

High Specification CEMs

The Series 4 is a range of high precision gas analysers for emissions monitoring.

Featuring a simple intuitive user interface along with built in diagnostics and fully configurable alarms, they are ideal as stand alone analysers or as modular building blocks for system integration.

Features include:

- Up to 5 simultaneous gas measurements in one 19" x 3U case
- Large touch screen user interface
- SD card slot for onboard logging and analyser software upgrades
- Full remote analyser control over Ethernet
- User configurable ranges
- Readings accessible over the internet
- Increased measurement accuracy

Representing the latest in analyser technology, the Series 4 are compact analysers with a common set of features which give a high level of user compatibility across the range.

Portable FID



Model 3010

The Model 3010 and 3030PM portable hydrocarbon analysers are ideally suited to measuring stack or other hot exhaust gases.

Benefits include:

- MCERTS
- Heated
- Integral clean air
- Rugged
- Easy to use

Both analysers are supplied with 5m heated line and 1 litre fuel and calibration gas cylinders. Other lengths of heated line are available on request.

The 3010 is a low cost analyser with carbon scrubber and manual ignition suitable for measuring concentrations of 0-10ppm up to 0-10% methane equivalent.

The 3030PM is a more sophisticated analyser with catalytic air purifier suitable for measuring down to 0-4ppm. It is also microprocessor controlled with automatic ignition and calibration features.

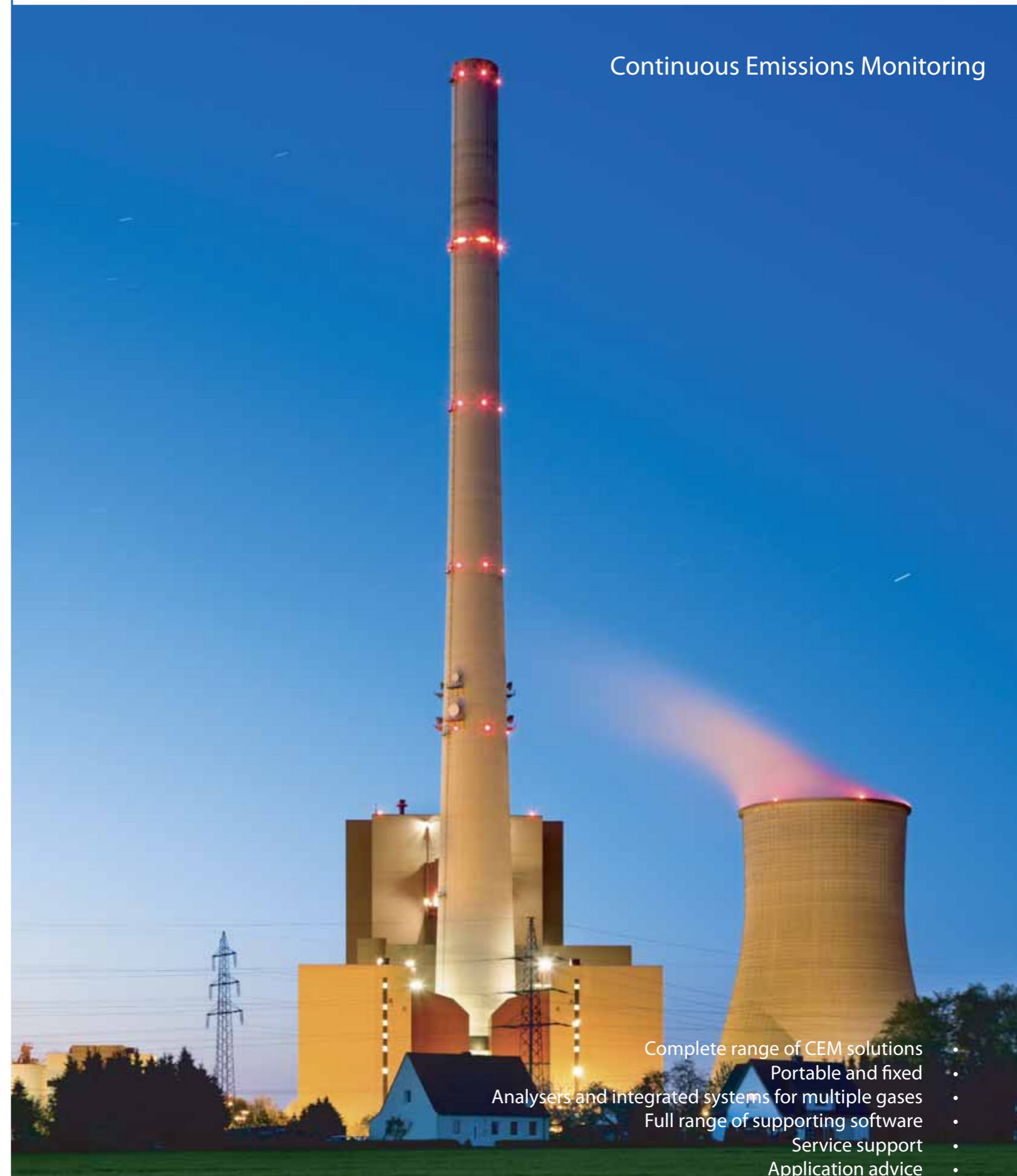


Model 3030PM



Represented by:

Continuous Emissions Monitoring



- Complete range of CEM solutions
- Portable and fixed
- Analysers and integrated systems for multiple gases
- Full range of supporting software
- Service support
- Application advice

Continuous emissions monitoring analysers and systems for Large Combustion Plants and other IPPC applications

Signal Continuous Emissions Monitoring

Continuous Emissions Monitoring requirements are becoming increasingly onerous around the world with many plants in the UK now operating under IPPC license. Signal supply a whole range of approved analyser systems for this compliance monitoring of emissions.

At Signal, we have considerable knowledge of a range of industrial applications together with many years of experience with the practical application of the technology, together with the formal equipment approval provided by MCERTS. Our analysers utilise reference method techniques and are therefore also suitable for US EPA applications.



QAL 2 - Plant Validation

One of the fundamental changes brought about by EN14181 is the long established principle of calibrating instruments against certified calibration gases has been replaced by that of calibration against a Standard Reference Method (SRM). Signal CEM systems utilise the same technologies found in SRMs and our engineers have taken part in many assessment exercises so you can be confident in successful completion of the QAL2 phase.

QAL 3 - Ongoing Quality Assurance

QAL 3 requires that the owner implements a quality assurance program to ensure the continuing accuracy and reliability of data. Signal offer a range of service and maintenance plans to assist in this process. Emission software is able to log essential parameters for calibration and diagnostics to help in the preparation of QAL3 reports suitable for inclusion in regularly submissions.

Annual Surveillance Test

Part of EN14181 requires operators to verify that emissions monitoring equipment is functioning correctly and audit performance specifications such as linearity. Signal have designed a dilution system specifically for this purpose, allowing 11 points to be generated from your existing span and zero calibration gases.

Accurate to 0.2% of point, this system allows linearity to be determined to a much higher accuracy and at significantly lower cost than using 11 cylinders of different concentration gas. The Model 821S Gas Divider is UKAS calibrated and available for purchase or weekly rental.

Complies with the following standards:

• ISO7935	Determination of SO ₂ - Automated method
• ISO10849	Performance characteristics of automated NO _x measuring systems
• ISO12039	CO, CO ₂ and O ₂ automated methods
• EN12619	Determination of TOC at low concs FID method
• EN13526	Determination of TOC at high concs FID method
• EN14181	Quality Assurance of Automated Measuring Systems
• EN14789	Standard Reference Method for O ₂
• EN14790	Standard Reference Method for H ₂ O
• EN14791	Standard Reference Method for SO ₂
• EN14792	Standard Reference Method for NO _x
• prEN15058	Reference Method for CO

Emirak

The most advanced, integrated Automated Measuring System (AMS) for measuring NO_x, CO, CO₂, SO₂, O₂ and water vapour.



The Emirak family of products is a modular, cost effective, extractive analyser system solution for continuous emissions monitoring. With MCERTS certification, it is suitable for use on applications covered by either the large combustion plant or waste incineration directives.

Emirak features and benefits include:

- Integral datalogger capable of storing a year of data
- Ethernet network link for data extraction to separate reporting computer
- Data analysis and reporting software for compliance reporting
- Higher accuracy and sensitivity - Extractive methods match technique to gas to optimise accuracy, sensitivity and to minimise interference
- Ease of calibration and maintenance
- Easy interfacing with remote data and control systems
- Ease of configuration and operation with on-line help screens
- Full system and analyser diagnostics with clear text messages
- Alarm and exceedences calculated on line
- Integral logger and report generator

Each system is configured to your order using our standard analysers and sample handling modules. This bespoke service allows us to offer cost effective solutions to any application.

With features such as fine bore tubing to ensure fast speed of response and ultra-low concentration capability, the Emirak is designed for both reliability and speed.

Emirak applications include:

- Gas Turbine Power Stations
- Incinerators
- CHP Plants

For further information and configurations please see Emirak Datasheet.



Various enclosures are available including vehicles, cabinets and houses.

Emisoft

The Signal Emisoft software is a complete package which can provide a flexible range of control and data logging functions when used with compatible Signal analysers and systems. Emisoft software is suitable for a wide range of emissions analysis applications.

- Instrument style graphical displays
- Real time display of instrument readings
- Alarm interlock and annunciation
- Text alarm messages for clarity
- Full remote analyser control
- Diagnostic data logs
- SHEWHART and CUSUM capability



The system logs analyser and diagnostic readings to hard disk as a series of 1 minute average. In addition, system configuration is stored in a linked file, so that post processing of data may take place. Logging always takes priority over other requests for printing or data transfer.

