Serinus® 55

Hydrogen Sulfide Analyser

The Acoem Serinus 55* Hydrogen Sulfide (H_2S) 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_2S in ambient air (LDL < 0.3 ppb, range 0–2 ppm).

H_2S is measured by passing the sample through a SO_2 scrubber which removes any SO_2, the H_2S is then converted to SO_2 using the internal H_2S converter and measured using the pulsed fluorescence technique.

* Acoem Serinus 55 formerly known as Ecotech Serinus 55.

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Approvals

· Russian approval (56054-13)

Based on the Serinus 50 which has the following approvals:

· US EPA approval (EQSA-0809-188)

· 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_2S: 0–2 ppm (SO_2< 500 ppb)
Concentration display:	User selectable mg/m^3, $\mu g/\ m^3$, 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

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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/0 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/IP network port
· Bluetooth
· High pressure zero/span valves
· SO_2 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).

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CREATING ENVIRONMENTS OF POSSIBILITY