SALAERA

Hybrid Sample Gas Cooler

Combine the superior performance of Nafion™ tubing technology with the functionality of a traditional thermoelectric cooler.



Sector: **ENVIRONMENTAL**

Sector: **INDUSTRIAL**

Perma Pure is now part of Salaera

OVERVIEW

Perma Pure's Hybrid Sample Gas Cooler combines the superior performance of Nafion™ polymer drying technology with the functionality of a traditional thermoelectric cooler. Powered by compressed air, this non-electric cooler achieves dew points lower than 0°C helping to prevent problems associated with condensation.

The patented mechanical design is ideal for locations with limited or no access to power and is suitable for use in C1D2 hazardous area locations.*

SALAERA SYSTEMS: A SUPERIOR OPTION

Superior Efficiency

- Operates with greater efficiency than comparable non-electric coolers**

Non-Electric Mechanical Design

- Reduces the costs associated with electrical installation and permits***
- Simplifies maintenance
- Increases reliability resulting in decreased downtime

Achieves Dew Points Lower Than 0°C

- Reduces the risk of damage to the analyzer
- Helps increase analytical accuracy



Patent #: US 11,067,483

* Complies with ISO 80079-36 Group II, Zone T3/T4 for use in C1D2 hazardous locations
** Compared to a vortex cooler removing 40% water by volume at sample flow rate between 3 and 4 LPM
*** Grounding Lug is necessary for installation

Learn more about our Hybrid Sample Gas Cooler

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SALAERA

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HYBRID SAMPLE GAS COOLER

Specifications

Utility Requirements	
Instrument Air	3.5 SCFM (100 SLPM) @ 4 Bar (60 PSIG)
Drain/Exhaust Requirement	.25SCFM/7SLPM air with entrained sample condensate
Environmental Requirements	
Operating Temp	4°C to 55°C
Sample Gas Limits	
Max Pressure	2 Bar (30PSI)
Max Humidity	75°C Dew Point
Maximum Inlet Water Concentration	40% v/v
Max Flow Rate	3.5 LPM @ 50°C | 5 LPM @ 20°C
Maximum Inlet Temperature	138°C (280°F)

