

EC9841AS

Nitrogen Oxides Analyser

The EC9841AS Nitrogen Oxides Analyser uses microprocessor control and chemiluminescence detection to measure high concentration nitric oxide (NO), total oxides of nitrogen (NO_x), and nitrogen dioxide (NO₂).

The EC9841AS analyser delivers excellent sensitivity and reliability by using single measurement channel and gas sample accumulator to provide precise measurement of NO and NO_x artifacts.

Advanced signal processing provides continuous zero measurement and NO_x, NO, and NO₂ concentrations are corrected for fluctuations in gas temperature/pressure, flow rate and NO₂ converter efficiency. Data can be displayed either in parts per million (ppm) or milligrams per cubic meter (mg/m³).



Features

- High concentration NO/NO_x measurement using chemiluminescence detection . The EC 9841AS has been specifically designed for applications with ranges of 0 - 1000 ppm or 0 - 300 ppm (option).
- Optional external Stainless Steel converter is available for applications requiring measurement of NO₂ concentrations greater than 10 ppm. (maximum detection limit when using the internal Molybdenum converter).
- Inbuilt LCD presents real time data, molybdenum converter efficiency, instrument status and historical information in a digital or graphical format. User selectable screens provide access to all instrument setup and diagnostics menus.
- 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.
 - Auto zero pre-reactor control provides continuous zero function.
 - Inbuilt data logger uses Flash ROM with storage capacity up to 135 days of 5 minute data.

**ECOTECH**WORLD CLASS
environmental
MONITORING

Specifications

Ranges Display:	Auto-ranging 0-1000 ppm, optional 0-300 ppm resolution equals 0.01ppm
Analogue Out:	0 - full scale from 0 - 50 ppb to 0 - 1000 ppm with 0%, 5%, 10% offset. Auto-ranging between two user specified full-scale values
Noise (At zero):	2 ppb or 0.1% of concentration reading (1)
Lower Detectable Limit:	4 ppb (1)
Zero Drift:	Temperature dependent, 1ppb per °C Time dependent at fixed temperature 24 hours less than 10ppb; 30 days less than 10ppb
Span Drift:	Temperature dependent, 0.2% per °C Time dependent at fixed temperature 24 hours 0.35% of reading; 7 days 2.5% of reading
Temperature/Pressure Compensation:	Temperature/Pressure compensation with selectable reference temperature of 0°C, 20°C, 25°C at 101.3 kPa.
Linearity Error:	± 1% of full scale
Lag Time	Less than 25 sec
Rise/Fall Time:	95% of final value. Less than 90 sec (with Kalman filter active)
Precision:	Better than 0.5 ppb or 1% of reading (1)
Temperature Range:	15°C to 35°C
Relative Humidity:	10% to 80% non-condensing
Sample Flow rate:	370mL/minute (50mL/minute sample plus 320 mL/minute bypass)
Analogue Outputs:	Jumper selectable voltage output of 100mV, 1V, 5V, 10V, with menu selectable zero offset of 0.5% or 10% or menu selectable current output 0-20 mA, 2-20 mA, 4-20 mA
Digital Outputs:	Multidrop RS232 port shared between analysers for data, status and control. USB port DB50 with discrete status, user controls and analogue output.
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 135 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, 219 Watts consumed at 115VAC
Dimensions/weight	43.2 x 17.8 x 64.8 cm (w x h x d), 26.4 kg (61 lbs)

(1) Whichever is greater with Kalman filter active



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