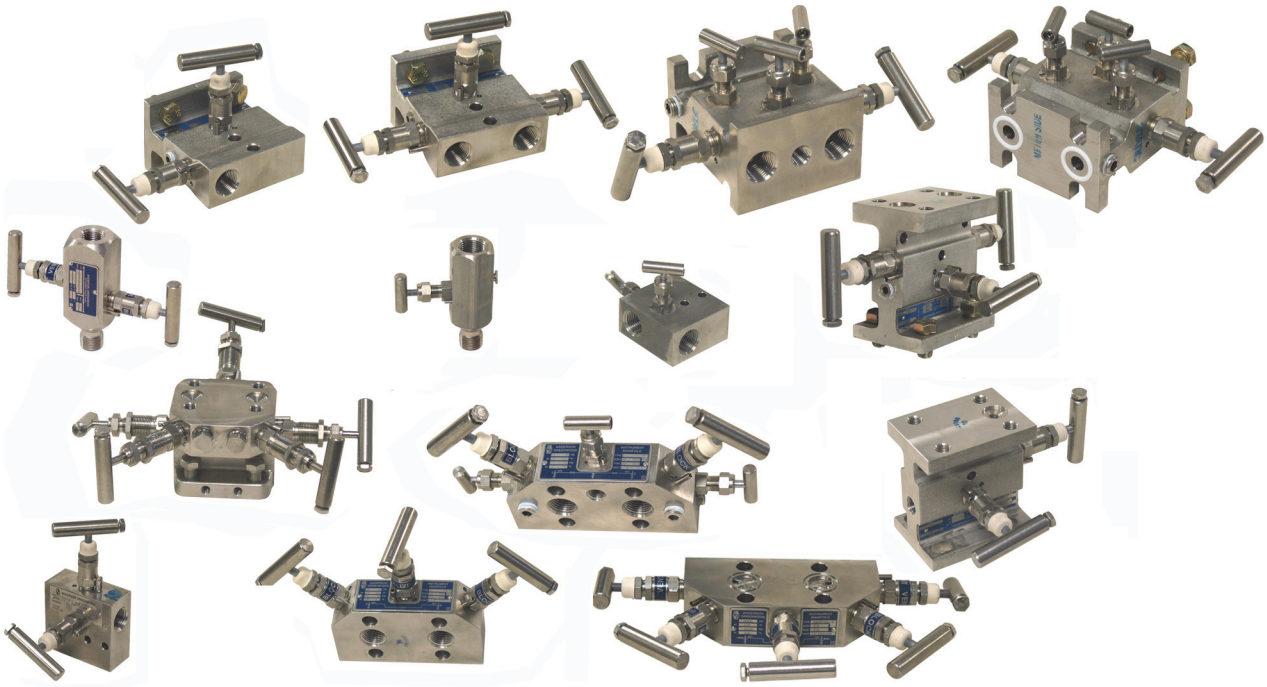
Foxboro®
by Schneider Electric

1-, 2-, 3-, and 5-Valve Manifolds for use with I/A Series® Electronic Pressure Transmitters and Pneumatic Pressure Transmitters



The Foxboro® brand 1-, 2-, 3-, and 5-Valve Manifolds, and Block and Bleed Valves are compact devices that easily and economically isolate the pressure transmitter from the process to conveniently allow venting, calibration, and maintenance of the transmitter.

TYPICAL MANIFOLD DESIGN FEATURES

- Manifolds offered for Traditional and Low Profile Transmitter Structures.
- Low cost commodity versions offered. Also specially designed versions for Natural Gas and Power Industry applications.
- Compact design means minimum space for operation and installation.
- Rolled threads (not cut) result in increased strength, galling prevention, and longer life.
- Fewer parts to reduce leakage points.
- Backseat stem prevents stem blowout.
- Teflon packing adjustable for long and leak proof service. Grafoil packing also offered for high temperature applications.
- Stem threads isolated from process to reduce galling and corrosion.
- One piece handle design prevents loss of handle due to vibration effects, or during maintenance.
- Mirror stem finished to 16 RMS in packing area enables smooth stem operation and extends packing life.

I/A SERIES ELECTRONIC PRESSURE TRANSMITTER FAMILY

The I/A Series® Electronic Pressure Transmitters are a complete family of d/p Cell®, gauge, absolute, multirange, multivariable, and premium performance transmitters, as well as transmitters with remote or direct mount seals, all using field-proven silicon strain gauge sensors and common topworks. See Table 2 for a listing of Manifolds compatible with the many products in this pressure transmitter family.

PNEUMATIC d/p CELL TRANSMITTER FAMILY

These bracket mounted transmitters measure differential pressure and transmit a standard pneumatic signal to receivers which may be several hundred meters or yards away. They utilize the same process connectors as those on the I/A Series traditional d/p Cell transmitters. See Table 2 for the manifolds compatible with these transmitters.

LARGE VARIETY OF MANIFOLDS

1- and 2-valve manifolds are offered for threading to a direct connect absolute or gauge pressure transmitter.

2-, 3-, and 5-valve manifolds are offered for attaching to a bracket mounted absolute or gauge pressure transmitter with a traditional structure, or to a bracket mounted d/p Cell transmitter with either a traditional or low profile structure.

Refer to Table 2 for manifold models available with the I/A Series electronic pressure transmitter family, and the pneumatic d/p Cell transmitter family.

TRADITIONAL TRANSMITTER STRUCTURES

Manifolds are offered for use with bracket mounted absolute and gauge pressure transmitters, and for d/p Cell transmitters all having a traditional structure. This structure is the commonly used right angle design, where the process connections are oriented 90 degrees from the transmitter centerline. This traditional transmitter structure allows easy retrofitting of any transmitter of similar design.

LOW PROFILE TRANSMITTER STRUCTURES

Manifolds are also offered for d/p Cell transmitters having a low profile structure that use an in-line design. The inline design places the transmitter process connections in line with the transmitter centerline. This transmitter configuration provides a style similar to competitive Coplanar™ transmitters. The low profile transmitter is offered in either an LP1 or LP2 configuration, either of which is usable with the applicable manifold. See Table 2.

COMMODITY VERSION MANIFOLDS

In addition to the standard version manifolds offered with all models, commodity versions are also available. These are low cost manifolds having either a 1- or 2-valve configuration. They are offered for use with direct connect absolute and gauge pressure transmitters. See Table 2.

REDUCED INSTALLATION COST WITH USE OF MANIFOLDS

The manifold's unitized construction results in considerable savings in material and labor during installation. Additionally, manifold can be pre-assembled as a custom if requested, thereby saving time and money during field installation.

SECURE BONNET ASSEMBLY

Roll pins are used at the interface between the bonnet assembly and valve body. This safety feature is on all manifolds and prevents accidental separation of the bonnet assembly from the valve body, while still allowing easy valve maintenance and repair.

TEFLON OR GRAFOIL PACKING

Industry standard teflon packing is offered with all manifolds. For high temperature applications, grafoil packing is also offered. See Table 4 for manifold pressure-temperature ratings with each packing material.

INSTALLATION KIT

This kit is provided to allow bolting the manifold to a bracket mounted absolute or gauge pressure transmitter, or to a d/p Cell transmitter. The kit includes four 7/16-20 bolts which vary in length depending on the manifold and mounting bracket used. Two gaskets are provided when the manifold is used with a bracket mounted absolute or gauge pressure transmitter, and four gaskets are provided when the manifold is used with a bracket mounted d/p Cell transmitter. The bolt material is compatible with the transmitter sensor and manifold body material selected.

NATURAL GAS AND POWER PLANT INDUSTRY APPLICATIONS

Table 1 lists the manifolds offered for use in the Natural Gas and Power Plant Industries. Also see Table 3.

Table 1. Manifolds for Natural Gas and Power Plant Applications

Industry	Manifold Model	No. of Valves	Manifold Version
Natural Gas	MB5G	5	Standard
	M6TA	5	Standard
	M6T	5	Standard
Power Industry	PT7M	2	Standard
	M25-HP	2	Standard
	MB3-HP	3	Standard
	MB5P-HP	5	Standard

SOUR GAS APPLICATION OPTIONS

Options available, for sour gas applications, that meet NACE MR0175, NACE MR0103, and ISO 15156-3 requirements. Option -SG is offered when the body material is stainless steel, and Option -SG3 is offered when the body material is Hastelloy C-276. See Ordering Code section for the availability of these options with the selected manifold. Also see Table 3.

OXYGEN SERVICE APPLICATION OPTION

Cleaning for Oxygen Service is provided with many manifolds. This option is not available when the body material is carbon steel. See Ordering Code section for the availability of this option with the selected manifold. Also see Table 3.

MANIFOLD MOUNTING KIT OPTION

This option (Option -AM) is offered with standard version (not commodity version) bracket mounted absolute, gauge, and d/p Cell transmitters (see Table 3). It comprises a plated steel bracket and hardware that allows attaching the bracket to both the manifold and a 2-inch pipe stand. It offers many advantages over the conventional transmitter mounting arrangement.

Conventional mounting is with the transmitter sandwiched between the manifold and bracket, whereas with the manifold mounting kit, it is the manifold that is sandwiched between the transmitter and bracket.

The bracket provided with the mounting kit option varies in configuration depending on the manifold used. See Dimensions-Nominal section. Numerous transmitter-to-manifold-to-bracket-to-pipe stand mounting assembly configurations are achievable. The ideal assembly configuration is best determined when considering space and piping configurations, and also excessive vibration.

> **Note:** Ensure that after installation in the operating environment, the transmitter's stated vibration specification is not exceeded. Excessive vibration can degrade transmitter performance, and may also compromise the structural integrity of the installed assembly.

Typical advantages realized with the manifold mounting kit option are as follows.

1 Reduced maintenance cost - Removal of the manifold bolts is all that is required to both dismount the transmitter and disconnect it from the manifold assembly. Separate steps are no longer required for each operation.

2 Manifold and process line are supported by a mounting bracket instead of by the transmitter, resulting in the benefits below:

- The process piping can be completed without the presence of the transmitter.
- Preliminary leak testing can be performed without the transmitter.
- Risk of damaging transmitter during piping is reduced since transmitter need not be installed until loop is ready for checkout.

MANIFOLD AND TRANSMITTER COMPATIBILITY

Table 2. Compatibility of Manifolds with the I/A Series Electronic Pressure Transmitter Family and also the Pneumatic d/p Cell Transmitter Family

Transmitter Description		Manifold Models with Transmitter Structures		
Xmtr Model	Transmitter Mounting and Measurement (c)	Commodity Version with Direct Conn. Transmitters (a)	Standard Version with Traditional Structure	Standard Version with Low Profile Structure (b)
I/A Series Electronic Pressure Transmitter Family				
IAP10	Direct Connect - AP	1-Valve: M9 2-Valve: PTM	2-Valve: M25-VI M25-HI M25-HP (g) PT7 PT7M (g)	Not Applicable
IGP10	Direct Connect - GP			
IGP25	Direct Connect/ Multirange - GP			
IGP50	Direct Connect/ Premium Performance - GP			
IAP20	Bracket Mounted - AP	Not Applicable	2-Valve: M4AP (g) M4TP (g)	Not Applicable
IGP20	Bracket Mounted - GP			
IDP10	Bracket Mounted - DP	Not Applicable	3-Valve: M4A M4T 5-Valve: M6TA (f), M6T (f) M24A M24T	3-Valve: MB3-VI MB3-HI MB3-HP (g) 5-Valve: MB5G (f) MB5P-VI MB5P-HI MB5P-HP (g)
IDP25	Bracket Mounted/ Multirange - DP			
IDP50	Bracket Mounted/ Premium Performance - DP			
IMV25	Bracket Mounted/ Multivariable - P, DP, T	Not Applicable	3-Valve: M4A M4T 5-Valve: M6TA (f) M6T (f) M24A M24T	Not Applicable
IMV30	Bracket Mounted/ Multivariable P, DP, T (d)			
IMV31	Bracket Mounted/ Multivariable TP, DP, T (e)			

Table 2. Compatibility of Manifolds with the I/A Series Electronic Pressure Transmitter Family and also the Pneumatic d/p Cell Transmitter Family (Continued)

Transmitter Description		Manifold Models with Transmitter Structures		
Xmtr Model	Transmitter Mounting and Measurement (c)	Commodity Version with Direct Conn. Transmitters (a)	Standard Version with Traditional Structure	Standard Version with Low Profile Structure (b)
I/A Series Electronic Pressure Transmitter Family				
Pneumatic d/p Cell Transmitter Family				
13A	Bracket Mounted - DP	Not Applicable	3-Valve: M4A M4T 5-Valve: M6TA (f) M6T (f) M24A M24T	Not Applicable
13HA	Bracket Mounted - DP			
15A	Bracket Mounted - DP			

(a) The Commodity Version manifolds are a low cost offering available with direct connect transmitters.
(b) The Low Profile Structure is for transmitters with either an LP1 or LP2 configuration.
(c) AP=Absolute Pressure; GP=Gauge Pressure; DP=Differential Pressure; T=Temperature; and TP=Tank Pressure.
(d) Measured variables provide process flow rate and density outputs.
(e) Measured variables provide tank liquid level and density outputs.
(f) The MB5G, M6T, and M6TA are five-valve manifolds recommended for gas flow applications.
(g) Models PT7M, M25-HP, MB3-HP, and MB5-HP are designed specifically for Power Industry applications and meet ASME Std B31.1.

STANDARD SPECIFICATIONS

Table 3. Approximate Mass, Process Connections, Options, and Application

Model	No. of Valves	Version/ Struct. (a)	Approx. Mass	Connection to Process		Options (d)	Application		
							General Purpose	Natural Gas	Power Service
M9 (b)	1	Com./ (c)	0.54 kg (1.2 lb)	1/2 - 14 NPT	–	-SG, -SG3	X	–	–
PTM	2	Com./ (c)	1.5 kg (3.3 lb)	1/2 - 14 NPT	–	-SG, -SG3	X	–	–
PT7	2	Std./ (c)	1.4 kg (3.0 lb)	1/2 - 14 NPT	–	-AM, -SG, -SG3, -OC	X	–	–
PT7M	2	Std./ (c)	1.4 kg (3.0 lb)	1/2 - 14 NPT	–	-AM, -XP, -OC	–	–	X
M25-VI M25-HI	2	Std./ (c)	1.2 kg (2.7 lb)	1/2 - 14 NPT	–	-AM, -SG, -SG3, -OC	X	–	–
M25-HP	2	Std./ (c)	1.2 kg (2.7 lb)	1/2 - 14 NPT	–	-AM	–	–	X
M4AP	2	Std./ Trad.	2.7 kg (6.0 lb)	–	Flanged	-AM, -SG, -SG3, -OC	X	–	–
M4TP	2	Std./ Trad.	2.3 kg (5.0 lb)	1/2 - 14 NPT	–	-AM, -SG, -SG3, -OC	X	–	–

Table 3. Approximate Mass, Process Connections, Options, and Application (Continued)

Model	No. of Valves	Version/ Struct. (a)	Approx. Mass	Connection to Process		Options (d)	Application		
							General Purpose	Natural Gas	Power Service
M4A	3	Std./ Trad.	2.7 kg (6.0 lb)	–	Flanged	-AM, -SG, -SG3, -OC	X	–	–
M4T	3	Std./ Trad.	2.3 kg (5.0 lb)	1/2 - 14 NPT	–	-AM, -SG, -SG3, -OC	X	–	–
MB3-VI MB3-HI	3	Std./ Lo-Pro.	2.0 kg (4.4 lb)	1/2 - 14 NPT	–	-AM, -SG, -SG3, -OC	X	–	X
MB3-HP	3	Std./ Lo-Pro.	2.0 kg (4.4 lb)	1/2 - 14 NPT	–	-AM	–	–	–
M6TA	5	Std./ Trad.	3.2 kg (7.0 lb)	–	Flanged	-AM, -SG, -OC	X	X	–
M6T	5	Std./ Trad.	3.2 kg (7.0 lb)	1/2 - 14 NPT	–	-AM, -SG, -OC	X	X	–
MB5G	5	Std./ Lo-Pro.	2.5 kg (5.6 lb)	1/2 - 14 NPT	–	-AM, -SG, -SG3, -OC	X	X	–
MB5P-VI MB5P-HI	5	Std./ Lo-Pro.	2.5 kg (5.6 lb)	1/2 - 14 NPT	–	-AM, -SG, -SG3, -OC	X	–	–
MB5P-HP	5	Std./ Lo-Pro.	2.5 kg (5.6 lb)	1/2 - 14 NPT	–	-AM	–	–	X
M24A	5	Std./ Trad.	3.1 kg (6.8 lb)	–	Flanged	-AM, -SG, -SG3, -OC	X	–	–
M24T	5	Std./ Trad.	3.2 kg (7.0 lb)	1/2 - 14 NPT	–	-AM, -SG, -SG3, -OC	X	–	–

(a) Com = Commodity Version; Std = Standard Version; Trad = Traditional Structure; Lo-Pro = Low Profile Structure.
(b) Commonly referred to as a Block and Bleed Valve.
(c) Used with direct connect absolute and gauge pressure transmitter.
(d) Optional Selections offered are:
-AM = AGCO Mounting Kit for mounting manifold to 2-inch pipe stand.
-OC = Clean for Oxygen Service.
-SG = Sour Gas Applications - stainless steel body only.
-SG3 = Sour Gas Applications - Hastelloy C-276 body only.
-XP = ASME Standard B31.1 for Power Service.

