

# EC9850B

## Sulphur Dioxide Analyzer

The EC9850 Sulphur Dioxide Analyzer combines microprocessor control with fluorescence detection to measure SO<sub>2</sub> in the ranges of 0-50 ppb and 0-20 ppm with a detection limit of 0.5 ppb.

Improved performance, sensitivity, noise and zero drift specifications are obtained through the use of a highly efficient reaction cell and new electronics.



### Features

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- Large Graphic LCD provides continuous output of instrument status including, gas concentration, real time zero/span calibration curves and sample flow and pressure graphs.
- Zinc reference lamp reduces SO<sub>2</sub> and water vapour interference to provide optimal sensitivity, long lamp lifetime and lower Total Cost of Ownership (TCO).
- Menu selectable data trending graphically displays up to 100 data points.
- Auto zero routine periodically checks and corrects background illumination, virtually eliminating zero drift.
- The micro processor facilitates external remote control and provides up to 100 channels of instrument parameters.
- Inbuilt data logger utilises Flash ROM to store up to 175 days of 5 minute data averages.
- 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 analyzer 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 pump and 12VDC power supply enables the EC9850B to be operated from a battery or solar power source for remote or mobile applications.
- Complies with U.S. EPA Automated Equivalent Method EQSA-0193-092.
- Complies with U.S. EPA Automated Reference Method RFNA-1292-090



# 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, $\mu\text{g}/\text{m}^3$ , 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:	0.25 ppb with Kalman filter active.	
Lower Detectable Limit:	0.5 ppb with Kalman filter active	
Linearity:	< 1% of full scale	
Precision:	0.5 ppb or 0.5% of reading whichever is greater	
Zero Drift:	24 hours; < 0.4 ppb 30 days; < 1 ppb	
Span Drift:	24 hours less than 1% of reading 30 days less than 1% of reading	
Temperature/Pressure Compensation:	Temperature/Pressure compensation with selectable reference temperature of 0°C, 20°C, 25°C at 101.3 kPa.	
Rise/Fall Time:	Less than 120 seconds for 95% of final reading with Kalman filter active.	
Sample Flow Rate:	0.60 SLPM (Std)	
Sample Pressure Dependence:	5% change in pressure produces less than 1% difference in reading	
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	
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 0-5 V.	
Communication Port:	Rear panel multi-drop RS232 port shared between analyzers for data, status and control. 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, 100 Watts.	
Dimensions/weight	43.2 x 17.8 x 64.8 cm (w x h x d), 25 kg	
Options:	Rack mount kit assembly (19")	9800036-2
	External zero/span valve assembly (EZS)	98300087
	Sample particulate filter assembly	98300056-1
	Exhaust air charcoal scrubber	98415105-1
	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 permeation oven for performing single span point calibration	



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