

# Rosemount Manifolds

- *Factory assembled, leak-tested, and calibrated*
- *Full breadth of offering including integral, conventional, and inline designs*
- *Integral design enables “flangeless” valve integration*
- *2, 3, and 5 valve configurations*
- *Compact, lightweight design*
- *Easy in-process calibration*
- *Direct-mount capability*



## Contents

Rosemount Manifolds Selection Guide . . . . .	page 2
Valve Configuration . . . . .	page 3
Ordering Information . . . . .	page 5
Specifications . . . . .	page 11
Dimensional Drawings. . . . .	page 17

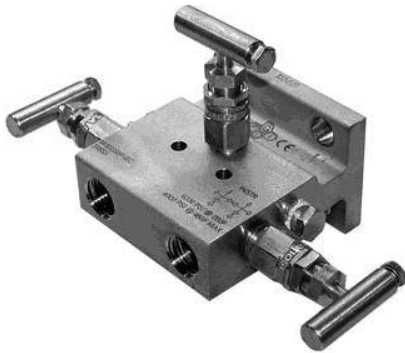
# Rosemount Manifolds

## Rosemount Manifolds Selection Guide

### ROSEMOUNT 304 CONVENTIONAL MANIFOLD

See "Options" on page 27.

- Attaches to transmitter flange
- 2, 3, and 5-valve configurations
- Traditional (Flange x Flange, Flange x NPT) & Wafer styles
- Factory assembled, seal-tested, and calibrated



Rosemount 304 Conventional Manifold-Traditional Style



Rosemount 304 Conventional Manifold-Wafer Style

### ROSEMOUNT 305 INTEGRAL MANIFOLD

See "Options" on page 27.

- **Assembles directly to transmitter, eliminating need for flange**
- 2, 3, and 5-valve configuration
- Available in Coplanar™ and traditional styles
- Compact, lightweight assembly
- Factory assembled, seal-tested, and calibrated
- 50% fewer leak points than conventional transmitter / flange / manifold interface



Rosemount 305 Integral Manifold Coplanar Style

### ROSEMOUNT 306 INLINE MANIFOLD

See "Options" on page 27.

- Assembled directly to inline pressure transmitters
- Block-and-Bleed and 2-valve configurations
- Male or Female threaded NPT process connection



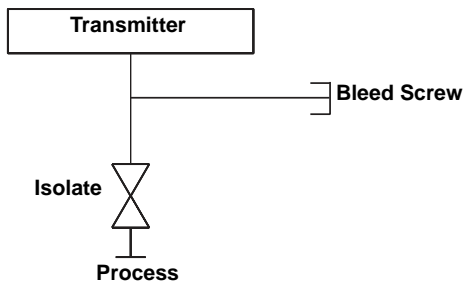
Rosemount 306 Inline Manifold

## Valve Configuration

### BLOCK-AND-BLEED

The block-and-bleed configuration is available on the Rosemount 306 Manifold for use with inline gage and absolute pressure transmitters. A single block valve provides instrument isolation and a plug provides drain/vent capabilities.

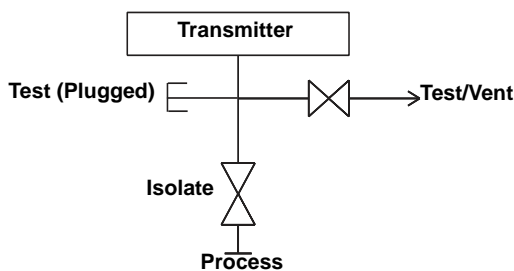
#### 306 Manifold



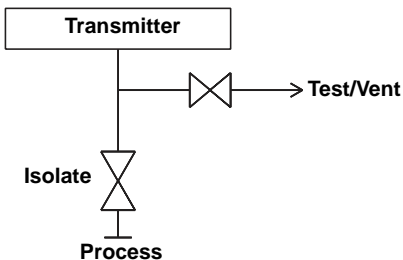
### TWO-VALVE

The two-valve configuration is available on Rosemount 304, 305, and 306 Manifolds for use with absolute and gage pressure transmitters. A block valve provides instrument isolation and a drain/vent valve allows venting, draining, or calibration.

