

## Gasmeter™ Portable Sampling Unit



### **GASMET Portable Sampling Unit**

The Gasmeter Portable Sampling Unit has been designed for portable emission monitoring measurements.

The Gasmeter Portable Sampling Unit is used for on-site measurements. It can be used for measuring trace concentrations of pollutants in wet, corrosive gas streams. The sample gas can be measured undiluted and without drying since the sample pump, heated filter and valve are located in a module that is heated to 180 °C. From the Sampling Unit the gases can be directed into Gasmeter FTIR gas analyzer.

The Gasmeter Portable Sampling Unit includes power connections and temperature controllers for heated lines and heated module. The Gasmeter Portable Sampling Unit is connected to an external PC through Gasmeter FTIR Gas Analyzer and can be controlled by Calcmeter software.

The function of the Portable Sampling Unit is automatic, but sample pump and valve can be controlled also manually.

In the case of a power failure or if the temperature (pump, lines, sample cell) is below setting, the automatic 3-way valve switches sample gas to zero gas to prevent condensation. Sample pump can not be switched on before all temperatures have reached the setting. In addition, the zero calibration of the Gasmeter FTIR gas analyser can be done automatically with the Portable Sampling System.

As an option, the sampling unit can be equipped with a sample probe and / or heated lines. The maximum length for the heated line is 19m + 1m with 230 VAC and 9m + 1m with 115 VAC power supply. There is also an optional integrated O<sub>2</sub> – sensor that supplements the capabilities of the Gasmeter FTIR gas analyzers.

### General parameters

<b>Operating temperature:</b>	20 ± 20°C, non condensing
<b>Storage temperature:</b>	-20 - 60°C, non condensing
<b>Power supply:</b>	Separate models for 100-115 and 230 V / 50 -60 Hz
<b>Power consumption:</b>	400 - 3600 W, depending of the sample lines (without sample probe)

### Heated Sample Pump

<b>Material:</b>	316 SS
<b>Diaphragms:</b>	Teflon
<b>Maximum flow:</b>	~4 l/min, constant
<b>Temperature:</b>	180 °C, max.

### Heated Filter

<b>Material:</b>	Bonded Microfibre or Sintered ss-316
<b>Gas filtration:</b>	filtration of particulates 2µm
<b>Temperature:</b>	180 °C

### Temperature Controllers

<b>Material: Temperature range:</b>	0 – 180 °C
<b>Display:</b>	digital, 4 digits

### Valves

<b>Pressure:</b>	0-2 bar
<b>Temperature:</b>	60 °C max.
<b>Valves:</b>	Sample gas / zero gas

### Gas Connectors

<b>Sample Gas inlet:</b>	1 pcs, 6 mm Swagelok
<b>Sample Gas outlet:</b>	1 pcs, 6 mm Swagelok
<b>Zero Gas inlet:</b>	1 pcs, 6 mm Swagelok

### Electrical Connectors

<b>Power connection:</b>	CEE7 standard European Schuko plug or fixed cable
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### Enclosure

<b>Material:</b>	SS 316
<b>Dimensions (mm):</b>	400 × 300 × 210 mm
<b>Weight:</b>	12.3 kg
<b>CE - Label:</b>	EMI guideline 89/336/EC

### Optional Oxygen Sensor

The O<sub>2</sub> – reading can be displayed on the Calcmet – software

<b>Principle:</b>	ZrO <sub>2</sub> Cell
<b>Measuring range:</b>	0.1 – 25 %
<b>Accuracy:</b>	<2% from FS
<b>Calibration:</b>	Single point calibration with air

### Optional Heated line

<b>Tube size:</b>	4 mm, inner diameter
<b>Core material:</b>	Teflon core
<b>Operating pressure:</b>	max. 400 kPa
<b>Temperature:</b>	max. 200 °C
<b>Fittings:</b>	6 mm Swagelok
<b>Power supply:</b>	230 VAC or 115 VAC
<b>Power density:</b>	120 Watts /meter

The maximum length of the heated line is 19m + 1m (230 VAC) and 9m + 1m (115 VAC).

### Optional Sample probe

<b>Sample Probe:</b>	PSP4000H
<ul style="list-style-type: none"><li><b>Power density:</b></li></ul>	320 Watts
<ul style="list-style-type: none"><li><b>Operating temperature:</b></li></ul>	0 – 180 °C
<ul style="list-style-type: none"><li><b>Filter element:</b></li></ul>	ceramic 2µm
<ul style="list-style-type: none"><li><b>Dust loadings:</b></li></ul>	< 2 g/m <sup>3</sup>
<b>Probe Tube Material:</b>	SS 316 Viton
<ul style="list-style-type: none"><li><b>Probe length:</b></li></ul>	1 m
<ul style="list-style-type: none"><li><b>Sample temperature:</b></li></ul>	600 °C max.
<ul style="list-style-type: none"><li><b>Sample pressure:</b></li></ul>	1 bar max.

Other probes for high temperatures and for high dust loadings