aeroqual SERIES 900/930/SM70

Series 900

Series 930

Shown with optional LED display, strobe and siren

SM70 Fixed Monitor

Aeroqual fixed indoor air quality monitors are designed to make indoor air quality monitoring easy. They are used by researchers, professionals, and non-experts alike to gather indoor air quality data from indoor environments. Commercially they are used for ozone generator control, process control, monitoring controlled atmospheres, air quality, and health and safety compliance.

Monitors at a glance

Feature / Series	900	930	SM70
Active fan sampling	✓	✓	✓
PC data logging and real-time network capability	✓	✓	
Multiple analogue and digital outputs	✓	✓	✓
Interchangeable sensor heads	All gases	Some gases	Replaceable (O_3 sensor board)
Enclosure	IP20/ NEMA 1	IP41/NEMA 2	IP20/ NEMA 1
Options			
Temperature and RH sensor	✓	✓	
Large LED display		✓	(Built-in 3.5 digit LCD)
Strobe and siren		✓	Buzzer alarm

Sensors

Aeroqual uses a unique system of interchangeable sensors making it simple to replace one sensor for another.

Gas* / Application Type**	ENV	IAQ	IND	900	930#	SM70#
Ammonia (NH_3)			✓	✓	*	
Carbon monoxide (CO)	✓	✓	✓	✓	*	
Carbon dioxide (CO_2)	✓	✓	✓	✓		
Chlorine (Cl_2)	✓		✓	✓	✓	
Formaldehyde (CH_2O)			✓	✓	✓	
Hydrogen (H_2)			✓	✓		
Methane (CH_4)			✓	✓	✓	
Hydrogen sulphide (H_2S)	✓		✓	✓	*	
Nitrogen dioxide (NO_2)	✓			✓	✓	
Non methane hydrocarbon (NMHC)	✓			✓		
Ozone (O_3)	✓	✓	✓	✓	✓	Sensor board
Perchloroethylene (C_2Cl_4)		✓	✓	✓		
Sulphur dioxide (SO_2)	✓		✓	✓	✓	
Volatile organic compounds (VOC)	✓		✓	✓	*	

* Refer to the separate gas sensor specification sheet for the full range of sensors.
**Application type: ENV = outdoor environmental monitoring, IAQ = indoor air quality, IND = industrial health and safety.
See sensor type in specification table.

Specifications

Feature / Series	Series 900	Series 930	FM SM70
Applications	Ozone generator control, indoor air quality, real-time network monitoring, health and safety and process control.	Industrial applications for gas leak detection, real-time network monitoring, health and safety and process control.	Ozone monitor for real-time network monitoring, health and safety and process control.
Measurement units	Gas: ppm or mg/m^3 | Optional: Humidity: % a Temperature: °C or °F		Gas: ppm
Reading functions	Instant, minimum, maximum, average		Instant
Sensor head type	 Sensor head Interchangeable	 Sensor head Removable / Replaceable	 Sensor board Removable / replaceable
Sampling method	Active sampling via internal sensor head fan	Active sampling via internal sensor head fan	Active sampling via sensor board fan
Analog output	4-20 mA (opto-isolated), 10-30 Vdc	4-20 mA (opto-isolated), 12-24 Vdc	0-5 Vdc (LZ sensor board), 0-1.5 Vdc (UZ sensor board)
External signal type	Transistor output (4) (24 Vdc at 150 mA max)		Relay output (24 Vdc; 5 A max.)
External signal functions	Low Alarm | High Alarm | Control | Diagnostics		Factory configured
External signal input	Standby toggle		
Connectors	Screw type		Screw type
Monitor Identification (ID)	1 (Default) User configurable from 1 to 255		
Alarm set points	User configurable Low Alarm | High Alarm		Factory configured single point
Control set point	User configurable Low Alarm | High Alarm		Factory configured
Communication	RS-485 (Aeroqual proprietary protocol)		RS232 and RS485 (Aeroqual proprietary protocol)
Software	Free PC Configuration software and logging Link data to a specific location and monitor (Data cable required)		
Interface (optional)	RS-485 to USB cable		RS-485 and RS-232
Power (user supplied)	Regulated 12 Vdc, 800 mA	24 Vdc, 500 mA (range 22-24 Vdc)	12 Vdc; 800 mA; Plug-in Vdc power adaptor supplied
Monitor base/enclosure material and rating	Polycarbonate | IP20 NEMA 1 equivalent	Polycarbonate | IP41 NEMA 2 equivalent	Flame resistant PS I IP20 NEMA 1 equivalent
Size (with sensor head) (L x W x H)	64 H x 130 ∅ mm; 2½ x 5⅛ ∅ in	180 x 110 x 90 mm 7 ⅛ x 4¾ x 3½ in	130 x 94 x 57 mm 5 ⅛ x 3 ¾ x 2 ¼ in
Weight (Incl. Sensor)	< 200 g; < 7 oz	< 850 g; < 30 oz	270 g; 9.5 oz (excludes AC power adaptor)
Environmental operating conditions	0°C to 40°C 32°F to 104°F		
Approvals	Part 15 of FCC Rules, EN 61000-6-3: 200, EN 61000-6-1: 2001		

Optional accessories

Temperature/ RH Sensor
FM TRH01

Monitor RS485 to USB Cable
AS R17

Integrated display (930 Only)
FM DISP01

Siren & strobe (930 Only)
AS R23D