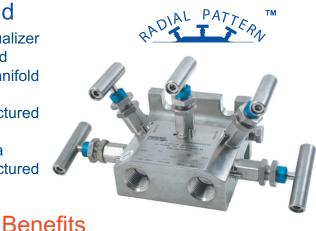


P3M5H™ 5-VALVE GAS STYLE MANIFOLD

5-VALVE MANIFOLD - GAS STYLE US PATENT NO.: US 7,225,832 B2

3/16" Bore 5-Valve Gas Style Manifold

The 5-valve manifold features 2 isolation valves, 2 equalizer valves and 1 vent valve in a single body for isolation and calibration of differential pressure transmitters. The manifold bonnets are configured in a Radial Pattern™ for easy operation. Additional features include a body manufactured from extruded solid bar, robust stems and Phoenix's innovative design which ensures a bubble tight seal in a variety of conditions. All Phoenix valves are manufactured and designed in accordance with MSS-SP105.



Standard Features

Hydrotested at 150% of rated pressure (shell test). Nitrogen gas tested to 2000 psi.



Complies with ASME B31.1 & B31.3 shell testing procedures as standard. Ensures structural integrity of valve.

Seat tightness (zero leakage) verified to 110% of rated pressure. Nitrogen gas tested to 2000 psi.



Complies with ASME B31.1 & B31.3 seat testing procedures as standard. Ensures zero leakage at seats for proper calibration.

Packing below stem threads



Prevents corrosion of critical stem threads

Metal body-to-bonnet seals are in compression, not tension



Mitigates risk of stress cracking

Stem threads are rolled, not cut



Higher quality stem for longer service life

8 RMS stem finish



Extended packing life

True globe pattern valve



Extended packing life

V-Style Teflon™ packing



30-40% less operational torque and less frequent packing adjustments than traditional Teflon™ packed valves.

Pressure component materials sourced from the US, Canada or Europe



Reliable material traceability. MTR's provided with every order for pressure containing components.

Solutions for Oil & Gas and Petrochemical Processing www.phoenixprecisionvalves.com

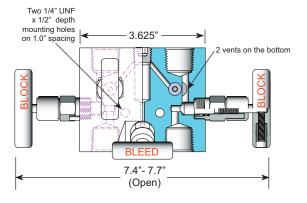


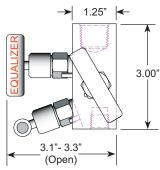


P3M5H™ 5-Valve Gas Style Manifold

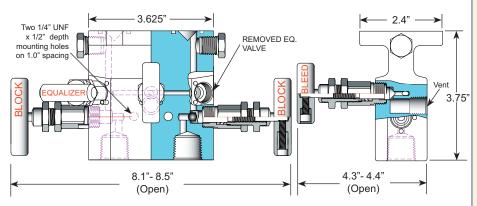
Technical Specifications

Pipe x Pipe Configuration

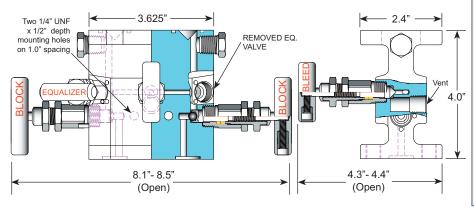




Pipe x Flange Configuration



Flange x Flange Configuration



Specifications:

Type: P3M5H 5-Valve Manifold, Globe Pattern

Rating: Up to 6000 psi @ 100°F

(41370 kPa @ 38°C) Stem: Needle tip or Ball tip

Packing: Viton™ O-ring, Teflon™ or Grafoil™

Seat: Integral Handle: Removable

Bore Size: 3/16" (Primary), 1/8" (EQ., Bleed)

Inlet Connections: FNPT Outlet Connections: FNPT Bonnet Lock: Pin or Plate

Body Stock: 3.625" x 3.00" x 1.25"

Weight: 4.1 - 4.3 lbs

Special Service: O₂ or CL cleaning available*
*Other specifications or services may be available.