#### 304 Manifold



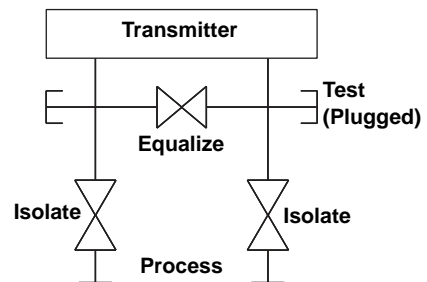
#### 305 & 306 Manifolds



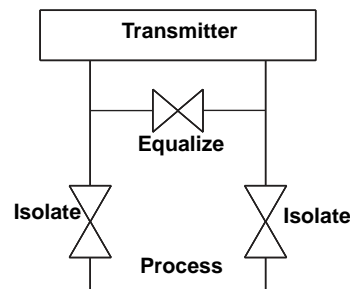
### THREE-VALVE

The three-valve configuration is available on Rosemount 304 and 305 Manifolds for use with differential pressure and multivariable transmitters. Two block valves provide instrument isolation, and one equalize valve is positioned between the high and low transmitter process connections.

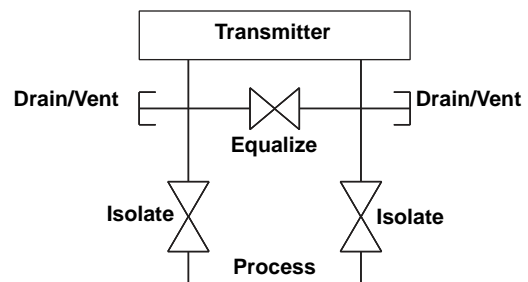
#### 304 (Traditional) Manifold



#### 304 (Wafer) Manifold



#### 305 Manifold



#### NOTE

Test/Vents receive plastic caps to protect threaded connections unless otherwise noted.

#### NOTE

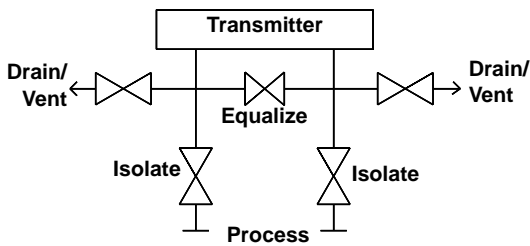
Test (Plugged) connections receive 1/4-in. NPT plugs unless otherwise noted.

# Rosemount Manifolds

## FIVE-VALVE

The five-valve configuration is available on Rosemount 304 and 305 Manifolds for use with differential pressure and multivariable transmitters. Two block valves provide instrument isolation and one equalize valve is positioned between the high and low transmitter process connections. In addition, two drain/vent valves allow for controlled venting, 100% capture of vented or drained process, and simplified in-process calibration capability.

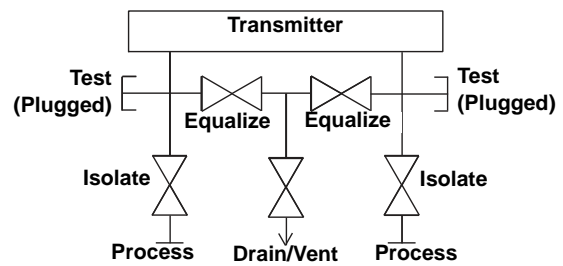
### 304 (Wafer) & 305 Manifolds



## FIVE-VALVE NATURAL GAS

The five-valve natural gas configuration is available on the Rosemount 304 and 305 Manifolds for use with differential pressure and multivariable transmitters. Two block valves provide instrument isolation and a single drain/vent valve allows for controlled venting, 100% capture of vented or drained process, and simplified in-process calibration capability. In addition, two equalize valves provide extra protection from leaking to ensure DP signal integrity.

### 304 (Traditional) & 305 Manifolds



#### NOTE

Test/Vents receive plastic caps to protect threaded connections unless otherwise noted.

