Serinus® 44

AMMONIA ANALYSER
NO, NO₂, NOₓ, NH₃ ANALYSER

The Serinus® 44 analyser delivers precise and reliable performance at excellent value. It uses proven chemiluminescence technology and an external thermal catalytic converter to measure NO, NO₂, NOₓ and NH₃ in ambient air.

APPROVALS

• US EPA approval (RFNA–0809–186)

Based on the Serinus® 40 which has the following approvals:
• EN approval TÜV (936/21221977/A)
• EN approval MCERTS (MC100167/06)
• Australian Standard (AS 3580.5.1-2011)
• Russian approval (56263-14)
• French approval LSCQA
• Ukraine approval (12/3/B/24/295-17)
• Chinese Pattern Approval (JJF1361-2012)
• Korean approval NIER (AACMS-2017-01)

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 40 years. The result, instruments that integrate seamlessly into continuous monitoring networks.

• Guaranteed performance with a two year warranty
• Minimise 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, analog 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 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.

SPECIFICATIONS

Range:	0 - 20 ppm (autoranging)
	(analog ranges 0 - 50 ppb to 0 - 20 ppm)
	(NH3 range dictated by external converter; usually ~ 2 ppm)
Concentration display:	User selectable mg/m^3, µg/m^3, ppm, ppb or ppt
Noise:	< 0.2 ppb
Lower detectable limit:	< 0.4 ppb or 0.5 % of reading whichever is greater
Linearity:	< 1 % of full scale
Precision:	0.4 ppb or 0.5 % of reading whichever is greater
Zero drift:	24 hours: < 0.4 ppb
	7 days: < 0.4 ppb
Span drift:	7 days: < 1 % of reading or 0.4 ppb whichever is greater
STP reference:	0 °C, 20 °C, 25 °C at 101.3 kPa
Sample flow rate:	900 cc/min (total for 3 channels)
Temperature range:	0 to 40 °C
Power:	100 - 240 VAC, 50 - 60 Hz (autoranging)
Power consumption:	265 VA (max at start-up)
	190 VA (after warm-up)
Dimensions:	429 x 175 x 638 mm
Rack Spacing:	3.5 RU
Weight:	21.85 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
- Modbus RTU/TCP protocol, advanced
- 25 pin I/O port (analog outputs, analog inputs, digital status inputs, digital status outputs).

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 - 10 VDC)
- Menu selectable offset of 0, 5 or 10 %
- Autoranging from 0 - 50 ppb to 0 - 20 ppm (between 2 user specified full scale values)
- 3 scalable analog inputs, 0 - 5 V, 160 µV resolution
- 8 logic level inputs/8 open collector outputs.

DATA LOGGING

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

- Instantaneous data from: 1, 3, 5, 10, 30, or 60 minute intervals
- 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

- HTO1000N NH$_3$ Converter
- External AC powered pump
- TCP/IP network port
- Rack slide kit, Dual filter (particulate)
- High pressure zero/span valves
- Printed manual - electronic manual supplied with analyser.

ECOTECH