PHOENIX™ PRECISION Ltd.

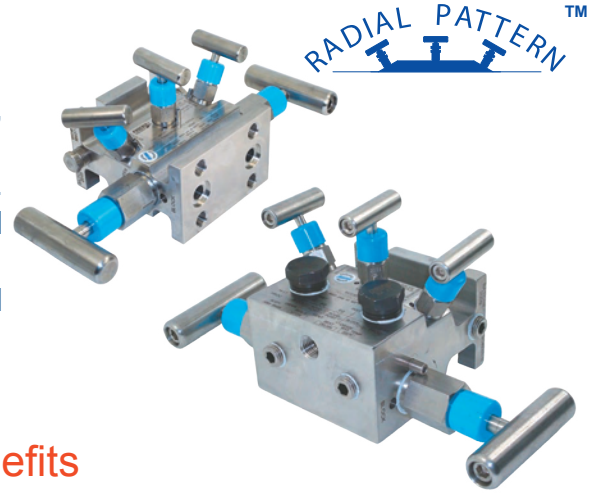
P6M5S™ AND P6MA5S™ 5-VALVE GAS MANIFOLD

5-VALVE GAS MANIFOLD

US PATENT NO.: US 7,225,832 B2

3/8” Bore 5-Valve Gas Style Manifold

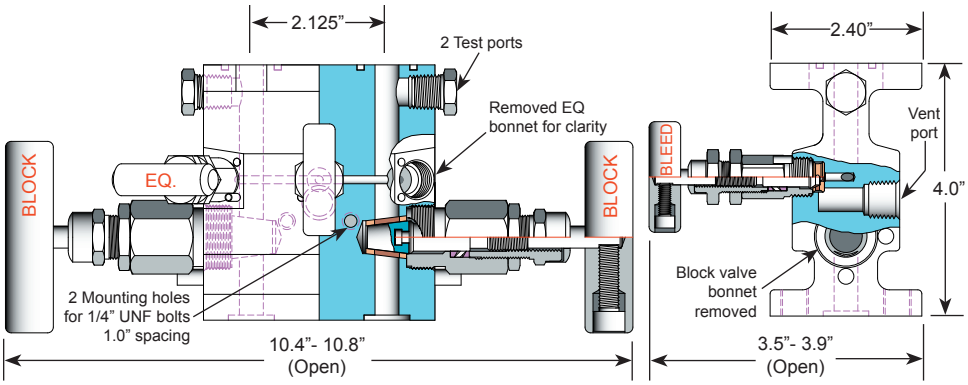
The 5-valve roddable manifold features two isolation valves, two equalizer valves and a vent valve in a single body for isolation and calibration of differential pressure transmitters. The manifold bonnets are configured in a signature Radial Pattern™ for easy operation. Additional features of the manifold 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.



Standard Features	Benefits
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
Non-rotating tapered tip stem	Extended soft seat life and a reliable soft seat shut off
8 RMS stem finish	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.

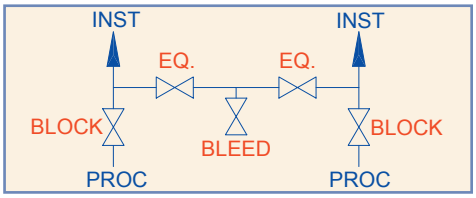
P6M5S™ AND P6MA5S™ 5-Valve Manifold
Technical Specifications