Table 4. Materials of Construction and Pressure-Temperature Ratings

Model	Materials of Construction			Pressure - Temperature Rating (b)
	Body (a)	Seat	Packing	
M9	cs, ss, H, and M	Integral	Teflon	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 27.6 MPa @ 260 °C (4000 psi @ 500 °F)
PTM	cs, ss, H, and M	Integral	Teflon	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 27.6 MPa @ 260 °C (4000 psi @ 500 °F)
PT7	cs, ss, and H	Integral	Teflon	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 27.6 MPa @ 260 °C (4000 psi @ 500 °F)
PT7M	ss	Integral	Grafoil	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 10.34 MPa @ 454 °C (1500 psi @ 850 °F)
M25-VI M25-HI	cs, ss, and H	Integral	Teflon	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 27.6 MPa @ 260 °C (4000 psi @ 500 °F)
			Grafoil	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 10.34 MPa @ 454 °C (1500 psi @ 850 °F)
M25-HP	ss	Integral	Grafoil	41.4 MPa @ 38 °C (6000 psi @ 100 °F) 20.1 MPa @ 538 °C (2915 psi @ 1000 °F)
M4AP	cs, ss, and H	Integral	Teflon	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 27.6 MPa @ 260 °C (4000 psi @ 500 °F)
			Grafoil	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 10.34 MPa @ 538 °C (1500 psi @ 1000 °F)
M4TP	cs, ss, and H	Integral	Teflon	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 27.6 MPa @ 260 °C (4000 psi @ 500 °F)
			Grafoil	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 10.34 MPa @ 538 °C (1500 psi @ 1000 °F)
M4A	cs, ss, H	Integral	Teflon	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 27.6 MPa @ 260 °C (4000 psi @ 500 °F)
			Grafoil	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 10.34 MPa @ 538 °C (1500 psi @ 1000 °F)
M4T	cs, ss, and H	Integral	Teflon	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 27.6 MPa @ 260 °C (4000 psi @ 500 °F)
			Grafoil	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 10.34 MPa @ 538 °C (1500 psi @ 1000 °F)

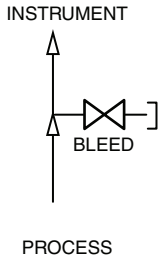
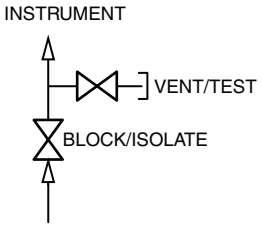
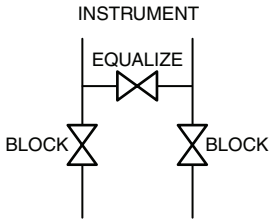
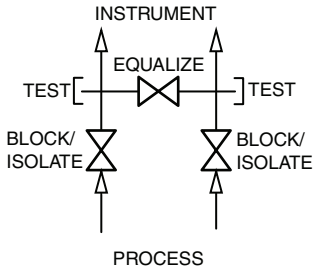
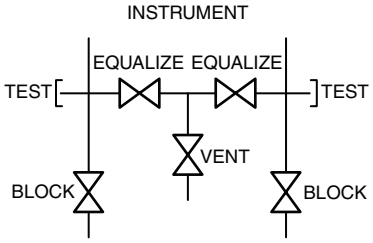
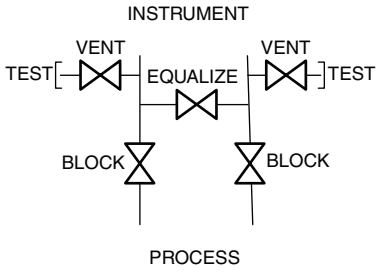
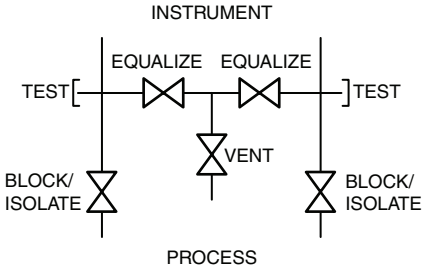
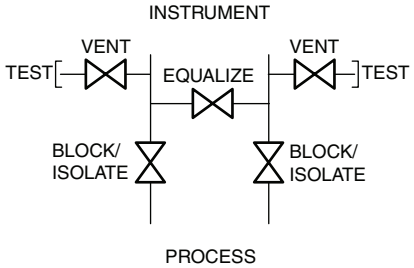
Table 4. Materials of Construction and Pressure-Temperature Ratings (Continued)

Model	Materials of Construction			Pressure - Temperature Rating (b)
	Body (a)	Seat	Packing	
MB3-VI MB3-HI	cs, ss, and H	Integral	Teflon	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 27.6 MPa @ 260 °C (4000 psi @ 500 °F)
			Grafoil	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 10.34 MPa @ 538 °C (1500 psi @ 1000 °F)
MB3-HP	ss	Integral	Grafoil	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 10.34 MPa @ 538 °C (1500 psi @ 1000 °F)
M6TA	cs and ss	Integral	Teflon	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 27.6 MPa @ 260 °C (4000 psi @ 500 °F)
		Delrin	Teflon	31.0 MPa @ 38 °C (4500 psi @ 100 °F) 20.7 MPa @ 149 °C (3000 psi @ 300 °F)
M6T	cs and ss	Integral	Teflon	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 27.6 MPa @ 260 °C (4000 psi @ 500 °F)
		Delrin	Teflon	31.0 MPa @ 38 °C (4500 psi @ 100 °F) 20.7 MPa @ 149 °C (3000 psi @ 300 °F)
MB5G	ss and H	Integral	Teflon	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 27.6 MPa @ 260 °C (4000 psi @ 500 °F)
		Delrin	Teflon	31.0 MPa @ 38 °C (4500 psi @ 100 °F) 20.7 MPa @ 149 °C (3000 psi @ 300 °F)
MB5P-VI MB5P-HI	ss and H	Integral	Teflon	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 27.6 MPa @ 260 °C (4000 psi @ 500 °F)
			Grafoil	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 10.34 MPa @ 538 °C (1500 psi @ 1000 °F)
MB5P-HP	ss	Integral	Grafoil	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 10.34 MPa @ 538 °C (1500 psi @ 1000 °F)
M24A	ss and H	Integral	Teflon	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 27.6 MPa @ 260 °C (4000 psi @ 500 °F)
			Grafoil	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 10.34 MPa @ 538 °C (1500 psi @ 1000 °F)
M24T	ss and H	Integral	Teflon	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 27.6 MPa @ 260 °C (4000 psi @ 500 °F)
			Grafoil	41.4 MPa @ 93 °C (6000 psi @ 200 °F) 10.34 MPa @ 538 °C (1500 psi @ 1000 °F)

(a) Body Material cs = carbon steel, ss = 316 ss stainless steel, H = Hastelloy C-276, and M = Monel 400.
(b) The pressure-temperature ratings listed are for the manifolds only. For the pressure and temperature limits of the transmitter, refer to the applicable transmitter PSS (product specifications). Do not exceed the limits listed in the PSS. Also Note that the transmitter pressure limits vary with the optional bolt materials, and other transmitter options selected.
(c) The pressure-temperature ratings in the table are interpreted as follows, for example with the Model PT7 manifold, and in U.S. Customary Units:
6000 psi from 0 to 200 °F
A linear interpolation for pressure at a temperature between 200 °F and 500 °F
4000 psi at 500 °F

SCHEMATIC DIAGRAMS

Table. 5 Schematic Diagrams of Manifolds

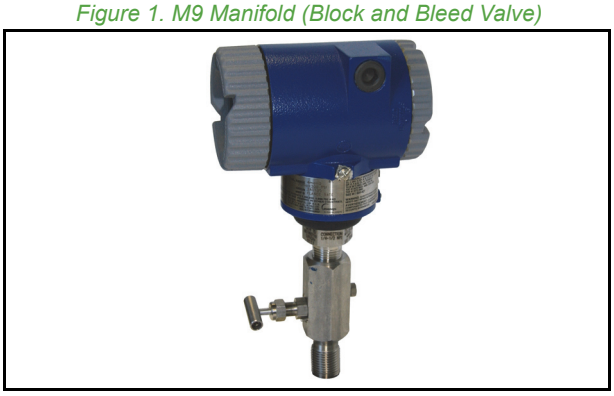
MODEL M9	MODELS M4AP, M4TP, M25, PTM, AND PT7	MODEL MB3
		
MODELS M4A AND M4T	**MODEL MB5G**	**MODEL MB5P**
		
MODELS M6T AND M6TA	**MODELS M24A AND M24T**	
		

MANIFOLD DESCRIPTIONS

Model M9 Manifold (Figure 1)

This low cost, general purpose, commodity version 1-valve manifold threads onto a direct connect absolute or gauge pressure transmitter. It is used for quick and easy mounting, blocking, and venting of the transmitter. Both process and transmitter connections are 1/2-14 NPT. The transmitter can be easily field calibrated using calibration screw part number F0101ES, which connects to the bleed/vent screw. Options are offered for sour gas applications. See Tables 3, 4, and 5, and also the Dimensions-Nominal section.

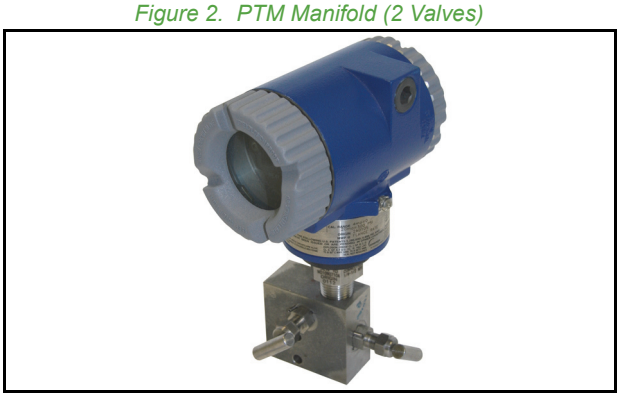
Figure 1. M9 Manifold (Block and Bleed Valve)



Model PTM 2-Valve Manifold (Figure 2)

The Model PTM is a low cost, general purpose, commodity version 2-valve calibration manifold used with direct connect absolute and gauge pressure transmitters. The block valve, calibration valve, and all intermediate tubing/fittings are available in one single manifold, including drain, process, and instrument ports. The connection to the process is 1/2-14 NPT. Options are offered for sour gas applications. See Tables 3, 4, and 5, and also the Dimensions-Nominal section.

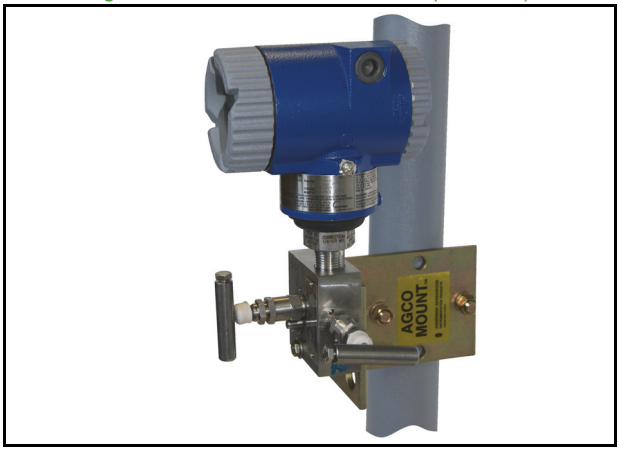
Figure 2. PTM Manifold (2 Valves)



Models PT7 and PT7M 2-Valve Manifolds (Figure 3)

The PT7 and PT7M are standard version 2-valve manifolds that direct connect to absolute and gauge pressure transmitters. Each has a vent and block valve and a 1/2 NPT process connection. The PT7 is used for General Purpose Applications and is offered with mounting kit, sour gas applications, and oxygen service cleaning options. The PT7M is designed for Power Industry Applications (meets ASME Standard B31.1) and is available with an optional mounting kit. Refer to Tables 3, 4, and 5, and to the Dimensions-Nominal section.

Figure 3. PT7 and PT7M Manifold (2 Valves)



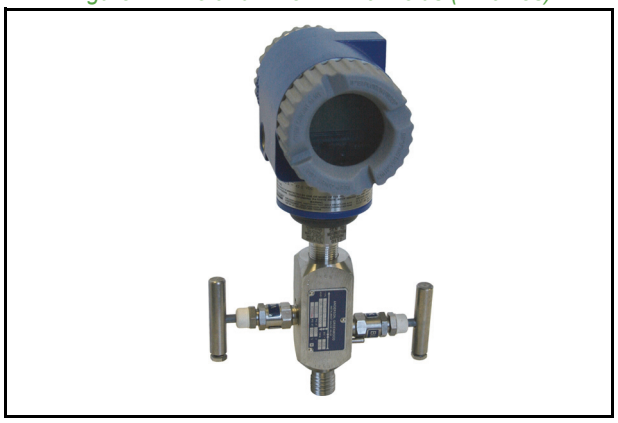
Model M25 2-Valve Manifold (Figure 4)

The Model M25 is a compact, versatile, standard version 2-valve manifold that is used for General Purpose Applications. It connects to a direct connect absolute or gauge pressure transmitters. It has an external 1/2-14 NPT process connection, and an internal 1/2-14 NPT instrument connection. This manifold combines an isolation valve and vent/calibrate valve in a single unit. Options for sour gas and oxygen service cleaning applications are also offered. Refer to Tables 3, 4, and 5, and the Dimensions-Nominal section.

Model M25-HP 2-Valve Manifold (Figure 4)

The -HP version is basically the Model M25 but specifically designed for Power Industry Applications (meets ASME B31.1). See Tables 3, 4, and 5, and also the Dimensions-Nominal section.