Specifications:

Type: P3M5H 5-valve Manifold, Globe Pattern

Rating: Up to 6000 psi @ 100°F (41370 kPa @ 38°C) Stem: Needle tip or Ball tip

Packing: Viton™ O-ring, Teflon™ or Grafoil™

Seat: Integral Handle: Removable

Bore Size: 3/16" (Primary), 1/8" (EQ., Bleed)

Inlet Connections: FNPT Outlet Connections: Flange Bonnet Lock: Pin or Plate

Body Stock: 3.625" x 3.750" x 2.4" x 1.5"

Weight: 5.8 - 6.1 lbs

Special Service: O₂ or CL cleaning available*
*Other specifications or services may be available.

Specifications:

Type: P3M5H 5-valve Manifold, Globe Pattern

Rating: Up to 6000 psi @ 100°F (41370 kPa @ 38°C) Stem: Needle tip or Ball tip

Packing: Viton™ O-ring, Teflon™ or Grafoil™

Seat: Integral Handle: Removable

Bore Size: 3/16" (Primary), 1/8" (EQ., Bleed)

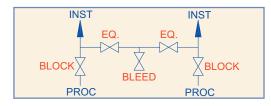
Inlet Connections: Flange Outlet Connections: Flange Bonnet Lock: Pin or Plate

Body Stock: 3.625" x 4.0" x 2.4" x 1.5"

Weight: 6.7 - 7.0 lbs

Special Service: O₂ or CL cleaning available*

*Other specifications or services may be available.

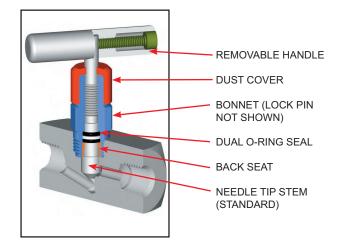




P3M5H™ 5-Valve Gas Style Manifold Bonnet, Stem and Seat Characteristics

O-Ring Bonnet Assembly

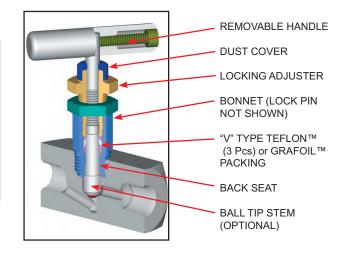
Standard Materials							
Valve	Body	Bonnet	Stem	Ball	Packing		
CS	ASTM A108CS	ASTM A108CS	ASTM A582 303SS	SEE OPTION CODES	Dual Viton™ O-ring with Teflon™ backup ring		
SC	ASTM A105CS	ASTM A182 316SS	ASTM A182 316SS	ON PAGE 4			
316SS	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 316SS				



Teflon™ or Grafoil™ Bonnet Assembly

Standard Materials						
Valve	Body	Bonnet	Stem	Ball	Packing	
CS	ASTM A108CS	ASTM A108CS	ASTM A582 303SS	SEE OPTION CODES	Teflon™ and Grafoil™	
SC	ASTM A105CS	ASTM A182 316SS	ASTM A182 316SS	ON PAGE 4		
316SS	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 316SS			

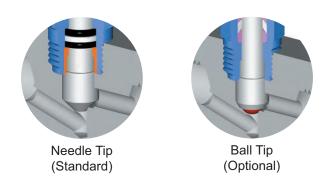
NOTE: Optional low torque Grafoil™ available (G4 Packing Code)



Pressure vs. Temperature Chart 6000 psi (Hard Seat) (Har

Note: Body material specifications based on ASME B16.34 - 2009. Packing material ratings based on manufacturer's specifications. Approximations only. Phoenix does not represent these values as finite. They are provided only as representative values.

