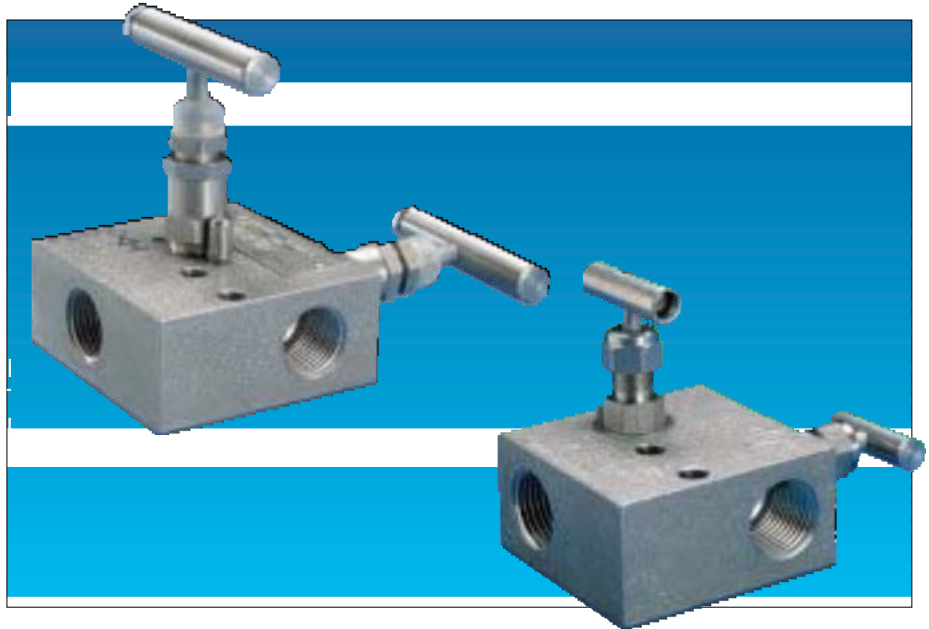




Static Pressure Manifolds – PTM and PT7 2-Valve Manifolds



Product Overview

The PT Two-Valve Calibration Manifolds are used on static pressure transmitters, switches or gauges. The shutoff valve, tee, calibration valve, and all immediate tubing/fittings are available in one simple manifold. The PT manifolds are available with either metal seats or replaceable soft seat inserts.

The PTM manifold features a unique valve seat that can be converted from soft to hard by simply removing two insert washers. No other parts are required.