P6M5S Straight Configuration

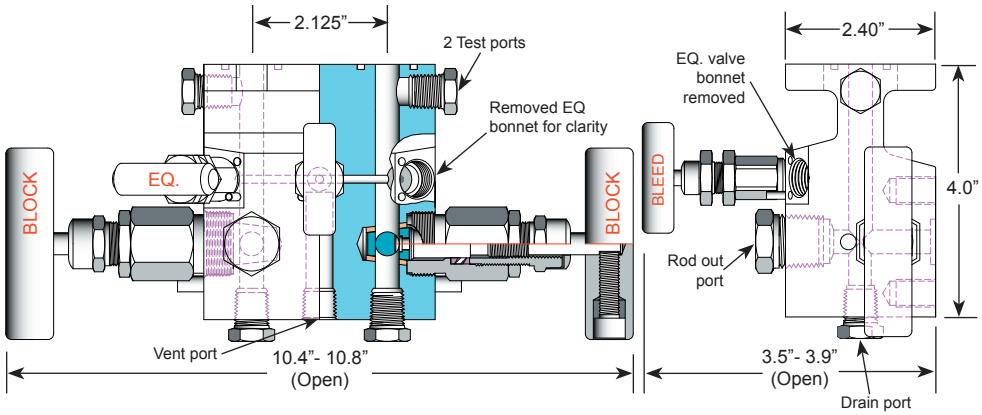


Specifications:
Type: **P6M5S** FxF Manifold, Roddable Pattern
Rating: Up to 6000 psi @ 100ºF (41370 kPa @ 38°C)
Stem: Non-Rotating Taper Tip, Flat Tip
Packing: Viton™ O-ring or Teflon™
Seat: Delrin™, Peek™ or Tefzel™ (for blocks)
Handle: Removable
Bore Size: 3/8” (Primary), 1/8” (EQ., Bleed)
Inlet Connections: 4-Bolt Flange
Outlet Connections: 4-Bolt Flange
Bonnet Lock: Pin or Plate
Body Stock: 3.625” x 4.0” x 1.7 x 2.4”
Weight: 7.6 - 7.8 lbs
Special Service: O_2 or CL cleaning available*

*Other specifications or services may be available.

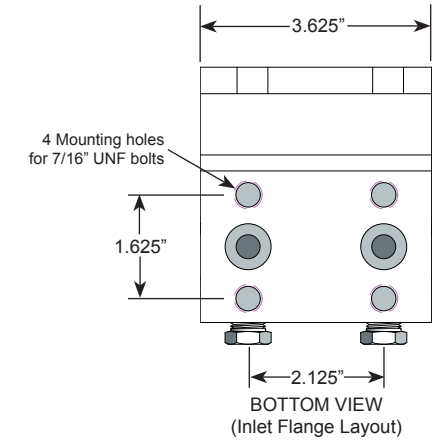


P6MA5S 90° Angle Configuration

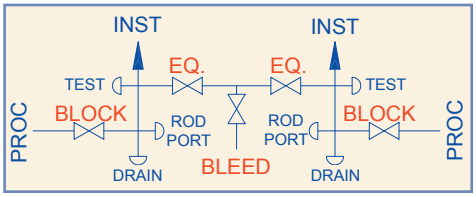


Specifications:
Type: **P6MA5S** Angle FxF Manifold, Roddable Pattern
Rating: Up to 6000 psi @ 100ºF (41370 kPa @ 38°C)
Stem: Non-Rotating Taper Tip, Flat Tip
Packing: Viton™ O-ring or Teflon™
Seat: Delrin™, Peek™ or Tefzel™ (for blocks)
Handle: Removable
Bore Size: 3/8” (Primary), 1/8” (EQ., Bleed)
Inlet Connections: 4-Bolt Flange
Outlet Connections: 4-Bolt Flange
Bonnet Lock: Pin or Plate
Body Stock: 3.625” x 4.0” x 2.4”
Weight: 9.4 - 9.6 lbs
Special Service: O_2 or CL cleaning available*

*Other specifications or services may be available.



