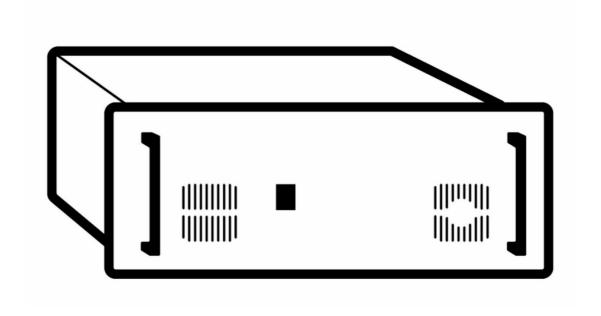


# CX4015 FTIR Gas Analyzer



## **Multicomponent FTIR Gas Analyzer**

Gasmet On-line Series includes multicomponent gas analyzers for continuous monitoring applications. The Gasmet CX4015 incorporates a Fourier transform infrared spectrometer, a temperature-controlled sample cell, and signal processing electronics. The analyzer is fully equipped for fixed installations and it offers versatility and high performance for all industrial users.

The Gasmet CX4015 is designed for workplace air monitoring, and quality control applications. It is an ideal tool to measure components of interest in ambient conditions. The sample cell can be heated up to 50 °C. Sample cell absorption path length is selected according to the application.

The Gasmet CX4015 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: <u>F</u>ourier <u>t</u>ransform <u>i</u>nfra<u>r</u>ed, FTIR

**Performance:** Simultaneous analysis of up to 50

gas compounds

Response time, T<sub>90</sub>: Typically < 120 s, depending on

the gas flow and measurement

time

**Operating temperature:** 5 - 30 °C, non-condensing

air conditioning recommended

**Storage temperature:** -20 - 60 °C, non-condensing **Power supply:** 100-115 or 230 V / 50 -60 Hz **Power consumption:** 300 W max, continuous 150 W

#### **Spectrometer**

**Resolution:** Recommended 8 cm<sup>-1</sup> or 4 cm<sup>-1</sup>

Scan frequency: 10 scans / s

Detector: Peltier cooled MCT

Source: SiC, 1550 K
Beamsplitter: ZnSe

Wave number range: 900 - 4 200 cm<sup>-1</sup>

## Sample cell

Structure: Multi-pass, fixed path length 9.8 m
Standard material: 100 % rhodium coated aluminum
Mirrors: Fixed, protected gold coating

Volume: 0.4 l

Connectors: Inlet Swagelok 6 mm

Outlet Swagelok 8 mm

Gaskets: Viton® O-rings
Temperature: 50 °C, maximum

Window material: AR coated ZnSe



#### Measuring parameters

**Zero-point calibration:** 24 hours, calibration with nitrogen

(5.0 or higher N<sub>2</sub> 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 Gasmet.

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 liters per hour

**Gas filtration:** Filtration of particulates (2 μm)

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

Computer: External, not included

## Analysis software (for external PC)

Operating system: Windows 7 or Windows 10

Analysis software: Calcmet for Windows

#### **Options**

Sample cell: Multi-pass, fixed path length

 $2.5\ m$  or  $5.0\ m$ 

Pressure measurement: Inside sample cell

External PC: Gasmet PC for control and

analysis with optional alarm relay boards and analog inputs or

outputs

Sample cell gaskets: Kalrez®

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#### **Enclosure**

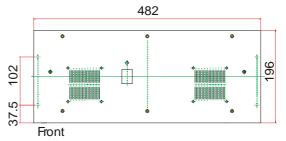
Material: Aluminum

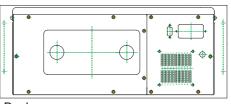
Dimensions (mm): 482 \* 196 \* 450

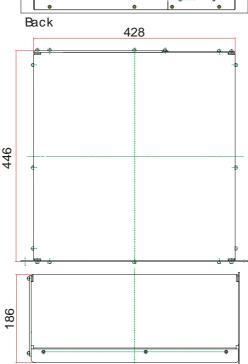
Weight: 17 kg

CE label: According to EMI guideline

89/336/EC







Sde