



IQM 60

Indoor Air Quality Monitor

The complete instrument for analysis of indoor air quality.

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

Aeroqual's proprietary Analytic GSS Technology is integrated with photo-ionization detector (PID) and non-dispersive infra-red (NDIR) sensors to achieve cost effective and precise measurement of gases including carbon dioxide (CO₂), carbon monoxide (CO), volatile organic compounds (VOC), nitrogen dioxide (NO₂) and ozone (O₃). Other sensors are integrated for measuring temperature, humidity and particulate matter.

Air quality data for each parameter is logged to a removable SD card or to a PC in real-time and can be exported 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 Measurements
- Temperature and Relative Humidity
- GSS, PID and NDIR Sensor Technology
- Particulate Measurement Options
 - Particle Counter: 2-channel
 - Particulate Profiler: 8-channel
 - Particle Monitor: TSP, PM1, PM2.5, PM10
- Active-air Sampling System
- Multi-point Factory Sensor Calibration
- Zero and Span Calibration User-facility
- Real-time Data Sampling
- Removable Data Storage
- PC Data-logging Software
- Wireless Communication Options
- 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 and Verification
- Filtration Testing
- Residential and Commercial Buildings
- Airport Lounges and Shopping Malls
- Schools and Kindergartens
- Hospitals and Elderly Care Facilities
- Epidemiological Studies
- Re-entrainment Studies

IQM 60 Specifications

Gas Modules	Calibrated Sensor Range	Minimum Detection Limit	Accuracy of Factory Calibration	Precision	Resolution
Base configuration has CO ₂ and CO (fit up to 6 modules)					
Carbon dioxide CO ₂ (NDIR) IQMCD	0-2000 ppm	6 ppm	<40 ppm + 3% of reading	10 ppm	1 ppm
Carbon dioxide CO ₂ (NDIR) IQMCD	0-5000 ppm	6 ppm	<150 ppm + 5% of reading	10 ppm	1 ppm
Carbon monoxide CO (GSS) IQMGN	0-100 ppm	0.2 ppm	<±2 ppm 0-20 ppm; <±10% 20-100 ppm	0.2 ppm	0.1 ppm
Ozone O ₃ (GSS) IQMUZ	0-0.15 ppm	0.001 ppm	<±0.005 ppm	0.002 ppm	0.001 ppm
Ozone O ₃ (GSS) IQMLZ	0-0.5 ppm	0.001 ppm	<±0.008 0-0.1 ppm; <±10% 0.1-0.5 ppm	0.005 ppm	0.001 ppm
Volatile organic compounds (PID) IQMPD	0-20 ppm	0.01 ppm	<±10%	0.02 ppm	0.01 ppm
Volatile organic compounds (GSS) IQMVM	0-25 ppm	0.1 ppm	≤±10%	0.2 ppm	0.1 ppm
Nitrogen dioxide NO ₂ (GSS) IQMNV	0-0.2 ppm	0.001 ppm	<±0.010 0-0.1 ppm; <±10% 0.1-0.2 ppm	0.005 ppm	0.001 ppm
Non-methane hydrocarbon (GSS) IQMVN	0-25 ppm	0.1 ppm	≤±10%	0.2 ppm	0.1 ppm
NB: Gas concentration displays in ppm on the instrument and is available in ppm or mg/m ³ via the supplied PC software					
Temperature and Humidity Probe	Temperature Range	Humidity Range	Accuracy T RH @ 25 °C	T Resolution	RH Resolution
CMOS technology	-20°C to +100 °C	0-100% RH	±0.3 °C ±2% RH	0.01 °C	0.1% RH
Particle Counter: 2-channel option	Range	Particle Sizes	Accuracy	Precision	Resolution
Sizes and counts particles into two digital bins	0-100000 Particles/L	>0.3 µm >2.5 µm	±10% to calibration aerosol	0.3 µm	Particles/L
Particulate Profiler: 8-channel option	Range	Particle Sizes	Accuracy	Precision	Resolution
Sizes and counts particles into eight digital bins	0-100000 Particles/L	0.3-10 µm (8)	±10% to calibration aerosol	0.3 µm	Particles/L
Particle Monitor: TSP option	Range	Cut Sizes	Accuracy	Precision	Resolution
Optional interchangeable sharp cut cyclones	0-2000 µg/m ³	PM ₁ PM _{2.5} PM ₁₀	8% of NIOSH 0600	3 µg/m ³	1 µg/m ³
Controller and Data Storage	Communication	Data Storage	Data Sampling Rate	Diagnostics	PC Software
Single-board computer (SBC)	RS 232 (real-time)	2 GB SD card	2-255 min. (programmable)	Remote access	Included
Sampling System	Zero Air Scrubber	Sampling Pump	Zero and Span Calibration	Scrubber	Inlet Filter
Sampling and distribution system	Internal or External	Diaphragm	Facilitate with standard cal gases	Replaceable	Replaceable
Environmental Operating Range	Temperature 0 °C to 50 °C Humidity 5 to 95% RH				
Non-condensing					
Instrument Display	VFD 4-line x 20-character Scrolling data display				
Shows parameter, value and unit in real-time					
Communication Interface	RS 232 com port Cable and USB adaptor supplied				
Remote Communication (optional)	GSM/GPRS modem Ethernet Wireless communication				
Power Supply (standard)	Desktop switching power supply 12VDC Input 90-260VAC 47-63Hz				
Portable Power Station (optional)	Li-ion battery station and charger 222WH or other capacity				
Enclosure (standard models)	278 x 236 x 132 (mm) Aluminium and powder-coated steel				
Enclosure (particle monitor models)	378 x 236 x 132 (mm) Aluminium and powder-coated steel				
Instrument Weight	Net 4-9 Kg (subject to configuration)				
Instrument Carry Case	Impact resistant Water resistant Supplied standard 515 x 430 x 200 (mm)				
Maintenance Checks Routine	3 months 6 months 12 months (subject to application)				
Safety and Compliance Approvals	<p>Power Supply: Safety; EMC Conformity UL CUL TUV BSMI CCC CB FCC CE UL60950-1, TUV EN60950-1, BSMI CNS14336, CCCGB4943; EN55022 class B, FCC PART 15, CISPR22 class B, CNS13438 class B, GB9254 class B; EN61000-3-2,3, GB17625.1; EN61000-4-2,3,4,5,6,8,11</p> <p>Gas Modules: EMC Conformity Part 15 FCC Rules; EMC 2004/108/EC; EN 61000-6-1: 2001, EN 61000-6-3: 2001</p> <p>Particle Monitor and Particulate Profiler Class 1 laser; IEC 60825-1:1998 Directive 72/23/EEC; EN 61010-1; EN 60825-1:1996; US 21 CFR 1040.10</p>				
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Impact resistant and water resistant instrument carry case is supplied standard



IQM 60 front view of the 4-line display, power switch, SD data card, RS 232 com port, inlet filter, Temperature and Relative Humidity probe and Isokinetic inlet for an optional Particle Counter



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



IQM 60 rear view of the cooling fan and sharp cut cyclone for PM10, PM2.5 or PM1 with Isokinetic inlet for an optional Particle Monitor



4-line x 20-character scrolling display shows data by parameter, value and unit in real-time