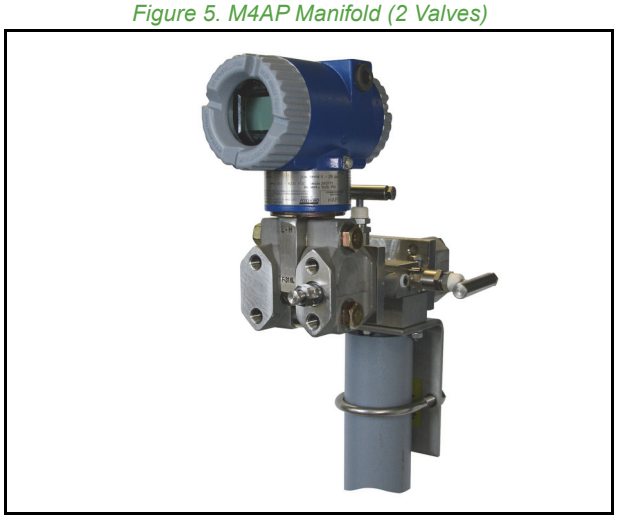
Figure 4. M25 and M25-HP Manifolds (2 Valves)



Model M4AP 2-Valve Manifold (Figure 5)

The Model M4AP is a standard version, general purpose 2-valve manifold used with bracket mounted absolute and gauge pressure transmitter having a traditional structure. It has a block valve that isolates the instrument from the process, and a bleed valve that can be opened to vent pressure from the transmitter. The manifold provides a flange end connection to the process. A 1/4-14 NPT purge port is available, and a 1/4-14 NPT vent port may be used for testing/calibration. The flange end connection to the process also allows connection directly to an orifice flange union. An optional manifold mounting kit is also offered, in addition to options for sour gas and oxygen service cleaning applications. Refer to Tables 3, 4, and 5, and also the Dimensions-Nominal section.

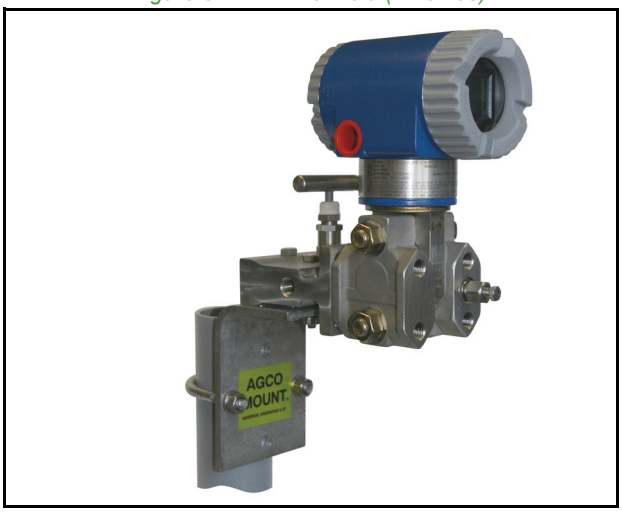
Figure 5. M4AP Manifold (2 Valves)



Model M4TP 2-Valve Manifold (Figure 6)

The Model M4TP is also a standard version, general purpose 2-valve manifold that offers the same function and features as the Model M4AP. The significant difference between the M4AP and M4TP is that the M4TP provides a 1/2-14 NPT connection to the process, rather than a flange end connection. Like the M4AP, an optional manifold mounting kit is offered, in addition to options for sour gas and oxygen service cleaning applications. Refer to Tables 3 and 4 for specifications, Table 5 for schematic diagrams, and also the Dimensions-Nominal section.

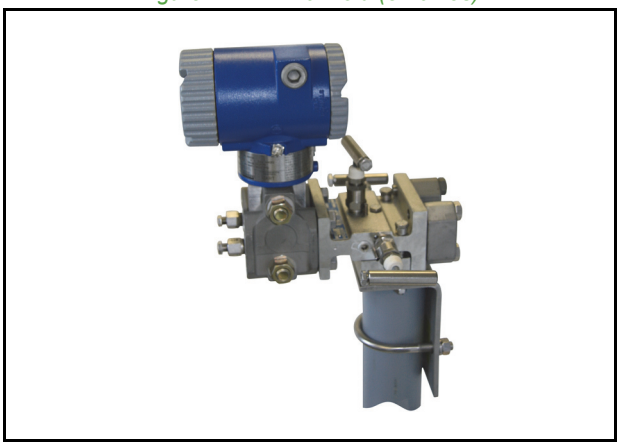
Figure 6. M4TP Manifold (2 Valves)



Model M4A 3-Valve Manifold (Figure 7)

The Model M4A is a standard version, general purpose 3-valve manifold used with d/p Cell transmitters having a traditional structure. It has two block valves and an equalize valve, and the flange end connection to the process also allows connection directly to an orifice flange union. An optional manifold mounting kit, in addition to sour gas and oxygen service cleaning application options, are also offered. Refer to Tables 3 and 4 for specifications, Table 5 for schematic diagrams, and also the Dimensions-Nominal section.

Figure 7. M4A Manifold (3 Valves)



Model M4T 3-Valve Manifold (Figure 8)

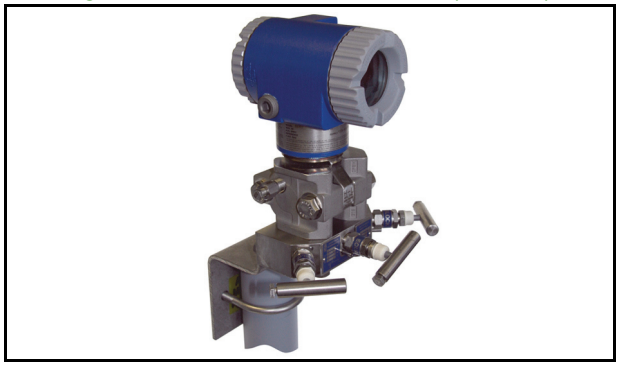
The Model M4T is a standard version, general purpose 3-valve manifold that is essentially the same as the Model M4A except that it has a 1/2-14 NPT end connection to the process, rather than a flanged end. Options include a manifold mounting kit, and treatment for sour gas and oxygen service cleaning applications. Refer to Tables 3 and 4 for specifications, Table 5 for schematic diagrams, and also the Dimensions-Nominal section.

Figure 8. M4T Manifold (3 Valves)

Model MB3 3-Valve Manifold (Figure 9)

The Model MB3 is a standard version, general purpose 3-valve manifold for use with d/p Cell transmitters having a low profile structure. It has the advantage of small size and light weight. Plugged or valved vent/test ports provide for field calibration checks. Optional manifold mounting kit, sour gas, and oxygen service options are offered. See Tables 3, 4, and 5, and also the Dimensions-Nominal section.

Figure 9. MB3 and MB3-HP Manifolds (3 Valves)



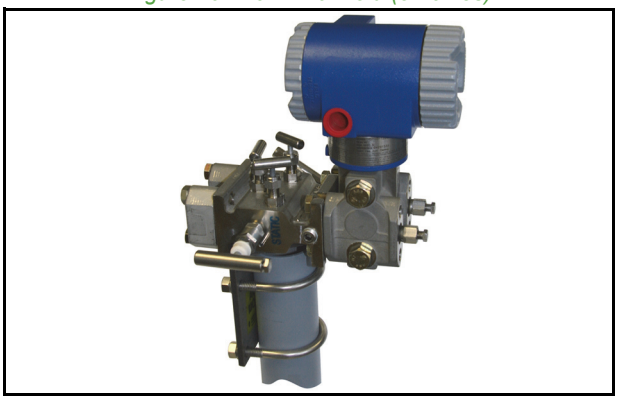
Model MB3-HP 3-Valve Manifold (Figure 9)

The -HP3 version is basically the Model MB3, but specifically designed for Power Industry applications (meets ASME B31.1). See Tables 3, 4, and 5, and also the Dimensions-Nominal section.

Model M6TA 5-Valve Manifold (Figure 10)

The Model M6TA is a standard version 5-valve manifold used with d/p Cell transmitters having a traditional structure, and recommended for use in Natural Gas Processes. It has two block valves, two equalize valves, and a vent valve. It has a flanged end for connection to the process, or to an orifice flange union. Test ports and pipe plugs are also used with the manifold. It is designed for mounting to a 2-inch pipe stand using the manifold mounting kit option. Options are also offered for sour gas and oxygen service and applications. See Tables 3, 4, and 5, and also the Dimensions-Nominal section.

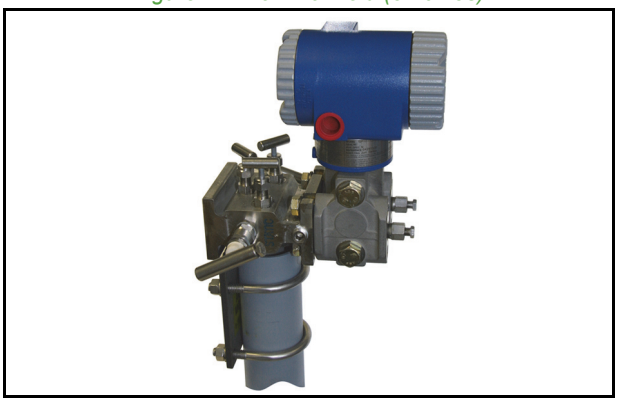
Figure 10. M6TA Manifold (5 Valves)



Model M6T 5-Valve Manifold (Figure 11)

The M6T, like the M6TA, is also a standard version 5-valve manifold for use with Natural Gas Processes, and has the same design features as the Model M6TA. The significant difference is that the M6T has 1/4-NPT end for connection to the process, rather than a flanged end connection. A manifold mounting kit, sour gas application, and oxygen service cleaning options are offered. See Tables 3 and 4 for specifications, Table 5 for schematic diagrams, and also the Dimensions-Nominal section.

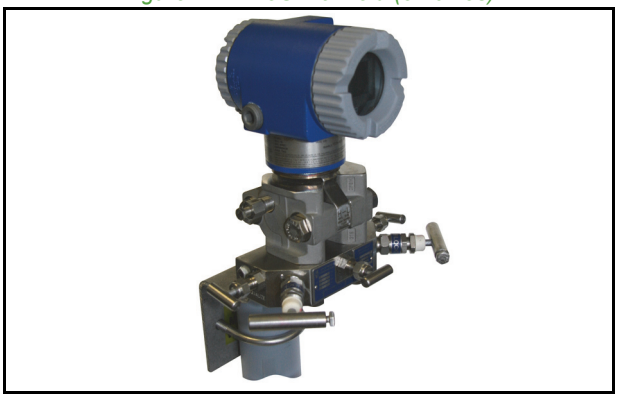
Figure 11. M6T Manifold (5 Valves)



Model MB5G 5-Valve Manifold (Figure 12)

The Model MB5G is a standard version 5-valve manifold used with d/p Cell transmitters having a low profile configuration, and recommended for use in Natural Gas Processes. It has two block valves, two equalize valves, and a vent valve. The end connection to the process is 1/2-14 NPT. An optional manifold mounting kit, in addition to sour gas and oxygen service cleaning application options, are also offered. Refer to Tables 3, 4, and 5, and also the Dimensions-Nominal section.

Figure 12. MB5G Manifold (5 Valves)



Model MB5P 5-Valve Manifold (Figure 13)

The Model MB5P is like the Model MB5G except that it is designed for use in General Purpose Applications. An additional difference is that it has two block valves, one equalize valve, and two vent valves. Like the MB5G, options include a manifold mounting kit, and treatment for sour gas and oxygen service cleaning applications. See Tables 3, 4, and 5, and also the Dimensions-Nominal section.

Model MB5P-HP 5-Valve Manifold (Figure 13)

The -HP version is basically the Model MB5P, but specifically designed for Power Industry applications (meets ASME B31.1). See Tables 3, 4, and 5, and also the Dimensions-Nominal section.

Model M24A 5-Valve Manifold (Figure 14)

The Model M24A is a standard version 5-valve manifold used with d/p Cell transmitters having a traditional structure. It is used for General Purpose Applications. It has two block valves, an equalize valve, and two vent valves. It has a flange end to the process, which also allows it to be directly mounted to an orifice flange union. Options include a manifold mounting kit, sour gas, and oxygen service cleaning application options. See Tables 3, 4, and 5, and the Dimensions-Nominal section.

Model M24T 5-Valve Manifold (Figure 15)

The Model M24T has all the design features of the Model M24A, and is also a general purpose manifold. The difference between the M24T and M24A is that the M24T has 1/2-14 NPT end connections to the process, rather than a flange end. Options include a manifold mounting kit, treatment for sour gas, and oxygen service cleaning applications. See Tables 3, 4, and 5, and the Dimensions-Nominal section.

Figure 13. MB5P and MB5P-HP Manifolds (5 Valves)

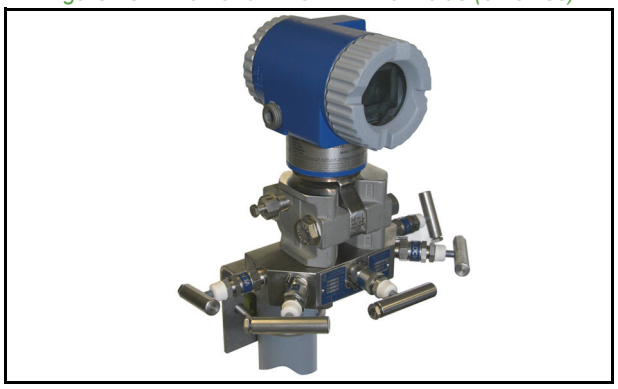


Figure 14. M24A Manifold (5 Valves)

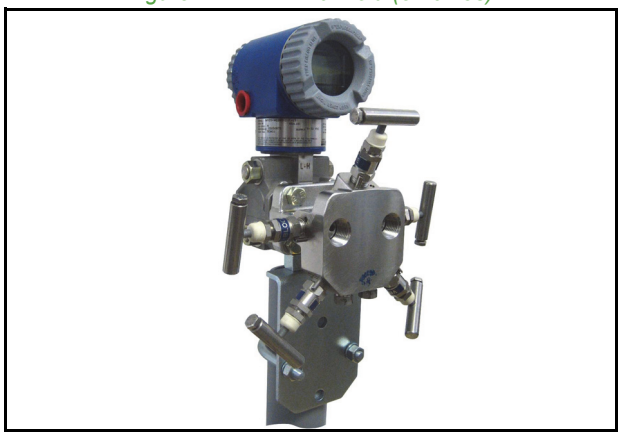
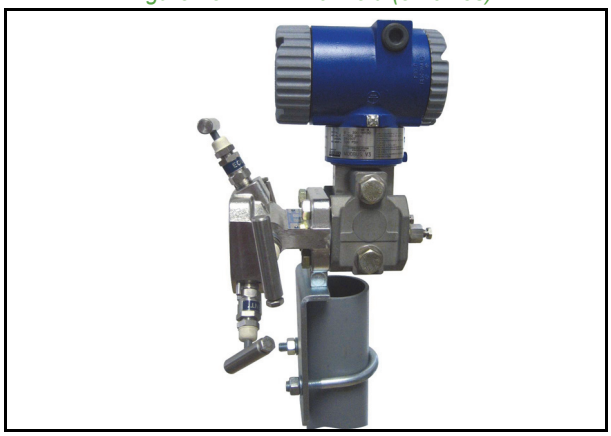


Figure 15. M24T Manifold (5 Valves)



AUXILIARY SPECIFICATION (AS) CODES

M9 1-Valve Manifold AS Code - Commodity Version for General Purpose Applications

Description	Model
1-Valve Manifold (Block and Bleed Valve) - Commodity Version; for General Purpose Applications; (a) 1/2-14 NPT Connection to Process; Used with Direct Connect Absolute or Gauge Pressure Transmitters.	M9
Bonnet Packing	
Teflon	-V
Seat Material	
Integral (same as body material)	I
Body Material	
Carbon Steel (cs)	C
316 ss	S
Hastelloy C-276	J
Monel 400	M
Process Connection	
1/2-14 NPT; External Thread	44
Optional Selections	
Sour Gas Applications - for use with Body Material Code S only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions £ 50 mg/L (ppm)], and NACE MR0103-2005.	-SG
Sour Gas Applications - for use with Body Material Code J only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions > 50 mg/L (ppm)].	-SG3
Examples: M9–VIC44; M9–VIS44–SG; M9–VIJ44–SG3	

(a) The M9 is a low cost, commodity version manifold (block and bleed valve). See Table 2 for transmitters used with this model.