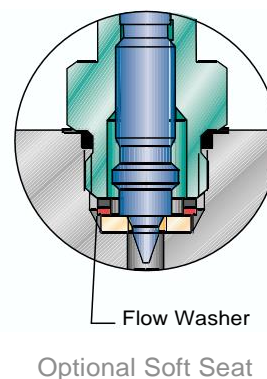
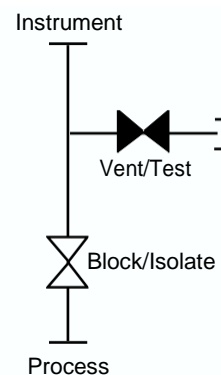
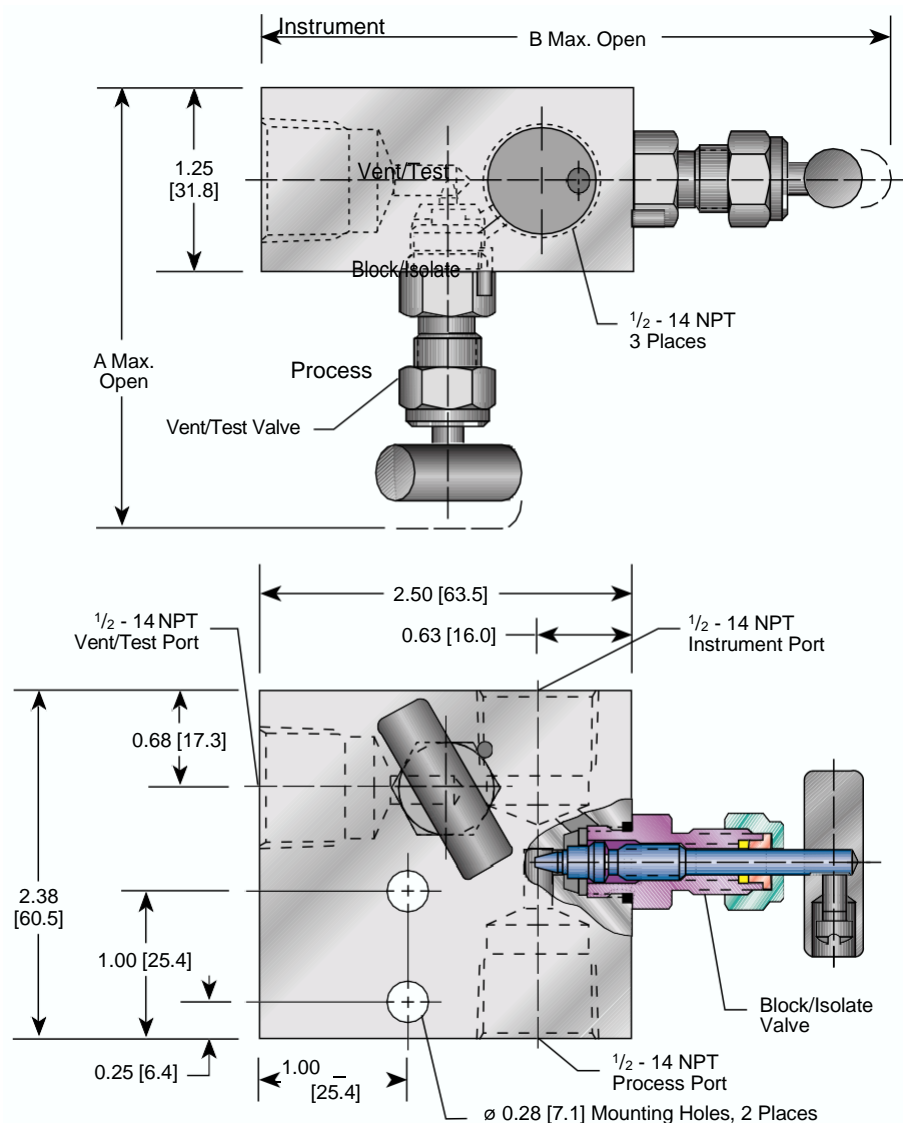
The PT7 manifold is available for elevated temperatures and features an integral metal seat.

Features and Benefits

- Cost savings when manifolding the instruments. This eliminates several parts used in conventional methods of 'piping up' resulting in cost reduction of 20-30 percent.
- Compact design requires minimum space for operation and installation.
- Rolled threads, stem and bonnet threads are rolled for increased strength. This prevents galling and adds years to the useful life of the valve.
- Fewer leak points reduce leakage by having fewer parts to assemble.
- Teflon® and GRAFOIL® adjustable packing is easily adjusted for leak-proof and long service life.
- Stem threads are isolated from process fluid (O-ring stem seal). This prevents galling and corrosion of the stem threads. The O-ring isolates the stem threads from the process.
- Backseat stem prevents stem blowout.

Static Pressure Manifolds – PTM Specifications

Dimensions, inches [mm]



Packing

A

B

O-ring

2.50
[63.5]

3.75
[95.3]

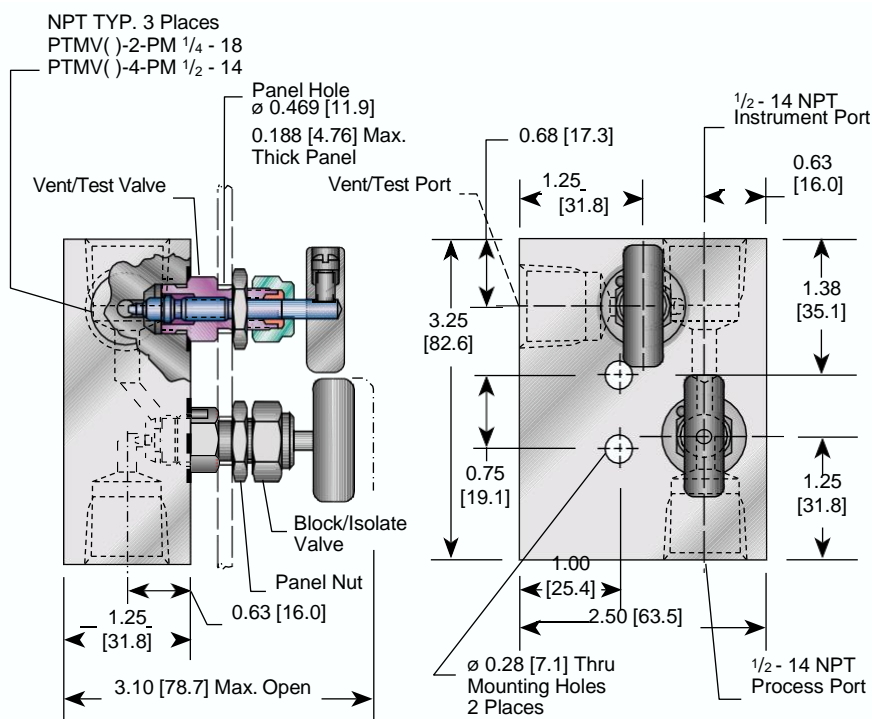
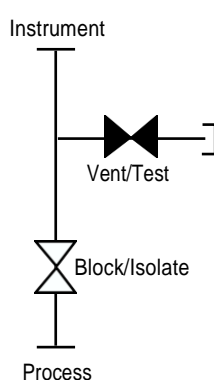
3.10
[78.7]

