

**PERMANENT  
INSERTION  
P R O B E**



U.S. Patents 6,904,816; 7,004,041; 7,886,624

### Applications

- ▶ Protection against liquids
  - ▶ Portable and on-line analyzers
  - ▶ BTU, 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

### Benefits

- ▶ Full compliance with API 14.1 and GPA 2166 standards
- ▶ Installation and maintenance can be performed without depressurizing pipeline
- ▶ Helps preserve sample integrity
- ▶ Improves safety of personnel
- ▶ Protects analyzers
- ▶ Reliable
- ▶ Durable
- ▶ Economical
- ▶ “PT” version is a compact “All-in-One” design

### Features

- ▶ Genie® Membrane Technology™
- ▶ Analytically Correct™ design
- ▶ Pressure Balance™ installation
- ▶ Vibration resistant
- ▶ Designed for quick purging
- ▶ Low internal volume
- ▶ No dead volume
- ▶ Membrane shroud provides protection from elements inside the pipeline
- ▶ Partial retraction housing to accommodate pigging operations
- ▶ All stainless steel construction

### Quick Study

Many companies have learned the hard way that liquid in the sample conditioning system will cause damage to analyzers and/or lead to inaccurate sample analysis. If the sample does not represent the source, then the whole reason for the analyzer is undermined, and repair or decontamination of an analyzer is time consuming and costly. By applying our *Analytically Correct™* designs to your sampling system, you can prevent problems before they begin. We manufacture a wide variety of membrane probes, membrane probe regulators, and filter combinations that offer flexibility regarding installation requirements and can be 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 that can provide membrane tipped sample probes for insertion inside a pipeline or vessel. This provides the most efficient means for separating entrained liquid at pipeline pressure and temperature conditions. Using insertion probes having a membrane tip is the most practical means for conforming to API 14.1 and GPA 2166 standards when the source gas contains entrained liquids.

**The PIP™ Model 702** is a simple, safe and economical solution to extracting a representative vapor phase sample from a source. Compared to the PIP™ Model 701, the Model 702 is designed for sampling at a specific depth in a pressurized pipeline so each length is customized to fit your application. The “PT” option allows for sampling while simultaneously providing pressure and temperature information at the extraction point. The 702 installs using a ¾” or larger full opening ball valve in a vertical orientation. Our Pressure Balance™ technique effortlessly lowers the 702 probe into a pipeline without the force and bulky equipment associated with pneumatic or hydraulic methods. Once installed, the installation housing can be replaced with a shorter housing to accommodate partial retraction of the probe during pigging operations. The PT version includes a custom length, industrial, hinged top RTD and adapter which allows the RTD to be inserted through a built in thermowell once the probe is installed in the pipeline.

### Technical Specifications

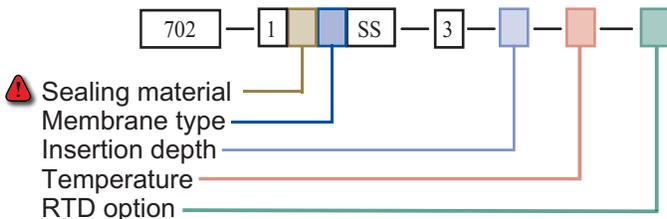
<b>Maximum pressure rating</b>	3,500 psig
<b>Maximum temperature</b>	225 °F (107 °C) without membrane 185 °F (85 °C) with membrane
<b>Port sizes</b>	Inlet: 3/4" or 1 1/2" male NPT Outlet: 1/8" female NPT Vent and Gauge: 1/8" female NPT
<b>Insertion depth</b>	3 to 10 feet
<b>Installation valve requirement</b>	3/4" NPT full opening valve
<b>RTD</b>	1/8" diameter
<b>Wetted materials</b>	Machined parts: 316/316L stainless steel / NACE compliant All other metal parts: stainless steel / NACE compliant Sealing material: Neoprene standard

# Model Numbering & Additional Part Numbers

Your model number is determined by your specific needs. The following model numbers pertain to use in gas sampling applications. Choose options below.

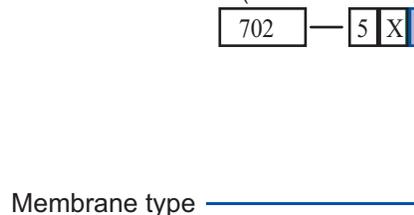
<b>Sealing material</b> ⚠	7 = Neoprene	<i>(other materials available upon request)</i>	
<b>Membrane type</b>	0 = No membrane	6 = Type 6/BTU	7 = Hi-Flow Backed
<b>Insertion depth (L)</b>	Custom length (specified in inches): 3 - 10 feet <i>(see drawing below)</i>		
<b>Temperature option</b>	Blank = No temperature option	T = Temperature	
<b>RTD option</b>	Blank = No RTD	R = RTD	
<b>Regulator coupling</b>	ACC-SS-702-1 (recommended when attaching external regulator)		
<b>Membrane replacement</b>	Part # 702-CMA-506 (contains 1 complete assembly) <i>(sold separately)</i>		

## How to build the model number:



## How to build the replacement membrane kit number:

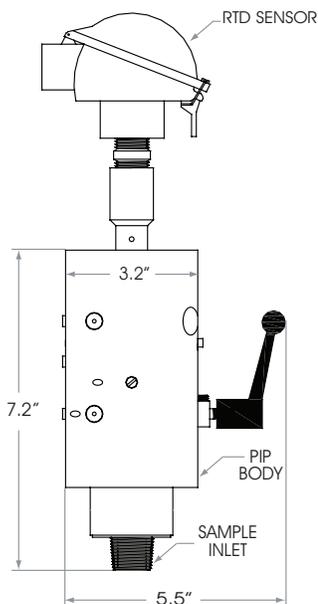
(Five membranes per kit)



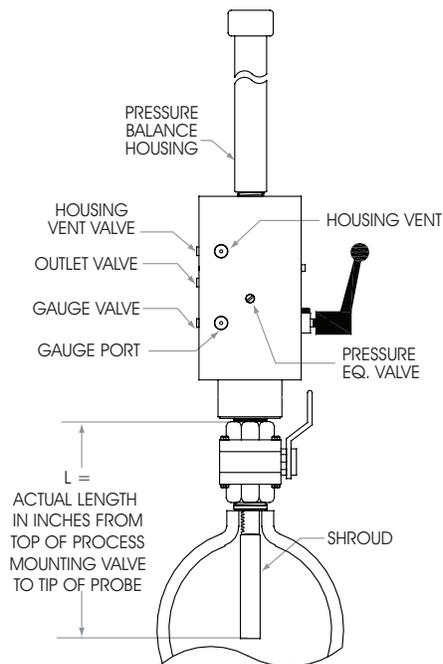
- ⚠ We cannot recommend specific sealing materials due to the complex nature of sample stream compositions. Temperature and pressure also may be factors.
- ⚠ Unless specified otherwise, the product will ship with our standard sealing materials and materials of construction stated in the technical specifications 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

### Model 702 with PT Option



### Model 702



## Local Distributor:

## 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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