configuration software supplied
Communication	RS 232 | Cable and USB adaptor supplied
Data Storage	Removable SD card 1GB
Data Sampling Rate	Programmable frequency 2-255 minutes
Display	4 x 20 vacuum florescent display (VFD) Scrolling data display
Power Requirements	12VDC | 1A (subject to configuration) 100-250 VAC switch-mode PSU supplied
Enclosure	Aluminium and powder coated steel 278L x 236W x 132H (mm)
Weight	3.6 - 7.5 Kg (subject to configuration)
Communications (optional)	GSM modem | Wireless
External Battery (optional)	Li-ion portable power station and charger (specification subject to configuration)
Accessories	Carry Case Calibration Gas Humidifier
Maintenance Checks Routine	6-monthly | 12-monthly
Contact Aeroqual	109 Valley Road · Mount Eden Auckland 1024 · New Zealand Tel: +64 9 623 3013 · Fax: +64 9 623 3012 Email: sales@aeroqual.com Website: www.aeroqual.com

Instrument Carry Case

IQM 60 front view of 4-line display, power switch, SD data card, RS 232 interface, air inlet filter, Temp/RH probe and isokinetic inlet for an optional *Particulate Profiler*



Software includes graph and tabular data reporting in real-time or from the logged data

IQM 60 rear view of cooling fan, 12VDC power connection, PM10 or PM2.5 sharp cut cyclone and isokinetic inlet for an optional *Particle Monitor*