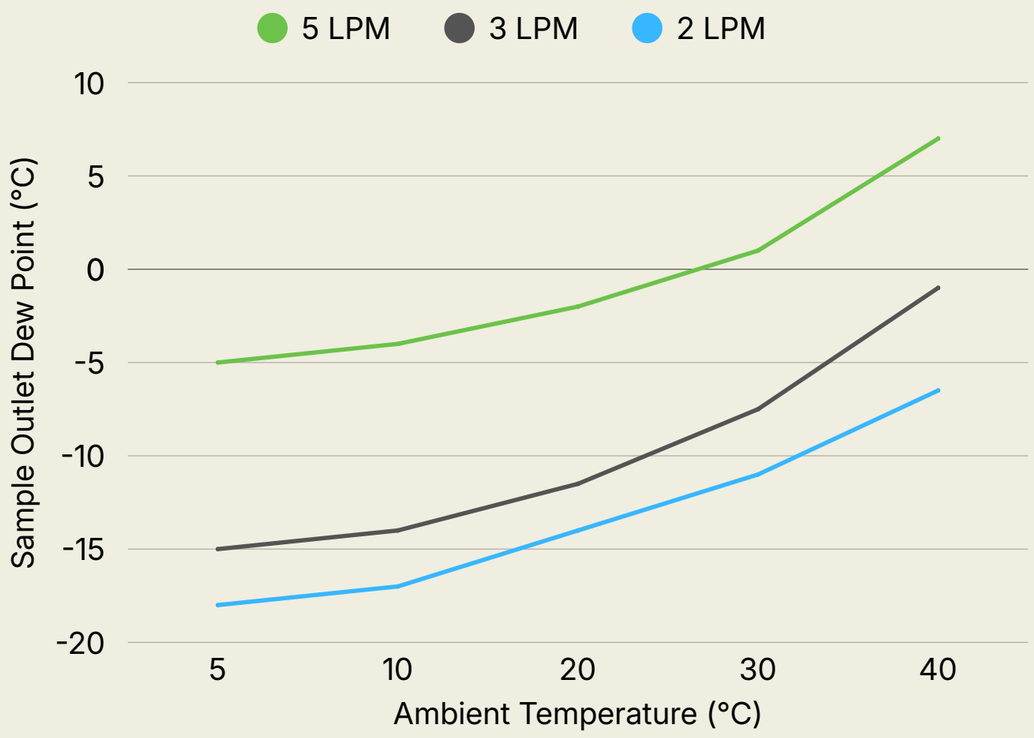
Other Features

- Perma Pure™ PD Sample Dryer effectively removes water in the vapor phase with no further loss of analytes, increasing analytical accuracy****
- High ambient temperature operating range 4° - 55 °C (39° - 131°F)
- Chemically resistant wetted parts
- Includes a coalescing filter to remove particulates and acid mists
- Can be mounted outside, freeing up space in over-crowded analyzer sheds*****

Performance Charts

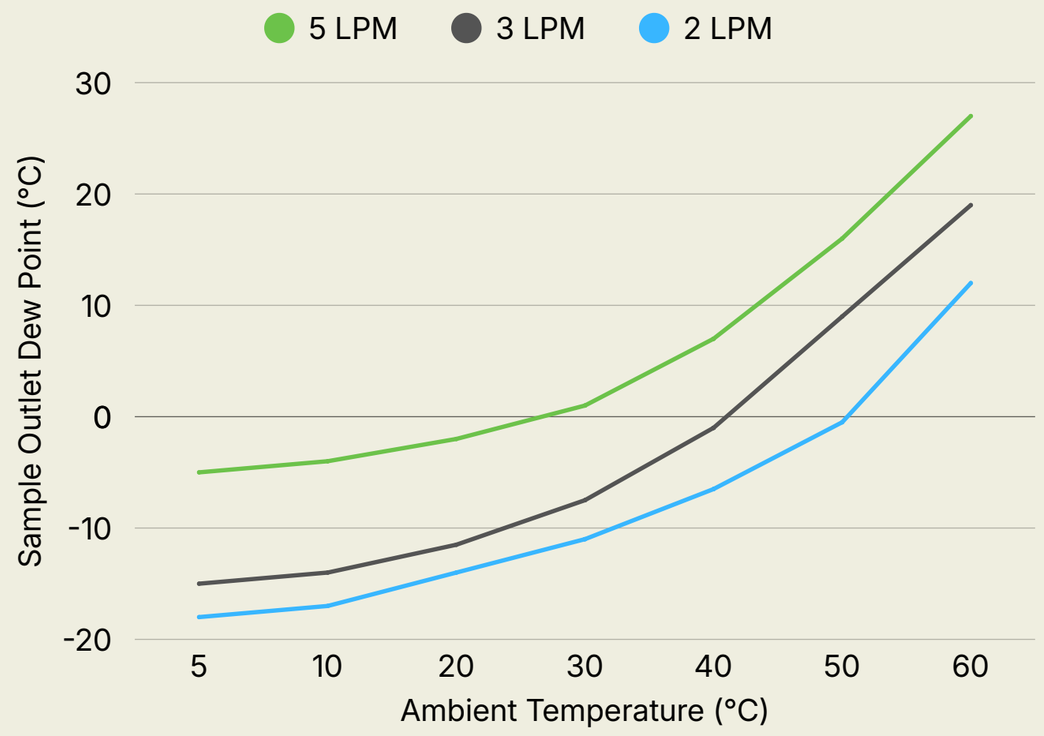
Typical Operating Environment

Sample Outlet Dew Point
Sample Inlet Humidity < 40% V/V



Full Operating Environment

Sample Outlet Dew Point
Sample Inlet Humidity < 40% V/V



**** There may be some initial loss of water-soluble analytes through the coalescing filter

***** Ambient temperature must be above 4°C (39°F)

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