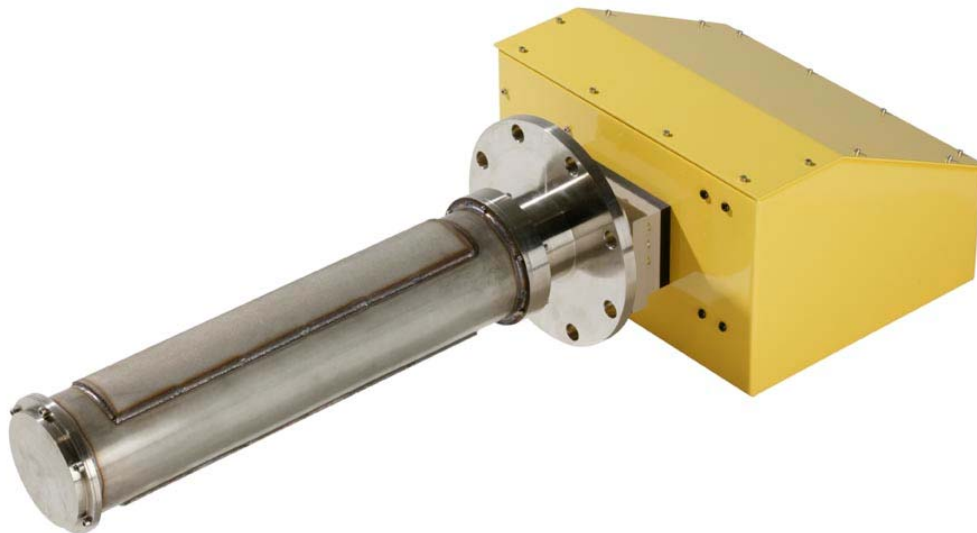


Gasmet™ In-Situ 5.0



In-Situ Multicomponent FTIR Gas Analyser

GASMET FTIR In-Situ SERIES includes industrial multicomponent gas analysers for continuous monitoring applications. The GASMET In-Situ 5.0 incorporates a Fourier Transform Infrared spectrometer, a sample cell which is directly inserted into the sample gas flow, and signal processing electronics. The analyser is fully equipped for fixed installations and it offers versatility and high performance for a wide range of applications.

Standard In-Situ 5.0 analyzer includes analog outputs 4-20 mA for measuring data and relay contacts for alarms. As an option the In-Situ analyser can be equipped with an external computer unit. In this case the In-Situ employs the same Calcmeter user interface as an extractive GASMET CEMS.

The sample must be non-condensing and the upper limit for sample temperature is 250 °C. Sample cell absorption path length is 5.0 meters. Insertion depth of the sample probe is 590 mm and the flange diameter is 240 mm.

General parameters

Measuring principle:	Fourier Transform Infrared, FTIR
Performance:	simultaneous analysis of up to 50 gas compounds
Response time, T₉₀:	typically < 120 s, depending on the gas flow and measurement time
Operating temperature:	-30 – 40 °C non condensing
Storage temperature:	-30 – 60 °C, non condensing
Power supply:	100-115 or 230 V / 50 -60 Hz
Power consumption:	500 W max.
Instrument air:	Dew point -20 °C, oil free
Max. air consumption:	120 l/min for vortex cooling (cont.) 100 l/min for zero calibration/purge (15 minutes at 24 hour intervals)

Spectrometer

Resolution:	8 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

Sample Cell

Structure:	Multi-pass, fixed path length 5.0 m
Probe body material:	AISI 316 steel
Mirror material:	Rhodium coated aluminium
Mirror coating:	Reflective gold coating
Gaskets:	Viton® O-rings
Window material:	BaF ₂
Insertion depth	589 mm
Mounting flange	240 mm diameter

Measuring parameters

Zero point calibration:	24 hours, calibration with instrument air
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. Sample pressure changes are measured and compensated

Sample Gas Conditions

Gas temperature:	Up to 250 °C, non condensing
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Electrical Connectors

A/D Converter:	Dynamic range 95 dB
Signal Processor:	2 32-bit floating point DSP's 120 MFLOPS
Digital Interface:	Bayonet locking 10-pole circular connector (MIL-C-5015) for serial and relay output.
Measuring data:	4-20 mA, max 8-channel
Alarm Relays:	Function, alarm, service relays
Power connection:	Terminal connectors for L + N + PE wires

Optional Computer Unit

Analyzer is connected to an external computer via serial cable. The external computer controls the GASMET In-Situ analyzer

Minimum Configuration:	512 MB Memory, > 40 GB hard disk, > 2.4 GHz Intel Pentium IV Processor, Modem, Network card
Operating system:	Windows Xp operating system
Software included:	Calmet for Windows
Watchdog support:	Included
Relay contacts (status):	Function Fault Service required Sampling Alarm
Relay contacts (valves):	Sample gas Zero gas Span gas 1
Mouse:	Included
Keyboard:	Not Included

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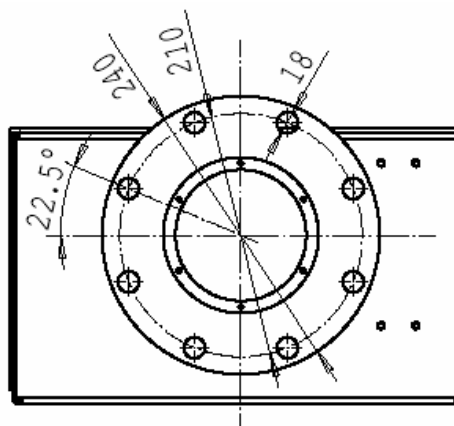
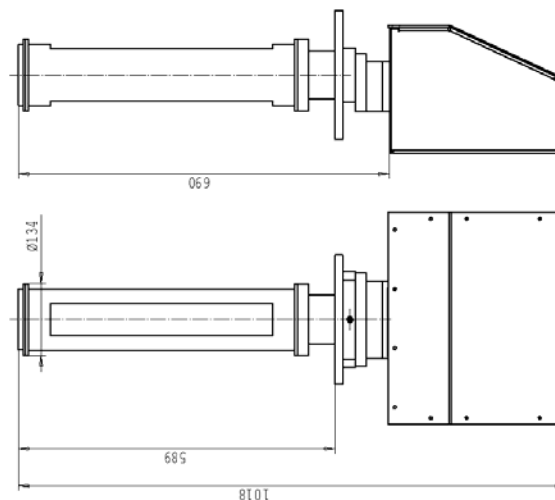
Display:	TFT display
Digital Interface	RS-232 cable to analyzer, max 10m
Remote control:	Built-in modem/network card and PC Anywhere support

Options

Adapters for flanges larger than 240 mm
RS-422/485 interface instead of RS-232 for longer distance, max 1 km.

Enclosure

Material:	Aluminium / Steel / Polyethylene/terketone (PEEK)
Dimensions (mm):	1018 x 390 x 250
Weight:	30 kg
CE - Label:	According to EMI guideline 89/336/EC



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