#### NOTE

Test (Plugged) connections receive 1/4-in. NPT plugs unless otherwise noted.

## Ordering Information

Rosemount Manifolds can be ordered as a stand-alone product or as an integrated assembly that is attached to a transmitter.

**Stand-Alone Manifold:**

1. Reference the “Rosemount Manifolds Selection Guide” (see page 2) for assistance on choosing the type of manifold needed.
2. Specify a completed model number by referencing the applicable ordering table for the selected manifold type:
  - a. Rosemount 304 Conventional Manifold, see page 6.
  - b. Rosemount 305 Integral Manifold, see page 8.
  - c. Rosemount 306 Inline Manifold, see page 10.

**Transmitter / Manifold Assembly:**

1. Specify a completed Rosemount transmitter model number by referencing the applicable product data sheet.
2. Specify a completed manifold model number by referencing the applicable ordering table for the selected manifold type:
  - a. Rosemount 304 Conventional Manifold, see page 6.
  - b. Rosemount 305 Integral Manifold, see page 8.
  - c. Rosemount 306 Inline Manifold, see page 10.
3. Verify the transmitter model number contains the correct “Process Connection” code or “Manifold Option” code for the desired transmitter manifold assembly (see Table 1).

Table 1. Ordering Codes for a Transmitter / Manifold Assembly

Transmitter	Manifold	Process Connection Code	“Manifold” Option Code
3051S	304	A12	–
	305	A11	–
	306	A11	–
3051/2051/3095	304	–	S6
	305	–	S5
	306	–	S5
1151	304	S6	–
	305	–	–
	306	–	–
2088	304	–	–
	305	–	–
	306	–	S5

# Rosemount Manifolds

## Rosemount 304 Conventional Manifolds

Table 2. Rosemount 304 Conventional Manifold Ordering Information

★ The Standard offering represents the most common options. The starred options (★) should be selected for best delivery.  
The Expanded offering is subject to additional delivery lead time.

Model		Product Description			
0304		Conventional Manifold			
<b>Manufacturer</b>					
<b>Standard</b>					<b>Standard</b>
R	Rosemount Inc.				★
<b>Manifold Style</b>					
<b>Standard</b>					<b>Standard</b>
T	Traditional (Flange x Flange or Flange x NPT)				★
<b>Expanded</b>					
W <sup>(1)</sup>	Wafer				
<b>Manifold Type</b>					
<b>Standard</b>					<b>Standard</b>
2 <sup>(2)</sup>	2-valve				★
3	3-valve				★
5 <sup>(3)</sup>	5-valve				★
6 <sup>(2)</sup>	5-valve Natural Gas Metering Pattern				★
<b>Expanded</b>					
7 <sup>(2)(4)</sup>	2-valve (per ASME B31.1 [ANSI] Power and Piping Code)				
8 <sup>(2)(4)</sup>	3-valve (per ASME B31.1 [ANSI] Power and Piping Code)				
	<b>Body</b>	<b>Bonnet</b>	<b>Stem</b>	<b>Tip</b>	
<b>Standard</b>					<b>Standard</b>
2	316 SST	316 SST	316 SST	316 SST	★
5	CS	316 SST	316 SST	316 SST	★
<b>Process Connection Style</b>					
<b>Standard</b>					<b>Standard</b>
B	1/2-14 NPT				★
F <sup>(2)</sup>	Flanged				★
<b>Packing Material</b>					
<b>Standard</b>					<b>Standard</b>
1	PTFE				★
<b>Expanded</b>					
2 <sup>(1)</sup>	Graphite-based				
<b>Bolts</b>					
<b>Standard</b>					<b>Standard</b>
1	For assembly to 2051/3051 Traditional Flange				★
2	For assembly to 2051/3051/3095 DIN Compliant Traditional Flange				★
3	For assembly to 2051/3051/3095 Coplanar Flange				★
<b>Expanded</b>					
4	For assembly to 1151 (Ranges 3-5)				