P6MA5S Application



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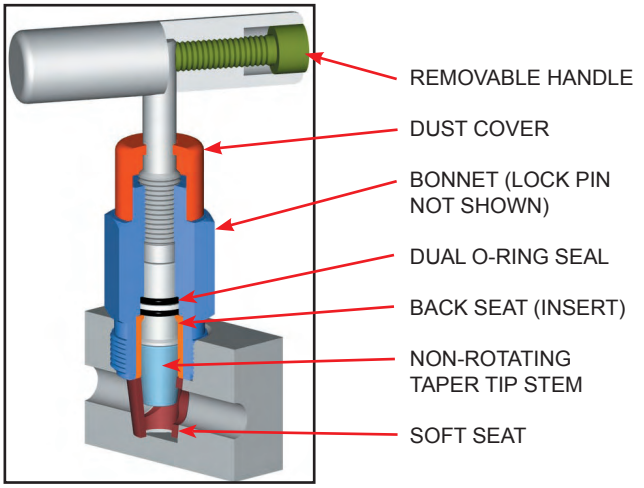
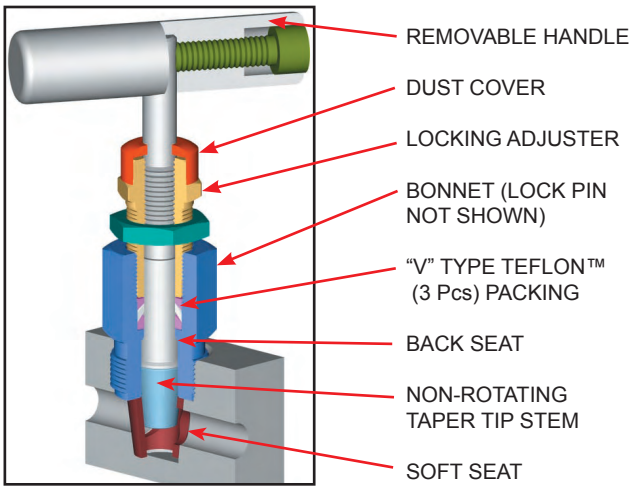
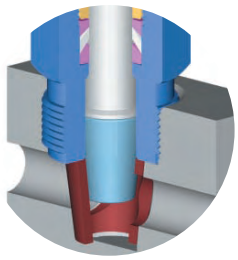
P6M5S™ AND P6MA5S™ 5-Valve Manifold
Bonnet, Stem and Seat Characteristics

3/8” Bore O-ring and Packed Bonnet Assembly

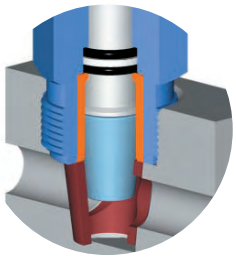




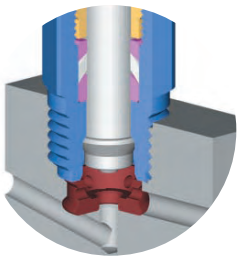
Stem and Seat Configurations



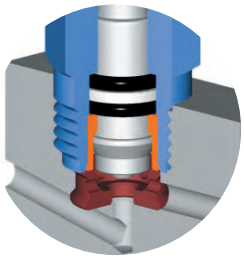
3/8” Bore
Non-rotating Packed
for Block



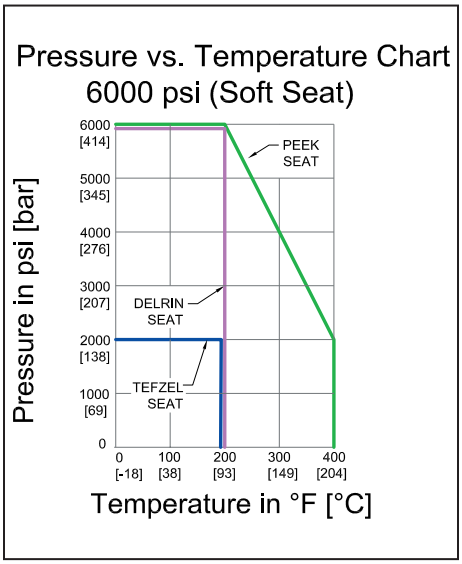
3/8” Bore
Non-rotating O-ring
for Block



1/8” Bore
Packed
for Equalize and Bleed



1/8” Bore
O-ring
for Equalize and Bleed



Seal & Seat Temperature Rating

Code	Description	Min. Temp.	Max. Temp.
A	Aflas™	15°F (-10°C)	400°F (204°C)
V	Viton™	-20°F (-29°C)	400°F (204°C)
T	Teflon™	-65°F (-54°C)	450°F (232°C)
D	Delrin™	-40°F (-40°C)	200°F (93°C)
P	Peek™	-40°F (-40°C)	400°F (204°C)
Z	Tefzel™	-300°F (-185°C)	300°F (150°C)

