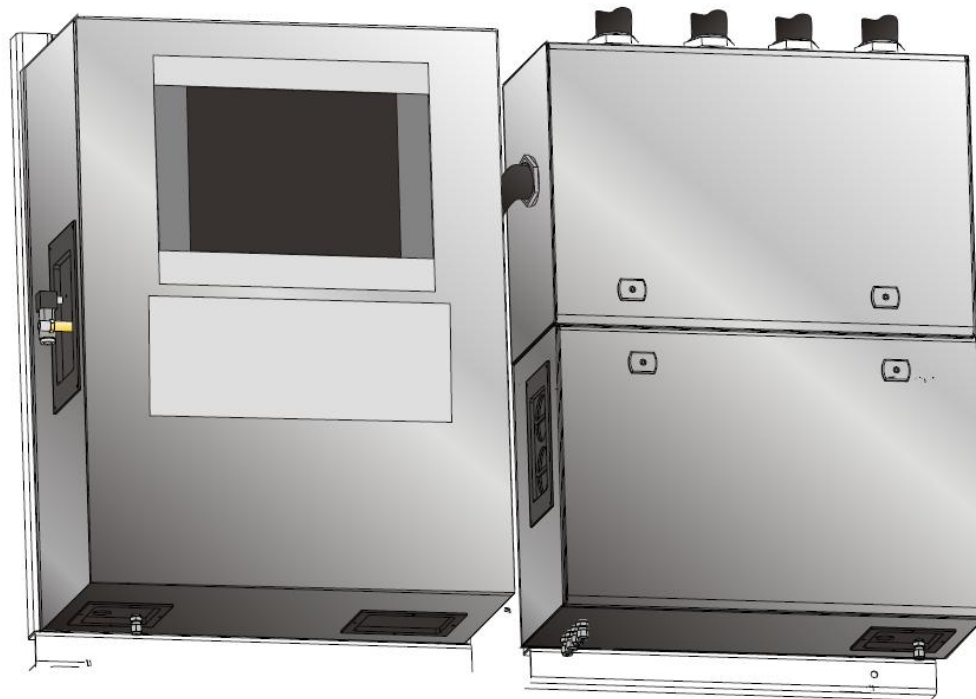


Gasetm™ MSSH Multipoint Sampling System



Gasetm Multipoint Sampling System – Heated (MSSH)

The Gasetm MSSH is designed for continuous monitoring of multiple measuring points. It is designed to work as an integral part of the Gasetm CEMS or FCX measuring systems. MSSH unit can be used as sampling system with pump for FCX system or as sample point switching box without pump with CEMS.

The Gasetm MSSH is used for on-line measurements. It is an ideal tool to use for measuring trace concentrations of pollutants in wet, corrosive gas streams. The sample pump, heated filter and valves can be heated up to 180 °C. MSSH can be used for undiluted gases and the sample gases do not need drying beforehand. The Gasetm MSSH consists of two units; a heated module and a control module. Both modules are wall mounted stainless steel units.

The standard setup includes valves for controlling two (2) sample gas inputs.

Additional features of the MSSH include sample gas pump and sample gas input lines up to 8 pcs. Pump model includes also filter element, flow switch and zero gas (N₂), two (2) span gas and instrument air inputs with flow meters.

The control module includes all power connections and temperature controllers for heated lines and heated module. The function of the MSSH is fully automatic and controlled by the CALCMET software.

The Gasetm MSSH is connected to the Gasetm Industrial Computer or FCX analyzer. The sampling unit provides alarm functions such as temperature alarms (sample probe, heated lines and heated module) and flow alarm. If any of the critical alarms is activated, instrument air starts to flow automatically into the sample cell to prevent condensation.

As an option, the sampling unit can be equipped with a sample probes and / or heated lines.

General parameters

There is no need to dry or dilute the sample gas before GASMET MSSH. All parts of the sampling unit are heated up to 180 °C to avoid condensation

Operating temperature:	20 ± 20 °C, non condensing
Sample gas temperature:	180 °C
Sample gas pressure:	ambient
Cooling:	Fan circulation
Power supply:	100-240 VAC / 50 - 60 Hz , Power consumption calculated according to length of the heated input lines

Electrical connectors

Main supply:	3 x L+N+PE Size of the fuses depends on the lengths of the heated lines
Control:	From computer via ethernet cable. Control logic included into sampling system.

Gas connections

All gas connections are Swagelok connectors for 6mm PTFE or ss-316 tubes.

Gas inputs:	Sample gas 1 Sample gas 2 Span gas 1 (option) Span gas 2 (option) Zero gas (option) Instrument air (option)
Gas outputs:	Sample out 1 (to FTIR) Interferometer purge air (option)

Sample gas input connectors on the top, Calibration / test gas inputs on the bottom and output connectors on the left side of the enclosure

Valves

The GASMET MSSH includes automatic solenoid 3-way valves for gas inlets:

Heated valves:	
Pressure:	2 bar (max.)
Temperature:	180 °C max.
Valves:	Sample gas 1-8 Sample gas / Calibration
Non heated valves (option):	
Pressure:	4 bar (max.)
Valves:	Calibration / Safety valve Span 1 valve Span 2 valve

Temperature Controllers

The Control module includes temperature controllers for heated module and for three heated lines.

Temperature range:	0 – 180 °C
Display:	digital, 4 digits

Alarms

Alarms provided if all options selected.

Alarm outputs:	Probe temperature (combined) Heated module Line temperature Flow alarm
Control inputs:	Pump Zero Gas Calibration / Safety valve Span 1 valve Span 2 valve

Flow meters (Option)

Adjustable flow meters for unheated gases.

4 l/min:	Safety air Zero gas Span 1 and 2 gas
0.5 l/min:	Interferometer purge

Flow switch (Option)

Flow switch for sample gas flow.

Flow switch:	CTE-LPH-125
Alarm limit:	Sample gas flow < 0.7 l/min

Sample Pump (Option)

Material:	ss-316, Teflon diaphragms
Flow:	4.0 l/min
Pressure:	Input pressure 1.5 bar (Max)
Temperature:	180 °C

Heated filter (Option)

Material:	Bonded microfibre
Gas filtration:	filtration of particulates 0,01- 2 µm
Temperature:	180 °C

Options

Sample gas inputs:	input lines up to 8 lines
Vortex cooling:	Cooling capacity 270 W (air 7 bar, 21 °C, dewpoint –40 °C) Air consumption 425 NI/min, max Air pressure 7-10 bar temperature + 43 °C, max. dewpoint –40 °C

Enclosure

Material:	Stainless steel
Dimensions (mm):	700 * 1000 * 250 (W*H*D)
Weight:	60 kg
Protection:	IP 54
CE - Label:	according to EMI guideline 89/336/EC