

Direct vs Indirect

How are you measuring NO₂?

Do it directly, with the new Serinus 60.



Serinus 60.

Because the world needs direct NO₂ measurement like never before.

Ecotech presents the latest addition to the renowned Serinus range: The Serinus 60 NO₂ analyser with CAPS technology.

US EPA Approval EQNA-0217-242

Cavity Attenuated Phase Shift (CAPS), allows direct measurement of nitrogen dioxide (NO₂), rather than an indirect calculation from a chemiluminescence analyser. Using a modulated blue LED light source, the detector measures the phase shift attributable to the level of NO₂ in the measurement cell over an average path length of several kilometres.

No converter, no high vacuum, no ozone and no chemical reactions are required.

Never has accurate measurement of NO₂ been more important, or higher on the agenda, for environmental protection. Studies and health reports have raised awareness of the risks to human health from nitrogen dioxide, such as decreased lung function and other respiratory conditions.

The solution starts with fast, accurate data, and nothing beats measuring directly. That's why we have launched the Serinus 60; an affordable NO₂ analyser that gives accurate and timely results.



FEATURES

Measures NO₂ directly - highly selective and no cycle time (switching between NO_x and NO)

Accurate, repeatable and rapid readings every five seconds

Less maintenance than chemiluminescence analysers

Low power consumption

No converter or ozone generator



A worsening global problem needs effective measures.

Nitrogen dioxide is in the forefront of concerns over air pollution in cities worldwide. Authorities have been forced to take drastic measures, such as odd-even number plate days, green taxes, car-scrapping and ride-sharing programmes in an attempt to mitigate the problem. But, as urban populations, industry, vehicle ownership and transportation increase, the underlying issue is getting worse.

For environmental protection agencies NO₂ has long been 'on the radar' as a criteria gas. Until the advent of the advanced and more affordable CAPS technology, levels were derived from indirect measurement, posing disadvantages such as precision of measurement and response when levels were dynamic.

The Serinus 60 now makes direct, responsive and accurate measurements of this key criteria gas possible.

Importantly, it also delivers these advantages in a highly affordable package.

News trends around the world.

“Revolutionary new weapon in air pollution fight.”

“Court orders to cut NO₂ air pollution.”

“NO₂ emissions rising...”

“Very high concentration of nitrogen dioxide continues”



Serinus 60. It's a game changer.

For years now, the Serinus range has been recognised internationally for precision and usability. The new Serinus 60 is no different. It has been designed from the outset with the user in mind: intuitive to use, simple to configure and offering in-the-field accuracy and reliability.

APPLICATIONS FOR PRECISE, DIRECT & RAPID MEASUREMENTS

Traffic emissions monitoring: roadside, tunnels

Ambient air quality monitoring

Indoor air quality monitoring

Mobile and fixed monitoring stations

Industrial fence-line monitoring

Stack emissions monitoring

These qualities count, when the risks from NO₂ are under scrutiny like never before.

By delivering direct measurement, in an affordable and usable package, Serinus 60 is a huge step forward in addressing NO₂ pollution in an increasingly urbanised world.

