Gasmet™ DX-4000

Multicomponent FTIR Gas Analyzer

GASMET ON-SITE SERIES includes portable multicomponent gas analyzers for demanding applications. The GASMET Dx-4000 incorporates a Fourier Transform Infrared, FTIR spectrometer, a temperature controlled sample cell, and signal processing electronics. The analyzer offers versatility and high performance for all users.

The GASMET Dx-4000 is designed for on site measurements at low concentrations. It is an ideal tool to measure trace concentrations of pollutants in wet, corrosive gas streams. The sample cell can be heated up to 180 °C. Sample cell absorption path length is selected according to the application.

The GASMET Dx-4000 allows simple calibration using only single component calibration gases. The user can easily configure the analyzer for a new set of compounds.

General parameters	
Measuring principle:	Fourier Transform Infrared, FTIR
Performance:	Simultaneous analysis of up to 50 gas compounds
Response time, T_{90}:	Typically < 90 s,
Operating temperature:	Short term 20 ± 20°C long term 15 - 25°C non condensing
Storage temperature:	-20 - 60°C, non condensing
Power supply:	100-115 or 230 V / 50 -60 Hz
Power consumption:	300 W

Spectrometer	
Resolution:	8 cm^{-1} or 4 cm^{-1}
Scan frequency:	10 scans / s
Detector:	Peltier cooled MCT
Source:	SiC, 1550 K
Beamsplitter:	ZnSe
Window material:	ZnSe
Wavenumber range:	900 - 4 200 cm^{-1}

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Sample Cell

Structure:	Multi-pass, fixed path length 5.0 m
Material:	100 % Rhodium coated aluminium
Mirrors:	Fixed, protected gold coating
Volume:	0.4 l
Connectors:	Inlet Swagelok 6 mm Outlet Swagelok 8 mm
Gaskets:	Viton® O-rings
Temperature:	180 °C, maximum
Window material:	BaF_2

Measuring parameters

Zero point calibration:	24 hours, calibration with nitrogen (4.0 or higher N_2 recommended)
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:	9-pole D-Connector for RS-232 Analyzer is connected to an external computer via RS-232C cable. The external computer controls the GASMET. Remote control connection for Portable sampling unit
Power connection:	Standard plug CEE-22

Gas Inlet and Outlet Conditions

Gas temperature:	Non-condensing, the sample gas temperature should be the same as the sample cell temperature
Flow rate:	120 - 600 l per hour
Gas filtration:	Filtration of particulates (2µ) required
Sample gas pressure:	Ambient
Sample pump:	External, not included

Electronics

A/D Converter:	Dynamic range 95 dB
Signal Processor:	32-bit floating point DSP 120 MFLOPS speed
Computer:	External, not included

Analysis Software (for external PC)

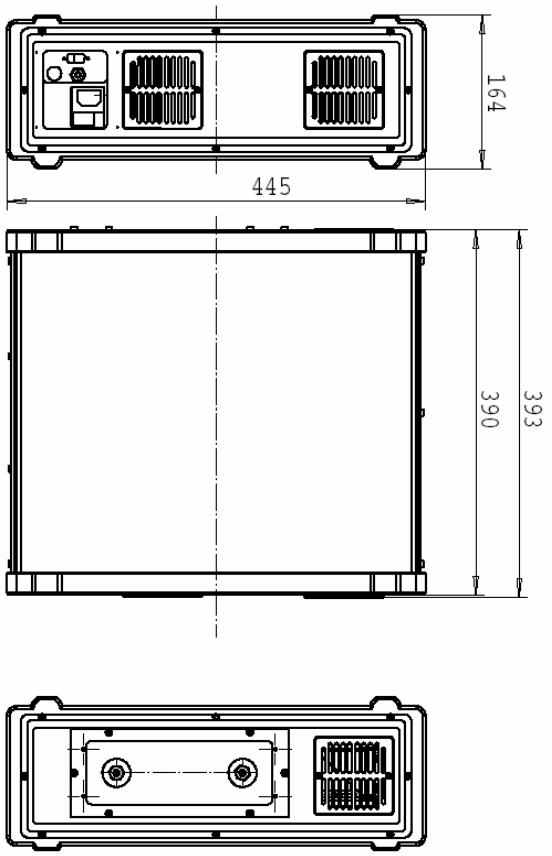
Operating system:	Windows XP
Analysis software:	CALCMET for Windows

Options

Sample Cell:	Multi-pass, fixed path length 2.5 m or 9.8 m
Analog Signals (ext PC):	PCMCIA card for 8 analog inputs
Sample cell gaskets:	Teflon® coated Viton® **or** Kalrez®
Power supply:	12 VDC (Replace remote control for portable Sampling Unit, only for 50 °C models)
Power supply cables:	12V cables with battery clips or cigarette lighter connector
Trolley:	Wheeled cart for the analyzer and laptop computer

Enclosure

Material:	Aluminium
Dimensions (mm):	390 * 445 * 164
Weight:	13.9 kg
CE - Label:	According to EMI guideline 89/336/EC



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