



# 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, NO<sub>2</sub>, NO<sub>x</sub>, SO<sub>2</sub>, CO, O<sub>3</sub>, NH<sub>3</sub>, H<sub>2</sub>S.



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

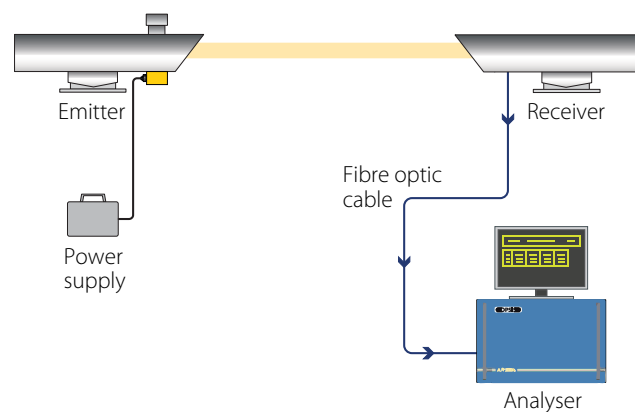
Cura Terrae specialises in open-path, air quality monitoring systems based on Differential Optical Absorption Spectroscopy (DOAS).

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, NO<sub>2</sub>, SO<sub>2</sub>, O<sub>3</sub>, NH<sub>3</sub>, 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 based on conventional CRDS.

- CO<sub>2</sub> / CH<sub>4</sub> / H<sub>2</sub>O (up to 10Hz)
- Isotopic H<sub>2</sub>O
- Isotopic CH<sub>4</sub>
- Isotopic CO<sub>2</sub>
- N<sub>2</sub>O / CO
- Isotopic N<sub>2</sub>O
- NH<sub>3</sub>
- HF
- HCL
- CH<sub>4</sub>
- NO<sub>2</sub>



Rackmount Greenhouse Gas Analyser



Isotopic N<sub>2</sub>O Analyser



Microportable Greenhouse Gas Analyser (MGGA)

# Mercury Monitoring

## Continuous Ultra - Trace Mercury Analyser

Continuous, simple, and unattended operation providing precision analysis of total gaseous mercury in ambient air with an update rate as low as 2.5 minutes and a detection limit of <0.1 ng/m<sup>3</sup> (12 parts per quadrillion by volume).

The 2537x is easy to setup, use, and maintain and has long been known for its stable performance in rugged conditions.



2537x analyser



# Particulate Monitoring

Cura Terrae supplies a wide range of particulate monitors and samplers for PM<sub>1-0</sub>, PM<sub>2-5</sub>, PM<sub>10</sub> and TSP.

## Continuous Real Time Monitoring



BAM 1020 Continuous  
Beta-attenuation  
Particulate Monitor



ES-405  
Particulate  
Profiler



ES-642  
Particulate  
Monitor



532 Handheld  
Particle  
Monitor



EDM 280  
Environmental Dust  
Monitor

# Meteorological, Weather and Aerosols

Atmospheric and meteorological conditions play a major part in the formation and dispersion of air pollution. Cura Terrae provides a range of meteorological sensors for stand-alone use or integration into air quality monitoring systems.



All-in-One (AIO)  
Weather Sensor  
WS/WD/Temp/  
RH/BP



Precipitation  
Gauge



Ultrasonic  
WS/WD



Mini MPL

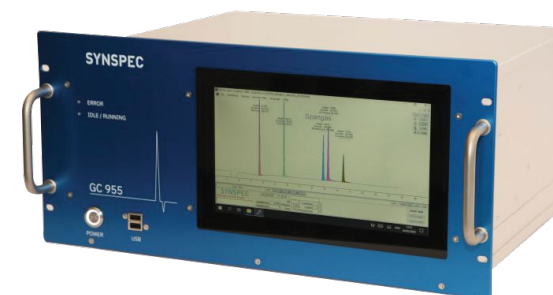


Wideband  
Integrated  
Bioaerosol Sensor  
(WIBS-5)

# VOC / HC 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.



Vehicle Based Mobile Laboratory



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

# Data Logging and Comms

Cura Terrae supplies a wide range of data loggers and communications technology to enable fast, secure, reliable, and efficient data collection and transfer.

- Fully expandable data loggers
- Web loggers
- GSM, GPRS, 4G / mobile internet
- Mobile Wi-Fi & webcams

# 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 - NO<sub>2</sub>, NO, SO<sub>2</sub>, CO, H<sub>2</sub>S, CO<sub>2</sub>, O<sub>3</sub>, NH<sub>3</sub>, VOC
- 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 services bases throughout the UK
- Service bases in Ireland and the Middle East

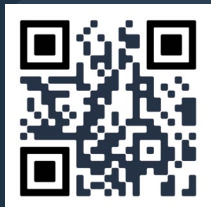
In addition, all our service engineers are factory trained to support the equipment we sell, and we also operate a very highly regarded Technical Support Engineer telephone helpdesk.







For more information  
visit [cura-terrae.com/air](https://cura-terrae.com/air)



View our group services



## Land & Nature

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/ CEMS

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## Management & Compliance

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