## Options

Mounting Brackets		
<b>Standard</b>		<b>Standard</b>
VC <sup>(2)</sup>	Manifold Heavy Duty Mounting Bracket, CS for Traditional Style	★
VS <sup>(2)</sup>	Manifold Heavy Duty Mounting Bracket, SST for Traditional Style	★
B4 <sup>(3)</sup>	Manifold SST Mounting Bracket for 2-in. pipe mount with series 300 SST bolts for wafer style	★
<b>Adapters</b>		
<b>Standard</b>		<b>Standard</b>
DF <sup>(5)</sup>	1/2-14 NPT Female Flange Adapter	★
DT <sup>(5)</sup>	1/2-in. ferrule flange adapter	★
DQ <sup>(5)</sup>	12 mm ferrule flange adapter	★

# Product Data Sheet

00813-0100-4733, Rev NB

January 2011

# Rosemount Manifolds

Table 2. Rosemount 304 Conventional Manifold Ordering Information

★ The Standard offering represents the most common options. The starred options (★) should be selected for best delivery. The Expanded offering is subject to additional delivery lead time.

<b>Bolt Material</b>		
<b>Standard</b>		<b>Standard</b>
L4 <sup>(6)</sup>	Austenitic 316 SST Bolts	★
L5	ASTM A 193, Grade B7M Bolts	★
L8	ASTM A 193, Class 2, Grade B8M Bolts	★
<b>Material Recommendations for NACE</b>		
<b>Standard</b>		<b>Standard</b>
SG <sup>(1)(7)</sup>	Sour Gas (Meets NACE MR 0175 / ISO 15156, MR 0103)	★
<b>Cleanings</b>		
<b>Expanded</b>		
P2 <sup>(8)</sup>	Cleaning for special service	
<b>Heater Block Kits</b>		
<b>Standard</b>		<b>Standard</b>
SB	Steam block kit, ¼-in. NPT connection	★
<b>Typical Model Number: 0304_R_T_3_2_B_1_1_VS</b>		

(1) Only allowed with Material of Construction code 2.

(2) Not available with Wafer Manifold Style code W.

(3) Not available with Traditional Manifold Style code T.

(4) Only available with 316 SST materials of construction code 2 and graphite based packing code 2.

(5) Only allowed with both Manifold Style code T and Process Connection code F. Not allowed with Graphite-based Packing Code 2.

(6) Not available with Manifold Type codes 7, 8.

(7) Materials of construction comply with recommendations per NACE MR 0175 / ISO 1516 for sour oil field production environments. Environmental limits apply to certain materials. Consult latest standard for details. Selected materials also conform to NACE MR 0103 for sour refining environments.

(8) Not available with Graphite-Based Packing Material code 2.

# Rosemount Manifolds

## Rosemount 305 Integral Manifolds

Table 3. Rosemount 305 Integral Manifold Ordering Information

★ The Standard offering represents the most common options. The starred options (★) should be selected for best delivery.  
The Expanded offering is subject to additional delivery lead time.

Model	Product Description			
0305	Integral Manifold			
<b>Manufacturer</b>				
<b>Standard</b>				<b>Standard</b>
R	Rosemount			★
<b>Manifold Style</b>				
<b>Standard</b>				<b>Standard</b>
C	Coplanar			★
T	Traditional			★
M	Traditional (Rosemount 3095-compatible; DIN-compliant flange)			★
<b>Manifold Type</b>				
<b>Standard</b>				<b>Standard</b>
2	2-valve			★
3	3-valve			★
5 <sup>(1)</sup>	5-valve			★
6 <sup>(2)</sup>	5-valve Natural Gas Metering Pattern			★
<b>Expanded</b>				
7 <sup>(2)(3)</sup>	2-valve (per ASME B31.1 [ANSI] Power and Piping Code)			
8 <sup>(2)(3)</sup>	3-valve (per ASME B31.1 [ANSI] Power and Piping Code)			
9 <sup>(2)(3)</sup>	5-valve (per ASME B31.1 [ANSI] Power and Piping Code)			
	<b>Body</b>	<b>Bonnet</b>	<b>Stem and Tip / Ball</b>	
<b>Standard</b>				<b>Standard</b>
2	316 SST	316 SST	316 SST	★
<b>Expanded</b>				
3 <sup>(4)</sup>	Alloy C-276	Alloy C-276	Alloy C-276	
4	Alloy 400	Alloy 400	Alloy 400 / K-500	
<b>Process Connection Style</b>				
<b>Standard</b>				<b>Standard</b>
A <sup>(5)</sup>	1/4–18 NPT female			★
B <sup>(6)</sup>	1/2–14 NPT female			★
<b>Packing Material</b>				
<b>Standard</b>				<b>Standard</b>
1	PTFE			★
<b>Expanded</b>				
2 <sup>(7)</sup>	Graphite-based			
<b>Valve Seat</b>				
<b>Standard</b>				<b>Standard</b>
1	Integral			★
5	Soft delrin (only available with natural gas metering pattern)			★