PTM 2-Valve Manifold AS Code - Commodity Version for General Purpose Applications

Description	Model
2-Valve Manifold - Commodity Version; for General Purpose Applications; (a) 1/2-14 NPT Connection to Process; Used with Direct Connect Absolute or Gauge Pressure Transmitters.	PTM
Bonnet Packing	
Teflon	-V
Seat Material	
Integral (same as body material)	I
Body Material	
Carbon Steel (cs)	C
316 ss	S
Hastelloy C-276	J
Monel 400	M
Process Connection	
1/2-14 NPT; External Thread	44
Optional Selections	
Sour Gas Applications - for use with Body Material Code S only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions ≤ 50 mg/L (ppm)], and NACE MR0103-2005.	-SG
Sour Gas Applications - for use with Body Material Code J only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions > 50 mg/L (ppm)].	-SG3
Examples: PTM–VIC44; PTM–VIS44–SG; PTM–VIJ44–SG3	

(a) The PTM is a low cost, commodity version 2-valve manifold. See Table 2 for transmitters used with this model.

PT7 2-Valve Manifold AS Code - Standard Version for General Purpose Applications

Description	Model
2-Valve Manifold - Standard Version; for General Purpose Applications; (a) 1/2-14 NPT Connection to Process Used with Direct Connect Absolute or Gauge Pressure Transmitters.	PT7
Bonnet Packing	
Teflon	-V
Seat Material	
Integral (same as body material)	I
Body Material	
Carbon Steel (cs)	C
316 ss	S
Hastelloy C-276	J
Process Connection	
1/2-14 NPT; internal Thread	4
Optional Selections	
AGCO Mounting Kit for mounting manifold to 2-inch Pipe Stand	-AM
Sour Gas Applications - for use with Body Material Code S only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions $\leq$ 50 mg/L (ppm)], and NACE MR0103-2005.	-SG
Sour Gas Applications - for use with Body Material Code J only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions $>$ 50 mg/L (ppm)].	-SG3
Clean for Oxygen Service (not available with carbon steel body material)	-OC
Examples: PT7–VIC44; PT7–VIS44–SG; PT7–VIJ44–SG3; PT7–VIS44–AM; PT7–VIS44–AM–OC	

(a) The PT7 is a 2-valve manifold for use in general purpose applications. See Table 2 for transmitters used with this model.

PT7M 2-Valve Manifold AS Code - Standard Version for Power Industry Applications

Description	Model
2-Valve Manifold - Standard Version; for Power Industry Applications; (a) 1/2-14 NPT Connection to Process Used with Direct Connect Absolute or Gauge Pressure Transmitters.	PT7M
Bonnet Packing	
Grafoil	-H
Seat Material	
Integral (same as body material) (Hydrostatic testing and bonnet locks)	P
Body Material	
316 ss	S
Process Connection	
1/2-14 NPT; Internal Thread	4
Optional Selections	
AGCO Mounting Kit for mounting manifold to 2-inch Pipe Stand (steel)	-AM
Clean for Oxygen Service	-OC
ASME Standard B31.1 for Power Service	-XP
Examples: PT7M–HPS4; PT7M–HPS4–AM–XP	

(a) The PT7 2-valve manifold is designed for use in power industry applications. See Table 2 for transmitters used with this model.

M25-VI and M25-HI 2-Valve Manifold AS Code - Standard Version for General Purpose Applications

Description	Model
2-Valve Manifold - Standard Version; for General Purpose Applications; (a) 1/2-14 NPT Connection to Process Used with Direct Connect Absolute or Gauge Pressure Transmitters.	M25
Bonnet Packing	
Teflon	-V
Grafoil	-H
Seat Material	
Integral (same as body material)	I
Body Material	
Carbon Steel (cs)	C
316 ss	S
Hastelloy C-276	J
Process Connection	
1/2-14 NPT Internal Thread	4
1/2-14 NPT External Thread	44
Optional Selections	
AGCO Mounting Kit	-AM
Sour Gas Applications - for use with Body Material Code S only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions ≤ 50 mg/L (ppm)], and NACE MR0103-2005.	-SG
Sour Gas Applications - for use with Body Material Code J only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions > 50 mg/L (ppm)].	-SG3
Clean for Oxygen Service (not available with carbon steel body material)	-OC
Examples: M25–VIC44; M25–VIS44–SG; M25–VIJ44–SG3; M25–VIS44–OC	

(a) The M25-VI and M25-HI are 2-valve manifolds for general purpose applications. See Table 2 for transmitters used with this model.

Model M25-VI and M25-HI Part Numbers for Ordering Manifolds

Part Number	Auxiliary Specification Code (a)	Previous AS Code
D0197ME	AS Code M25-VIC4	–
D0197MF	AS Code M25-VIS4	–
D0197MH	AS Code M25-VIC44	–
D0197MJ	AS Code M25-VIS44	–

(a) Refer to M25-VI and M25-HI AS Code tables above for manifold description.

M25-HP 2-Valve Manifold AS Code - Standard Version for Power Industry Applications

Description	Model
2-Valve Manifold - Standard Version; for Power Industry Applications; (a) 1/2-14 NPT Connection to Process Used with Direct Connect Absolute or Gauge Pressure Transmitters.	M25
Bonnet Packing	
Grafoil	-H
Seat Material	
Integral (same as body material); for Power Industry Applications	P
Body Material	
316 ss	S
Process Connection	
1/4-14 NPT Internal Thread	4
1/4-14 NPT External Thread	44
Optional Selections	
AGCO Mount Kit	-AM
Examples: M25–HPS4; M25–HPS44–AM	

(a) The M25-HP is a 2-valve manifold for Power Industry applications. See Table 2 for transmitters used with this manifold.

Model M25-HP Part Numbers for Ordering Manifolds

Part Number	Auxiliary Specification Code (a)	Previous AS Code
D0197MY	AS Code M25-HPS4	–
D0197MZ	AS Code M25-HPS44	–
D0197NA	AS Code M25-HPS4-AM	–
D0197NB	AS Code M25-HPS44-AM	–

(a) Refer to M25-HP AS Code table above for manifold description.

M4AP 2-Valve Manifold AS Code - Standard Version for General Purpose Applications

Description	Model
2-Valve Static Pressure Manifold - Standard Version; for General Purpose Applications; (a) Flange End Connection to Process Used with Bracket Mounted Absolute or Gauge Pressure Transmitters.	M4AP
Bonnet Packing	
Teflon	-V
Grafoil	-H
Seat Material	
Integral (same as body material)	I
Body Material	
Carbon Steel (cs)	C
316 ss	S
Hastelloy C-276	J
Optional Selections	
AGCO Mount Kit for 2-inch Pipe Stand Mounting of Manifold	-AM
Sour Gas Applications - for use with Body Material Code S only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions ≤ 50 mg/L (ppm)], and NACE MR0103-2005.	-SG
Sour Gas Applications - for use with Body Material Code J only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions > 50 mg/L (ppm)].	-SG3
Clean for Oxygen Service (not available with carbon steel body material)	-OC
Examples: M4AP–VIC–AM; M4AP–VIS–AM–SG; M4AP–VIJ–AM–SG3; M4AP–VIS–AM–OC	

(a) The M4AP is a 2-valve manifold with a flange end connection to the process. See Table 2 for transmitters used with this model.

M4TP 2-Valve Manifold AS Code - Standard Version for General Purpose Applications

Description	Model
2-Valve Manifold - Standard Version; for General Purpose Applications; (a) 1/2-14 NPT Connection to Process Used with Bracket Mounted Absolute or Gauge Pressure Transmitters.	M4TP
Bonnet Packing	
Teflon	-V
Grafoil	-H
Seat Material	
Integral (same as body material)	I
Body Material	
Carbon Steel (cs)	C
316 ss	S
Hastelloy C-276	J
Process Connection	
1/2-14 NPT; Internal Thread	4
Optional Selections	
AGCO Mount Kit for 2-inch Pipe Stand Mounting of Manifold	-AM
Sour Gas Applications - for use with Body Material Code S only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions ≤ 50 mg/L (ppm)], and NACE MR0103-2005.	-SG
Sour Gas Applications - for use with Body Material Code J only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions > 50 mg/L (ppm).]	-SG3
Clean for Oxygen Service (not available with carbon steel body material)	-OC
Examples: M4TP–VIC4–AM; M4TP–VIS4–AM–SG; M4TP–VIJ4–AM–SG3; M4TP–VIS4–AM–OC	

(a) The M4TP is a 2-valve manifold with a 1/2-14 NPT connection to the process. See Table 2 for transmitters used with this model.

Model M4TP Part Numbers for Ordering Manifolds

Part Number	Auxiliary Specification Code (a)	Previous AS Code
D0161UT	AS Code M4TP-VIC4	BM-M4TP-VIC-4
D0161UU	AS Code M4TP-VIS4	BM-M4TP-VIS-4
D0161UV	AS Code M4TP-VIS4-SG	BM-M4TP-VIS-4-SG
D0161UW	AS Code M4TP-VIC4-AM	BM-M4TP-VIC-4-AM
D0161UX	AS Code M4TP-VIS4-AM	BM-M4TP-VIS-4-AM
D0161UY	AS Code M4TP-VIS4-AM-SG	BM-M4TP-VIS-4-AM-SG

(a) Refer to M4TP AS Code table above for manifold descriptions.

M4A 3-Valve Manifold AS Code - Standard Version for General Purpose Applications

Description	Model
3-Valve Manifold - Standard Version; for General Purpose Applications; (a) Flange End Connection to Process Used with Bracket Mounted d/p Cell Transmitters with Traditional Structure.	M4A
Bonnet Packing	
Teflon	-V
Grafoil	-H
Seat Material	
Integral (same as body material)	I
Body Material	
Carbon Steel (cs)	C
316 ss	S
Hastelloy C-276	J
Optional Selections	
AGCO Mounting Kit for mounting manifold to 2-inch Pipe Stand	-AM
Sour Gas Applications - for use with Body Material Code S only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions ≤ 50 mg/L (ppm)], and NACE MR0103-2005.	-SG
Sour Gas Applications - for use with Body Material Code J only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions > 50 mg/L (ppm)].	-SG3
Clean for Oxygen Service (not available with carbon steel body material)	-OC
Examples: M4A–VIC–AM; M4A–VIS–SG; M4A–VJ–SG3; M4A–VIS–AM–SG; M4A–VIS–AM–OC	

(a) The M4A is a 3-valve manifold with a flange end connection to the process, See Table 2 for transmitters used with this model.

Model M4A Part Numbers for Ordering Manifolds

Part Number	Auxiliary Specification Code (a)	Previous AS Code
B0152MC	AS Code M4A-VIC	BM-M4VC
M0155LE	AS Code M4A-VIC-AM	M4AVIC-AM
B0152ME	AS Code M4A-VIS	BM-M4AVS
M0155LD	AS Code M4A-VIS-AM	M4AVS-AM
M0155AH	AS Code M4A-VIS-SG	M4AVIS-SG
A0109SY	AS Code M4A-VIS-OC	OS-BM-M4AVS
M0155LB	AS Code M4A-VIS-AM-SG	M4AVIS-AM-SG
M0155LC	AS Code M4A-VIS-AM-OC	M4AVIS-AM-LOC

(a) Refer to M4A AS Code table above for manifold description.

M4T 3-Valve Manifold AS Code - Standard Version for General Purpose Applications

Description	Model
3-Valve Manifold - Standard Version; for General Purpose Applications; (a) 1/2-14 NPT End Connection to Process Used with Bracket Mounted d/p Cell Transmitters with Traditional Structure.	M4T
Bonnet Packing	
Teflon	-V
Grafoil	-H
Seat Material	
Integral (same as body material)	I
Body Material	
Carbon Steel (cs)	C
316 ss	S
Hastelloy C-276	J
Process Connection	
1/2-14 NPT; Internal Thread	4
Optional Selections	
AGCO Mounting Kit for mounting manifold to 2-inch Pipe Stand	-AM
Sour Gas Applications - for use with Body Material Code S only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions ≤ 50 mg/L (ppm)], and NACE MR0103-2005.	-SG
Sour Gas Applications - for use with Body Material Code J only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions > 50 mg/L (ppm)].	-SG3
Clean for Oxygen Service (not available with carbon steel body material)	-OC
Examples: M4T–VIC4; M4T–VIS4–SG; M4T–VIS4–AM–SG; M4T–VIJ4–SG3; M4T–VIS4–AM–OC	

(a) The M4T is a 3-valve manifold with a 1/2-14 NPT end connection to the process. See Table 2 for transmitters used with this model.

Model M4T Part Numbers for Ordering Manifolds

Part Number	Auxiliary Specification Code (a)	Previous AS Code
PO121EX	AS Code M4T-VIC4	M4TVIC-4
M0155LH	AS Code M4T-VIC4-AM	M4TVIC-4-AM
P0121EY	AS Code M4T-VIS4	M4TVIS-4
M0155LG	AS Code M4T-VIS4-AM	M4TVIS-4-AM
M0155AJ	AS Code M4T-VIS4-SG	M4TVIS-4-SG
M0155LF	AS Code M4T-VIS4-AM-SG	M4TVIS-4-AM-SG

(a) Refer to M4T AS Code table above for manifold description.

MB3-VI and MB3-HI 3-Valve Manifold AS Code - Standard Version for General Purpose Applications

Description	Model
3-Valve Manifold - Standard Version; for General Purpose Applications; (a) 1/2-14 NPT Connection to Process Used with Bracket Mounted d/p Cell Transmitters with Low Profile Structure.	MB3
Bonnet Packing	
Teflon	-V
Grafoil	-H
Seat Material	
Integral (same as body material)	I
Body Material	
Carbon Steel (cs)	C
316 ss	S
Hastelloy C-276	J
Process Connection	
1/2-14 NPT; Internal Thread	4
Optional Selections	
AGCO Mount Kit for 2-inch Pipe Stand Mounting of Manifold	-AM
Sour Gas Applications - for use with Body Material Code S only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions ≤ 50 mg/L (ppm)], and NACE MR0103-2005.	-SG
Sour Gas Applications - for use with Body Material Code J only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions > 50 mg/L (ppm)].	-SG3
Clean for Oxygen Service (not available with carbon steel body material)	-OC
Examples: MB3–VIS4; MB3–VIS4–SG–AM; MB3–VIJ4–SG3; MB3–VIS4–AM–OC	

(a) The MB3-VI and MB3-HI 3-valve manifolds are for General Purpose applications. See Table 2 for transmitters used with this model.

Model MB3-VI and MB3-HI Part Numbers for Ordering Manifolds

Part Number	Auxiliary Specification Code (a)	Previous AS Code
D0179ZA	AS Code MB3-VIS4	BM-MB3VIS-4
D0179ZB	AS Code MB3-VIS4-AM	BM-MB3VIS-4-AM
D0179ZD	AS Code MB3-VIS4-OC	BM-MB3VIS-4-OC
D0179ZE	AS Code MB3-VIS4-SG	BM-MB3VIS-4-SG
D0179ZF	AS Code MB3-VIS4-AM-OC	BM-MB3VIS-4-AM-OC
D0179ZH	AS Code MB3-VIS4-AM-SG	BM-MB3VIS-4-AM-SG

(a) Refer to MB3-VI and MB3-HI AS Code table above for manifold descriptions.

MB3-HP 3-Valve Manifold AS Code - Standard Version for Power Industry Applications

Description	Model
3-Valve Manifold - Standard Version; for Power Industry Applications (a)	MB3
Bonnet Packing	
Grafoil	-H
Seat Material	
Integral (same as body material); for Power Industry Applications	P
Body Material	
316 ss	S
Process Connection	
1/4-14 NPT Internal Thread	4
Optional Selections	
AGCO Mount Kit f	-AM
Clean for Oxygen Service (not available with carbon steel body material)	-OC
Examples: MB3–HPS4; MB3–HPS4–AM	

(a) The MB3-HP is a 3-valve manifold for use in Power Industry applications. See Table 2 for transmitters used with this model.

