



Serinus[®] 55

Hydrogen Sulfide Analyser

The Acoem Serinus 55* Hydrogen Sulfide (H₂S) analyser delivers precise and reliable performance at excellent value.

It uses proven UV fluorescent radiation technology and an internal thermal catalytic converter to measure H₂S in ambient air (LDL < 0.3 ppb, range 0-2 ppm).

H₂S is measured by passing the sample through a SO₂ scrubber which removes any SO₂, the H₂S is then converted to SO₂ using the internal H₂S converter and measured using the pulsed fluorescence technique.

* Acoem Serinus 55 formerly known as Ecotech Serinus 55.

Approvals

- Russian approval (56054-13)

Based on the Serinus 50 which has the following approvals:

- US EPA approval (RFNA-0809-186)
- EN approval 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 USB flash 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 Serinus range
- Rack slide design makes accessing internal components & removing the analyser from a rack cabinet easy
- AQM system 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 ₂ S: 0–2 ppm (SO ₂ < 500 ppb)
Concentration display:	User selectable mg/m ³ , µg/ m ³ , ppm, ppb, ppt
Noise:	< 0.15 ppb 0.0 to > 20000 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 %
STP reference:	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 175 x 638 mm
Rack spacing:	3.5 RU
Weight:	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.

* 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 USB flash 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 μ V 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/IP network port
- Bluetooth
- High pressure zero/span valves
- SO₂ scrubber
- Printed User Manual (a soft copy of the user manual is supplied on USB with each analyser)
- Internal long life, low power maintenance free pump (max 6 watts).

