

Micro-Gass™ Gas Analysis Sampling System

Eliminate Condensation Problems When Analyzing With Electro-Chemical Sensors

- 20-80% RH sample outlet
- Built-in sample pump
- 0.1 µ particulate filter
- NEMA 4X housing
- Low maintenance
- Corrosion resistant
- Nafion® drying technology
- Samples up to 1.2 lpm

Perma Pure Micro-GASS™ sample conditioning systems prepare gas samples for use with electrochemical sensors (ECS). In moisture-saturated samples, sensor life is greatly reduced due to condensation within the cell and subsequent leakage of electrolyte. Micro-GASS systems eliminate this problem by removing excess water.

Principle of Operation

Micro-GASS units offer full corrosion resistance and very high selectivity, so complex samples can be processed without loss of analyte gases. Nafion® dryer technology is the driving force behind this system. Operating as a self-contained unit, the Micro-

GASS incorporates a built-in pump to draw the sample gas through a temperature- controlled filter and MD-Series™ Nafion dryer. Dried sample then flows to the sensor where the measurement is made.

After exhausting from the ECS, the gas passes through a needle valve and expands, causing a reduction in vapor pressure. It then re-enters the dryer to be used as a purge gas. Because the purge gas is generated from the exhaust stream of the sensor, the

Micro-GASS is a self-regenerating and transportable conditioning system, relying only on a power source.



Model Number	UG-1212-F1
Enclosure	12" w x 12"h x 7"d NEMA 4X with clear cover
Sample Flow Rate	0.5 to 1.2 lpm
Max. Inlet Water Content	55°C dew point; 15% by volume
Gas Inlet/Outlet Fittings	1/4" tube compression



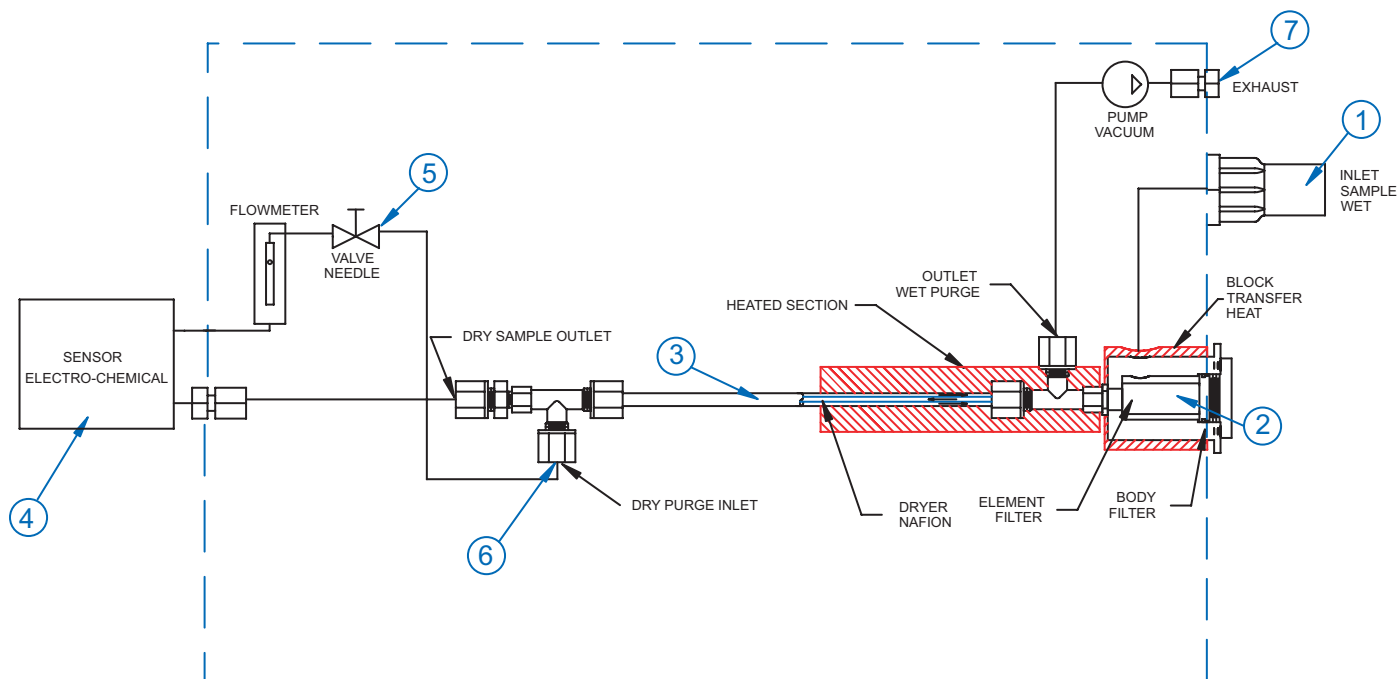


Figure #	Description
1	Sample inlet - A built-in pump draws the sample into the enclosure
2	Particulate filter - A heated filter removes 95% of 0.1 μ particles
3	Nafion membrane dryer - A heated dryer removes moisture
4	Sensor - Dried sample flows into the analyzer
5	Needle valve - Analyzer exhaust goes through a needle valve, lowering the vapor pressure
6	Purge - The gas then re-enters the dryer as the purge gas
7	Exhaust - The purge gas exhaust vents to a safe environment

System Specifications	
Temperature	65°C (150°F) max.
Pressure	-5 inches of Hg min. 30 psig max.
Electrical Requirement	110 VAC, 0.6 amps, 60 watts 220 VAC, 0.3 amps, 60 watts
Operating Environment	10°C to 40°C ambient; 0-95 %RH

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