Materials of Construction

Code	SS	SC	CS
Body	ASTM A182 316SS	ASTM A105 CS	ASTM A108 CS
Bonnet	ASTM A182 316SS	ASTM A182 316SS	ASTM A108 CS
Stem	ASTM A182 316SS	ASTM A182 316SS	ASTM A582 303SS
Adjuster	ASTM A582 303SS	ASTM A582 303SS	ASTM A108 CS
Insert	ASTM A182 316SS	ASTM A182 316SS	ASTM A108 CS
Handle	ASTM A582 303SS	ASTM A582 303SS	ASTM A108 CS

Note: 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.

P6M5S™ AND P6MA5S™ 5-Valve Manifold
Model Numbering System

Phoenix	Orifice Size	Type	Inlet Size	Inlet Type	Outlet Size	Outlet Type	Material	Packing	Seat	Option Code
P	6=3/8"	M5S		FL= Flange		FL= Flange	SS=ASTM A182 316/316L	A=Aflas™	D=Delrin™	DI=Dielectric
		MA5S					SC=ASTM A105 CS*	V=Viton™ (FKM)	P=Peek™	OR=Viton™ O-ring Flange Seal
							CS=ASTM A108 CS*	T=Teflon™ (PTFE)	Z=Tefzel™ **	See Bolt Options Below
EXAMPLE: P6MA5SFLFLSSVD = 3/8" Orifice, Angle Manifol, Flange Inlet, Flange Outlet, 316SS Body, Viton™ Packing, Delrin™ Seats, Non-rotating Tapered Tip Stem on Blocks, Flat Tip Stem on Bleed and EQs										
P	**6**	**MA5S**		**FL**		**FL**	**SS**	**V**	**D**	

*For code applications, A108 CS is unacceptable, A105 CS must be selected for CS valves.
**For block bonnet only.
Note: **Standard Bolting Options**, **CS** - carbon steel, Gr.8, zinc plated bolts; **SS** - stainless steel, 18.8 (304SS) bolts.

BOLT OPTIONS

			BOLT MATERIAL DESIGNATION		
Application	**Description**	**Length**	**CS**	**304 SS**	**316 SS**
DP TRANSMITTER	Bi-planer Design: Rosemount™ 1151, Honeywell™ 900 etc.	1"	Blank: Standard for CS Manifolds	Blank: Standard for SS Manifolds	-S6
	Coplaner Design: Rosemount™ 3051, 3095, 2024 with coplaner flange.	2 1/4"	-225CS	-225S4	-225S6
Flow Computer	ABB Total Flow, Thermo Fisher™ (with Honeywell™ Transducer Module), Barton Scanner, Bristol Teleflow & TeleTrans	1"	Blank: Standard for CS Manifolds	Blank: Standard for SS Manifolds	-S6
	Fisher™, Flow Automation™ (with Rosemount™ transducer module), Daniel, Dynamic Fluid	2 1/4"	-225CS	-225S4	-225S6
DP Transmitter with DP to GP Adapter	DP Bi-planer design used in combination with DP to GP Adapter (DPG6S)	2"	-200CS	-200S4	-200S6
	DP Coplaner design used in combination with DP to GP Adapter (DPG6S)	3 1/4"	-325CS	325S4	-325S6
Note: Manifolds with delectric option add 1/4" to bolt length.					

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

For further information please contact:

Phoenix Precision Ltd.
2620 21st Street N.E.
Calgary, Alberta T2E 7L3
Phone:(403) 291-3154
Fax: (403) 291-3292
email: phoenix@phoenixprecision.ca
www.phoenixprecisionvalves.com

ISO 9001:2008 Certified System

Distributor / Representative:

Haldatec
Phone: +61-3-9872-5822 Fax: +61-3-9872-5129
E-mail: sales@haldatec.com.au Web Site: www.haldatec.com.au