

Air Quality Monitoring

World-leading environmental monitoring solutions

World Leading Technology & Systems for Air Quality Monitoring.

Cura Terrae has firmly established itself as the world's leading supplier and service provider of air quality monitoring systems.

During this time, it has remained faithful to its founding principles, to offer the best monitoring technology available and to provide the highest levels of service and support.

Cura Terrae can supply anything from a single analyser right the way through to an entire, bespoke, sophisticated air quality monitoring network built around the client's exact needs.

Like a jigsaw puzzle, an air quality monitoring system is a sum of all the component pieces. As a result of 40+ years of specialised knowledge and experience, Cura Terrae can design, build, install and support any combination of monitoring technology for any type of application.

Cura Terrae have an Integrated Management system that is accredited to ISO 45001:2018 for H&S; ISO 9001:2024 for Quality and ISO 14001:2015 for Environmental Management. Quality is built in to every level of the business with customer care at its very core.

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.

Measurements

Instruments available for the measurement of:
NO, NO₂, NO_x, SO₂, CO, O₃, NH₃, H₂S.



N Series
Analyser

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.



N Series



Open-Path Monitoring

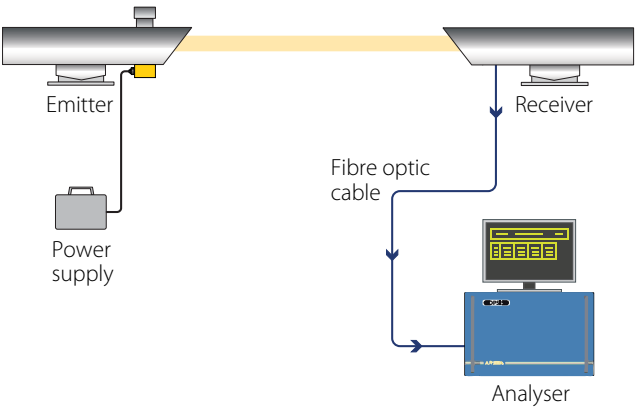
Cura Terrae specialises in open-path, air quality monitoring systems based on Differential Optical Absorption Spectroscopy (DOAS).

DOAS systems are fully automatic, extremely flexible, and due to a minimum of human intervention, cost-effective to run. Every minute, several thousand cubic metres of air interact with a beam of light between a light-source and a receiver to provide a more representative sample than can be obtained with point sampling techniques.

Cura Terrae systems are MCERTS, TÜV and US EPA approved.

Gases measured include NO, NO₂, SO₂, O₃, NH₃, Benzene, Toluene, Xylene, and many others.

One DOAS system will operate several light-paths continuously measuring multiple gases over paths of up to 1km long. Any gas specified in the system's software can be measured, providing a facility to meet specific needs in a wide variety of applications.



Greenhouse Gas Monitoring, Isotopic Gas Monitoring and more

ABB LGR analysers use Off-Axis ICOS, a 4th generation technique improving on conventional CRDS

- CO₂ / CH₄ / H₂O (up to 10Hz)
- Isotopic H₂O
- Isotopic CH₄
- Isotopic CO₂
- Isotopic N₂O
- NH₃
- HF
- HCL
- CH₄
- NO₂



Rackmount Greenhouse Gas Analyser



Isotopic N₂O Analyser



Microportable Greenhouse Gas Analyser (MGGA)

Black Carbon

Black carbon and other carbonaceous aerosols are major contributors to air pollution and climate change. We offer a range of instruments from Aerosol Magee Scientific including the AE-33 Advanced Measurement of Black Carbon.



AE-33

Particulate Monitoring

Cura Terrae supplies a wide range of MCERTS certified real-time particulate monitors for PM10 and PM2.5 as well as other size fractions including UFPs (ultra-fine particles).

Continuous Real Time Monitoring



Palas AQ Guard Smart
1000 (MCERTS)



Palas AQ Guard Smart
2000



Palas Fidas® Smart
100 Particulate Matter
Analyser



Palas Fidas® 200
Particulate Matter
Analyser

Low and High-Volume Aerosol Samplers

We offer a wide range of aerosol samplers, from single-filter portable low-volume samplers like the ARA Instruments MiniVol to single and multi-filter sequential high and low-volume samplers from Digitel.



Digitel DHA-80 High
Volume Aerosol Sampler



Digitel DPA-14 DL Aerosol
Sampler



ARA Instruments MiniVol
LFR Portable Particulate Air
Sampler

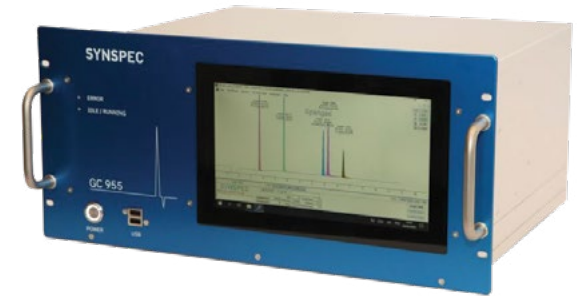


Digitel Compact Low
Volume Sampler (LVS)
DPA-14 Baby

VOC & Hydrocarbon Monitoring

GC955 POPC / VOC / BTX Analysers

Measures ozone precursors in ambient air. Two separate sample and column systems are used to measure C2-C5 and C6-C10 fractions. Methane and non-methane compounds are measured separately without relying on the efficiency of a catalytic converter.



