

Portable FTIR Gas Analyzer

Gasmet™ DX4040 FTIR Gas Analyzer

The advanced, easy-to-use Gasmet DX4040 FTIR Gas Analyzer is designed for on-site measurements of both organic and inorganic compounds at low concentrations in ambient air.

The Gasmet DX4040 combines Fourier Transform Infrared Spectroscopy (FTIR) analysis technology, a rhodium-gold coated sample cell, a built-in sample gas pump and signal processing electronics in a compact unit which provides reliable measurements with low detection limits and true multi-compound analysis capability.

FEATURES

- Simultaneously measures up to 25 gas compounds with basic Calcmet software, up to 50 gas compounds with optional Calcmet Pro software
- Provides validated results in 25 seconds
- No sample preparation needed
- No consumable parts that require regular replacement
- No span calibration required, simply zero-calibrate to fresh air or nitrogen
- Built in GPS and digital camera allow user to link measurements to location and photographs of emission site
- Capable of sub-ppm detection limits without requiring sample pre-concentration preparation
- Catalog of over 300 compounds allows user to select and change analysis capability through a user-friendly interface
- Optional Calcmet Pro software provides access to more than 5000 chemical compounds for identification of unknowns
- Cross-interferences automatically compensated for in the analysis
- Portable, battery-operated design
- Lightweight and can be used with or without the durable field backpack
- Bluetooth connectivity
- AC power cable included



APPLICATIONS

- Industrial Hygiene
- Greenhouse Gases from Soil
- Greenhouse Gases from Ruminants
- Soil Gas Measurement
- Carbon Capture
- First Responders and Hazmat
- Stack Emissions
- Leak Detection
- Fumigants
- Hospitals

CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.

2650 East 40th Avenue • Denver, Colorado 80205

(303) 320-4764 • **(800) 833-7958** • FAX (303) 322-7242

email: sales@geotechenv.com website: www.geotechenv.com

Portable FTIR Gas Analyzer

Gasmet™ DX4040 FTIR Gas Analyzer

SPECIFICATIONS

General Parameters

Measuring Principle:	Fourier transform infrared (FTIR)
Performance:	Simultaneous analysis of up to 25 gas compounds (PDA), 50 gas compounds with optional Calcmeter software.
Response Time, T₉₀:	Typically <120s, depending on the gas flow and measurement time
Operating Temperature:	Ambient temperature Short term 0 - 40°C Long term 5 - 30°C Non-condensing
Storage Temperature:	10 – 35°C, non-condensing
Shipping Temperature:	-20 – 45°C during 12 hours, non condensing
Power Supply:	115/230 VAC
Battery Functioning Time:	Approximately 2.5 hour operation time with Bluetooth ON (depending of ambient temperature).

Spectrometer

Resolution:	8 cm ⁻¹
Scan Frequency:	10 scans/s
Detector:	Peltier cooled MCT
Source:	SiC, 1550 K
Beamsplitter:	ZnSe
Window Material:	ZnSe
Wave Number Range:	900-4 200 cm ⁻¹

Sample Cell

Structure:	Multi-pass, fixed path length 9.8 m
Material:	100% rhodium coated aluminum
Mirrors:	Fixed, protected gold coating
Volume:	0.4 liters
Temperature:	Ambient

Measuring Parameters

Zero Point Calibration:	24 hours
Zero Point Drift:	<2% of measuring range per zero point calibration interval
Sensitivity Drift:	None
Linearity Deviation:	<2% of measuring range
Temperature Drifts:	<2% of measuring range per 10 K temperature change
Pressure Influence:	1% change of measuring value for 1% sample pressure change. Ambient pressure changes measured and compensated.

Electrical Connectors

Digital Interface:	Bluetooth protocol & RS-232 The analyzer is connected to a PDA with Bluetooth connection (RS-232 optional). The PDA provides the analysis results. Option: sample spectra transfer to laptop (PC) for additional analytical capabilities
---------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Gas Inlet & Outlet Conditions

Gas Temperature:	Ambient temperature (0 – 50°C), non-condensing
Gas Filtration:	Filtration of particulates included in the sample probe
Sample Gas Pressure:	Ambient
Sample Pump:	Flow ~1.5 l/min, for ambient air only

Electronics

A/D Converter:	Dynamic range 95dB
Signal Processor:	32-bit floating point DSP

Analysis Software (PDA)

Operating System:	Windows Mobile 6.1 Professional
Analysis Software:	Calcmeter Lite

Options

Software:	Calcmeter software with DX40XX Pro key. Laptop PC + Windows 7 (32-bit) required. For more information read Calcmeter Technical data.
------------------	--------------------------------------------------------------------------------------------------------------------------------------------

Additional Information

Enclosure:	161 x 390 x 406 mm (H x W x D), polyurethane
Weight:	13.8 kg (30.4 lbs.) with battery 12.4 kg (27.6 lbs.) without battery
CE Label:	According to EMI guideline 89/336/EC

CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.

2650 East 40th Avenue • Denver, Colorado 80205
(303) 320-4764 • **(800) 833-7958** • FAX (303) 322-7242
email: sales@geotechenv.com website: www.geotechenv.com