Professional

NO . NO_2 . NOx Monitors

Enviro
Technology Services Ltd
part of CuraTerrae

World Leading Environmental Monitoring Systems

ET specialises in real-time ambient NO_2 and NOx monitoring and offers the widest range of professional cutting-edge and “reference method” measurement technology for these crucially important urban pollutants.

Nitrogen dioxide (NO_2) irritates the airways of the lungs, increasing the symptoms of those suffering from lung diseases. Highly linked with particle concentrations in air samples from city roads, recent estimates would suggest 40,000 annual deaths in the UK are attributable to NO_2 and particulate pollution.

These pollutants are principally the products of combustion from space heating, power generation and from motor vehicle traffic. Pollutants from these sources may not only prove a problem in the immediate vicinity of these sources but can travel long distances.

Tomorrow’s technology today – “true” direct NO_2 monitoring.

In addition to our immensely popular T200 chemilluminescent NOx monitor (which measures NO and NOx and calculates NO_2), here we are showcasing some of our next-generation instruments that either use photolytic converters to calculate NO_2 more specifically or move away from chemiluminescence entirely and measure NO_2 directly, such as our T500U CAPS NO_2 analyser, the UK’s first non-chemiluminescent MCERTS approved direct NO_2 monitor.

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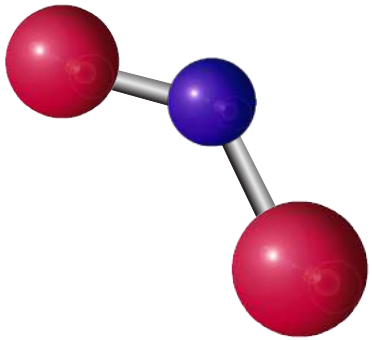
Monitors



T200 Chemiluminescence NO/NO_2/NOx Analyser

The Model T200 NO/NO_2/NOx analyser uses the proven chemiluminescence detection principle, coupled with state-of-the-art electronics to allow accurate and dependable low level measurements of NOx for use as an ambient analyser or dilution CEMS monitor.

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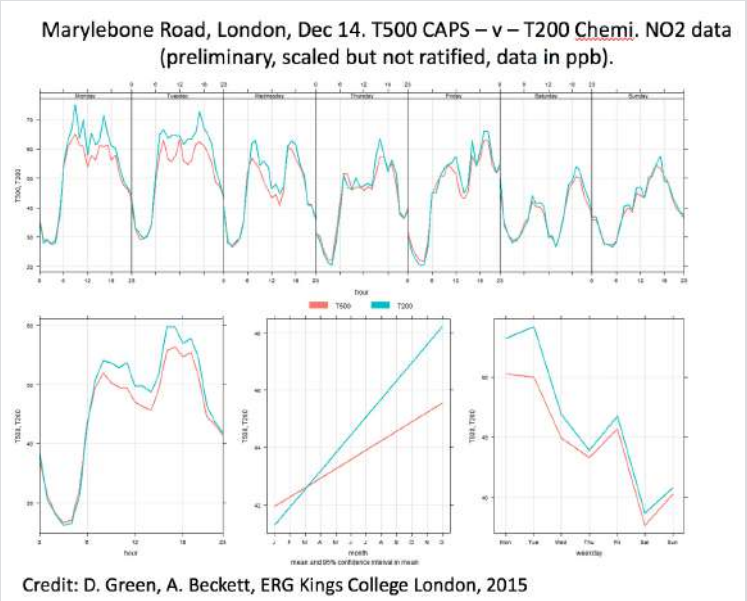
Sira MC 050068/10

T200U Ultra Sensitive Chemiluminescence NO/NO_2/NOx Analyser

The Model T200U Ultra-Sensitive NO/NO_2/NOx analyser has been developed specifically to address the challenges of low level monitoring as required, for example, in the US NCore network. It uses the proven chemiluminescence principle and is designed to allow ultra-sensitive measurements with a lower detectable limit of 50 ppt.

Several US and European studies have now demonstrated beyond doubt that chemiluminescent NOx analysers with traditional molybdenum catatalytic converters, can overestimate concentrations of NO_2 in ambient air.

The degree of overestimation can vary depending on site location and local environment. The graph opposite shows the comparison between NO_2 concentrations calculated by a traditional chemiluminescent NOx analyser (T200) and those measured directly by a T500U CAPS NO_2 analyser, both co-located at a monitoring station in central London. It is evident that NO_2 concentrations are reported as higher with the T200 instrument than by the T500U.



T200P Photolytic NO/NO_2 /NOX Analyser

The Model T200P provides measurements of NO, NOX and NO_2 using our T200 analyser combined with a patented high efficiency Blue Light Converter (BLC).