## Options

<b>Mounting Brackets</b>				
<b>Standard</b>				<b>Standard</b>
B1	Bracket for 2-in. pipe mounting, CS bolts			★
B3 <sup>(8)</sup>	Flat bracket for 2-in. pipe mounting, CS bolts			★
B4	SST Mounting Bracket for 2-in. pipe mounting, 300 SST bolts			★
B7	B1 bracket with series 300 SST bolts			★
B9 <sup>(8)</sup>	B3 bracket with series 300 SST bolts			★
BA	SST B1 bracket with series 300 SST bolts			★
BC <sup>(8)</sup>	SST B3 bracket with series 300 SST bolts			★



# Product Data Sheet

00813-0100-4733, Rev NB

January 2011

# Rosemount Manifolds

Table 3. Rosemount 305 Integral Manifold Ordering Information

★ The Standard offering represents the most common options. The starred options (★) should be selected for best delivery.  
The Expanded offering is subject to additional delivery lead time.

<b>Bolt Materials</b>		
<b>Standard</b>		<b>Standard</b>
L4 <sup>(9)</sup>	Austenitic 316 SST bolts	★
L5	ASTM-A-193-B7M bolts	★
L8	ASTM-A-193, Class 2, Grade B8M bolts	★
<b>Cleanings</b>		
<b>Standard</b>		<b>Standard</b>
P2 <sup>(10)</sup>	Cleaning for special services	★
<b>Material Recommendations for NACE</b>		
<b>Standard</b>		<b>Standard</b>
SG <sup>(4)(11)</sup>	Sour Gas (Meets NACE MR 0175 / ISO 15156, MR 0103)	★
<b>Adapters</b>		
<b>Standard</b>		<b>Standard</b>
DF <sup>(12)</sup>	<sup>1</sup> / <sub>2</sub> -14 NPT female flange adapter	★
<b>Expanded</b>		
DQ <sup>(12)</sup>	12 mm ferrule flange adapter	
<b>Process Flange Bolting Connection</b>		
<b>Standard</b>		<b>Standard</b>
HK <sup>(13)</sup>	10 mm (M10) process flange bolting connection	★
HL <sup>(13)</sup>	12 mm (M12) process flange bolting connection	★
<b>Typical Coplanar Integral Manifold Model Number: 305RC32B11B4</b>		
<b>Typical Transmitter Model Number: 3051CD2A02A1AS5</b>		

(1) Not available with traditional manifold style T.

(2) Only available with Coplanar manifold style code C.

(3) Only available with 316 SST materials of construction code 2 and graphite based backing code 2.

(4) Materials of Construction comply with recommendations per NACE MR 0175/ISO 15156 for sour oil field production environments. Environmental limits apply to certain materials. Consult latest standard for details. Selected materials also conform to NACE MR0103 for sour refining environments.

(5) Only available with traditional manifold style codes T and M.

(6) Not available with traditional manifold style code M.

(7) Includes graphite tape on drain/vent valves and plugs.

(8) Not compatible with the Rosemount 3095 transmitter.

(9) Not available with ASME B31.1 manifold type codes 7, 8, and 9.

(10) Not available with Graphite-Based Packing Material code 2.

