



ecotech

environmental monitoring solutions

AMBIENT AIR

Monitoring systems

NO_2

NO

TRS

H_2S

O_3

PM_{10}

CO

CO_2

SO_2

VOC

$\text{PM}_{2.5}$

NH_3

BTX

TSP

VISIBILITY

Leading the world in ambient air monitoring

Ecotech has over 35 years of experience in providing environmental monitoring products, systems and services to customers around the world.

Why choose Ecotech?

Ecotech's expertise in the supply of air monitoring systems and networks is due to a variety of reasons:

- Ecotech has held NATA/ISO/IEC 17025 laboratory accreditation for the operation of ambient air monitoring systems for more than 14 years.
- We operate the largest network of monitoring systems in the southern hemisphere consisting of over 300 sites. This experience has enabled us to develop innovative solutions to meet the varied challenges of air monitoring.
- Constantly demonstrating that we have the experience and resources needed to ensure that projects are completed successfully, we have supplied systems to many major industrial companies and environmental protection agencies around the world.
- With more than 1500 systems for monitoring of ambient air installed in over 50 countries and on every continent our systems are designed to perform regardless of the environment.
- Most of the instrumentation and software used in our system has been developed and is manufactured by Ecotech. It is designed to work together seamlessly.
- Your satisfaction is guaranteed as each system is designed, manufactured, calibrated and tested by our own team of specialised engineers and technicians.
- Once your system has been installed, an Ecotech engineer or highly trained distributor will carry out the final on-site commissioning, ensure that the system is fully calibrated and see to it that all components are working correctly. In short, your monitoring system will be fully operational.
- We offer comprehensive ambient air monitoring system training. Every course is designed to provide system users with the appropriate level of knowledge in areas including the operation, troubleshooting and basic maintenance of the system.
- We can provide comprehensive system operation and data management contracts. Maintenance can be performed by our customers, distributors or our own maintenance teams. Ecotech's Environmental Reporting Services department, consisting of more than 10 specialist data analysts, can provide data collection, analysis, validation and reporting services to customers around the world.



System components which work together



Ambient air analysers

The Ecotech Serinus brand of analysers are used for the monitoring of O₃, CO, CO₂, NO_x, NH₃, SO₂, TRS, and TS in ambient air.

The Serinus analysers have been designed using the experience and knowledge gained from operating large air quality monitoring networks. The result is precise instruments which integrate seamlessly.

Benefits

Our analysers offer:

- Guaranteed performance with a two year warranty.
- International approvals - EN and U.S. EPA approved.
- Comprehensive data logging and remote monitoring of over 200 operational parameters.
- Versatile interfacing through RS232, USB, Bluetooth, analogue and optional TCP/IP.
- Easier setup through an intuitive menu system with "Quick Menu", advanced GUI and a new larger keypad with tactile keys.
- Instant display of operational status using illuminated traffic lights on the front panel.
- Enhanced operator safety through the use of 12VDC internal voltages.
- Reduced cost of spare parts, accessories and consumable items through extensive use of standard components across the Serinus range.
- Improved rack slide design makes accessing internal components and servicing the analyser easy.
- Reduced AQM system power usage due to the Serinus analysers' low power demand and ability to operate over a wide temperature range.

Particulate monitors

Our experience integrating a wide range of particulate monitors ensures you receive a solution that works. Our preferred solution is the Ecotech Spirant BAM offering a high level of performance and international approvals for PM₁₀ and PM_{2.5} monitoring

Meteorological sensors

Meteorological sensors used in our systems are sourced from the world's leading manufacturers. We choose the highest quality sensors to ensure trouble free operation.

Automatic calibration system

Our air monitoring systems incorporate a state-of-the-art dilution gas calibrator, traceable calibration gases and a high performance zero air generator to calibrate all of the analysers in the system. Our calibration system is fully automatic and can be remotely configured.

Enclosures

A variety of air-conditioned shelters are available for the system, including mobile vans, caravans and relocatable shelters. If required the system can be installed in a customer provided shelter.

Our most popular shelter is our relocatable shelter which is designed to be permanently sited but may also be easily transported from one site to another on the back of a suitable truck or permanently mounted on a truck for mobile air monitoring studies.

Data acquisition systems

Our Windows 7 based WinAQMS data acquisition system is specifically designed for unattended use in ambient air and meteorological monitoring systems. It digitally collects and stores data from sensors and analysers, while providing superb remote control functionality.

Our experience makes the difference

Airodis data evaluation & reporting software

Airodis is an environmental data management software package that automates the process of retrieving data from multiple air monitoring systems, allowing you to validate data and generate a wide range of reports. It allows you to easily manage your valuable data and maximise your productivity while ensuring accuracy and traceability.

Service contracts

Our customers can choose to operate their own monitoring systems or take advantage of Ecotech's service contract. Our contracts are fully customisable and can include; maintenance, calibration and data reporting services. In many cases our customers rely on us to provide a complete package of services which then allows us to provide NATA endorsed data reports. (Refer to our Environmental Reporting Services brochure or contact us for more information).

MEASUREMENT PARAMETERS

The Ambient Air Monitoring System is capable of measuring almost any gas present in the atmosphere, as well as a wide range of meteorological parameters.

COMPOUND	RANGE	ACCURACY	TECHNIQUE EMPLOYED
Oxides of Nitrogen	0-20 ppm	0.5 ppb	Chemiluminescence
Sulphur Dioxide	0-20 ppm	0.3 ppb	Fluorescence
Ozone	0-20 ppm	0.5 ppb	UV photometrics
Carbon Monoxide	0-200 ppm	50 ppb	NDIR gas filter wheel correlation
Carbon Dioxide	0-3000 ppm	50 ppb	NDIR gas filter correlation
Benzene, Toluene, Xylene	0-5 ppm	0.5 ppb	Gas chromatography
Non Methane Hydrocarbons	0-1000 ppm	0.01 ppb	Flame ionisation detection
Methane	0-1000 ppm	0.01 ppb	Flame ionisation detection
Particulates (PM ₁₀ , TSP, PM _{2.5})	0-5 g/m ³	0.1 ug/m ³	High Volume Gravimetric Sampling Beta Attenuation Mass Monitoring
Local Visual Distance	0-50 km	± 10 %	Integrating nephelometry
Wind Speed	0-70 ms ⁻¹	0.22 ms ⁻¹	Propeller or sonic anemometer
Ambient Temperature	-50 to 100 °C	± 0.10 °C	Solid state thermistor
Relative Humidity	0-100 %	± 2 %	Thin film capacitor
Barometric Pressure	800-1200 mb	± 1.3 mb	Solid state transducer
Precipitation	N/A	0.1 mm	Tipping bucket rain gauge

Ecotech Pty Ltd
T (Australia) 1300 364 946
T (International) +61 3 9730 7800
E info@ecotech.com
www.ecotech.com

Our offices:
 Melbourne | Sydney | Brisbane | Perth |
 Karratha | Port Hedland

For your local certified distributor visit:
www.ecotech.com/distributors

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