

### Why Choose Gasmet

Gasmet is the number one FTIR analyzer and system manufacturer. We have delivered over 4000 FTIR analyzers worldwide, and have the highest installed base for on-site and industrial applications.

#### **Front Seat**

We are at the forefront of development. We have 30 years of FTIR experience and we have introduced several breakthrough innovations, such as launching the world's first in-situ FTIR gas analyzer and the world's first portable ambient FTIR analyzer. Our teams of experts provide continuous improvements of our products, ensuring that your FTIR analyzer investment is continually future-proofed.

#### Future First

The future belongs to everyone and we think that everyone has the right to clean air. Therefore, we are persistent to develop our future-proof solutions and support global actions in mitigating climate change. Our vision is to live on a green planet with less emissions.

#### **Global Presence**

We know the importance of local support, globally. With our service and support network covering more than 70 countries, we ensure local, high quality technical support for our customers and secure continuous availability of spare parts to our systems during their entire lifetime.



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> Know what's in the air.



# CEMS II e

### Continuous Emissions Monitoring System CEMS II e

Emissions monitoring of tomorrow is about declining emission limits, continuous monitoring of multiple gases and ability to measure new pollutants.



#### What is CEMS II e?

Gasmet manufactures and offers a complete solution for continuous emission monitoring. The Continuous Emission Monitoring System, the CEMS II e, is a fully automatic system based on FTIR (Fourier Transform Infrared) spectroscopy with TÜV and MCERTS certifications (QAL1).

Gasmet CEMS II e consists of the following modules:

- Industrial computer
- Sampling system
- Oxygen analyzer (Optional)
- FTIR Analyzer
- Flame Ionization Detector, GFID (Optional)

The CEMS II e has a flexible design with variety of integration options. Both measuring and alarm information can be transferred to automation and reporting systems. The system is also equipped with automatic quality assurance features to assure seamless operation.

The system utilizes FTIR spectroscopy, which is a powerful technology for simultaneous measurement of multiple gases and the industry standard in many emissions monitoring applications.

Specially designed to increase flexibility with 19'' modules - taking care through the lifetime of the system: operation, maintenance and service.

#### What is it used for?

The CEMS II e is used in a wide range of industrial processes requiring continuous emission monitoring. The system is designed for continuous measurements of pollutants from hot, wet and corrosive gas streams. The system is used in:

- > Waste Incinerations
- > Power Plants
- > Cement Plants
- > Raw Gas Measurements
- > Compliance Measurements
- > Aluminum production
- > Fertilizer & Nitric Acid Production

# Why choose the Gasmet CEMS II e?

- > EN 15267-3 certified with OAL1
- > 6-month maintenance interval for all certified compounds
- > Excellent annual availability of 98,4%
- > Flexible solution
- > Gasmet's own design and manufacture with 30 years of experience
- > Local, trusted and trained, service and support

Any questions? Ask more from our CEMS experts: contact@gasmet.fi

# Which gases can be measured?

The CEMS II e can simultaneously measure the following certified ranges:

Component	Certification range (min/max)	Unit
Water, H <sub>2</sub> O	0 - 30 / 40	Vol%
Carbon Dioxide, CO <sub>2</sub>	0 – 25	Vol%
Carbon Monoxide, CO	0 - 75 / 1500	mg/m <sup>3</sup>
Nitrous Oxide, N <sub>2</sub> O	0 - 100 / 500	mg/m <sup>3</sup>
Nitric Oxide, NO	0 - 150 / 2000	mg/m <sup>3</sup>
Nitrogen Dioxide, NO <sub>2</sub>	0 - 200 / 500	mg/m <sup>3</sup>
Sulfur Dioxide, SO <sub>2</sub>	0 - 75 / 1500	mg/m <sup>3</sup>
Hydrogen Chloride, HCl	0 - 15 / 90	mg/m <sup>3</sup>
Hydrogen Fluoride, HF	0 - 3 / 10	mg/m <sup>3</sup>
Ammonia, NH <sub>3</sub>	0 - 15 / 50	mg/m <sup>3</sup>
Methane, CH <sub>4</sub>	0 - 15 / 150	mg/m <sup>3</sup>
Formaldehyde, CH <sub>2</sub> O	0 - 20 / 90	mg/m <sup>3</sup>
Oxygen, O <sub>2</sub>	0 – 25	Vol%

Certified ranges only. Please contact your local Gasmet representative for more available compounds, ranges and more information.

#### CEMS II ef

CEMS II *ef* is available for certified TOC measurement with GFID. The certified measuring ranges are from 0-15 to 0-500 mg/m<sup>3</sup>.

Gasmet CEMS II e meets the future requirements by providing reliable operation with 6-month maintenance interval and excellent annual availability of 98,4%.