

# EC9810B

## UV Absorption Ozone Analyser

The EC9810B Ozone Analyser combines microprocessor control with ultraviolet (UV) photometry to measure O<sub>3</sub> in the range of 0-50 ppb or 0-20 ppm with a detection limit of 0.5 ppb.

Improved sensitivity, noise, and zero drift specifications are obtained through the use of superior optical technology and the introduction of a new electronics suite that provides better all-round performance.



### Standards

- Complies with U.S. EPA Automated Equivalent Method EQOA-0193-091.
- Complies with Australian standard: AS 3580.6.1-1990

### Features

- Large Graphic LCD provides continuous instrument status updates including gas concentration, real time zero/span calibration curves, sample flow and pressure graphs.
- The micro processor facilitates external remote control providing up to 100 channels of instrument operating parameters.
- Inbuilt data logger utilises Flash ROM to store up to 175 days of 5 minute averaged data.
- Stored data can be retrieved via RS232, USB interface or the optional Ethernet connection and uploaded to a TCP/IP network.
- Ethernet option facilitates data download from an analyser connected to the internet via a standard web interface. This feature also supports remote access to instrument parameters and the status output screen.
- Optional internal ozone generator (IZS) for performing zero/span checks in up to five operator selected timed steps between 20 – 800ppb.
  - Selectable rolling averages periods of 4 or 8 hours.



**ECOTECH**WORLD CLASS  
environmental  
MONITORING

## Specifications

Ranges:	Auto-ranging for 0-50 ppb to 0-20 ppm	
Data Display:	Large Graphic LCD display, with unit selection mg/m <sup>3</sup> , µg/m <sup>3</sup> , ppm, ppb, ppt.	
Analogue Out:	0 - full scale from 0 - 50 ppb to 0 - 20 ppm with menu selectable offset of 0%, 5% or 10%. Auto-ranging between two user specified full-scale values.	
Noise (At zero):	0.25 ppb with Kalman filter active	
Lower Detectable Limit:	0.5 ppb or 0.2% of reading with Kalman filter active	
Linearity:	< 1% of full scale (from best straight-line fit)	
Precision:	1 ppb or 0.5 % of reading above 50 ppb, whichever is greater	
Zero Drift:	24 hours:	< 1 ppb
	30 days:	< 1 ppb
Span Drift:	24 hours	< 0.5% of reading
	30 days	< 0.5% of reading
Temperature/Pressure Compensation:	Temperature/Pressure compensation with selectable reference temperature of 0°C, 20°C, 25°C at 101.3 kPa.	
Sample Flow Rate:	500 cc/min	
Temperature Range:	5°- 40 °C (U.S. EPA approval 15°C – 35°C)	
Analogue Outputs:	Menu selectable current output 0-20 mA, 2-20 mA, 4-20 mA Optional 50 pin I/O PCA: Allows for jumper selectable voltage outputs of 100 mV, 1 V, 5 V, 10 V with menu selectable zero offset of 0,5% or 10%.	
Digital I/O DB50:	Local user DB50 I/O interface with 32 digital open collector outputs and 3 digital inputs user controls. The digital outputs are 24 status output commands, 8 status alarm conditions and 2 analogue inputs 0-5V.	
Communication Port:	Rear panel multi-drop RS232 port shared between analysers for data, status and control and front panel service RS232 port. Plus USB interface and optional Ethernet connection to a TCP/IP network via an RJ45 connector.	
Data Logging:	Supports internal data logging capability with storage up to 175 days of 5 minute data stored in flash ROM.	
Data Storage selection:	Instantaneous data selectable period from: 1,3,5,10,30, or 60 minute intervals Average data selectable period from: 1,3,5,10,15,30 minutes, 1,4,8,12, or 24 hours.	
Power:	99-132 vAC, 198-264 vAC 47-63 HZ, 110 Watts	
Dimensions/weight:	43.2 x 17.8 x 64.8 cm (w x h x d), weight 21 kg	
Options:	Rack mount kit assembly (19")	9800036-2
	External zero/span valve assembly (EVS)	98300087
	Sample particulate filter assembly	98000210-1
	External sample pump 115V 60 Hz	002-033603
	External sample pump 220V 50/60 Hz	002-033601
	PCA 50 pin I/O	98000066-2

Ethernet connection to a TCP/IP network via an RJ45 connector  
Internal IZS Module for zero and span point calibration checks



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