Stem and Seat Configurations





P3M5H™ 5-Valve Gas Style Manifold Model Numbering System

Phoenix	Orifice Size	Туре	Inlet Size	Inlet Type	Outlet Size	Outlet Type	Material	Packing	Seat	Stem Tip
Р	3=3/16"	M5H	8=1/2"	F=FNPT	8=1/2"	F=FNPT	SS=ASTM A182 316/316L	A=Aflas™	Integral (leave blank)	Needle Tip Standard (leave blank)
				FL=Flange		FL=Flange	SC=ASTM A105 CS*	V=Viton™ (FKM)		B=316SS Ball Tip
				FT=Female Tube Fitting		FT=Female Tube Fitting	CS=ASTM A108 CS*	T=Teflon™ (PTFE)		BC=Ceramic Ball Tip
							C5=ASTM A350 LF2	G=Grafoil™		BM=Monel™ Ball Tip
							N4=Monel™ 400	G4=Low Torque Grafoil™		
							N6=Inconel™ 625			
							N8=Inconel™ 825			
							N2=Hastelloy™ C276			
EXAMPL	E: P3M5H	8FFLS		6" Orifice, 5-Va egral Seat, Bal			Inlet, Flange Outl	et, 316 SS Boo	dy, Teflon™ P	acking,
Р	3	М5Н	8	F		FL	ss	Т		В

*For code applications, A105 CS must be selected for CS valves. Code grade bolts must be specified for code applications. Note: **Standard Bolting Options**, **CS** - carbon steel, Gr.8, zinc plated bolts; **SS** - stainless steel, 18.8 (304SS) bolts.

Use with Confidence, Phoenix Precision Products Meet the Following Specifications:

- ✓ ASME B31.1 Power Piping
- ✓ ASME B31.3 Process Piping
- ASME B16.34 Valves Flanged, Thread, and Welding End
- API 598 Valve Inspection and Testing
- MSS SP-25 Standard Marking Systems for Valves, Fittings and Flange Unions
- MSS SP-99 Instrument Valves
- ✓ MSS SP-105 Instrument Valves for Code Applications
- NACE MR0175/ISO15156 for all 316SS valves and A105cs body/316SS bonnet (SC-Material Code) when in service with less than 50 PPM of chlorides

В7 AISI 4140/4142 QT B8C1 Class 1, 304SS, ST 1. B7, B8C1, B8MC1, B8C2, B8MC2 are code grades to B8MC1 Class 1, 316SS, ST ASTM A193: 2. To specify code grade bolting, example: 225B7, indicates 2.25" B8C2 Class 2, 304SS, bolt length; B7 grade, alloy steel, AISI 4140/4142 ST, SH 3. QT-Quenched & Tempered; ST-Carbide Solution Treated; B8MC2 Class 2, 316SS. SH-Strain Hardened ST, SH

Seal and Seat Material Temperature Rating

Code	Description	Min. Temp.	Max. Temp.
Α	Aflas™	15°F (-10°C)	400°F (204°C)
V	Viton™	-20°F (-29°C)	400°F (204°C)
Т	Teflon™	-65°F (-54°C)	450°F (232°C)
G	Grafoil™ (SS Body) (CS Body)	-70°F (-56°C) -70°F (-56°C)	1000°F (537°C) 800°F (427°C)

Note: Grafoil™ is suitable for services in excess of 1000°F in a non-oxidizing environment.

For further information please contact:



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Description

Bonnet Lock

Chlorine Clean

Oxygen Clean

Sour Gas ISO NACE Latest Rev. Monel™ 400 Stem

Monel[™] 500 Stem

Inconel[™]625 Stem

Inconel[™]825 Stem

Hastelloy[™] C276 Stem

Horizontal (Vertical)

Mounting Bracket

SS Horizontal (Vertical) Mounting Bracket

316 SS Bolts

2.25" CS Bolts 2.25" 304 SS Bolts

2.25" 316 SS Bolts

1/4" FNPT Test

Ports Bottom

1/4" FNPT Purge

Ports Bottom

SS Tag

LB

CC

OC

TG

SGI

N4

N5

N6

N8 N2

H(V)MB

H(V)MBS

S6

225CS

225S4 225S6

ТВ

РΒ