4.35
[110.5]

1. Approximate valve weight: 2.0 lb [0.9 kg].
0.136-inch [3.5 mm] diameter orifice.
Valve C_v Hard Seat 0.25 maximum.
Valve C_v Soft Seat 0.24 maximum.

Static Pressure Manifolds – PTMV () – () – PM (Panel Mount) Specifications

Dimensions, inches [mm]



Standard Materials

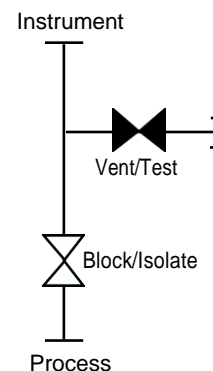
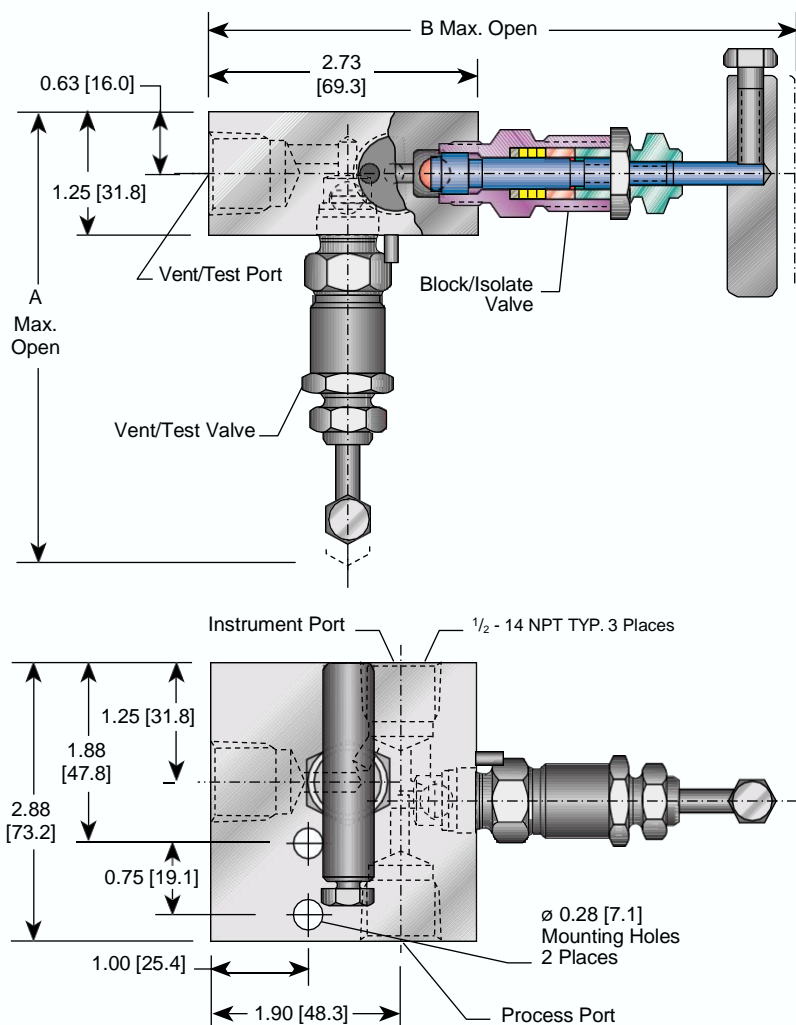
| Valve | Body | Bonnet | Stem | Flow Washer ⁴ |
|-----------------|------------|-------------|-------------|--------------------------|
| CS ² | A108 | A108 | A581-303 | 316 |
| SS | A479-316 | A479-316 | A276-316 | 316 |
| SG ³ | A476-316 | A479-316 | Monel® R405 | 316 |
| Monel® | Monel® 400 | Monel® R405 | Monel® R405 | Monel® 400 |