The BLC, also known as photolytic converter, provides a very specific conversion of NO_2 with conversion efficiency similar to molybdenum.*

T200UP Ultra Sensitive Chemiluminescence Analyser NO/NO_2/NOx Analyser

The Model T200UP provides Trace Level measurements of NO and NO_2 using our Model T200U NOx analyser combined with a patented photolytic converter. Even low temperature molybdenum converters transform other nitrogen-containing compounds such as HNO_3, PAN, etc. to a considerable extent.

T500U CAPS Nitrogen Dioxide Analyser

The T500U CAPS NO_2 Analyser represents the next generation of criteria pollutant monitoring technology for the direct measurement of Nitrogen Dioxide (NO_2) in air. The instrument utilizes a patented* Cavity Attenuated Phase Shift (CAPS) technique to provide an extremely sensitive, fast and accurate NO_2 measurement in a cost effective and low maintenance instrument package.

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Features and Benefits

	T200	T200U Trace Level	T200P Photolytic	T200UP Photolytic Trace Level	T500U CAPS NO_2
2 Year Warranty	✓	✓	✓	✓	✓
Full Colour Touchscreen Display	✓	✓	✓	✓	✓
Numaview Software	✓	✓	✓	✓	✓
Long-Life Sample Filter (6-12 months Life)	OPTION	OPTION	OPTION	OPTION	STANDARD
Internal Zero Span System for Automatic Calibration Checking	OPTION	OPTION	OPTION	OPTION	OPTION
Ethernet, Serial, USB and Analog Outputs	✓	✓	✓	✓	✓
Large Capacity Internal Data Storage	✓	✓	✓	✓	✓
Direct 'True' NO_2 Measurements	✗	✗	✗	✗	✓
Enhanced NO_2 Measurements	N/A	N/A	✓	✓	✓
Very Low Power Consumption < 100 Watts	✗	✗	✗	✗	✓

The Next Generation

Continuous ‘Ambient’ Gas Analysers - N Series

Meet the new N Series gas instruments from Teledyne API

The N series product line has been successfully designed to meet the expected rigorous demands of a reference method analyser with a simplified and maintenance-friendly architecture to ensure ease of use.

Intuitive operation

All N series products achieve intuitive operation and calibration through the NumaView™ Software interface which also allows access to the instrument’s large internal data storage buffer from a remote PC or tablet.

The customisable graphical user interface (GUI) gives the user fast and efficient access to instrument status whilst allowing the user to control what they see and what it brings to their attention as well as measurement data and diagnostic parameters in either numeric or graphical form.

Benefits

N series instruments are reliable and accurate, providing high data quality with low cost of ownership. This can be achieved with the complete range of Teledyne API ambient air quality monitoring instruments, which are backed by a standard 2 year warranty.

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APPROVED

Power saving

As well as improved reliability and enhanced diagnostic features, real world test results show the new N Series platform makes the same precise measurements whilst offering considerable power savings (compared to T-series instruments) thanks to an all-new DC architecture.

N500 - CAPS TRUE NO_2/NOx/NO Analyser

The **Model N500 CAPS NOX analyser** uses superior Cavity Attenuated Phase Shift (CAPS) Spectroscopy to measure True NO_2, NOX, and NO gases. The instrument combines direct NO_2 measurements with highly efficient gas phase titration (GPT) to convert and measure the NO gas component. An automatic baseline reference cycle accounts and compensates for any potential baseline drift due to varying environmental conditions

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NEW!

N200 - Chemiluminescence NO_2/NOx/NO Analyser

The **Model N200** uses the proven chemiluminescence detection principle, combined with a state-of-the-art modular architecture, and intuitive operating software to provide accurate and dependable measurements of low-level Nitric Oxide (NO), Nitrogen Dioxide (NO_2) and total Nitrogen Oxides (NOx) gases.

NO_2/NOx/NO ICAD In SITU Monitor

The **ICAD (Iterative Cavity enhanced Differential Optical Absorption Spectroscopy) NO_2 / NOx / NO** measurement system from AirYX uses direct optical absorption spectroscopy in the spectral range between approximately 430 to 465 nm. By measuring the absorption spectrum and applying the ICAD algorithm, the unique and characteristic absorption structure of NO_2 is directly identified and separated from other overlapping absorptions like water vapour (H_2O) or Glyoxal (CHOCHO)

Other products

Visit our website to download other product brochures **www.et.co.uk**

Enviro
Technology Services Ltd
part of CuraTerrae

CONTACT US

Kingfisher Business Park
London Road
Stroud
Gloucestershire
GL5 2BY

info@et.co.uk

+44 (0) 1453 733200

www.et.co.uk