

## EC9843

### TOTAL REACTIVE NITROGEN OXIDES ANALYSER

**The EC9843 Total Reactive Nitrogen Oxides Analyser combines microprocessor control with chemiluminescence detection to measure NO and NO<sub>y</sub> in the ranges of 0-2000 ppb with a detection limit of 50 ppt.**

Improved sensitivity, noise, and zero drift specifications are obtained through the use of a superior low pressure reaction cell and an electronics suite to provide better all round performance.

The EC9843 is used in conjunction with a NO<sub>y</sub>-1000 converter used for the conversion of NO<sub>y</sub> to NO for analysis.

### FEATURES

- Large Graphic LCD provides continuous output of instrument status including, analyte concentrations, 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 routine periodically checks and corrects for background illumination, virtually eliminating zero drift.
- The micro processor facilitates total external remote control of the analyser and provides up to 100 channels of instrument operating parameters.
- Stored data can be retrieved via RS232, USB interface or the optional Ethernet connection to a TCP/IP network via an RJ45 connector.
- 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.
- Inbuilt data logger utilises Flash ROM to store up to 132 days of five minute data averages.



## SPECIFICATIONS

### Ranges:

Auto-ranging for 0-50 ppb to 0-2000 ppb

### 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 - 5 ppb to 0 - 2000 ppb with menu selectable offset of 0%, 5% or 10%. Auto-ranging between two user specified full-scale values.

### Noise:

25 ppt or 0.1% of reading with Kalman filter active.

### Lower detectable limit:

50 ppt or with Kalman filter active.

### Linearity:

± 1% of full scale (from best straight-line fit).

### Precision:

50 ppt or ±0.5 % of reading whichever is greater.

### Zero drift:

24 hours < 100 ppt; 30 days; < 100 ppt.

### 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 60 seconds with Kalman filter active.

### Sample flow rate:

0.640 SLPM (Std).

### Sample pressure:

5% change in pressure produces less than 1% change in reading.

### Dependence temperature range:

5°- 40 °C (U.S. EPA approval 15°C - 35°C).

### Analog outputs:

Menu selectable current output 0-20 mA, 2-20 mA, 4-20mA 50 pin I/O PCA: Allows for jumper selectable voltage outputs of 100 mV, 1, 5, 10 V with menu selectable zero offset of 0, 5 or 10%.

### For your local certified distributor visit:

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### 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.

### Communications

#### Communication port:

Rear panel multi-drop RS232 port shared between analysers 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 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

- NOy converter with 5 or 12 metre umbilical
- Rack mount kit assembly (19")
- External zero/span valve assembly (EVS)
- External pump 115V 60 Hz
- External pump 220V 50/60 Hz
- Ethernet connection to a TCP/IP network via an RJ45 connector.

