

# Bespoke sample systems designed to easily install, monitor and maintain

# Model 531 System Overview

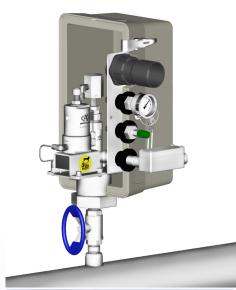
ACES™ systems are designed to meet specific application needs; ensuring sample integrity is maintained throughout the sample extraction and pre-conditioning process. The Model 531 consists of a Genie® Direct Drive<sup>™</sup> 750 probe and a GHR<sup>™</sup> heated pressure regulator in an enclosure, and it can be installed and maintained on a pressurized source without a special insertion device. It is best suited for sampling natural gas near its dew point.

The Model 750<sup>™</sup> probe can be inserted and retracted from a pressurized line through a full opening valve. Its tip contains Genie® Membrane Technology™ which separates unwanted liquid aerosols and droplets from the gas sample at process conditions. Next, the heated pressure regulator reduces the sample pressure while preventing condensation from occurring as a result of Joule-Thomson (JT cooling). The heated enclosure minimizes the effect of ambient temperature on the sample to further avoid condensation. These combined actions produce a low-pressure, liquid-free sample that is representative of the source and ready for transport to the analyzer.

# **Vertical Style Enclosure**

The vertical style enclosure is easy to use and allows the sample pressure and enclosure temperature to be monitored at a guick glance, without having to remove the enclosure. Additionally the regulator, fittings, and other accessories are mounted to a hardware bracket that allows complete removal of the sample probe and/or

enclosure without disturbing any of the components mounted on the bracket.	
Technical Specifications	
Maximum pressure rating	3,750 psig (258.6 Bar)
Outlet pressure range	0-50 psig (0-3.4 bar) standard, others available
Temperature range	-15 °F (-26.1 °C) to 185 °F (85 °C)
Process connection	3/4" and 1" NPT standard, 1.5" NPT and flanged available
Probe lengths	L: 8" (20cm), 12" (31cm), 18" (46cm), 24"(61cm), 36" (91cm), 48" (122cm) Custom lengths from 9" to 48" (22.8 to 121.9 cm) available
Port sizes	Outlet: 1/8" Tube Fitting Relief valve vent: 1/4" NPT
Power requirements	110 to 265 VAC, 80W or 24VDC, 25W
Conduit connection	1/2" NPT
Electrical component approval	CSA: Class 1, Division 1, Groups C&D, T3 Heater ATEX: Zone 1, Il 2 6D Ex d 11C
Wetted materials	Probe and regulator machined parts: 316 stainless steel /NACE compliant and Kevlar® threaded bushing All other metal parts: stainless steel / NACE compliant Tubing & fittings: 316 stainless steel Sealing material: PTFE/Fluoroelastomer/Neoprene rubber standard, others available Membrane: BTU/Type 6 - inert



### **Product Brief**

## **Applications**

- Continuous natural gas sampling
  - Gathering
  - Processing
  - Transmission
  - LNG facilities (non-cryogenic service)
- Sampling of various types of gases in the refinery and petrochemical industries.

Note: This system is not recommended for sample streams containing Hydrogen in concentrations above the lower explosive limit (LEL).

### **Key Features**

- Can be installed and maintained on a pressurized
- Genie<sup>®</sup> Membrane Technology<sup>™</sup> allows for liquid rejection inside of the pipe at process conditions, preserving sample integrity
- Heated pressure regulator and enclosure help to prevent condensation
- Sample pressure and enclosure temperature can be monitored externally
- Regulator, fittings, tubing, etc. are mounted on a pre-assembled hardware bracket that can be left in place while the probe is maintained or easily replaced for critical sampling applications where down time is

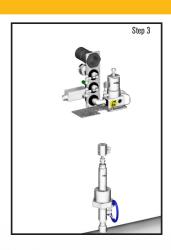


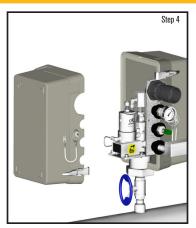


# **Installation Overview**









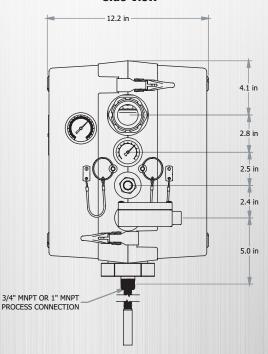


- 1. Mount the enclosure coupling to an existing process valve.
- 2. Thread the 750 probe into the coupling.
- 3. Mount the hardware bracket with pre-assembled parts to the enclosure coupling.
- 4. Secure the enclosure around the probe and hardware bracket assembly.
- 5. The enclosure is now ready for the power and sample tubing to be connected.

# **Dimensions**

# Front View 12.4 in 8.6 in 16.3 in

### **Side View**





**Representantes / Distribuidores Exclusivos** 

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