Notes

1. Approximate valve weight: 2.7 lb [1.2 kg].
0.136-inch [3.5 mm] diameter orifice.
Valve C_v Hard Seat 0.25 maximum.
Valve C_v Soft Seat 0.24 maximum.
2. CS is zinc cobalt plated to prevent corrosion.
3. SG (Sour Gas) – all SS wetted parts are RC22 or less to meet requirements of NACE MR0175-latest revision.
4. Soft seated valves only.

Static Pressure Manifolds – PT7 Specifications

Dimensions, inches [mm]



Dimensions, inches [mm]

| Packing | A | B |
|----------------------------------|-----------------|-----------------|
| Teflon® | 3.85 [97.8] | 5.33 [135.4] |
| GRAFOIL®/ Low Emissions Graphite | 4.50 [114.3] | 5.98 [151.9] |

Standard Materials

| Valve ¹ | Body | Bonnet | Stem | Ball | Packing |
|--------------------|--------------|--------------|------------|-------------|-------------------------------------|
| CS ² | A105 | A108 | A581-303 | 17-4 PH | Teflon® |
| CS | A105 | A105 | A581-303 | 17-4 PH | GRAFOIL®/ Low Emissions Graphite |
| SS | SS, A479-316 | SS, A479-316 | A276-316 | 316 | Teflon® |
| SS | SS, A479-316 | SS, A479-316 | A276-316 | 316 | GRAFOIL®/ Low Emissions Graphite |
| SG ³ | SS, A479-316 | SS, A479-316 | Monel® 400 | Monel® K500 | Teflon® |
| SG | SS, A479-316 | SS, A479-316 | Monel® 400 | Monel® K500 | GRAFOIL®/ Low Emissions Graphite |

Notes

1. Approximate valve weight: 3.0 lb [1.4 kg].
0.187-inch [4.8 mm] diameter orifice.
Valve C_v 0.52 maximum.
2. CS is zinc cobalt plated to prevent corrosion.
3. SG (Sour Gas) meets the requirements of NACE MR0175-latest revision.

