

EC9850T

TRACE SULFUR DIOXIDE ANALYSER

The Ecotech Model EC9850T Trace Sulfur Dioxide (SO₂) analyser incorporates UV pulsed fluorescence spectrometry with microprocessor control for accurate and reliable measurement of sub-ambient levels of SO₂.

The EC9850T can measure levels of SO₂ to a sensitivity of 200 ppt in the range of 0-2000 ppb. The SO₂ concentration is automatically corrected for gas temperature and pressure changes and can be displayed in units of ppb, ppm, µg/m³ or mg/m³. Excitation (UV radiation) is measured by a reference detector and emission (fluorescence radiation) from the sample is measured by a photomultiplier tube (PMT).

APPROVALS

- EC9850T is U.S. EPA approved (Automated Equivalent Method EQSA-0193-092).

FEATURES

- Specially selected high output UV lamp operating at 214 nm.
- Extremely low sensitivity to NO interferences.
- Scrubbed sample air is used for background zero to minimise discrepancies between air quality of the sample and background air.
- Auto-zero routine allows the analyser to periodically check and correct for cell contamination.
- Kalman digital filter continuously provides the best compromise between response time and noise reduction.
- Internal data logging uses Flash ROM to store up to 175 days of 5 minute averaged data.



SPECIFICATIONS

Display:

Auto ranging 0-2000 ppb.

Data display:

Graphic LCD display, auto ranging 0-2000 ppb full scale, with unit selection mg/m³, µg/m³, ppm, ppb, ppt.

Resolution:

User selectable (0-5 decimal points displayed).

Analogue out:

0 - full scale from 0 - 2000 ppb.

Selectable offset of 0 %, 5 % or 10 % offset.

Filter types:

No filter, Kalman, 10, 30, 60, 90, 300 second.

Noise (At zero):

100 ppt RMS with Kalman or 300 sec filter active.

Lower detectable limit:

200 ppt with Kalman or 300sec filter active.

Precision:

500 ppt or 0.5 % of reading, whichever is greater.

Zero drift:

Temperature dependence, 0.1 % per °C changes.

24 hours; less than 200 ppt.

Span drift:

Temperature dependence, 0.05 % per °C changes.

24 hours less than 0.5 % of reading.

30 days less than 1.0 % 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, 0.75-1.00 LPM optional. Optional external sample pump required.

Temperature range:

Operating temperature 20 °C - 30 °C may be operated 15 °C - 35 °C.

Analogue outputs:

The 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 % or menu selectable current output 0-20 mA, 2-20 mA, 4-20 mA.

Digital outputs:

USB interface and Multidrop RS232 port shared between analysers for data, status and control. DB50 output connector with discrete status outputs and remote user controls.

Data logging:

Supports internal data logging capability with storage up to 175 days of 5 minute data stored in flash memory.

Data selection:

Instantaneous data: 1, 3, 5, 10, 30, or 60 minute intervals, average 1, 3, 5, 10, 15, 30 minutes, 1, 4, 8, 12, or 24 hours.

Power:

99-132 VAC, 198-264 VAC 47-63 HZ.

Dimensions/weight:

43.2 cm x 17.8 cm x 64.8 cm (w x h x d), 20.9 kg.

OPTIONS

- Rack mount kit assembly (19").
- External zero/span valve assembly (EVS).
- External pump 115 v 60 Hz or 220V 50/60 Hz (specify).
- PCA 50 pin I/O 98000066-2

For your local certified distributor visit:

www.ecotech.com/distributors

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