# 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 futureproofed.

#### **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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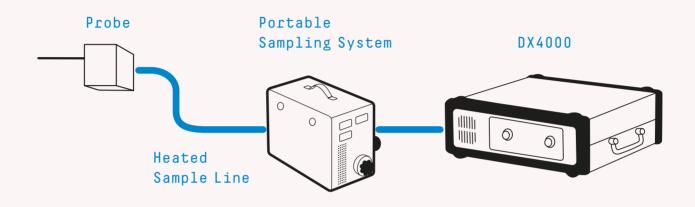
> Know what's in the air.



## **DX4000**

### Gasmet Portable FTIR Gas Analyzer DX4000

The Gasmet DX4000 FTIR Gas Analyzer is the most powerful tool available for emissions monitoring, process gas analysis and compliance testing.



#### What is the DX4000?

The Gasmet DX4000 is a portable multicomponent FTIR analyzer that is designed for monitoring gas concentrations in hot, wet and corrosive gas streams. Together with the Gasmet Portable Sampling System (PSS) it forms a complete portable FTIR emissions monitoring system offering the same top of the class performance as Gasmet's fixed systems in an easily transportable package. The Gasmet DX4000 has received the MCERTS 15267-3 certification for stack emissions monitoring.

The entire sampling train of the DX4000 and PSS is heated to 180 °C and allows direct sampling of hot and wet sample gas without need for preconditioning of the sample. This allows for easy operation of the system and accurate results, as no analyte (sample) gases will be lost in conditioning of the sample. The compact and modular design of the system allows the analyzer to be easily transported and quickly assembled, allowing for fast mobilisation and less wasted time waiting to conduct the analysis.

The system is operated by the powerful yet easy to use Calcmet<sup>™</sup> software on a PC computer. The Calcmet software offers all the tools needed for challenging measurement campaigns.

The Gasmet DX4000 utilizes **Fourier Transform Infrared (FTIR)** spectroscopy, which is a powerful gas measurement technology. FTIR spectroscopy works by scanning and analyzing the entire infrared spectrum in order to measure all the infrared absorbing gases in the sample simultaneously. Most molecules have a characteristic absorption spectrum that can be used to identify gases and accurately measure their concentration.

#### DX4000 is the world's smallest FTIR emissions monitoring system.

#### What is it used for?

Due to the flexibility of FTIR technology the DX4000 can be used in a wide variety of applications, ranging from research applications to process measurements and emissions monitoring. Typical uses include:

- Stack testing: QAL2 tests for HCl, NH<sub>3</sub>, SO<sub>2</sub>, NOx and other gases
- > Scrubber and catalyst efficiency tests
- > Combustion and engine R&D
- PFC emissions at Aluminum and Semiconductor plants
- > Carbon capture and sequestration
- > Formaldehyde emissions from biogas



#### Why buy the Gasmet DX4000?

- > Portable
- > Easy assembly on-site
- Addition of new gases & ranges without hardware changes
- > No sample pre-conditioning
- > Online results
- > MCERTS certified
- > Simultaneous measurement of all gases

#### Which gases can be measured?

The DX4000 can be used to measure up to 50 different gases. In combustion processes the DX4000 is typically used to simultaneously measure:

Typically measured gases	
Water, H <sub>2</sub> O	Hydrogen Fluoride, HF
Carbon Dioxide, CO <sub>2</sub>	Ammonia, NH <sub>3</sub>
Carbon Monoxide, CO	Methane, CH <sub>4</sub>
Nitrous Oxide, N <sub>2</sub> O	Ethane, C <sub>2</sub> H <sub>6</sub>
Nitric Oxide, NO	Propane, C <sub>3</sub> H <sub>8</sub>
Nitrogen Dioxide, NO <sub>2</sub>	Ethylene, C <sub>2</sub> H <sub>4</sub>
Sulfur Dioxide, SO <sub>2</sub>	Formaldehyde, CH <sub>2</sub> O
Hydrogen Chloride, HCl	Oxygen, O <sub>2</sub>

The DX4000 is one of the most powerful tools available for challenging gas measurements. The amount of measurable gases is unparalleled and the system is easily configurable to measure new compounds without need for hardware changes.

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

