



# GENIE<sup>®</sup> 133

## Supreme Membrane Separator



## Your best choice when high liquid handling capability is required!

The Genie<sup>®</sup> Supreme 100 Series™ can remove 100% of entrained liquid and particulates in gas samples, including aerosols. Unlike coalescing filters that may allow aerosols to pass through the filter element and become re-entrained, Genie<sup>®</sup> Membrane Separators™ reject aerosols on the surface of their membrane where they are removed through a drain/bypass. Only the gas sample will flow through the membrane to the analyzers, protecting them and other sampling components against liquid damage.

The Genie<sup>®</sup> Supreme Model 133 Membrane Separator™ combines your favorite features of the legacy Genie<sup>®</sup> Model 130 with the improved features of the Supreme Series™, including a threaded cover for easy maintenance and the option of Liquid Block Technology™ that prevents liquid from being forced across the membrane. The Model 133 has the same flow rate capacity as the Genie<sup>®</sup> Supreme Model 123 with a larger inlet cavity making it better suited for use in sampling applications where there is a significant amount of liquid present in the sample gas.

The Genie<sup>®</sup> Supreme Model 133 Membrane Separator™ can be mounted before a sample pump or analyzer to protect them from damage caused by liquids. It can also be probe mounted at the sample extraction point to prevent liquid from entering the sample system at locations where there is too much liquid entrained in the source to use a membrane tip probe.

### Technical Specifications

<b>Maximum pressure rating</b>	3,000 psig (206.8 barg) <b>Probe Assembly:</b> 2,500 psig (172.4 barg)
<b>Maximum Liquid Block™ valve auto-reset pressure</b>	2,000 psig (137.9 barg) Slowly open the supply pressure so that the minimum differential pressure required to shut off the Liquid Block™ is not met or exceeded.
<b>Temperature range</b>	<b>Type 6 membrane:</b> -15°F (-26.1°C) to 185°F (85°C) <b>*Type 7 membrane:</b> -15°F (-26.1°C) to 300°F (149°C) *Actual limit depends on sealing material chosen. Refer to Temperature Range Comparison Chart.
<b>Maximum Recommended Flow Rate</b> Results in approx. 2 PSI pressure differential. For higher flow rates, contact the factory.	<b>Type 6 Best Rejection:</b> 5.4 SLPM (11.4 SCFH) <b>Type 7 Highest Temps:</b> 7.1 SLPM (15.0 SCFH)
<b>Bypass flow rates</b>	Requirement varies with application
<b>Port sizes</b>	<b>Inlet, Outlet, &amp; Bypass:</b> 1/4" female NPT
<b>Internal volume</b> Listed with and without Liquid Block™ respectively	<b>Total:</b> 43.7 cc, 44.9 cc <b>Upstream of membrane:</b> 40 cc <b>Downstream of membrane:</b> 3.7 cc, 4.9 cc
<b>Wetted materials</b>	<b>Machined parts:</b> 316/316L stainless steel / ISO 15156-3 compliant <b>All other metal parts:</b> stainless steel / ISO 15156-3 compliant <b>Sealing material:</b> User defined <b>Membrane:</b> Inert

### Product Brief

#### Applications

- Continuous sampling from gas sources when large quantities of free liquids are continuously present
  - Natural gas gathering & processing
  - Continuous Emission Monitoring Systems (CEMS)
  - Some refinery & petrochemical gases

#### Benefits

- Probe mounting:
  - Prevents sample system contamination
  - Eliminates the need for a bypass or drain
- Mounting upstream of analyzer or pump:
  - Protects the analyzer from damage
  - Improves reliability
  - Decreases maintenance time and cost

#### Features

- Proven Genie<sup>®</sup> Membrane Technology™
- Optional Liquid Block Technology™
- Unique housing design
- Large internal volume for increased liquid tolerance

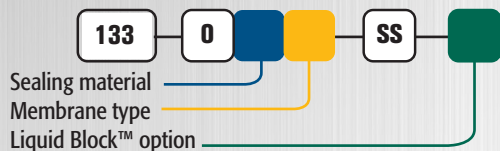


## Model Numbering & Additional Part Numbers

Your model number is determined by your specific needs. Choose options below.

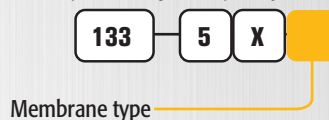
<b>Sealing material</b>	0 = fluoroelastomer	1 = perfluoroelastomer	(others available upon request)
<b>Membrane type</b>	6 = Better Rejection; Rejects ALL types of liquids from vapor 7 = Highest Temps; Rejects ONLY high surface tension liquids		
<b>Liquid Block™ option</b>	Blank = No Liquid Block™	LB = Liquid Block™ *	*May be restrictive for vacuum service
<b>Mounting bracket</b>	Part # 133-509-SS (sold separately)		

### Model number:



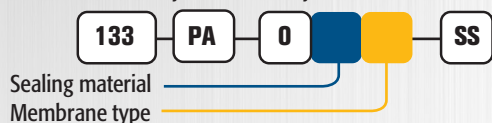
### Replacement membrane kit number:

Five membranes per kit. O-rings sold separately



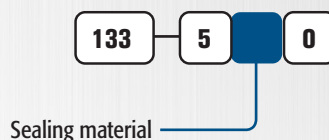
### Assembly for probe mounting:

Refer to 760 or GPHV product sheet for probe dimensions and technical information.  
Not recommended for custody transfer BTU analysis.



### Membrane replacement sealing material number:

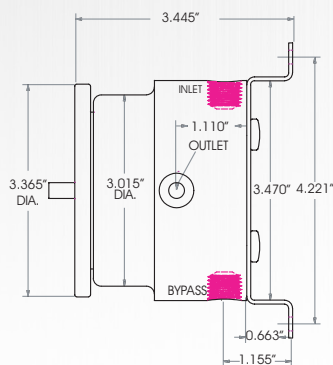
One o-ring per kit.



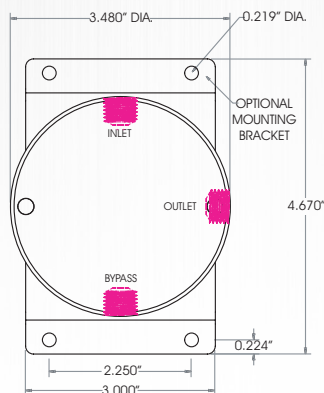
## Dimensions

### Individual product

#### Side View

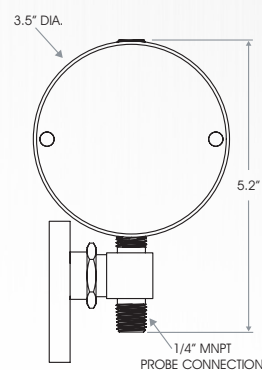


#### Front View

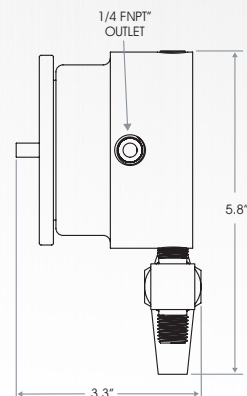


### Probe mounted assembly

#### Front View



#### Side View



If left outlet required, invert Genie and use port labeled "BYPASS" as inlet, because sample must enter upper port.

Refer to 760 or GPHV product sheet for probe dimensions and technical information.



Analytically Correct™ sample systems, sample conditioning components, and revolutionary gas and liquid sampling technology.



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