

EC9841B

Oxides of Nitrogen Analyser

The EC9841B Oxides of Nitrogen Analyser utilises microprocessor control and chemiluminescence detection to measure NO, NO₂ and NO_x in the ranges of 0-50 ppb and 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 Reference Method RFNA-1292-090.
- Complies with Australian standard: AS 3580.5.1-1993

Features

- Large Graphic LCD provides continuous output of instrument status including gas concentration, real time zero/span calibration curves and sample flow and pressure graphs.
- Menu selectable data trending graphically displays up to 100 data points.
- Auto zero functions periodically checks and corrects for background illumination, virtually eliminating zero drift.
- The micro processor facilitates total external remote control and provides up to 100 channels of instrument operating parameters.
- Inbuilt data logger utilises Flash ROM to store up to 132 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 span capability using permeation device.





Specifications

Ranges:	Auto-ranging for 0-50 ppb to 0-20ppm	
Data Display:	Large Graphic LCD display, with unit selection mg/m ³ , µg/m ³ , ppm, ppb, ppt.	
Analogue Out:	0 - full scale from 0 - 50 ppb to 0 - 20ppm with menu selectable offset of 0%, 5% or 10%. Auto-ranging between two user specified full-scale values	
Noise:	0.25 ppb or 0.2% of reading with Kalman filter active.	
Lower Detectable Limit:	0.5 ppb with Kalman filter active	
Linearity:	< 1% of full scale	
Precision:	0.5 ppb or 1% of reading whichever is greater	
Zero Drift:	24 hours; < 0.4 ppb; 30 days; < 1ppb	
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 30 seconds for 95% of final reading with Kalman filter active.	
Sample Flow Rate:	0.640 SLPM (Std)	
Sample Pres. Dependence:	5% change in pressure produces less than 1% change in reading	
Temperature Range:	5° - 40 °C (U.S. EPA approval 15°C – 35°C)	
Analogue Outputs:	Menu selectable current output 0-20mA, 2-20mA, 4-20mA	
Optional 50 pin I/O PCA:	Allows for jumper selectable voltage outputs of 100mV, 1, 5, 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. 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 132 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, 200 Watts.	
Dimensions/weight	43.2 x 17.8 x 64.8 cm (w x h x d), 24 kg	
Options:	Rack mount kit assembly (19")	9800036-2
	External zero/span valve assembly (EZS)	98300087
	Sample particulate filter assembly	98000210-1
	External ozone resistant charcoal scrubber	98415105-7
	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.	



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