



The safest and most versatile probes available on the market

Liquid carry over from the pipeline into the sample conditioning system should be prevented when sampling natural gas as it can directly impact the accuracy of the compositional analysis and also damage the analyzer. Genie® Probes™ provide a means to insert Genie® Membrane Technology™ directly into a pipeline for the purpose of separating unwanted liquid and particulate from the gas sample at flowing temperature and pressure conditions, in compliance with industry standards.

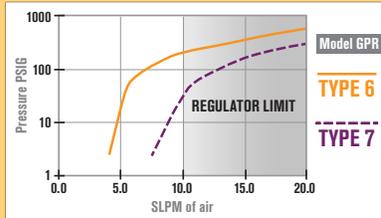
The two-piece GPR™ consists of a housing containing a foot valve on its lower end, and a membrane tip probe regulator. The probe housing is installed in a depressurized pipeline through a vertically mounted thread-o-let or flange. Once the probe is inserted into the housing, the foot valve opens to allow pipeline gas to flow freely through the membrane. Sample pressure is then reduced immediately downstream of the membrane, inside of the pipeline. The heat then transfers from the pipeline to the regulator to prevent excessive Joule-Thomson cooling during pressure regulation. Retracting the probe from the housing closes the foot valve, making it possible to perform probe maintenance without depressurizing the pipeline. This insertion/retraction method is less expensive and complex than pneumatic or hydraulic methods.



Technical Specifications

Maximum pressure rating	3,500 psig (241.3 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 270°F (132°C)
Internal volume	13.758 cc
Outlet port sizes	1/4" female NPT
Minimum pipeline size	4"
Outlet pressure range	0-10 psig (0-0.7 barg), 0-25 psig (0-1.7 barg), 0-50 psig (0-3.4 barg), 0-100 psig (0-6.9 barg), 0-250 psig (0-17.2 barg), 0-500 psig (0-35.4 barg)
Process connection requirement	3/4" or 1" male NPT
Thread-o-let requirement	3/4" female NPT or 1" female NPT Inner diameter must be greater than 1.141" for 1.1" diameter housing or greater than 0.910" for 0.9" diameter housing
Mounting orientation	Vertical (preferred), or 45° maximum angle relative to vertical
Wetted materials	Machined parts: 316/316L stainless steel / NACE compliant All other metal parts: stainless steel / NACE compliant Foot Valve sealing material: Perfluoroelastomer Probe sealing material: User defined Regulator seat material: PFA Membrane: inert

Maximum Recommended Flow Rate
Dependant on source pressure. See chart.



Product Brief

Applications

- Extract representative sample from a multi-phase gas source
- Pressure regulation
- Protection against liquids
 - Online and portable analyzers
 - BTU, H₂S, Moisture, and others
- Gas sampling of mixtures containing less than 30% hydrogen

Benefits

- API 14.1, GPA 2166 and ISO 10715 probe compliance
- Pipeline gas helps to change temperature at regulation point
- Helps to preserve sample integrity
- Helps to improve safety of personnel and equipment
- Does not require hydraulic fluid
- Probe maintenance without line depressurization

Features

- Genie® Membrane Technology™
- Pressure regulation at probe tip inside of pipeline
- Vibration resistant
- No dead volume
- Low internal volume
- J-slot safety
- Optional regulator manifold available with pressure gauge, ball valve, and relief valve attached.

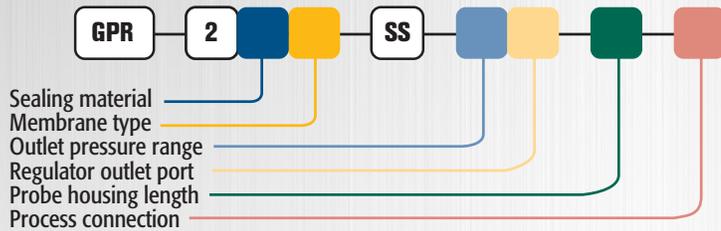


Model Numbering & Additional Part Numbers

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					
Outlet pressure range (psig)	00 = 0-25	01 = 0-50	02 = 0-100	03 = 0-250	P4 = 0-500	09 = 0-10
Regulator outlet port	1 = 1/4" MNPT to 1/8" tube connector			4 = 1/4" FNPT		
Probe housing length	Blank = 4"		B = 7"		C = 9"	
Process connection	Blank = 3/4" NPT x 0.9 dia.*		1 = 1" NPT x 1.1 dia.		1A = 1" NPT x 0.9 dia.*	
	*Not recommended for welding					
Spare parts	Part # GP-7_1-SS		<i>(contains one (1) complete regulator seat cartridge assembly)</i>			
	Part # GP-CMA-5_6		<i>(contains two (2) Type 6 complete assemblies)</i>			

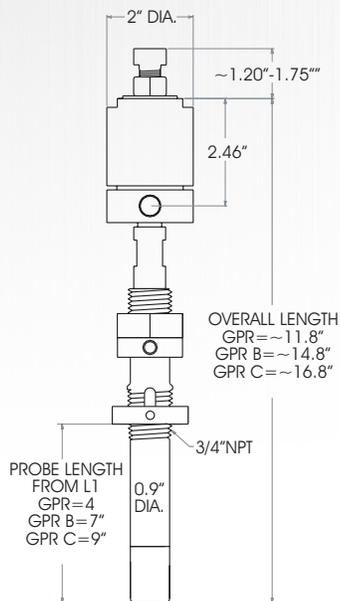
How to build the model number (probe and housing):



Dimensions

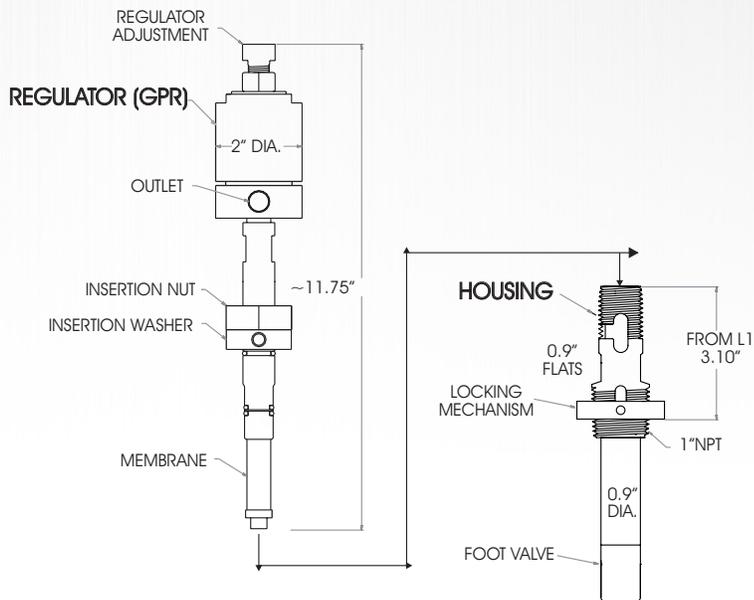
Inserted

3/4" NPT x 0.9" DIAMETER HOUSING SHOWN



Extracted

1" NPT x 0.9" DIAMETER HOUSING SHOWN



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

Contact us for expert product application assistance.

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