

P3ML2H[™] 2-VALVE LIQUID LEVEL MANIFOLD

LIQUID LEVEL MANIFOLD

3/16" Bore Liquid Level Manifold

The P3ML2H manifold is designed to be used with differential pressure (Δ P) transmitters on pressurized vessels in liquid level applications. The P3ML2H features 2 isolation valves with no communication between the high pressure leg and the low pressure leg. It is available in both a $\frac{1}{2}$ " FNPT x Flange design and a Flange x Flange design.



Standard Features

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

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

Packing below stem threads

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

Stem threads are rolled, not cut

8 RMS stem finish

V-Style Teflon™ packing

Pressure component materials sourced from the US, Canada or Europe



Benefits

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

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



Prevents corrosion of critical stem threads

Mitigates risk of stress cracking

Higher quality stem for longer service life



Extended packing life

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

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

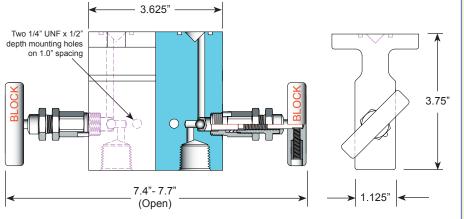
SAIGLOBAL ISO 9001 Quality

Solutions for Oil & Gas and Petrochemical Processing



P3ML2H[™] 2-Valve Liquid Level Manifold Technical Specifications

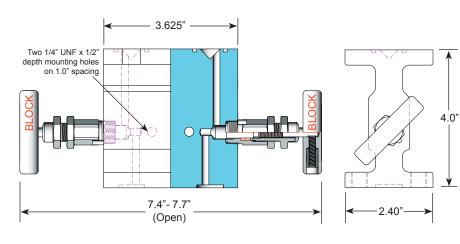
Pipe x Flange Configuration

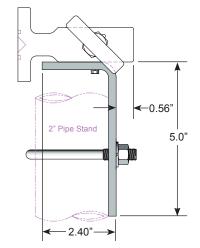


Specifications:

Type: P3ML2H 2-valve Liquid Level Manifold, **Globe Pattern** Rating: Up to 6000 psi @ 100°F (41370 kPa @ 38°C) Stem: Needle tip or Ball tip Packing: Teflon[™] or Grafoil[™] Seat: Integral Handle: Removable Bore Size: 3/16" Inlet Connections: FNPT Outlet Connections: Flange Bonnet Lock: Pin or Plate Body Stock: 3.750" x 3.625" x 2.4" x 1.125" Weight: 4.7 lbs Special Service: O2 or CL cleaning available* *Other specifications or services may be

Flange x Flange Configuration

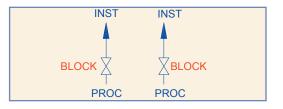




Specifications:

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Type: P3ML2H 2-valve Liquid Level Manifold, **Globe Pattern** Rating: Up to 6000 psi @ 100°F (41370 kPa @ 38°C) Stem: Needle tip or Ball tip Packing: Teflon™ or Grafoil™ Seat: Integral Handle: Removable Bore Size: 3/16" Inlet Connections: Flange **Outlet Connections: Flange** Bonnet Lock: Pin or Plate Body Stock: 4.0" x 3.625" x 2.4" x 1.125" Weight: 5.1 lbs Special Service: O2 or CL cleaning available* *Other specifications or services may be available.

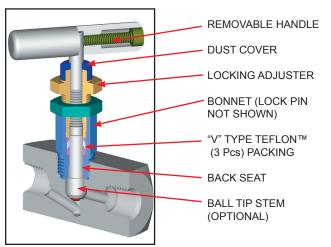




P3ML2H[™] 2-Valve Liquid Level Manifold Bonnet, Stem and Seat Characteristics

Teflon[™] Bonnet Assembly

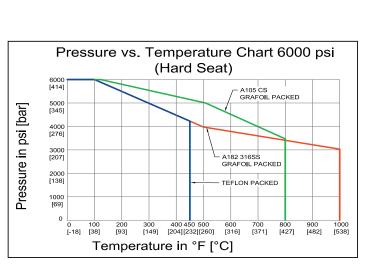
| Standard | d Materials | | | | |
|----------|--------------------|--------------------|--------------------|------------------------|---------|
| Valve | Body | Bonnet | Stem | Ball | Packing |
| CS | ASTM A108CS | ASTM A108CS | ASTM A582 303SS | SEE OPTION CODES | Teflon™ |
| SC | ASTM A105CS | ASTM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



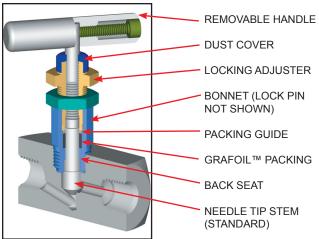
Grafoil[™] Bonnet Assembly

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

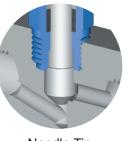
NOTE: Optional low torque Grafoil™ available (G4 Packing Code)



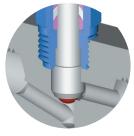
Note: Body material specifications based on ASME B16.34 - 2009. Packing material ratings based on manufacturer's specifications. Approximations only. Parker does not represent these values as finite. They are provided only as representative values.



