

## Serinus<sup>®</sup> 55

### HYDROGEN SULFIDE ANALYSER



**The Serinus<sup>®</sup> 55 Hydrogen Sulfide (H<sub>2</sub>S) analyser delivers precise and reliable performance at excellent value. It uses proven UV fluorescent radiation technology and an internal thermal catalytic converter to measure H<sub>2</sub>S in ambient air (LDL < 0.3 ppb, range 0-2 ppm).**

H<sub>2</sub>S is measured by passing the sample through a SO<sub>2</sub> scrubber which removes any SO<sub>2</sub>, the H<sub>2</sub>S is then converted to SO<sub>2</sub> using the internal H<sub>2</sub>S converter and measured using the pulsed fluorescence technique.

#### APPROVALS

- Based on the Serinus<sup>®</sup> 50 Analyser which has US EPA and EN approval.
- Russian approval: 56054-13.

#### BENEFITS

The Serinus range of analysers have been designed using our experience and knowledge gained from operating large air quality monitoring networks for more than 35 years. The result, instruments that integrate seamlessly into continuous monitoring networks.

#### Benefits include:

- Guaranteed performance with a two year warranty.
- Instant display of operational status using illuminated traffic lights on the front panel.
- 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.
- Easier setup through an intuitive menu system with “Quick Menu”, advanced GUI and a large keypad with tactile keys.
- 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 12 VDC 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.
- Built in data displaying measuring values and having the function of those values transferred to graphical trend display.

## SPECIFICATIONS

<b>Ranges:</b>	H <sub>2</sub> S: 0-2 ppm (SO <sub>2</sub> < 500 PPB)
<b>Concentration display:</b>	User selectable mg/m <sup>3</sup> , µg/ m <sup>3</sup> , ppm, ppb, ppt
<b>Noise:</b>	< 0.15 ppb 0.0 to >20000 Mm <sup>-1</sup>
<b>Lower detectable limit:</b>	< 0.3 ppb or 0.2 % of concentration whichever is greater
<b>Linearity:</b>	< 1 % of full scale
<b>Precision:</b>	0.5 ppb
<b>Zero drift:</b>	24 hours: < 0.5 ppb 7 days: < 0.5 ppb
<b>Span drift:</b>	7 days: < 0.5 % of reading
<b>Response time:</b>	60 seconds to 95 %
<b>STP reference:</b>	0 °C, 20 °C, 25 °C at 101.3 kPa
<b>Sample flow rate:</b>	725 cc/min
<b>Temperature range:</b>	0-40 °C
<b>Power:</b>	99-132 VAC, 198-264 VAC 47-63 Hz
<b>Dimensions (wxhxd):</b>	3.5 RU 429 x 175 x 638 mm
<b>Weight:</b>	19 kg

## COMMUNICATION

- 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.

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.

## INPUTS / OUTPUTS

### 25 pin I/O port

- Menu selectable current or voltage output 0-20 mA, 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 0-20 ppm (between two user specified full scale values).
- 3 scalable analogue inputs, 0-5 v, 160 µV 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 & ACCESSORIES

- 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.
- SO<sub>2</sub> Scrubber
- Printed manual—electronic manual supplied with analyser.
- Internal long life, low power maintenance free pump (max 6 watts).



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Air Pollution Monitoring Systems