





# Serinus® 55

Hydrogen Sulfide Analyser

The Acoem Serinus 55\* Hydrogen Sulfide (H<sub>2</sub>S) analyser delivers precise and reliable performanc e at excellent value.

It uses proven UV fluorescent radiation technology and an internal thermal catalytic converter to measure H<sub>2</sub>Sin ambient air (LDL < 0.3 ppb, range 0-2 ppm).

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

<sup>\*</sup> Acoem Serinus 55 formerly known as Ecotech Serinus 55

## **Approvals**

• Russian approval (56054-13)

Based on the Serinus 50 which has the following approvals:

- USEPA approval (EQSA-0809-188)
- ENapproval TÜV(0000040205-02)
- Australian Standard (AS 3580.5.1-2011)
- French approval LSCQA

- Ukraine approval (12/3/B/24/295-17)
- Chinese Pattern Approval (JJF1361-2012)
- Korean approval NIER (AACMS-2017-04)

#### Benefits

The Serinus range of analysers have been designed using our experience & knowledge gained from operating large air quality monitoring networks for more than 45 years. The result, instruments that integrate seamlessly into continuous monitoring networks.

- 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 & calibration
- Comprehensive data logging and remote viewing of over 200 operational parameters
- Easier setup through an intuitive menu system with "Quick Menu", advanced GUI & a large keypad with tactile keys
- Removable flash memory stores ~10 years of data, including up to 12 individual parameters & event logs. Operational parameters can also be transferred to memory for easy retrieval

- Latest firmware updates can easily be installed using the USBflash memory drive
- Programming, viewing, downloading & emailing of data is made even simpler using optional Bluetooth connectivity combined with the Serinus Remote Android App
- Enhanced operator safety through the use of 12 VDC internal voltages
- Reduced cost of spare parts, accessories & consumable items through extensive use of standard components across the Serinusrange
- Rack slide design makes accessing internal components & removing the analyser from a rack cabinet easy
- AQMsystem power usage can be reduced due to the instrument's low power demand & its ability to operate over a wide temperature range
- Built in data displaying measuring values & having the function of those values transferred to graphical trend display.



# **Specifications**

Ranges:  $H_2S:0-2 \text{ ppm } (SO_2<500 \text{ ppb})$ 

Concentration display: User selectable mg/m³, µg/m³, ppm, ppb, ppt

Noise:  $< 0.15 \,\mathrm{ppb}\ 0.0 \,\mathrm{to} > 20000 \,\mathrm{Mm}^{-1}$ 

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 %

STPreference: 0 °C, 20 °C, 25 °C at 101.3 kPa

Sample flow rate: 725 cc/min
Temperature range: 0 - 40 °C

Power: 99 - 132 VAC,198 - 264 VAC,47 - 63 Hz

Dimensions: 429 x 175x 638 mm

Rack spacing: 3.5 RU
Weight: 19 kg



#### Communication

- USBport (digital communication)
- Bluetooth\* (digital communication via Android App)
- •TCP/IPEthernet network connection (optional)
- RS232 Port 1: Digital communication
- RS232 Port 2: Multidrop port
- Protocols: Modbus RTU/TCP, Bavarian, EC9800, Advanced.
- \* Optional Bluetooth connectivity combined with the Serinus Remote Android App makes it even easier to program, maintain, download & email data without touching the instrument.

#### **Data logging**

Removable USBflash memory drive that stores data in the following formats:

- •Instantaneous data from 1, 3, 5, 10, 30, or 60 minute intervals & 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.

### 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 analog inputs, 0-5 v, 160 µV resolution.
- 8 logic level digital status inputs/8 open collector digital outputs.

#### Options & accessories

- External AC powered pump (capable of operating 3 analysers, excluding  $NO_x$ )
- Dual filter (particulate)
- Rack slide kit
- TCP/IPnetwork port
- Bluetooth
- High pressure zero/span valves
- SO<sub>2</sub> scrubber
- Printed User Manual (a soft copy of the user manual is supplied on USBwith each analyser)
- Internal long life, low power maintenance free pump (max 6 watts).





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