SALAERA

Mini-GASS™ Sample Conditioning System

Featuring Nafion™ Membrane Drying Technology.
No Condensation. No Acid Formation. Better Analyte Integrity.



Sector: **ENVIRONMENTAL**

Sector: **INDUSTRIAL**

Perma Pure is now part of Salaera

OVERVIEW

Perma Pure's Mini-GASS™ Sample Conditioning System is designed for biogas and other high-moisture gas streams, delivering a clean, analyzer-ready sample by removing water vapor, acid mists, and particulates without compromising key analytes.

Unlike traditional sample gas coolers that rely on condensation, often leading to acid formation and loss of water-soluble gases, the Mini-GASS removes moisture directly in the vapor phase using Nafion™ dryer technology. This helps protect analyzers, reduce maintenance, and maintain accurate measurement of critical components such as NO_x, SO_2, CH_4, H_2S, O_2, and CO_2.

The result is a dry, stable, representative sample. Ideal for biogas, CEMS, process monitoring, environmental monitoring, and stack testing.



SALAERA SYSTEMS: A SUPERIOR OPTION

High Performance Sample Conditioning

- Removes water vapor, acid mists, and particulates
- Achieves dew points lower than 0°C even with gas streams with high moisture content
- Preserves analytes, including water-soluble gases
- Improves analyzer uptime and measurement accuracy

Integrated Nafion™ Drying Technology

- Passive membrane drying (no condensation step required)
- Driven by the partial pressure difference of water vapor
- Maintains sample integrity vs. traditional cooling methods

Complete System Design

- Heated enclosure prevents condensation
- Coalescing filter removes aerosols and acid mists
- Nafion™ gas dryer for deep moisture removal
- Temperature controller with alarm protection
- Purge flow control for optimized drying

Learn more about our Mini-GASS™ Sample Conditioning System

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MINI-GASS™ SAMPLE CONDITIONING SYSTEM

Specifications

Utility Requirements

Power	115V , 50/60 Hz
Air Supply	60–100 psig (2scfm)
Drain Requirement	.25 scfm (7slpm)

Sample Gas Limits

Max Inlet Temp	135°C (275°F)
Pressure	Min: 5″ HG vacuum Max: 20 psig
Max Humidity	40% by volume
Max Flow Rate	10 LPM

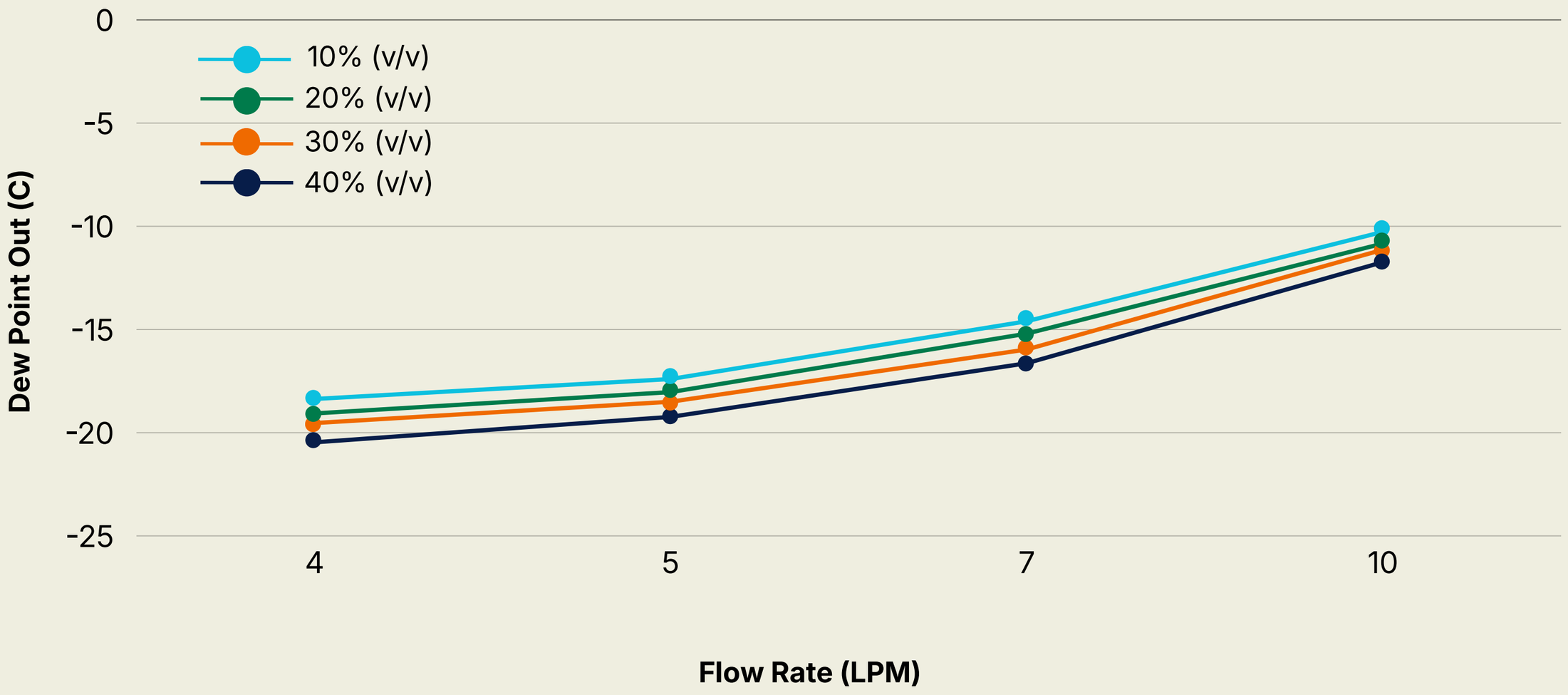
Environmental Requirements

Operating Temp	-20°C to 40°C
Humidity	0–95% RH

Materials

Enclosure	NEMA 4X / UL 508A Fiberglass reinforced polyester
Wetted Materials	PVDF/FEP or 316SS
Filter Housing	PVDF/Glass Shell or 316SS/Glass Shell
Sample Gas Filter	Glass Fiber, .01 micron, 95% efficiency, Coalescing
Flexible Configurations	• Optional ammonia scrubber • Optional Z-purge for hazardous areas

Mini-GASS™ Performance Chart



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