Model MB3-HP Part Numbers for Ordering Manifolds

Part Number	Auxiliary Specification Code (a)	Previous AS Code
D0179ZU	AS Code MB3-HPS4	MB3HPS-4-XP
D0179ZV	AS Code MB3-HPS4-AM	MB3HPS-4-XP-AM

(a) Refer to MB3-HP AS Code table above for manifold descriptions.

M6TA 5-Valve Manifold AS Code - Standard Version for Natural Gas Applications

Description	Model
5-Valve Manifold - Standard Version; for Natural Gas Applications; (a) Flange End Connection to Process Used with Bracket Mounted d/p Cell Transmitters with Traditional Structure.	M6TA
Bonnet Packing	
Teflon	-V
Seat Material	
Delrin (for Natural Gas Applications)	D
Integral (same as body material) (for General Purpose Applications)	I
Body Material	
Carbon Steel (cs)	C
316 ss	S
Optional Selections	
AGCO Mount Kit for 2-inch Pipe Stand Mounting of Manifold	-AM
Sour Gas Applications - for use with Body Material Code S. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions ≤ 50 mg/L (ppm)], and NACE MR0103-2005.	-SG
Clean for Oxygen Service (not available with carbon steel body material)	-OC
Examples: M6TA–VDC; M6TA–VDS–SG; M6TA–VDS–SG–AM; M6TA–VIS–AM–OC	

(a) This 5-valve manifold with a flange end connection is for natural gas applications. See Table 2 for transmitters used with the M6TA.

M6T 5-Valve Manifold AS Code - Standard Version for Natural Gas Applications

Description	Model
5-Valve Manifold - Standard Version; for Natural Gas Applications; (a) 1/2-14 NPT End Connection to Process Used with Bracket Mounted d/p Cell Transmitters with Traditional Structure.	M6T
Bonnet Packing	
Teflon	-V
Seat Material	
Delrin (for Natural Gas Applications)	D
Integral (same as body material) (for General Purpose Applications)	I
Body Material	
Carbon Steel (cs)	C
316 ss	S
Process Connection	
1/2-14 NPT; Internal Thread	4
Optional Selections	
AGCO Mount Kit for 2-inch Pipe Stand Mounting of Manifold	-AM
Sour Gas Applications - for use with Body Material Code S. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions ≤ 50 mg/L (ppm)], and NACE MR0103-2005.	-SG
Clean for Oxygen Service (not available with carbon steel body material)	-OC
Examples: M6T–VIC4; M6T–VDS4–SG; M6T–VDS4–AM–OC	

(a) This 5-valve manifold with a 1/2-14 NPT connection is for natural gas applications. See Table 2 for transmitters used with the M6T.

MB5G 5-Valve Manifold AS Code - Standard Version for Natural Gas Applications

Description	Model
5-Valve Manifold - Standard Version; for Natural Gas Applications; (a) 1/2-14 NPT End Connection to Process Used with Bracket Mounted d/p Cell Transmitters with Low Profile Structure.	MB5G
Bonnet Packing	
Teflon	-V
Seat Material	
Delrin (for Natural Gas Applications)	D
Integral (same as body material) (for General Purpose Applications)	I
Body Material	
316 ss	S
Hastelloy C-276	J
Process Connection	
1/2-14 NPT; Internal Thread	4
Optional Selections	
AGCO Mount Kit for 2-inch Pipe Stand Mounting of Manifold	-AM
Sour Gas Applications - for use with Body Material Code S only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions ≤ 50 mg/L (ppm)], and NACE MR0103-2005.	-SG
Sour Gas Applications - for use with Body Material Code J only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions > 50 mg/L (ppm)].	-SG3
Clean for Oxygen Service (not available with carbon steel body material)	-OC
Examples: MB5G–VDS4; MB5G–VIS4–SG; MB5G–VIJ4–SG3–AM; MB5G–VIS4–AM–OC	

(a) This 5-valve manifold with a 1/2-14 NPT connection is for natural gas applications. See Table 2 for transmitters used with the MB5G.

Model MB5G Part Numbers for Ordering Manifolds

Part Number	Auxiliary Specification Code (a)	Previous AS Code
D0179ZK	AS Code MB5G-VIS4	MB5GVIS-4
D0179ZL	AS Code MB5G-VIS4-AM	MB5GVIS-4-AM
D0179ZN	AS Code MB5G-VIS4-OC	MB5GVIS-4-OC
D0179ZP	AS Code MB5G-VIS4-AM-SG	MB5G3VIS-4-SG
D0179ZQ	AS Code MB5G-VIS4-AM-OC	MB5GVIS-4-AM-OC
D0179ZS	AS Code MB5G-VIS4-AM-SG	MB5GVIS-4-AM-SG

(a) Refer to MB5G AS Code table above for manifold description.

MB5P-VI and MB5P-HI 5-Valve Manifold AS Code - Standard Version for General Purpose Applications

Description	Model
5-Valve Manifold - Standard Version; for General Purpose Applications; (a) 1/2-14 NPT End Connection to Process Used with Bracket Mounted d/p Cell Transmitters with Low-Profile Structure.	MB5P
Bonnet Packing	
Teflon	-V
Grafoil	-H
Seat Material	
Integral (same as body material)	I
Body Material	
316 ss	S
Hastelloy C-276	J
Process Connection	
1/2-14 NPT; Internal Thread	4
Optional Selections	
AGCO Mount Kit for 2-inch Pipe Stand Mounting of Manifold	-AM
Sour Gas Applications - for use with Body Material Code S only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions ≤ 50 mg/L (ppm)], and NACE MR0103-2005.	-SG
Sour Gas Applications - for use with Body Material Code J only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions > 50 mg/L (ppm)].	-SG3
Clean for Oxygen Service (not available with carbon steel body material)	-OC
Examples: MB5P–VIS4; MB5P–VIS4–SG; MB5P–VIJ4–SG3–AM	

(a) These 5-valve manifolds are used for general purpose applications. See Table 2 for transmitters used with these models.

MB5P-HP 5-Valve Manifold AS Code - Standard Version for Power Industry Applications

Description	Model
5-Valve Manifold - Standard Version; for Power Industry Applications; (a) 1/2-14 NPT End Connection to Process Used with Bracket Mounted d/p Cell Transmitters with Low-Profile Structure.	MB5P
Bonnet Packing	
Grafoil	-H
Seat Material and Application	
Integral Seat (same as body material); for Power Industry Applications	P
Body Material	
316 ss	S
Process Connection	
1/2-14 NPT Internal Thread	4
Optional Selections	
AGCO Mount Kit	-AM
Examples: MB5P–HPS4–AM	

(a) The MB5P-HP 5-valve manifold is for power industry applications. See Table 2 for transmitters used with this manifold.

Model MB5-HP Part Numbers for Ordering Manifolds

Part Number	Auxiliary Specification Code (a)	Previous AS Code
D0179ZX	AS Code MB5P-HPS4	MB5PHPS-4-XP
D0179ZY	AS Code MB5P-HPS4-AM	MB5PHPS-4-XP-AM

(a) Refer to MB5P-HP AS Code table above for manifold description.

M24A 5-Valve Manifold AS Code - Standard Version for General Purpose Applications

Description	Model
5-Valve Manifold - Standard Version; for General Purpose Applications; (a) Flange End Connection to Process Used with Bracket Mounted d/p Cell Transmitters with Traditional Structure.	M24A
Bonnet Packing	
Teflon	-V
Grafoil	-H
Seat Material	
Integral (same as body material)	I
Body Material	
316 ss	S
Hastelloy C-276	J
Optional Selections	
AGCO Mount Kit for 2-inch Pipe Stand Mounting of Manifold	-AM
Sour Gas Applications - for use with Body Material Code S only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions ≤ 50 mg/L (ppm)], and NACE MR0103-2005.	-SG
Sour Gas Applications - for use with Body Material Code J only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions > 50 mg/L (ppm)].	-SG3
Clean for Oxygen Service	-OC
Examples: M24A–VIS; M24A–VIS–SG; M24A–VIJ–SG3–AM	

(a) The M24A 5-valve manifold has a flange end connection to the process. See Table 2 for transmitters used with this model.

M24T 5-Valve Manifold AS Code - Standard Version for General Purpose Applications

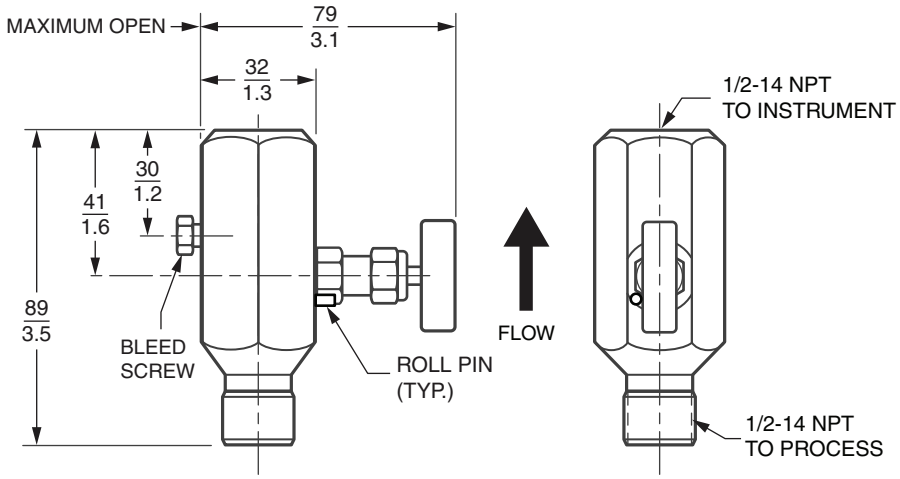
Description	Model
5-Valve Manifold - Standard Version; for General Purpose Applications; (a) 1/2-14 NPT End Connection to Process Used with Bracket Mounted d/p Cell Transmitters with Traditional Structure.	M24T
Bonnet Packing	
Teflon	-V
Grafoil	-H
Seat Material	
Integral (same as body material)	I
Body Material	
316 ss	S
Hastelloy C-276	J
Process Connection	
1/2-14 NPT; Internal Thread	4
Optional Selections	
AGCO Mount Kit for 2-inch Pipe Stand Mounting of Manifold	-AM
Sour Gas Applications - for use with Body Material Code S only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions ≤ 50 mg/L (ppm)], and NACE MR0103-2005.	-SG
Sour Gas Applications - for use with Body Material Code J only. Meets requirements of NACE MR0175/ISO 15156-3 CORRIGENDUM 2 [for chloride conditions > 50 mg/L (ppm)].	-SG3
Clean for Oxygen Service	-OC
Examples: M24T–VIS4; M24T–VIS4–SG; M24T–VIJ4–SG3–AM	

(a) The M24T is a standard version 5-valve manifold with a 1/2-14 NPT end connection to the process. See Table 2 for transmitters used with this model.

DIMENSIONS – NOMINAL

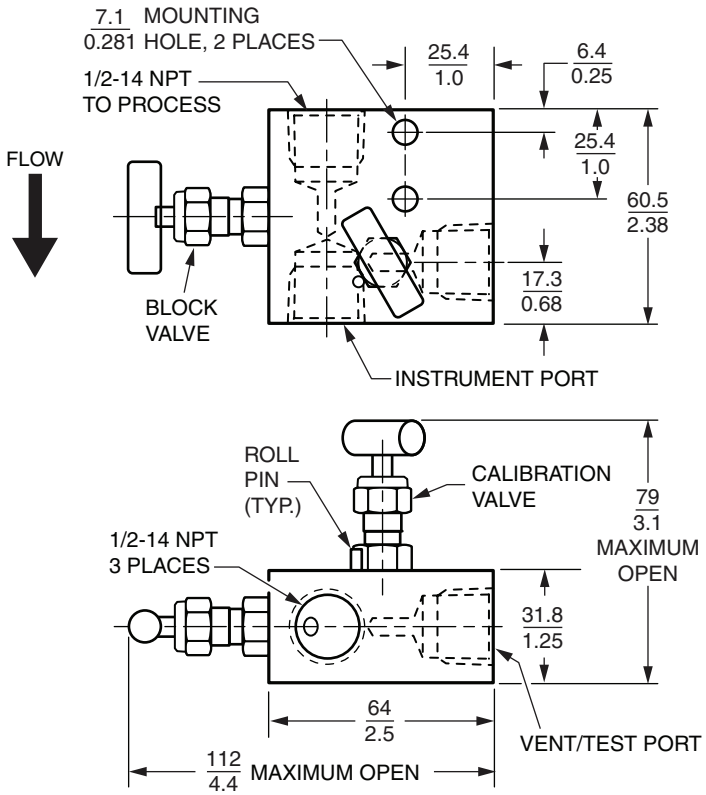
mm
in

MODEL M9 1-VALVE MANIFOLD - BLOCK AND BLEED VALVE - COMMODITY VERSION



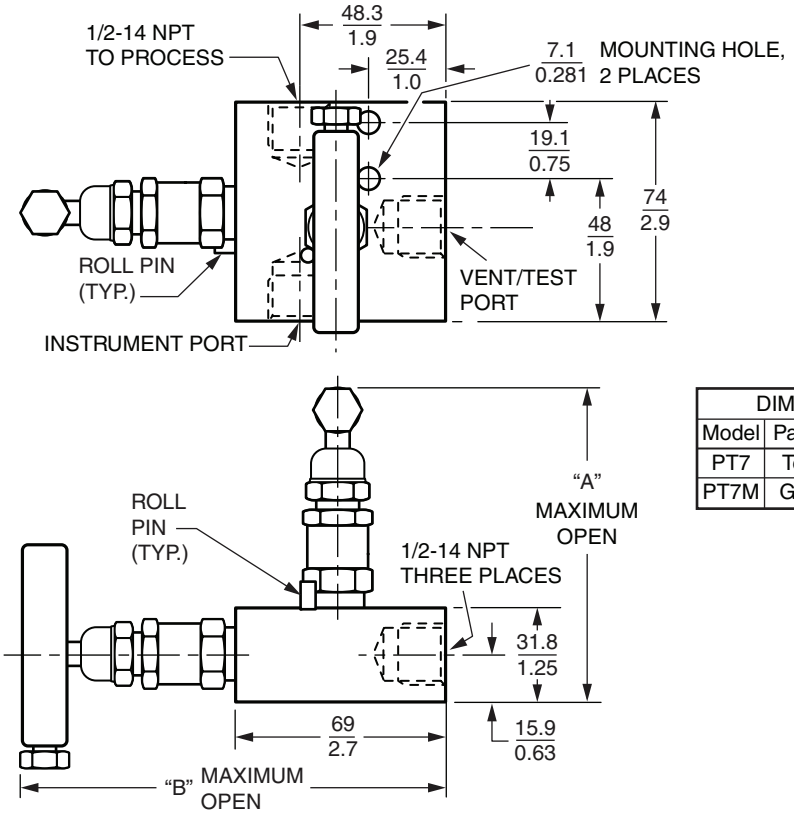
mm
in

MODEL PTM 2-VALVE MANIFOLD - COMMODITY VERSION



mm
in

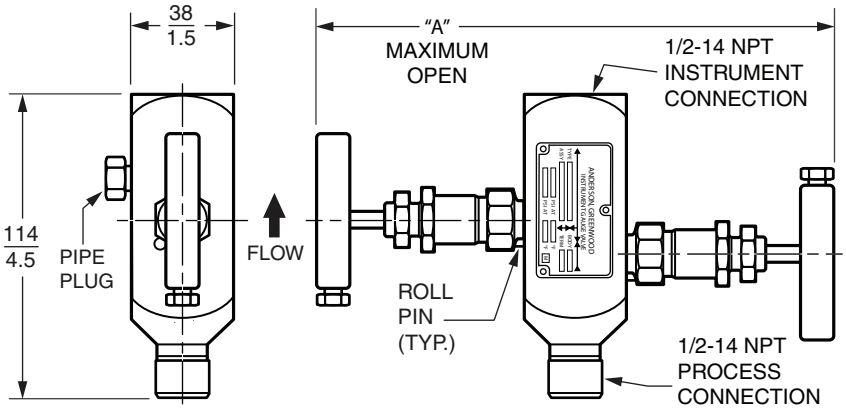
MODELS PT7 AND PT7M 2-VALVE MANIFOLDS - STANDARD VERSION



DIMENSIONS - mm (in)			
Model	Packing	Dim "A"	Dim "B"
PT7	Teflon	99 (3.9)	135 (5.3)
PT7M	Grafoil	114 (4.5)	152 (6.0)