Static Pressure Manifolds – PTM and PT7 Specifications

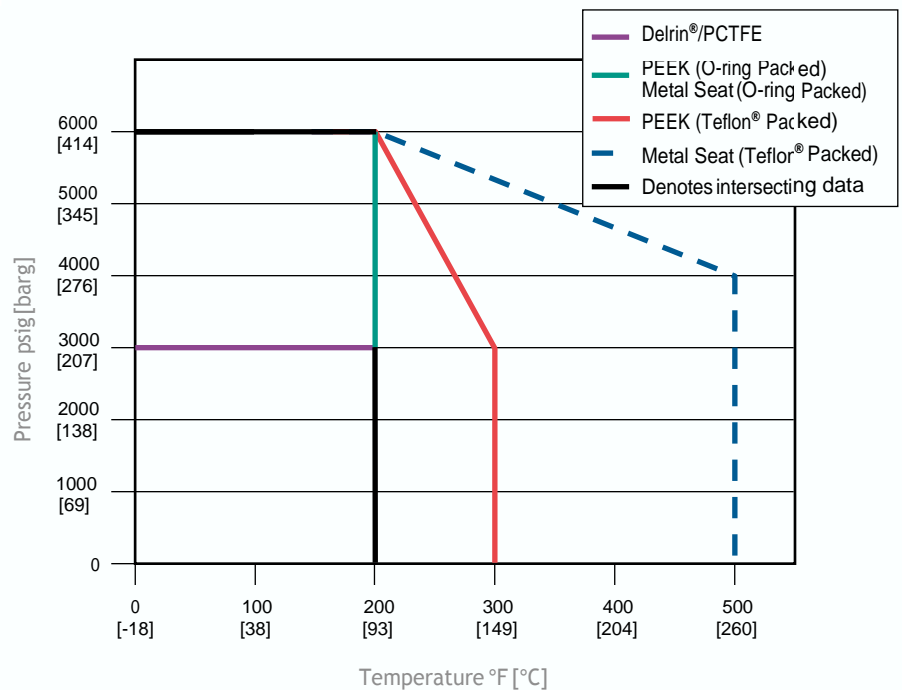
Pressure and Temperature Ratings - PTM

| Packing | PCTFE/Delrin® Seat | PEEK Seat | Metal Seat |
|---------|--|---|---|
| Teflon® | 3000 psig @ 200°F [207 barg @ 93°C] | 6000 psig @ 200°F 3000 psig @ 300°F [414 barg @ 93°C] [207 barg @ 149°C] | 6000 psig @ 200°F 4000 psig @ 500°F [414 barg @ 93°C] [276 barg @ 260°C] |
| O-ring | 3000 psig @ 200°F [207 barg @ 93°C] | 6000 psig @ 200°F [414 barg @ 93°C] | 6000 psig @ 200°F [414 barg @ 93°C] |

Pressure and Temperature Ratings - PT7

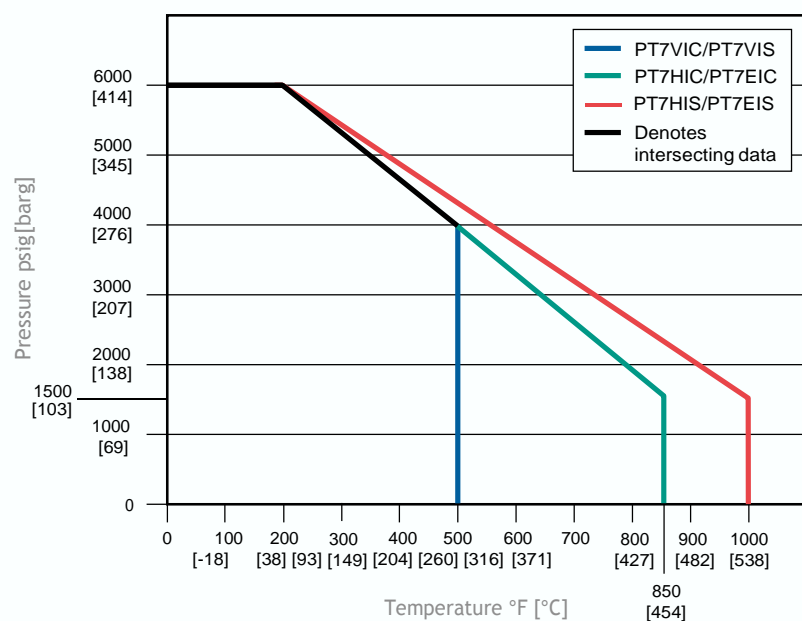
| Valve | Packing | Ratings | |
|-------|------------------------------------|--|--|
| CS | Teflon® | 6000 psig @ 200°F [414 barg @ 93°C] | 4000 psig @ 500°F [276 barg @ 260°C] |
| CS | GRAFOIL®/Low Emissions Graphite | 6000 psig @ 200°F [414 barg @ 93°C] | 1500 psig @ 850°F [103 barg @ 454°C] |
| SS | Teflon® | 6000 psig @ 200°F [414 barg @ 93°C] | 4000 psig @ 500°F [276 barg @ 260°C] |
| SS | GRAFOIL®/Low Emissions Graphite | 6000 psig @ 200°F [414 barg @ 93°C] | 1500 psig @ 1000°F [103 barg @ 538°C] |
| SG | Teflon® | 6000 psig @ 200°F [414 barg @ 93°C] | 4000 psig @ 500°F [276 barg @ 260°C] |
| SG | GRAFOIL®/Low Emissions Graphite | 6000 psig @ 200°F [414 barg @ 93°C] | 1500 psig @ 1000°F [103 barg @ 538°C] |

PTM Pressure vs. Temperature



Static Pressure Manifolds – PTM and PT7 Specifications

PT7 Pressure vs. Temperature



PTM – Ordering Information

PTM V D S - 4 - SG

Bonnet Packing

- V – Teflon®
- R – O-ring (SS - Viton®, CS - BUNA-N) (Soft Seat Only)

Seat Material

- D – Delrin® (standard)
- K – PCTFE
- E – PEEK
- I – Integral (body material)

