

Professional

NO . NO₂ . NOx Monitors



Enviro

Technology Services Ltd

part of  CuraTerra

World Leading Environmental Monitoring Systems

ET specialises in real-time ambient NO₂ and NO_x monitoring and offers the widest range of professional cutting-edge and “reference method” measurement technology for these crucially important urban pollutants.

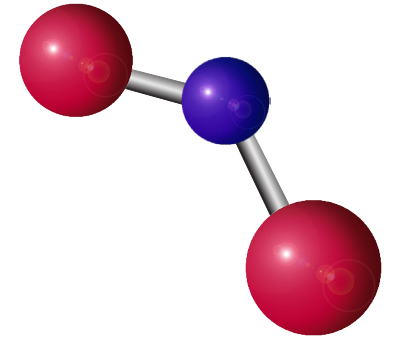
Nitrogen dioxide (NO₂) irritates the airways of the lungs, increasing the symptoms of those suffering from lung diseases. Highly linked with particle concentrations in air samples from city roads, recent estimates would suggest 40,000 annual deaths in the UK are attributable to NO₂ and particulate pollution.

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 NO₂ monitoring.

In addition to our immensely popular T200 chemiluminescent NO_x monitor (which measures NO and NO_x and calculates NO₂), here we are showcasing some of our next-generation instruments that either use photolytic converters to calculate NO₂ more specifically or move away from chemiluminescence entirely and measure NO₂ directly, such as our T500U CAPS NO₂ analyser, the UK’s first non-chemiluminescent MCERTS approved direct NO₂ monitor.

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T200 Chemiluminescence NO/NO₂/NO_x Analyser

The Model T200 NO/NO₂/NO_x analyser uses the proven chemiluminescence detection principle, coupled with state-of-the-art electronics to allow accurate and dependable low level measurements of NO_x for use as an ambient analyser or dilution CEMS monitor.



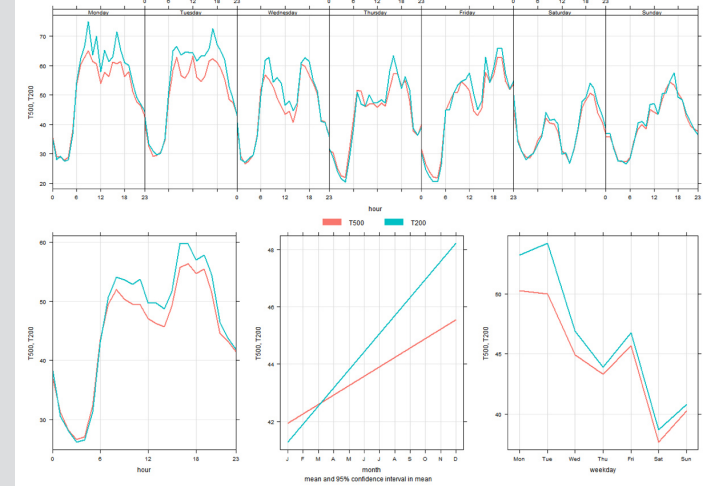
T200U Ultra Sensitive Chemiluminescence NO/NO₂/NO_x Analyser

The Model T200U Ultra-Sensitive NO/NO₂/NO_x 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 NO_x analysers with traditional molybdenum catalytic converters, can overestimate concentrations of NO₂ in ambient air.

The degree of overestimation can vary depending on site location and local environment. The graph opposite shows the comparison between NO₂ concentrations calculated by a traditional chemiluminescent NO_x analyser (T200) and those measured directly by a T500U CAPS NO₂ analyser, both co-located at a monitoring station in central London. It is evident that NO₂ concentrations are reported as higher with the T200 instrument than by the T500U.

Marylebone Road, London, Dec 14. T500 CAPS – v – T200 Chemi. NO₂ data (preliminary, scaled but not ratified, data in ppb).



Credit: D. Green, A. Beckett, ERG Kings College London, 2015



T200P Photolytic NO/NO₂ /NO_x Analyser

The Model T200P provides measurements of NO, NO_x and NO₂ 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 NO₂ with conversion efficiency similar to molybdenum.*



T200UP Ultra Sensitive Chemiluminescence Analyser NO/NO₂/NO_x Analyser

The Model T200UP provides Trace Level measurements of NO and NO₂ using our Model T200U NO_x analyser combined with a patented photolytic converter. Even low temperature molybdenum converters transform other nitrogen-containing compounds such as HNO₃, PAN, etc. to a considerable extent.



T500U CAPS Nitrogen Dioxide Analyser

The T500U CAPS NO₂ Analyser represents the next generation of criteria pollutant monitoring technology for the direct measurement of Nitrogen Dioxide (NO₂) in air. The instrument utilizes a patented* Cavity Attenuated Phase Shift (CAPS) technique to provide an extremely sensitive, fast and accurate NO₂ measurement in a cost effective and low maintenance instrument package.



Sira MC 160304/00

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.

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 NO₂/NO_x/NO Analyser

The **Model N500 CAPS NOX analyser** uses superior Cavity Attenuated Phase Shift (CAPS) Spectroscopy to measure True NO₂, NO_x, and NO gases. The instrument combines direct NO₂ 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



NEW!

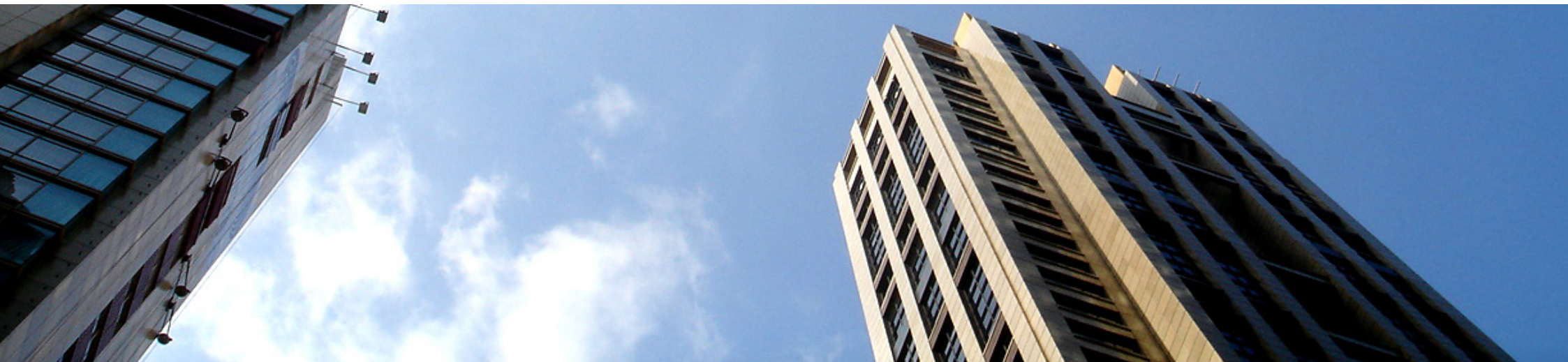
N200 - Chemiluminescence NO₂/NO_x/NO Analyser

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 (NO₂) and total Nitrogen Oxides (NO_x) gases.



NO₂/NO_x/NO ICAD In SITU Monitor

The ICAD (Iterative Cavity enhanced Differential Optical Absorption Spectroscopy) NO₂ / NO_x / 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 NO₂ is directly identified and separated from other overlapping absorptions like water vapour (H₂O) or Glyoxal (CHOCHO)



Other products



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