

# Serinus Gas Analyzer Series



## SERINUS ANALYZERS

The Serinus range has been designed using the experience and knowledge gained from operating large air quality monitoring networks for more than 35 years. The result is precise instruments which integrate seamlessly into continuous monitoring networks.

## APPROVALS

US EPA approval

## BENEFITS

- Guaranteed performance with a two year warranty.
- Minimizes time spent on site performing maintenance through superior remote instrument control, diagnostic, and calibration.
- Comprehensive data logging and remote monitoring of over 200 operational parameters.
- Versatile interfacing through RS232, USB, Bluetooth, analog, and optional TCP/IP.
- Easier set-up through an intuitive menu system with “Quick Menu,” advanced GUI, and a new larger keypad with tactile keys.
- Instant display of operational status using illuminated traffic lights on the front panel.
- Removable USB 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.
- Improved rack slide design makes accessing internal components and removing the analyzer from a rack cabinet easy.
- Sample pump versatility - choose either an external sample pump suitable for use by multiple analyzers or the optional low power internal pump.
- 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.

## COMMUNICATIONS

- 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

## 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
- 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 4 Gb memory

## INPUTS/OUTPUTS

- Menu selectable current or voltage output 0-20mA, 4-20mA, or 0-5 VDC (opt. 0-10 VDC)
- Menu selectable offset of 0%, 5%, or 10%
- Autoranging between two user specified full scale values
- 3 scalable analog inputs, 0-5v, 160 $\mu$ V resolution
- 8 logic level digital status inputs/8 open collector digital outputs



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.

**Our extensive knowledge in design, integration, and maintenance extends to more than just analyzers.**

### *Monitoring Shelters & Sample Manifolds*

A properly designed air quality monitoring shelter allows your instruments to operate at their best. We offer a wide range of shelter types and configurations that can be customized to your exact needs. Our sample manifolds meet international standards.

### *GasCal 1100 Dilution Calibration System*

Our GasCal 1100 range of automatic dilution calibrators enables full calibration, as well as daily span and zero checks. Both local and remote manual and automatic calibrations are available.

### *PM Monitors & Meteorological Sensors*

Our range of PM monitors and meteorological sensors compliment the Serinus gas analyzers and provide reliable and accurate measurements.

### *WinAQMS Data Acquisition System*

Our WinAQMS data acquisition and control system operates on Windows XP or 7 providing full digital communication to our analyzers and most other brands of instruments. Install WinAQMS Client on your computer and you can fully interrogate and control analyzers remotely.

### *Airodis Data Management Software*

Airodis automatically retrieves data from a wide variety of instruments and data loggers. Perform audited automatic and manual data validation and generate a wide range of graphical and tabular reports.

# Serinus Specifications

## Serinus 10 O<sub>3</sub> Analyzer

**US EPA approval EQOA-0809-187**

Method: UV absorption  
 Range: 0-20 ppm  
 LDL: < 0.5 ppb

## Serinus 30 CO Analyzer

**US EPA approval RFCA-0509-174**

Method: Gas filter correlation  
 Range: 0-200 ppm  
 LDL: < 0.04 ppb  
 Option: CO and CO<sub>2</sub> measured

**High Range 30 Configuration:**

Range: 0-3000 ppm  
 LDL: 1 ppm

## Serinus 40 NO<sub>x</sub> Analyzer

**US EPA approval RFNA-0809-186**

Method: Chemiluminescence  
 Range: 0-20 ppm  
 LDL: < 0.4 ppb

**High Range 40 Configuration:**

Range: 0-1000 ppm  
 LDL: 4 ppb

## Serinus 44 NO, NO<sub>2</sub>, NO<sub>x</sub>, NH<sub>3</sub> Analyzer

Method: Chemiluminescence  
 Range: 0-20 ppm  
 LDL: < 0.4 ppb

## Serinus 50 SO<sub>2</sub> Analyzer

**US EPA approval EQSA-0809-188**

Method: UV fluorescence  
 Range: 0-20 ppm  
 LDL: < 0.3 ppb

## Serinus 51 SO<sub>2</sub>/H<sub>2</sub>S Analyzer

Method: UV fluorescence  
 Range: SO<sub>2</sub>: 0-20 ppm  
 H<sub>2</sub>S: 0-2 ppm  
 LDL: < 0.3 ppb

## Serinus 55/56/57 H<sub>2</sub>S/TRS/TS Analyzers

Method: UV fluorescence  
 Range: ppb to ppm



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