(11) Only available with 316 SST Materials of Construction Code 2: 316 SST body and bonnets; Alloy C-276 stems, tip/balls, and drain/vents.

(12) Only allowed with Manifold Style code T. Not allowed with Graphite-Based Packing code 2.

(13) Only available with traditional manifold style code M.

# Rosemount Manifolds

## Rosemount 306 Inline Manifolds

Table 4. Rosemount 306 Inline Pressure Manifold Ordering Information

★ The Standard offering represents the most common options. The starred options (★) should be selected for best delivery.  
The Expanded offering is subject to additional delivery lead time.

Model		Product Description		
0306		Pressure Manifold		
<b>Manufacturer</b>				
<b>Standard</b>				<b>Standard</b>
R	Rosemount Inc.			★
<b>Manifold Style</b>				
<b>Standard</b>				<b>Standard</b>
T	Threaded			★
<b>Manifold Type</b>				
<b>Standard</b>				<b>Standard</b>
1	Block and bleed			★
2	2-valve			★
<b>Expanded</b>				
3 <sup>(1)</sup>	2-valve (per ASME B31.1 Power Piping Code)			
	<b>Body</b>	<b>Bonnet</b>	<b>Stem and Tip / Ball</b>	
<b>Standard</b>				<b>Standard</b>
2	316 SST	316 SST	316 SST	★
<b>Expanded</b>				
3 <sup>(2)(3)</sup>	Alloy C-276	Alloy C-276	Alloy C-276	
<b>Process Connection</b>				
<b>Standard</b>				<b>Standard</b>
AA	1/2-14 male NPT			★
BA <sup>(2)</sup>	1/2-14 female NPT			★
<b>Packing Material</b>				
<b>Standard</b>				<b>Standard</b>
1	PTFE			★
<b>Expanded</b>				
2 <sup>(4)</sup>	Graphite-based			
<b>Valve Seat</b>				
<b>Standard</b>				<b>Standard</b>
1	Integral			★

### Options

<b>Cleanings</b>			
<b>Expanded</b>			
P2 <sup>(5)</sup>	Cleaning for special services		
<b>Material Recommendations for NACE</b>			
<b>Standard</b>			<b>Standard</b>
SG <sup>(3)(6)</sup>	Sour Gas (Meets NACE MR 0175 / ISO 15156, MR 0103)		★
<b>Typical Integral Manifold Model Number: 3 0 6 R T 2 2 B A 1 1</b>			
<b>Typical Transmitter Model Number: 3051TG3A2B21AS5B4</b>			

(1) Only available with 316 SST materials of construction and graphite-based packing.

(2) Not available with block-and-bleed manifold type

(3) Materials of Construction comply with recommendations per NACE MR0175/ISO 15156 for sour oil field production environments. Environmental limits apply to certain materials. Consult latest standard for details. Selected materials also conform to NACE MR0103 for sour refining environments.

(4) Includes graphite tape on plugs.

(5) Not available with Graphite-Based Packing Material code 2.

(6) Only available with 316 SST material of construction code 2. Manifolds with SG option are built with 316 SST body and bonnets; Alloy C-276 stems, tips/balls.