mm
in

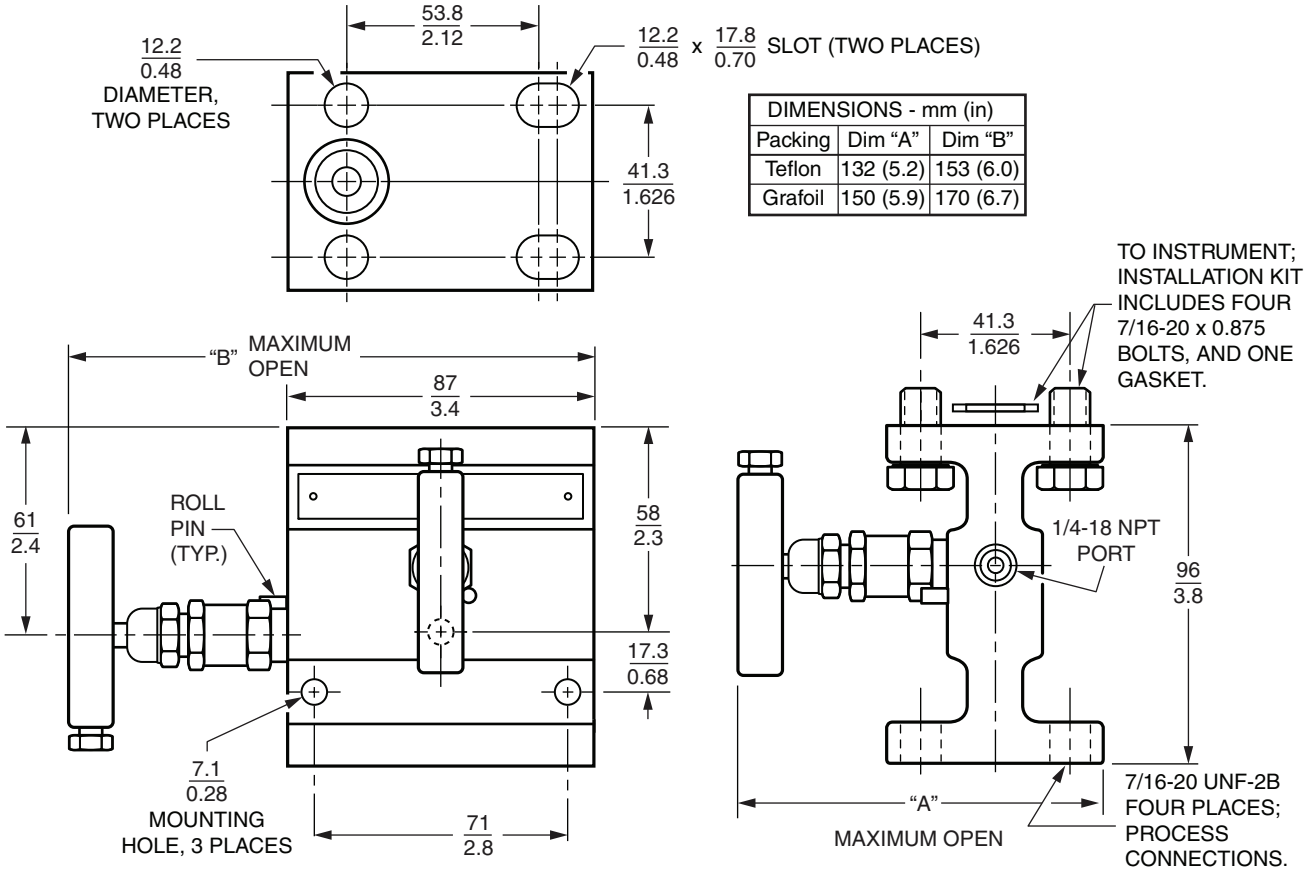
MODEL M25 2-VALVE MANIFOLD - STANDARD VERSION



PACKING	DIM. "A"
Teflon	201 7.9
Grafoil	229 9.0

mm
in

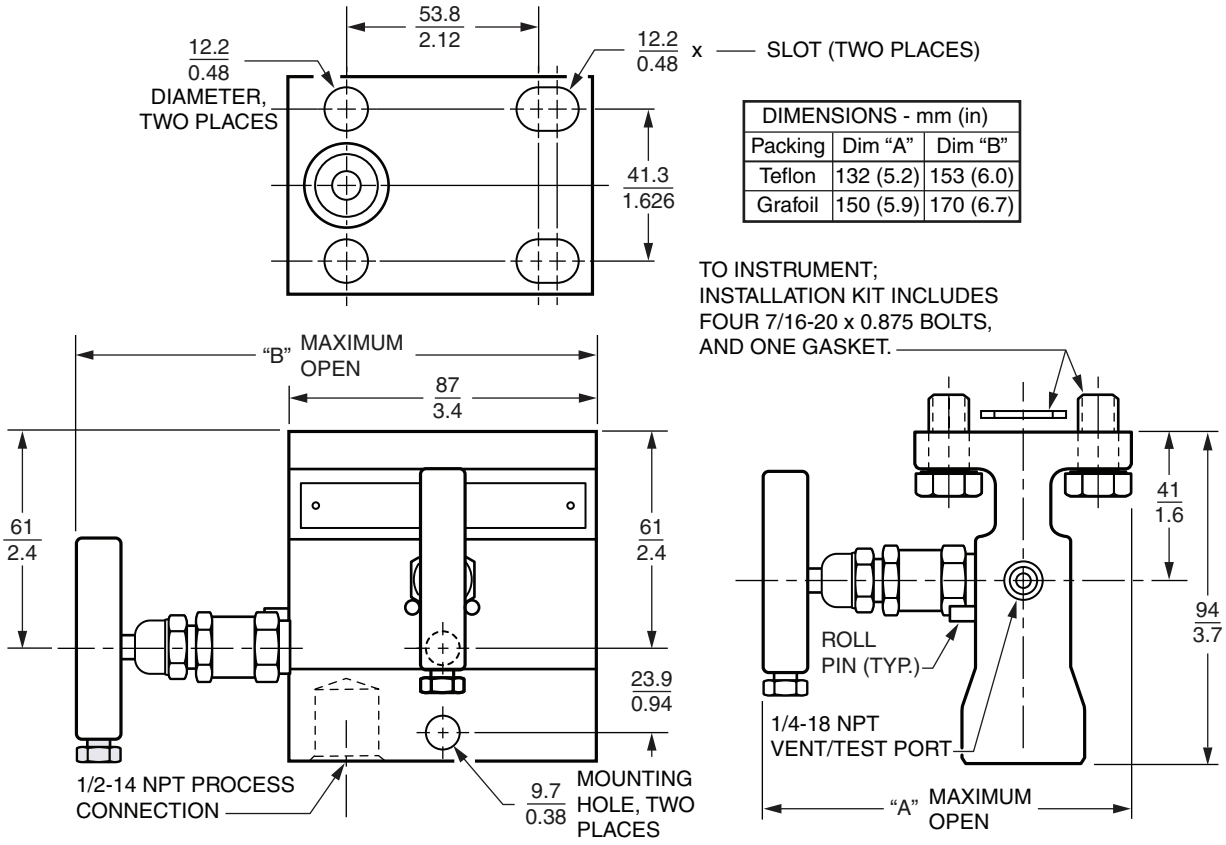
MODEL M4AP 2-VALVE MANIFOLD - STANDARD VERSION



DIMENSIONS - mm (in)		
Packing	Dim "A"	Dim "B"
Teflon	132 (5.2)	153 (6.0)
Grafoil	150 (5.9)	170 (6.7)

mm
in

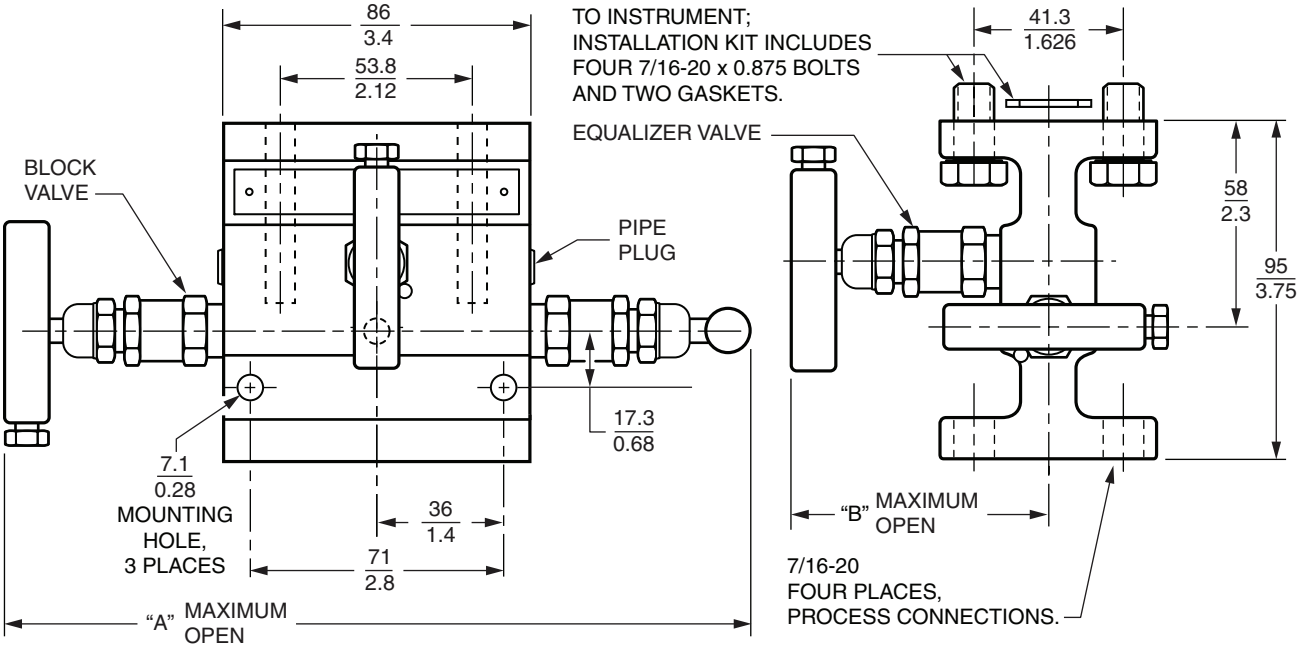
MODEL M4TP 2-VALVE MANIFOLD - STANDARD VERSION



DIMENSIONS - mm (in)		
Packing	Dim "A"	Dim "B"
Teflon	132 (5.2)	153 (6.0)
Grafoil	150 (5.9)	170 (6.7)

mm
in

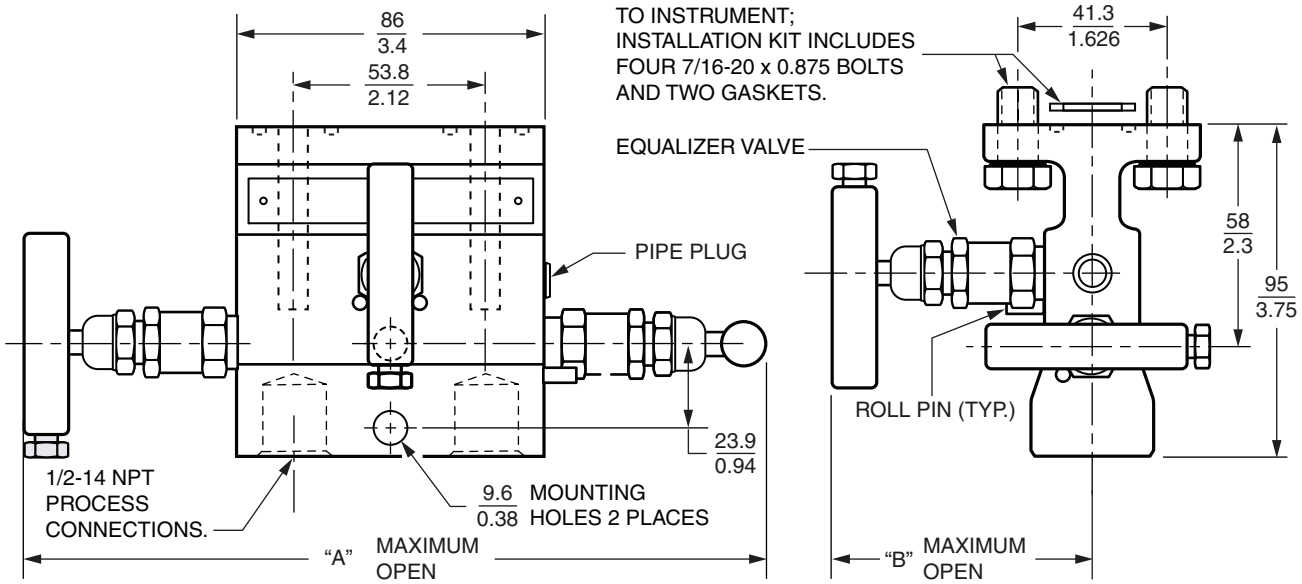
MODEL M4A 3-VALVE MANIFOLD - STANDARD VERSION



DIMENSIONS - mm (in)		
Packing	Dim "A"	Dim "B"
Teflon	218 (8.6)	81 (3.2)
Grafoil	251 (9.9)	99 (3.9)

mm
in

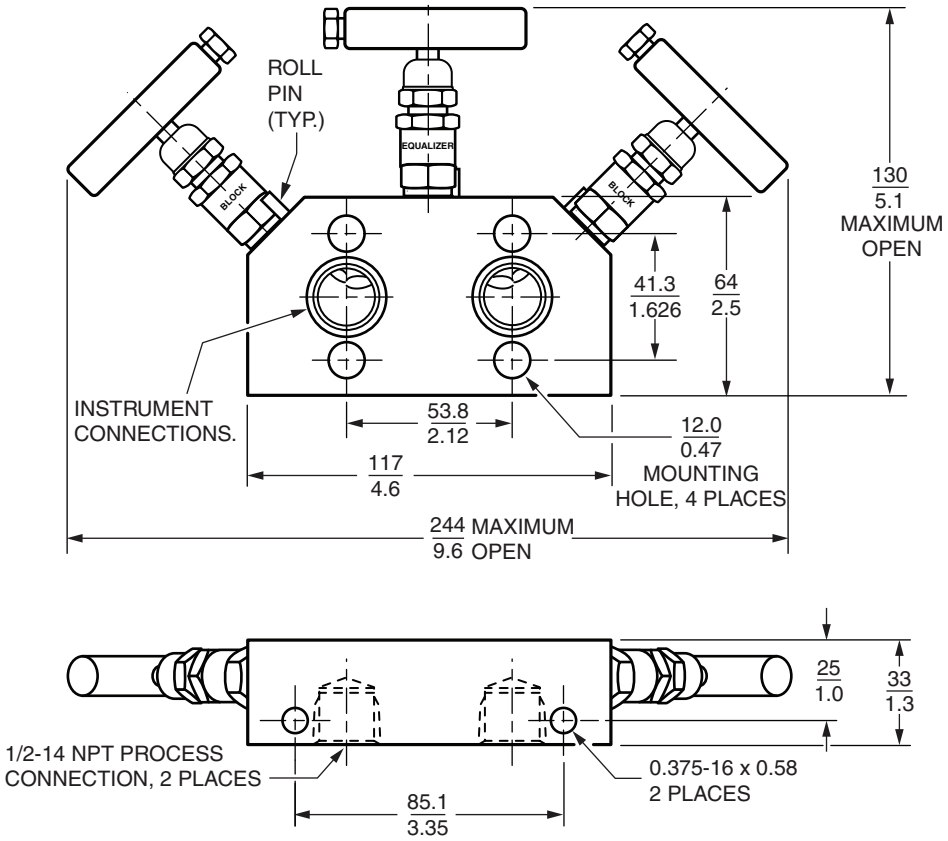
MODEL M4T 3-VALVE MANIFOLD - STANDARD VERSION



DIMENSIONS - mm (in)		
Packing	Dim "A"	Dim "B"
Teflon	218 (8.6)	81 (3.2)
Grafoil	251 (9.9)	99 (3.9)