GC955-601 Series Benzene / BTEX Analyser

Housings and Enclosures

Cura Terrae can supply everything from small roadside enclosures, through to large walk-in cabins and trailers and even entire air quality networks.

Cura Terrae has experience in the design and manufacture of:

- Roadside AQM Systems
- Permanent and portable 'walk-in' AQM systems
- Vehicle and trailer based AQM systems and mobile laboratories.
- Cura Terrae specialises in 'bespoke' designs and special purpose systems i.e. Emergency response.



Static Enclosure



Static Enclosure



Small Roadside Enclosure

Software

Continuous air quality monitoring equipment can generate huge quantities of data.

Cura Terrae offers a range of software to help turn collected data into meaningful information that clients can use for many different requirements including:

- Regulatory reporting
- Data analysis
- Public information and websites
- Dispersion modelling
- Air quality forecasting
- Taking advantage of internet distribution and “cloud” storage, users can access and work with their air quality data anywhere in the world and at any time using common internet browsers.



Envista ARM (Air Resources Manager)

Calibration Systems

Many Cura Terrae gas analysers can be specified with on-board internal calibration systems. In addition, Cura Terrae supplies a range of station and portable calibrators for QA/QC checking.



Portable T750 Dilution Calibrator

T700 Dynamic Dilution Calibrator

Teledyne API Portable High Performance Zero Air System (Model 751H)

Teledyne API Zero Air System (Model T701)

bettair® Static Node - Real Time Pollution Mapping

We are proud to be the UK distributor for the bettair® Node
- Indicative Air Quality Monitor



The bettair® Node offers unparalleled precision in air quality monitoring, capable of detecting up to 12 key air quality indicators, ambient noise levels, and a variety of environmental parameters. Its robust design ensures accurate data collection even in the harshest environments, with IP65 dust-tight and water-resistant construction.

Key Features

No Calibration Required

Eliminating the need for on-site calibration, the bettair® Node ensures consistent accuracy with zero additional costs for up to 24 months.

Custom Visualisation Tools

Tailor your data presentation with advanced visualisation options, including heatmaps for each pollutant.

Cloud-Based Data & Reporting

Seamlessly access real-time data and automatic report generation from anywhere via the cloud platform.

Advanced Post-Processing

Proprietary algorithms enhance sensor performance, providing measurements with over 90% correlation, equivalent to traditional monitoring stations at a fraction of the cost.

The Node

- Compact, durable, and energy-efficient, featuring customised low-power electronics.
- Low-power wireless network access ensures efficient data transmission and integration with smart city infrastructures.
- MCERTS certification for PM10 and PM2.5 monitoring, reinforcing its reliability and accuracy.

- Simple sensor cartridge replacement system.
- Class 2 noise monitor included as standard, upgradable to Class 1 equivalent.

Measurements

- Air Quality Indicators: Choose from - NO₂, NO, SO₂, CO, H₂S, CO₂, O₃, NH₃, VOC, CH₄
- Environmental Parameters- Included as standard: Temperature, Relative Humidity, Ambient Noise, Atmospheric Pressure
- Particulates: PM1, PM2.5, PM10
- Operating Conditions: Temperature: -10 to 40°C with full accuracy, Humidity: Up to 95% non-condensing

Typical Applications

- Central and local governments
- Environmental planning
- Urban planning
- Smart and connected cities
- Healthcare
- Automotive
- Industrial emissions
- Schools, colleges, and Universities
- Waste
- Warehousing and Distribution Centres
- Shopping centres and drive-throughs



Testimonials

"Having a friendly, local engineer is an advantage, also we think your move towards an electric fleet is a great asset."

Christina Saich,
Canterbury City Council

"I am really happy with the service Cura Terrae provide, the response time is brilliant, and the advice given is always professional and apt."

Dr Jolanta Obszynska,
Leicester City Council



Service and Support

Service and maintenance are a major part of our business and central to our philosophy, to provide the highest quality service and customer support in our industry.

Our analysers and systems are very well designed and exceptionally reliable. For many AQM and CEMS applications, the analysers are in continuous operation, 24 hours a day, 7 days a week, 365 days per year.

To provide the best service in our industry we have:

- The UK's largest team of service engineers
- Regional service bases throughout the UK and Ireland

In addition, all our service engineers are factory trained to support the equipment we sell, and we also operate a very highly regarded Technical Support Engineer telephone helpdesk.





For more information
visit cura-terrae.com/air



View our group services



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