Plume monitoring

Measurement and monitoring studies

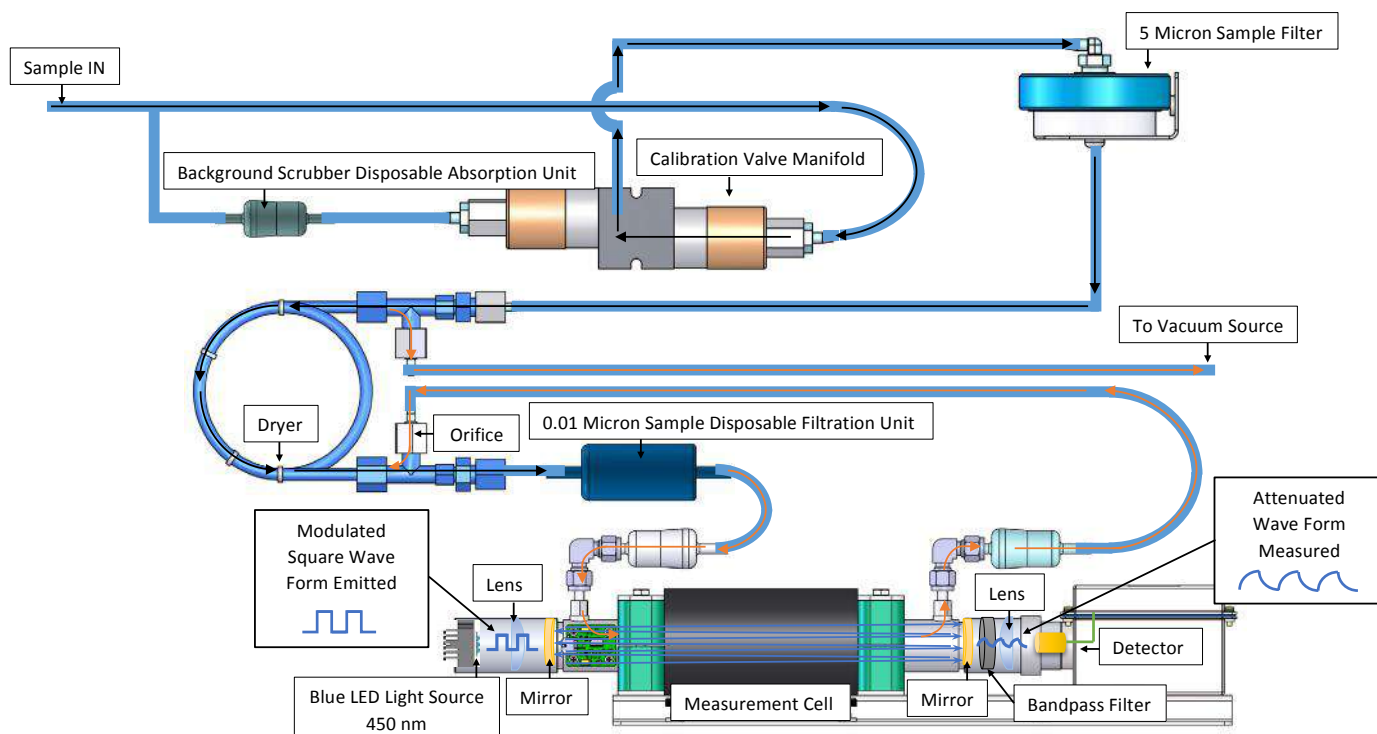
Medical gas monitoring

Process control

Trace gas monitoring



Serinus 60. The way it works.





The Ecotech advantage.

Serinus 60 comes with the backing of Ecotech, a global leader in environmental monitoring since the 1970s.

Today, Ecotech is a trusted partner in the protection of workforces, communities and the environment in over 80 countries. We operate and maintain one of the largest networks of monitoring systems in the world. The quality of our products and solutions are second to none, and we're globally recognised for our expertise in technical support.

It all stems from the problem-solving mindset that's been part of our DNA since day one, and still drives us today. It goes hand-in-hand with our acute awareness of environmental issues and the need to stay ahead of changes in the natural world.

As concern over NO₂ levels rises, we have stepped up to find a more precise and accurate method for monitoring. Designed, manufactured and supported by the proven experts at Ecotech, Serinus 60 is the answer.

Ecotech is a trusted partner for governments and industries across 80 countries

Ecotech operates and maintains large networks of monitoring systems around the world

Ecotech's products have proven performance for reliability and accuracy even in remote and harsh environments

Expert technical support services across the world



Serinus 60 options.

High Pressure Span Calibration Valve:

When a dilution system is not an option calibrate direct from a gas cylinder.

High Pressure Zero Calibration Valve:

Gives you the flexibility to connect your zero gas cylinder directly to the analyser for a simple check.

