



The safest and most versatile probes available on the market!

Liquid is the root of many problems when sampling natural gas, either by its condensing out of the sample gas after entering the sample system or carrying over from the pipeline into the probe. Entrained liquid is not always easy to locate. Sometimes it cannot be detected by sight, but, instead, by its impact on analysis or damage to an analyzer. With Genie® Probes & Probe Regulators, a Genie® membrane is inserted directly into a pipeline or vessel which allows for separation of entrained liquids at the prevailing line pressure and temperature conditions. By separating entrained liquids at line pressure and temperature, sample integrity is maintained. Genie® Probes™ also remove all entrained liquids in a gas sample, making them the most effective filters on the market for protection against liquid damage during upset conditions.

The GPSD™ is designed specifically for small diameter 2" or 3" pipelines. The GPSD™ uses proven Genie® Membrane Technology™ to extract a representative gas sample and provide a safety net for protecting gas analyzers against liquid damage. This model's housing is designed to install in a depressurized line. Once installed, the housing includes a foot valve in its base, so the probe can be inserted or retracted with a pressurized line or vessel. The GPSD™ replaces the threaded foot valve (-T) housing option of the GPR™.

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.



Product Brief

Applications

- Protection against liquids
 - On-line and portable analyzers
 - GC's, Mass Specs, O₂, H₂S, 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 small diameter pipe or vessel
- Gas sampling of mixtures containing less than 30% hydrogen

Benefits

- Helps preserve sample integrity
- Helps improve safety of personnel and equipment
- Protects analyzers
- Reliable
- Economical

Features

- Genie® Membrane Technology™
- Vibration resistant
- No dead volume
- Low internal volume
- J-Slot safety

Technical Specifications

Maximum Pressure Rating	3,000 psig (206.8 barg)
Temperature Ranges <small>* Actual limit depends on sealing material chosen. Refer to Temperature Range Comparison Chart.</small>	Type 6 membrane: -35°F (-37°C) to 185°F (85°C) *Type 7 membrane: Up to 300°F (149°C)
Internal Volume	8.4 cc
Outlet Port Size	GPSD: 1/8" female NPT GPSD-R: 1/4" female NPT GPSD-CSA: 3/4" female NPT
Process Connection	3/4" male NPT
Thread-o-let Requirement	The inner diameter of all openings in pipe wall and thread-o-let must not be less than 0.910".
Mounting Orientation	Vertical (preferred), or 45° maximum angle relative to vertical required
Wetted Materials	Machined parts: 316/316L stainless steel / ISO 15156-3 compliant All other metal parts: stainless steel / ISO 15156-3 compliant Foot Valve sealing material: Perfluoroelastomer Probe sealing material: User defined Membrane: inert

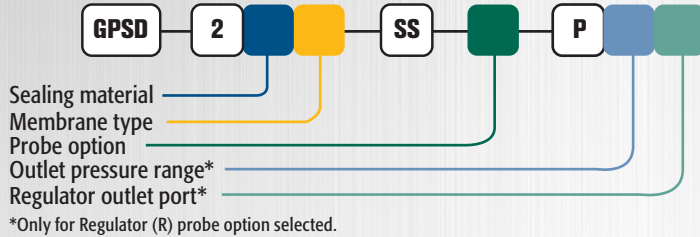


Model Numbering & Additional Part Numbers

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

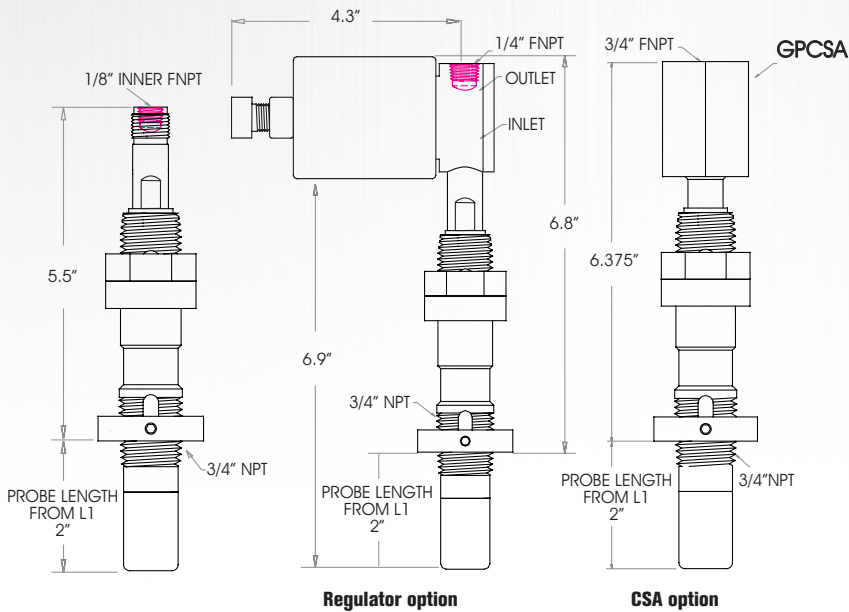
Sealing material	0 = Neoprene	J = RGD resistant HNBR	<i>(other materials available)</i>			
Membrane type	6 = Better Rejection; Rejects ALL types of liquids from vapor 7 = Highest Temps; Rejects ONLY high surface tension liquids					
Probe option	Blank = No option		CSA = Probe w/ adapter for YZ, PGI & Welker Sampler			
	R = Probe w/ regulator option					
Outlet pressure range (psig)*	0 = 0-25	1 = 0-50	2 = 0-100	3 = 0-250	4 = 0-500	9 = 0-10
Regulator outlet port*	1 = 1/4" MNPT to 1/8" tube connector			4 = 1/4" FNPT		
Bypass flow restrictor (recommended)	Part # ACC-SS-4-SRA2EA		1/8" MNPT x 1/4" FNPT <i>(sold separately)</i>			
	Part # GPSD-CMA-5_6		1/8" MNPT x 1/4" FNPT <i>(contains 1 complete assembly - sold separately)</i>			

How to build the model number (probe and housing):

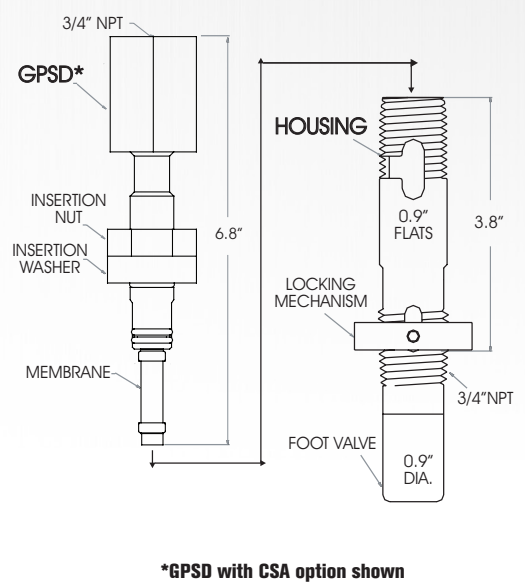


Dimensions

Inserted



Extracted



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



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