

# GENIE®

membrane probe  
Model GP3™



U.S. Patents 6,904,816; 7,004,041

## Applications

- ▶ Protection against liquids
  - ▶ On-line and portable analyzers
  - ▶ GC's, Mass Specs, O<sub>2</sub>, H<sub>2</sub>S, Moisture, and others
- ▶ Spot, composite, or continuous gas sampling in any process industry including natural gas, petrochemical, and oil refining
- ▶ Extract a representative gas sample
- ▶ Gas sample conditioning inside the pipe or vessel

## Benefits

- ▶ Helps preserve sample integrity
- ▶ Protects analyzers
- ▶ Reliable
- ▶ Economical

## Features

- ▶ Genie® Membrane Technology™
- ▶ Simple design
- ▶ Designed for smaller diameter metering runs using 1/2" thread-o-let

## Quick Study

Many companies have learned the hard way, that liquid in the sample conditioning system will cause damage to analyzers and costly contamination cleanup fees, but there are also hidden costs that can be prevented by applying our *Analytically Correct™* designs to your sampling system. We manufacture a wide variety of membrane probes, membrane probe regulators and filter combinations that offer flexibility regarding installation requirements and are customized to suit your specific sampling application.

Our patented Genie® Membrane Probes™ and Probe Regulators allow you to insert a Genie® Membrane directly inside the center one-third of the pipeline. We are the only manufacturer of sampling probes where a membrane can be inserted inside the pipeline, therefore separating entrained liquid at the pipeline pressure and temperature conditions. Using insertion probes having a membrane tip is the most practical means for conforming to the API 14.1 and GPA 2166 standards when the source gas contains entrained liquids.

**The GP3™** is a simple, safe and economical solution to extracting a representative gas sample from a source. Compared to the GP1™ and GP2™, the GP3™ is designed for smaller diameter metering runs using a 1/2" thread-o-let. The GP3™ has a 2" insertion length and 1/2" NPT threads.

Liquid can be forced through any phase separation membrane when the flow rate through the membrane is too high resulting in excessive differential pressure across the membrane. Opening a ball valve downstream of the membrane to purge a sample cylinder during spot or composite sampling can cause this condition to occur. To safeguard against this excessive differential pressure, we offer an optional flow restrictor that limits the flow through the membrane so as not to exceed a 2 psig drop thus preventing liquids from being forced through the membrane. The flow restrictor should be selected when a Genie® Membrane Probe™ is used in spot and composite sampling applications. It is not necessary to use a flow restrictor when sampling from lines that have a very low pressure or when there will be a constant flow through the probe.

## Technical Specifications

Maximum pressure rating	3,750 psig
Maximum temperature	185 °F (85 °C)
Internal volume	0.8 cc
Port size	Outlet: 1/8" female NPT
Process connection	1/2" male NPT
Thread-o-let requirement	1/2" female NPT* <small>*The inner diameter of all openings in pipe wall and thread-o-let must not be less than 0.680"</small>
Wetted materials	Machined parts: 316 stainless steel / NACE compliant All other metal parts: stainless steel / NACE compliant Sealing material: Neoprene standard Membrane: inert



An ISO 9001:2008 certified company

GENIE®  
sampling solutions

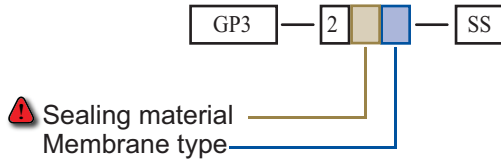
Genie®, Genie® Membrane Probe™, GP1™, GP2™, GP3™ and Genie® Membrane Technology™ are trademarks or registered trademarks of A+ Corporation, LLC. All other referenced trademarks are the property of their respective owners.

# Model Numbering & Additional Part Numbers

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

<b>Sealing material</b> ⚠	0 = Neoprene	(other materials available upon request)
<b>Bypass flow restrictor (recommended)</b>	Part # ACC-SS-4-SRA2EA	
<b>Membrane replacement</b>	Part # GP3-506	(sold separately)

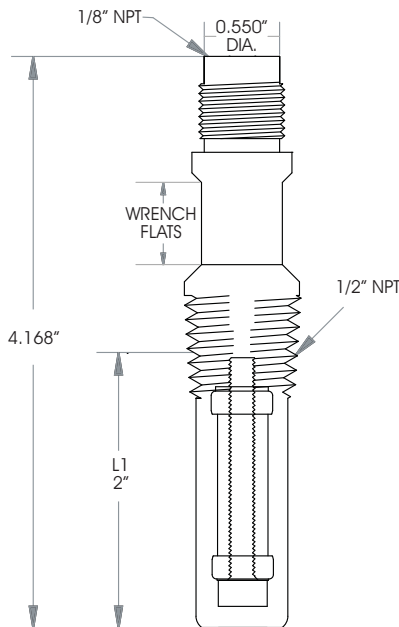
How to build the model number:



⚠ We cannot recommend specific sealing materials due to the complex nature of sample stream compositions. Temperature and pressure also may be factors.  
⚠ Unless specified otherwise, the product will ship with our standard sealing materials and materials of construction stated in the technical specifications section of the corresponding Product Sheet. ⚠ Please refer to [www.dupontelastomers.com](http://www.dupontelastomers.com) for sealing material recommendations and advice. It is the user's responsibility to specify the sealing materials and other materials of construction for their application.

## Dimensions

### Cutaway View



### Local Distributor:



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### Manufacturer

**A+ Corporation, LLC**

41041 Black Bayou Road

Gonzales, LA 70737

Call for expert product application assistance:

Phone: (225)-644-5255 Website: [www.geniefilters.com](http://www.geniefilters.com)

Fax: (225)-644-3975 E-mail: [sales@geniefilters.com](mailto:sales@geniefilters.com)

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