Body Material

- C – A108
- S – A479-316 SS
- M – Monel® 400

Connections

- 4 – 1/2-inch FNPT

Options

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> –AL Arctic Lubricant (low temperature service). Not available for CS valves. –AM AGCO Mount Kit for 2-inch pipe mounting of manifold (page 38). –CL Cleaned for Chlorine Service. –OC Cleaned for Oxygen Service. | <ul style="list-style-type: none"> –HD Hydrostatic Testing (100 percent) (MSS-SP-61) –ST Stellite Ball Ended Stem (PT7 only) –MS Monel® Stem –PHB Phenolic Black Handle (PTM only) –PHG Phenolic Green Handle (PTM only) –PHR Phenolic Red Handle (PTM only) –PM Panel Mount (PTM only, page 17) | <ul style="list-style-type: none"> –SG Sour Gas meets the requirements of NACE MR0175-latest revision. (SS valves only) (Not available for O-ring packed valves) –SP Special options or requirements not otherwise noted by descriptive codes. |
|--|---|--|

Static Pressure Manifolds – PTM and PT7 Specifications

PT7 – Ordering Information

| | PT7 | V | I | S | – 4 | – SG |
|------------------------------|-----|---|---|---|-----|------|
| Bonnet Packing | | | | | | |
| V – Teflon® | | | | | | |
| H – GRAFOIL® | | | | | | |
| E – Low Emissions Graphite | | | | | | |
| Seat Material | | | | | | |
| I – Integral (body material) | | | | | | |
| Body Material | | | | | | |
| C – A105 | | | | | | |
| S – A479-316 SS | | | | | | |
| Connections | | | | | | |
| 4 – 1/2-inch FNPT | | | | | | |
| Options | | | | | | |

- AL Arctic Lubricant (low temperature service). Not available for CS valves.
- AM AGCO Mount Kit for 2-inch pipe mounting of manifold (page 38).
- CL Cleaned for Chlorine Service.
- OC Cleaned for Oxygen Service.
- HD Hydrostatic Testing (100 percent) (MSS-SP-61)
- ST Stellite Ball Ended Stem (PT7 only)
- MS Monel® Stem
- PHB Phenolic Black Handle (PTM only)
- PHG Phenolic Green Handle (PTM only)
- PHR Phenolic Red Handle (PTM only)
- PM Panel Mount (PTM only, page 17)
- SG Sour Gas meets the requirements of NACE MR0175-latest revision. (SS valves only) (not available for O-ring packed valves)
- SP Special options or requirements not otherwise noted by descriptive codes.

Static Pressure Manifolds – PT7M ASME B31.1 Specifications

PT7MHP – Ordering Information Power Industry Applications¹

| PT7MHP | S | —4 | —XP | SG |
|--|---|----|-----|----|
| Body Material | | | | |
| C | — A105 | | | |
| S | — A479-316 SS | | | |
| Connections (Process x Instrument x Vent) | | | | |
| 3 | — 3/8-inch FNPT x 3/8-inch FNPT x 3/8-inch FNPT | | | |
| 3TC | — 3/8-inch Tube Stub (6" x 0.065") - All Connections | | | |
| 3TC4 | — 3/8-inch Tube Stub (6" x 0.065") x 3/8-inch Tube Stub x 1/2-inch FNPT | | | |
| 3TC44 | — 3/8-inch Tube Stub (6" x 0.065") x 1/2-inch FNPT x 1/2-inch FNPT | | | |
| 4 | — 1/2-inch FNPT x 1/2-inch FNPT x 1/2-inch FNPT | | | |
| 422 | — 1/2-inch FNPT x 1/4-inch FNPT x 1/4-inch FNPT | | | |
| 442 | — 1/2-inch FNPT x 1/2-inch FNPT x 1/4-inch FNPT | | | |
| 4B2 | — 1/2-inch PSW x 1/4-inch FNPT x 1/4-inch FNPT | | | |
| 4TC4 | — 1/2-inch Tube Stub (6" x 0.095") x 1/2-inch Tube Stub x 1/2-inch FNPT | | | |
| 4TC44 | — 1/2-inch Tube Stub (6" x 0.095") x 1/2-inch FNPT x 1/2-inch FNPT | | | |
| Options | | | | |
| —AM | AGCO Mount Kit for 2-inch pipe mounting of manifold (page 38). | | | |
| —SP | Special options or requirements not otherwise noted by descriptive codes. | | | |

Notes

- All Manifolds come standard with GRAFOIL® packing, integral seats, bonnet locks, and are subjected to hydrostatic testing.
- Manifold ratings:
 - SST 6000 psig @ 100°F
2915 psig @ 1000°F
[414 barg @ 38°C]
[201 barg @ 538°C]
 - STL 6170 psig @ 100°F
3430 psig @ 800°F
[425 barg @ 38°C]
[236 barg @ 427°C]
- See page 148 for Code Requirements.