

The Serinus 51 analyser delivers precise and reliable performance at excellent value. It combines pulsed fluorescence detection with an internal catalytic converter to sequentially measure H₂S and SO₂ in the range of 0-2/0-20 ppm respectively with a detection limit of 0.3 ppb.

The measurements involves two cycles.

- H₂S is measured by passing the sample through an internal SO₂ scrubber which removes any SO₂, the H₂S is then converted to SO₂ using the internal converter and measured using the fluorescence technique.
- SO₂ is then sequentially measured by bypassing the SO₂ scrubber and converter and using the fluorescence technique to only measure the SO₂ concentration.

APPROVALS

- Based on the Serinus 50 SO₂ analyser with U.S. EPA and EN approvals.
- Russian approval: 56054-13.

BENEFITS

Benefits include:

- Guaranteed performance with a two year warranty.
- Internal thermal catalytic H₂S to SO₂ converter.
- User selectable measurement of SO₂/H₂S, H₂S or SO₂ only.
- Minimises time spent on site performing maintenance through superior remote instrument control, diagnostic viewing and calibration.
- Comprehensive data logging and remote viewing of over 200 operational parameters.
- Versatile interfacing through RS232, USB,

Bluetooth, analogue and optional TCP/IP.

- Easier setup through an intuitive menu system with “Quick Menu”, advanced GUI and a large keypad with tactile keys.
- Instant display of operational status using illuminated traffic lights on the front panel.
- Removable flash memory stores 10 years of data, including up to 12 individual parameters and event logs. Operational parameters can also be transferred to memory for easy retrieval.
- Latest firmware updates can easily be installed using the USB flash memory drive.
- Programming, viewing, downloading and emailing of data is made even simpler using Bluetooth connectivity combined with the “Ecotech Serinus Remote” Android App.
- Enhanced operator safety through the use of 12VDC internal voltages.
- Reduced cost of spare parts, accessories and consumable items through extensive use of standard components across the Serinus range.
- Rack slide design makes accessing internal components and removing the analyser from a rack cabinet easy.
- AQM system power usage can be reduced due to the instrument’s low power demand and its ability to operate over a wide temperature range.



SPECIFICATIONS

Ranges:	H ₂ S: 0-2 ppm (S ₂ O < 500 PPB) SO ₂ : 0-20 ppm (Autoranging)
Concentration display:	User selectable mg/m ³ , µg/m ³ , ppm, ppb, ppt
Noise:	< 0.15 ppb
Lower detectable limit:	< 0.3 ppb or 0.2 % of concentration whichever is greater
Linearity:	< 1 % of full scale
Precision:	0.5 ppb
Zero drift:	24 hours: < 0.5 ppb 7 days: < 0.5 ppb
Span drift:	7 days: < 0.5 % of reading
Response time:	60 seconds to 95 %
STP reference:	0°C, 20°C, 25°C at 101.3 kPa
Sample flow rate:	725 cc/min
Temperature range:	0 - 40°C
Power:	100-240 VAC, 50 to 60 Hz (autoranging)
Dimensions (wxhxd):	3.5 RU, 429 x 175 x 638 mm
Weight:	22.0 kg

Communications

- USB port (digital communication).
- Bluetooth (digital communication via Android App).
- TCP/IP Ethernet network connection (optional).
- RS232 Port 1: Digital communication.
- RS232 Port 2: Multidrop port.
- Protocols: Modbus RTU/TCP, Bavarian, EC9800, Advanced.

Inputs/outputs: 25 pin I/O port

- Menu selectable current or voltage output 0-20mA, 4-20 mA, or 0-5 VDC (opt 0-10VDC).
- Menu selectable offset of 0%, 5% or 10%.
- Auto-ranging from 0-50 ppb to 0-20ppm (between two user specified full scale values).
- 3 scalable analogue inputs, 0-5v, 160µV resolution.
- 8 logic level digital status inputs/8 open collector digital outputs.

Data logging: Removable USB flash memory drive that stores data in the following formats:

- Instantaneous data from: 1, 3, 5, 10, 30, or 60 minute intervals and 2, 5, 10, 30 seconds.
- Average data from: 1, 3, 5, 10, 15, 30 minutes, 1, 4, 8, 12, or 24 hours.
- Data storage of 10 years of 12 parameters, 1 minute data on 8 Gb memory.

OPTIONS

- External AC powered pump (capable of operating 3 analysers, excluding NOX).
- Dual filter (particulate) | rack slide kit.
- TCP/IP network port.
- High pressure zero/span valves.
- Printed manual—electronic manual supplied with analyser.
- SO₂ scrubber.

Bluetooth connectivity combined with the "Ecotech Serinus Remote" Android App makes it even easier to program, maintain, download and email data without touching the instrument.



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