Stem and Seat Configurations



Needle Tip (Standard)



Ball Tip (Optional)

P3ML2H[™] 2-Valve Liquid Level Manifold Model Numbering System

| Parker | Orifice Size | Туре | Inlet Size | Inlet Type | Outlet Size | Outlet Type | Material | Packing | Seat | Stem Tip | Option Codes | Description |
|--|-----------------|------|---------------|--------------|----------------|-------------|---|--------------------|------------------|--|-----------------|---------------------------------|
| Р | 3=3/16" | ML2H | 8=1/2" | F=FNPT | | FL=Flange | SS=ASTM | T=Teflon™ | Integral | Needle Tip | LB | Bonnet Lock |
| | | | | | | | A182 316/316L | (PTFE) | (leave blank) | Standard (leave blank) B=316SS Ball Tip BC=Ceramic | сс | Chlorine Clean |
| | | | | FL=Flange | | | SC=ASTM | G=Grafoil™ | | | OC | Oxygen Clean |
| | | | | | | | A105 CS* | | | | TG | SS Tag |
| | | | | FT=Female | | | CS=ASTM | G4= Low | | | SGI | Sour Gas ISO NACE Latest Rev |
| | | | | Tube Fitting | | | A108 CS* | Torque Grafoil™ | | ван пр | Ball Tip N4 | Monel [™] 400 Ster |
| | | | 1 | İ | | | C5=ASTM | İ | | BM=Monel™ | N5 | Monel [™] 500 Ste |
| | | | | | | | A350 LF2 | | | Ball Tip | N6 | Inconel [™] 625 Ste |
| | | | | | | | N4=Monel™ | | | | N8 | Inconel [™] 825 Ste |
| | | | | | | | 400 | | | | N2 | Hastelloy™ C276 Stem |
| | | | | | | | N6=Inconel™ 625 | | | | H(V)MB | Horizontal (Vertic |
| | | | | | | | N8=Inconel™ 825 | | | | H(V)MBS | |
| | | | | | | | N2=Hastelloy™ C276 | | | İ | | (Vertical) Mounting Bracke |
| | | | | | <u> </u> | | | | | | S6 | 316 SS Bolts |
| EXAMPLE: P3ML2H8FFLSSTB = 3/16" Orifice, 2-Valve Liquid Level Manifold, 1/2" FNPT Inlet, Flange Outlet, 316 SS Body, Teflon™ Packing, Integral Seat, 316 SS Ball Tip Stem | | | | | | | 225CS | 2.25" CS Bolts | | | | |
| P | 2 | | 8 | F | | FL | ss | т | r | в | 225S4 | 2.25" 304 SS Bol |
| | 3 | ML2H | - | 1. | | | 100 | 1. | | | 225S6 | 2.25" 316 SS Bo |
| | | | | | | | le bolts must be sp SS - stainless ste | | | ins. | тв | 1/4" FNPT Test Ports Bottom |
| | | | | | | | | | | | РВ | 1/4" FNPT Purge Ports Bottom |

Use with Confidence, Parker 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 for all 316SS valves and A105CS body/ 316SS bonnet (SC Material Code)

For further information please contact:



Parker Hannifin Canada Instrumentation Group 2620 21st Street N.E. Calgary, Alberta T2E 7L3 Phone: (403) 291-3154 Fax: (403) 291-3292

| | B7 |
|---|-------|
| Code Bolting Information | B8C1 |
| 1. B7, B8C1, B8MC1, B8C2, B8MC2 are code grades to ASTM A193: | B8MC1 |
| 2. To specify code grade bolting, example: 225B7, indicates 2.25" bolt length; B7 grade, alloy steel, AISI 4140/4142 | B8C2 |
| 3. QT-Quenched & Tempered; ST-Carbide Solution Treated; | B8MC2 |

- SH-Strain Hardened

Seal and Seat Material Temperature Rating

| Code | Description | MIN. TEMP | MAX. TEMP | | |
|---|------------------------------------|--------------------------------|---------------------------------|--|--|
| 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. | | | | | |

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AISI 4140/4142 QT

Class 1, 304SS, ST

Class 1, 316SS, ST

Class 2, 304SS, ST, SH

Class 2, 316SS,

ST, SH