mm
in

MODEL MB3 3-VALVE MANIFOLD - STANDARD VERSION

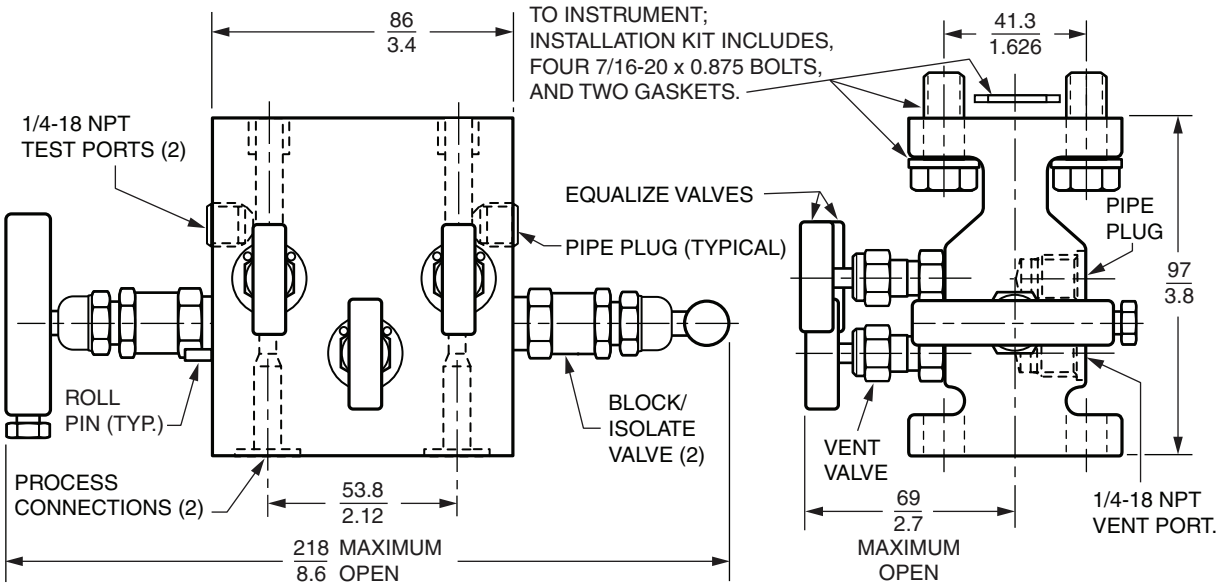


NOTE:

INSTALLATION KIT (NOT SHOWN) CONSISTS OF FOUR 7/16-20 x 1.75 BOLTS, AND TWO GASKETS.

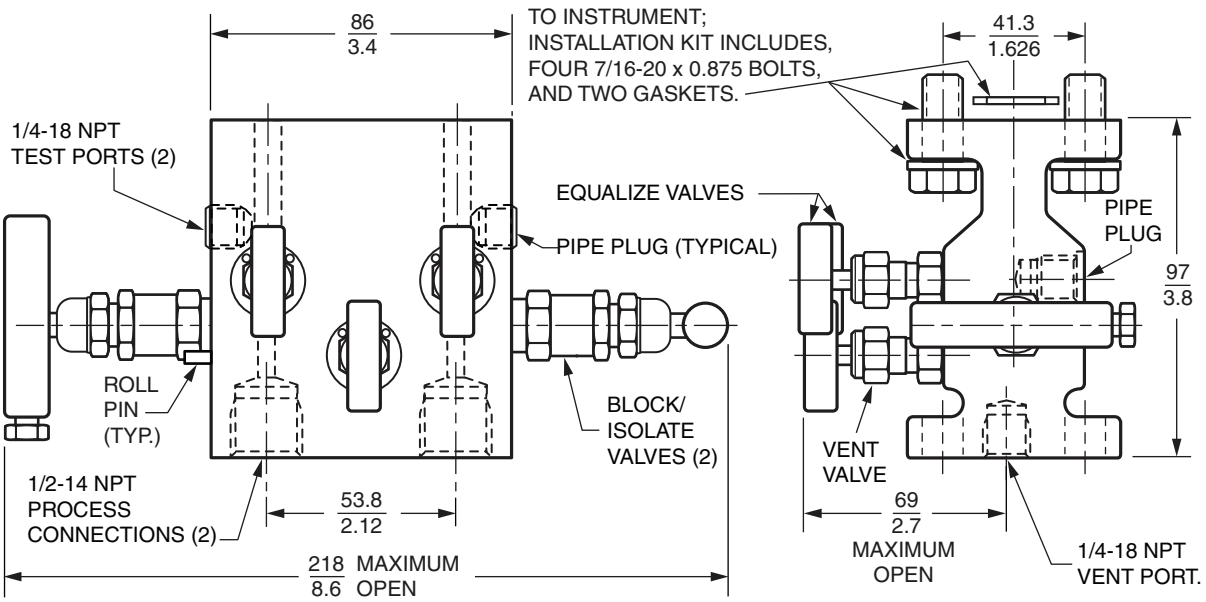
mm
in

MODEL M6TA 5-VALVE MANIFOLD - STANDARD VERSION



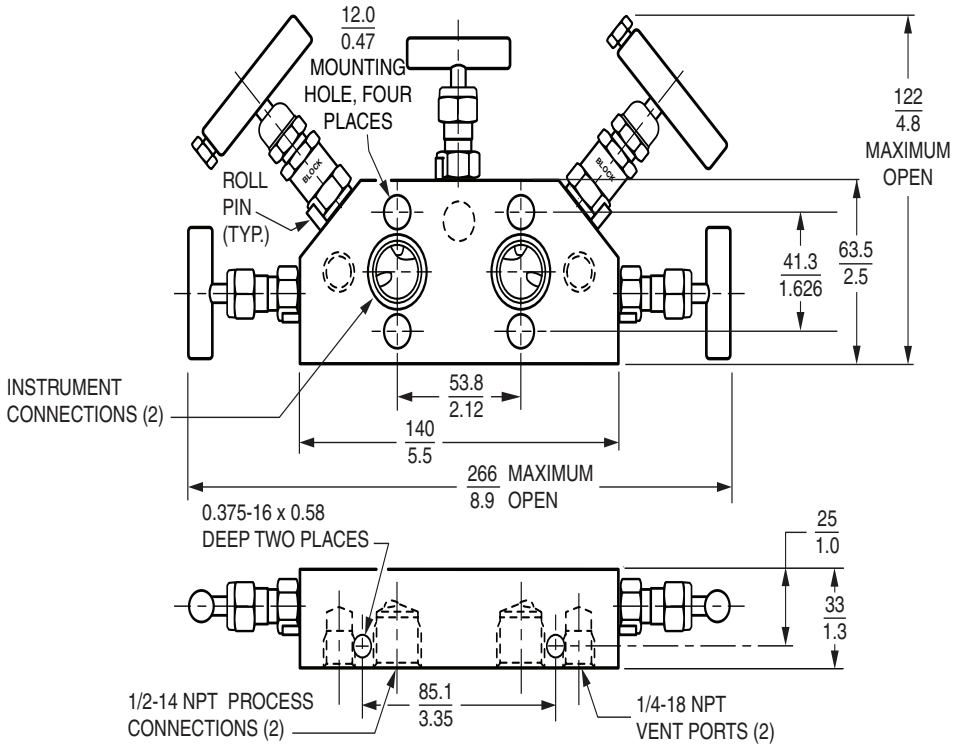
mm
in

MODEL M6T 5-VALVE MANIFOLD - STANDARD VERSION



mm
in

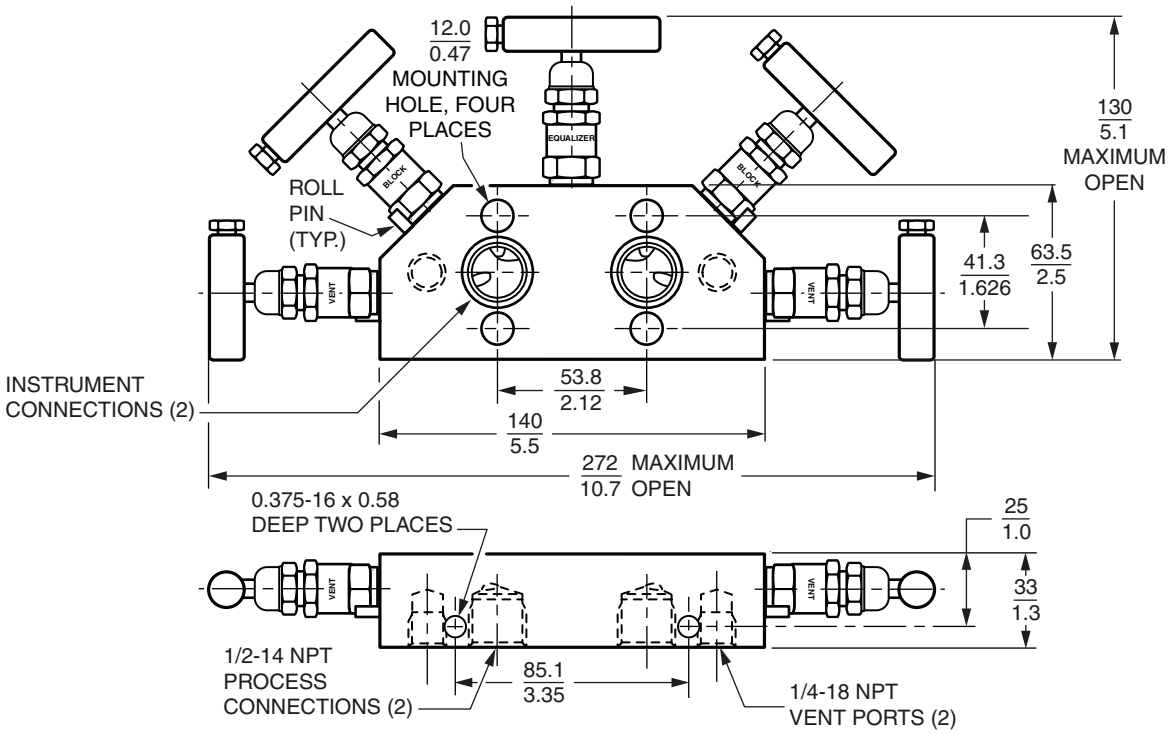
MODEL MB5G 5-VALVE MANIFOLD - STANDARD VERSION



Note: Installation kit (not shown) for the mb5g 5-valve manifold consists of four 7/16-20 x 1.75 bolts, and two gaskets.

mm
in

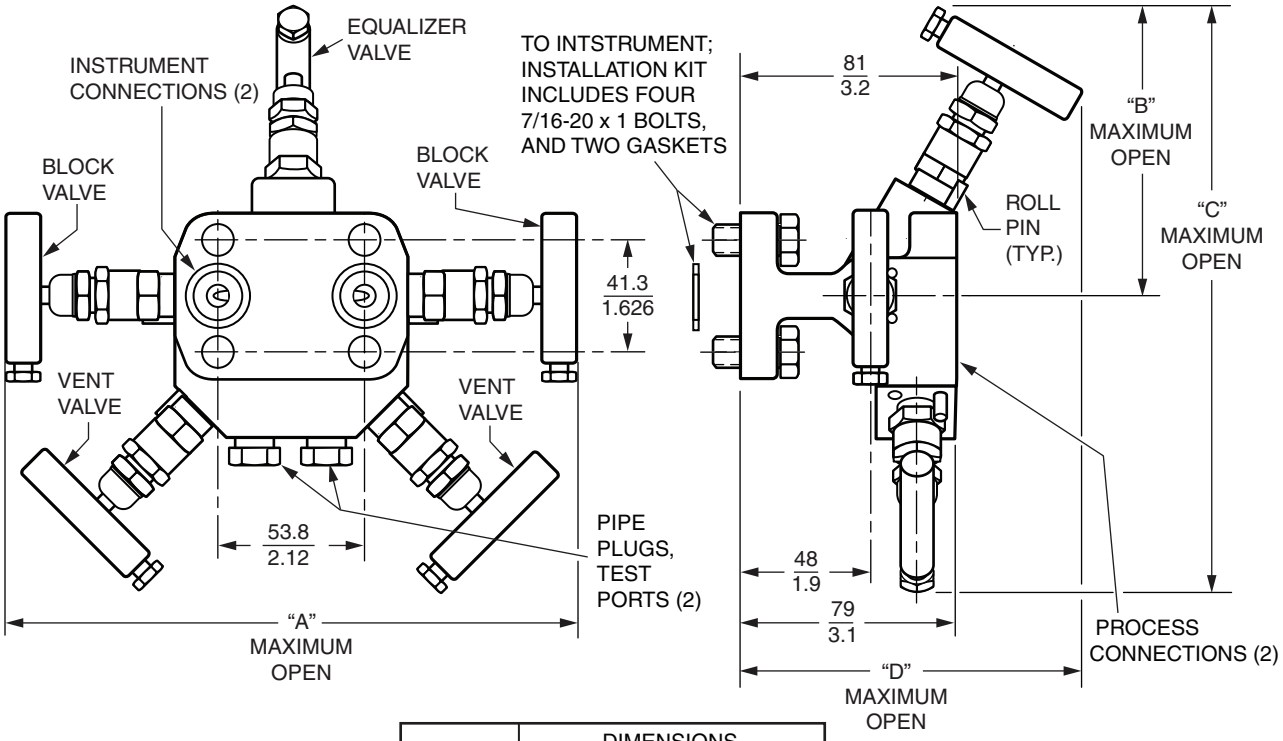
MODEL MB5P 5-VALVE MANIFOLD - STANDARD VERSION



Note: Installation kit (not shown) for the mb5p 5-valve manifold consists of four 7/16-20 x 1.75 bolts, and two gaskets.