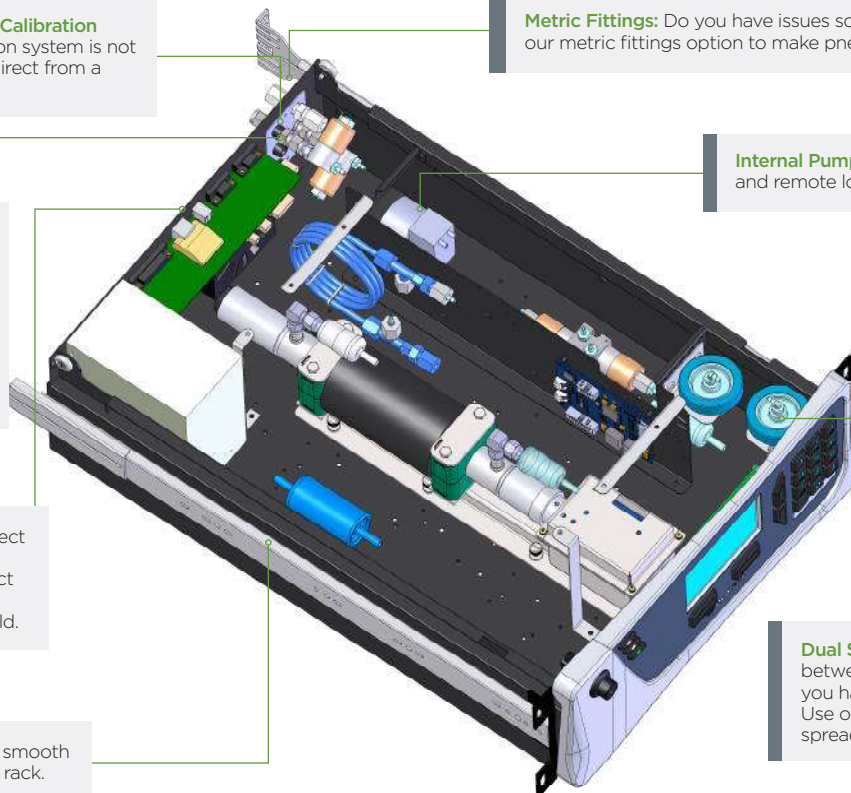
Network Port: Connect your analyser to the internet to have direct remote access from anywhere in the world.

Rack Mount Kit: For smooth integration into a 19" rack.

Metric Fittings: Do you have issues sourcing imperial tubing? Select our metric fittings option to make pneumatic connection trouble free.

Internal Pump: Perfect for compact shelters and remote locations.

Dual Sample Filter: Need more time between sample filter changes? Do you have heavy particulate levels? Use our dual sample filter option to spread the load.



SPECIFICATIONS

Ranges:	0 - 1 ppm
Concentration Display:	mg/m ³ , µg/m ³ , ppm, ppb, or ppt
Noise:	< 0.05 ppb
Lower Detectable Limit:	0.04 ppb or 0.5% of reading, whichever is greater
Linearity:	< 1% of full scale
Precision:	0.04 ppb or 0.5% of reading, whichever is greater
Zero Drift:	< 0.75 ppb, < 0.1 ppb w/ background enabled
Span Drift:	< 1.5 ppb or 0.5% of reading, whichever is greater
Response Time:	< 30 seconds
STP Reference:	0°C, 20°C, 25°C at 101.3kPa 500
Sample Flow Rate:	cc/min
Temperature Range:	0°C to 45°C
Power:	100 - 240 VAC, 50- 60 Hz (autoranging)
Dimensions (WxHxD):	3.5 RU, 17" x 7" x 25"
Weight:	43 lbs.
US EPA Approval:	EQNA-0217-242

SERINUS 60 OPTIONS

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, Bayern-Hassen, EC9800, Advanced

25 Pin I/O Port:

- Menu selectable current output of 0-20, 2-20, or 4-20 mA
- Menu selectable voltage output of 0 to 5 V or 0 to 10 V, with offset of 0%, 5%, or 10%
- Auto-ranging from 0-50 ppb to 0-200 ppm
- 3 scalable analog inputs, 0-5 V, 160 µV resolution
- 8 logic level digital status inputs/8 open collector digital outputs

Data Logging:

8 Gb removable USB flash memory drive that stores the following:

- Internal data logger, event log, automatic/manual configuration backup, automatic/manual parameter list save
- Internal data logger can store up to 12 of 200+ available parameters
- Data logger interval from 1 second to 24 hours user selectable
- Storage capacity of ~10 years at a 1 minute interval

Measure NO₂ directly with the new Serinus 60.

Contact Ecotech for ordering and delivery details.

American Ecotech

T: (877) 247-0403

F: (401) 537-9166

info@americanecotech.com

www.americanecotech.com



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ECOTECH

Air Pollution Monitoring Systems