## Specifications

### Pressure and Temperature Ratings

Figure 1. 304 Conventional Manifolds - Pressure vs. Temperature

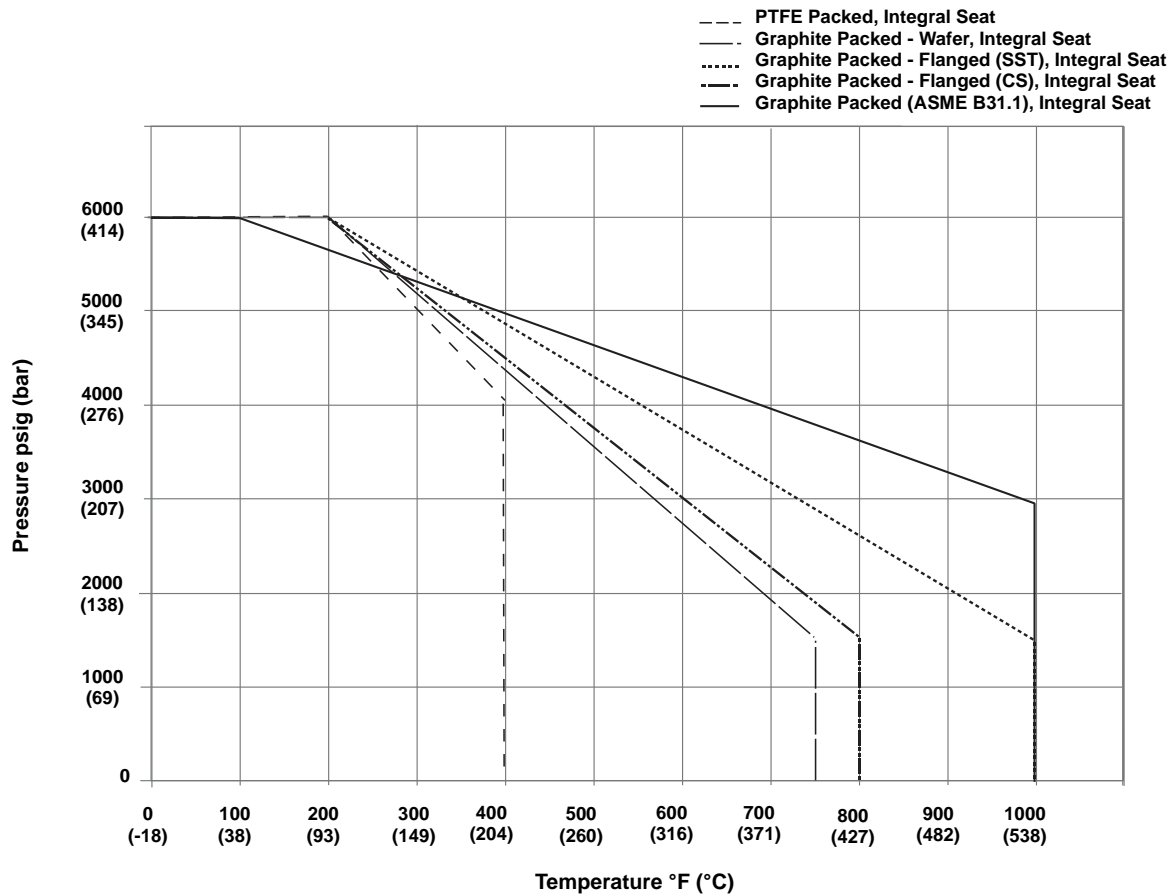


Table 5. 304 Conventional Manifolds - Pressure and Temperature Ratings

Packing	Seat	Pressure and Temperature Ratings
PTFE	Integral	6000 psi @ 200 °F (414 bar @ 93 °C) 4000 psi @ 400 °F (276 bar @ 204 °C)
Graphite - Wafer	Integral	6000 psi @ 200 °F (414 bar @ 93 °C) 1500 psi @ 750 °F (103 bar @ 399 °C)
Graphite - Flanged (SST)	Integral	6000 psi @ 200 °F (414 bar @ 93 °C) 1500 psi @ 1000 °F (103 bar @ 538 °C)
Graphite - Flanged (CS)	Integral	6000 psi @ 200 °F (414 bar @ 93 °C) 1500 psi @ 800 °F (103 bar @ 427 °C)
Graphite (ASME B31.1)	Integral	6000 psi @ 100 °F (414 bar @ 38 °C) 2915 psi @ 1000 °F (201 bar @ 538 °C)