mm
in

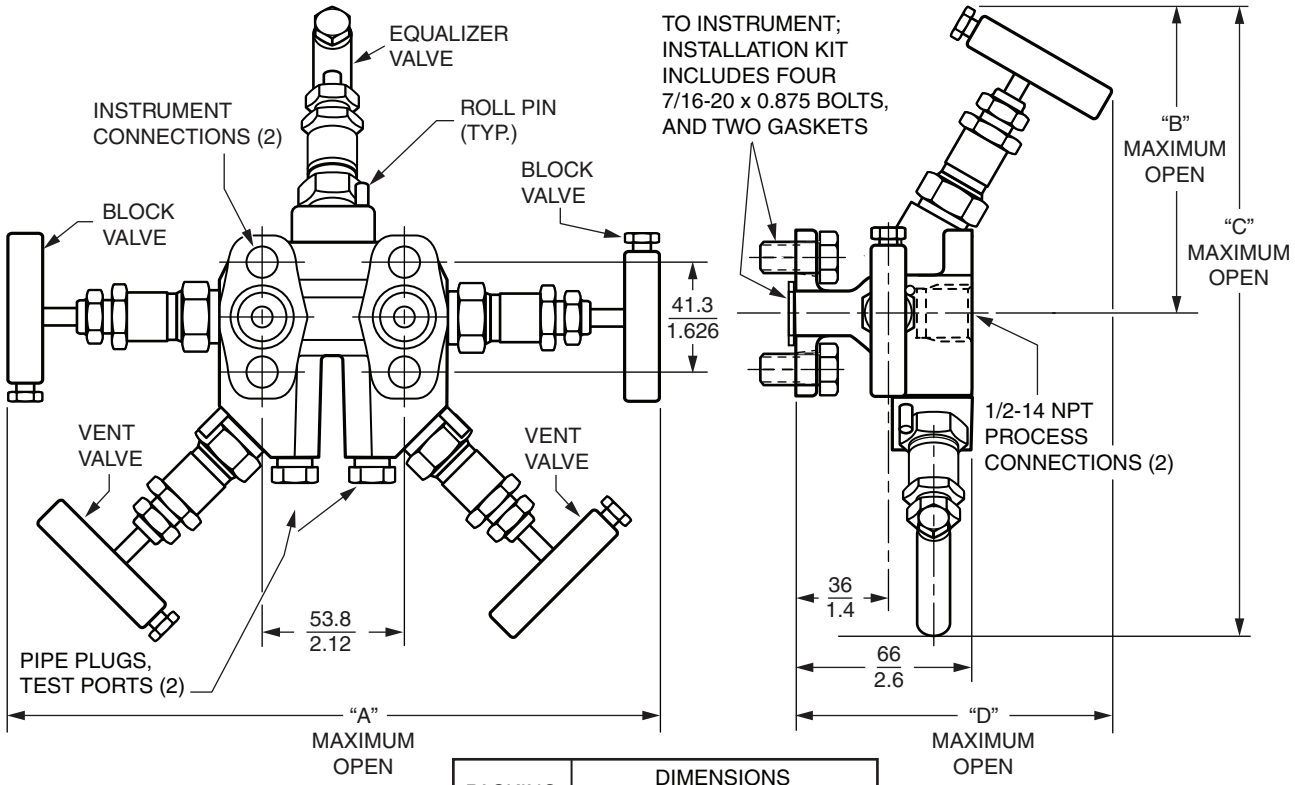
MODEL M24A 5-VALVE MANIFOLD - STANDARD VERSION



PACKING	DIMENSIONS			
	"A"	"B"	"C"	"D"
Teflon	221 8.7	112 4.4	221 8.7	132 5.2
Grafoil	248 9.8	122 4.8	244 9.6	142 5.6

mm
in

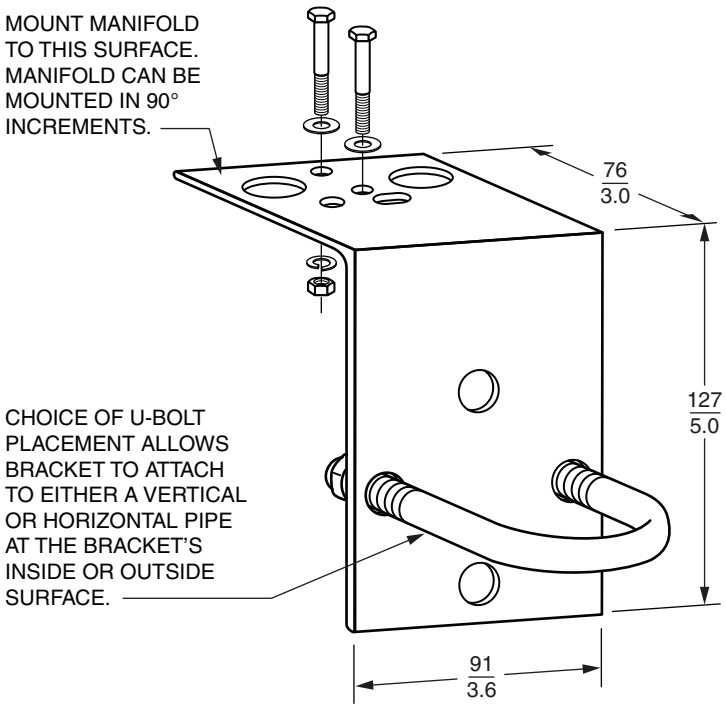
MODEL M24T 5-VALVE MANIFOLD - STANDARD VERSION



PACKING	DIMENSIONS			
	"A"	"B"	"C"	"D"
Teflon	221 8.7	112 4.4	221 8.7	132 5.2
Grafoil	248 9.8	122 4.8	244 9.6	142 5.6

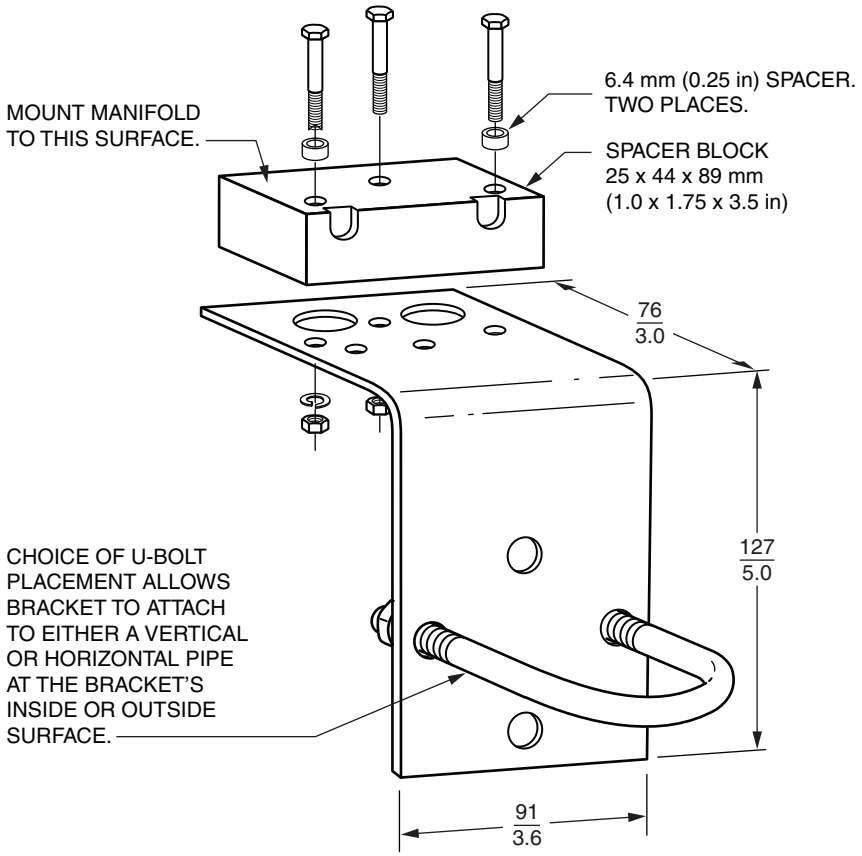
mm
in

MOUNT KIT OPTION –AM FOR USE WITH MANIFOLD MODELS PT7 & PT7M



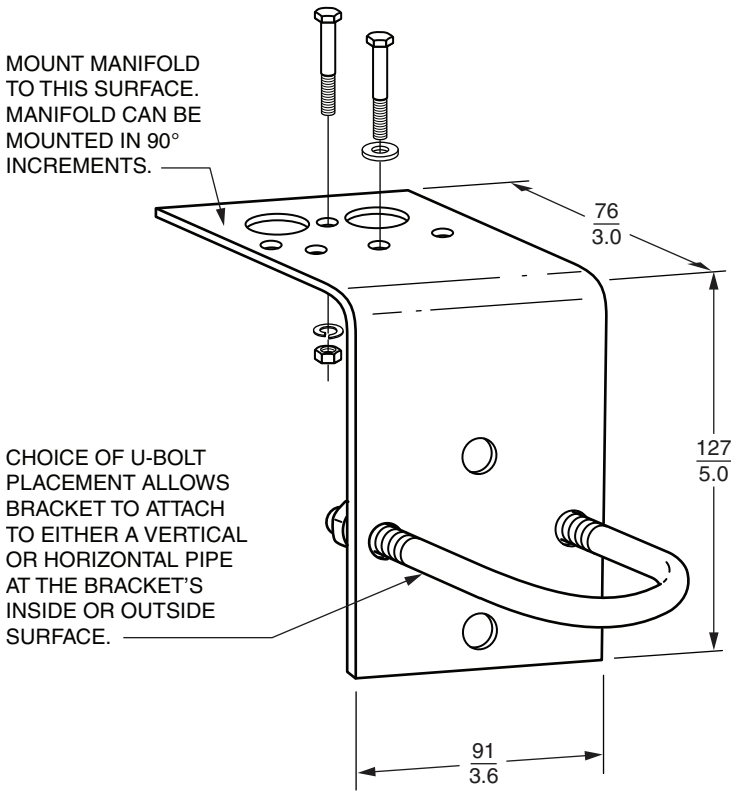
mm
in

MOUNT KIT OPTION –AM FOR USE WITH MANIFOLD MODELS M4A AND M4AP



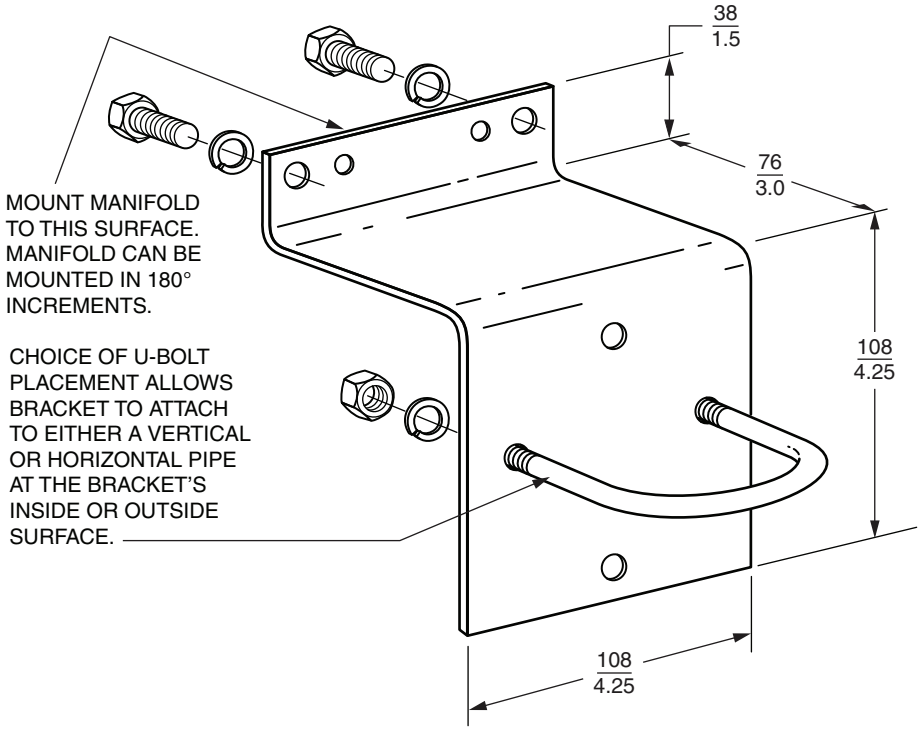
mm
in

MOUNT KIT OPTION –AM FOR USE WITH MANIFOLD MODELS M4T AND M4TP



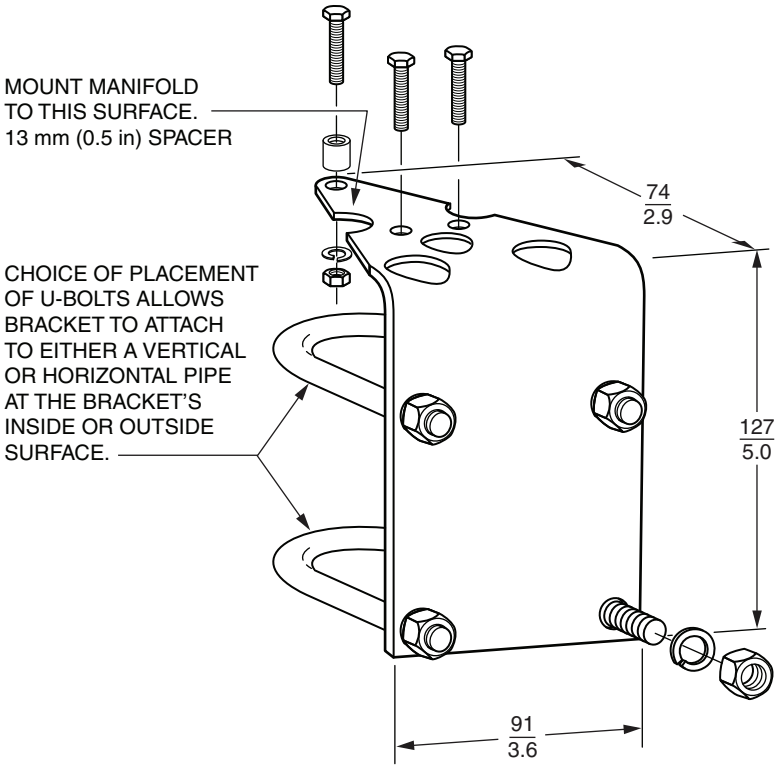
mm
in

MOUNT KIT OPTION –AM FOR USE WITH MANIFOLD MODELS MB3, MB5G, AND MB5P



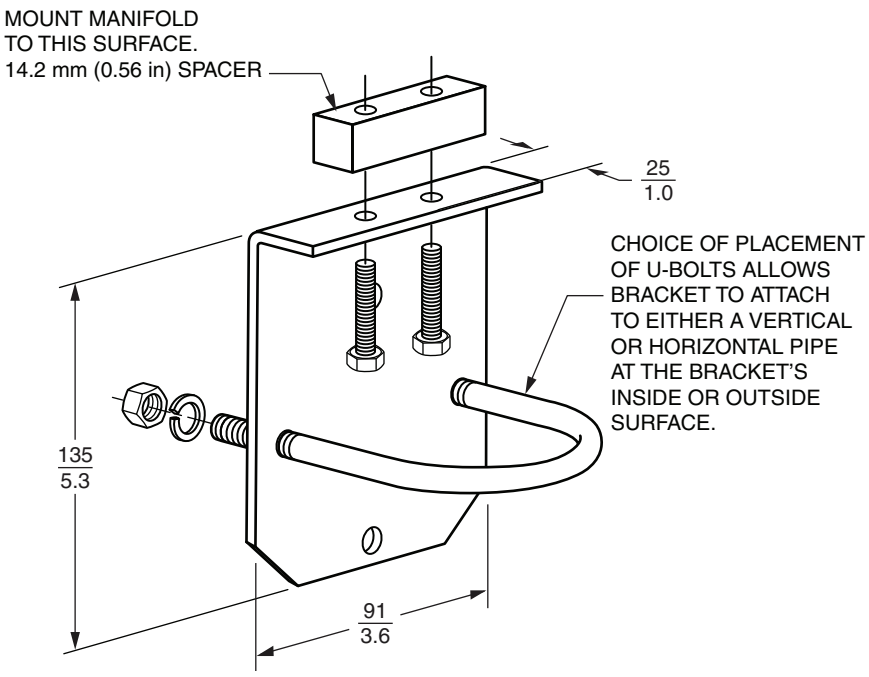
mm
in

MOUNT KIT OPTION –AM FOR USE WITH MANIFOLD MODELS M6T AND M6TA



mm
in

MOUNT KIT OPTION –AM FOR USE WITH MANIFOLD MODELS M24A AND M24T



ORDERING INSTRUCTIONS

1. Manifold Part Number (see AS Codes section).
2. Tag and Application.

OTHER FOXBORO PRODUCTS

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