# Rosemount Manifolds

Figure 2. 305 Integral Manifolds - Pressure vs. Temperature

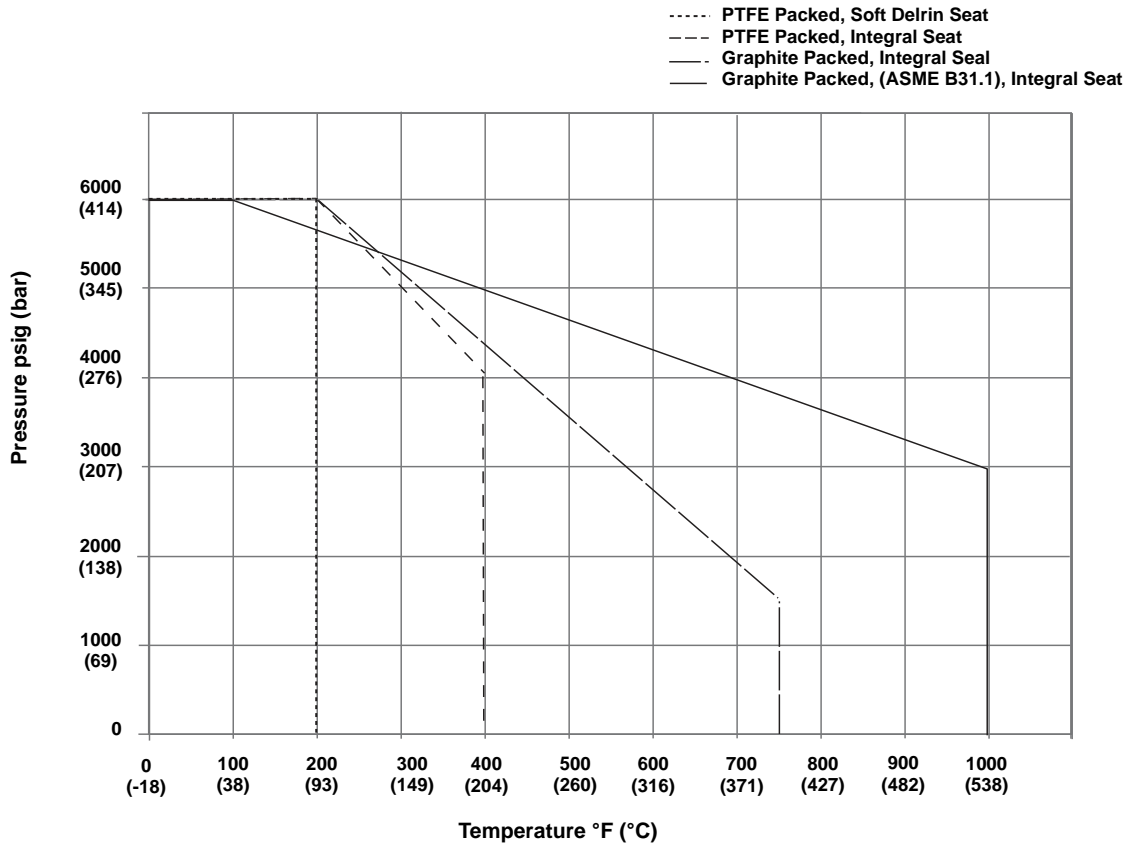


Table 6. 305 Integral Manifolds - Pressure and Temperature Ratings<sup>(1)</sup>

Packing <sup>(1)</sup>	Seat	Pressure and Temperature Ratings
PTFE	Integral	6092 psi @ 200 °F (420 bar @ 93 °C) 4000 psi @ 400 °F (276 bar @ 204 °C)
PTFE	Soft Delrin	6092 psi @ 200 °F (420 bar @ 38 °C)
Graphite	Integral	6092 psi @ 200 °F (420 bar @ 93 °C) 1500 psi @ 750 °F (103 bar @ 399 °C)
Graphite (ASME B31.1)	Integral	6092 psi @ 100 °F (420 bar @ 38 °C) 2915 psi @ 1000 °F (201 bar @ 538 °C)

(1) Except option HK:  
 PTFE, Integral seat: 2324 psi @ 200 °F (160 bar @ 93 °C), 1680 psi @ 400 °F (116 bar @ 204 °C)  
 Graphite, Integral seat: 2324 psi @ 200 °F (160 bar @ 93 °C), 1125 psi @ 750 °F (78 bar @ 399 °C)

Figure 3. 306 Integral Manifolds - Pressure vs. Temperature

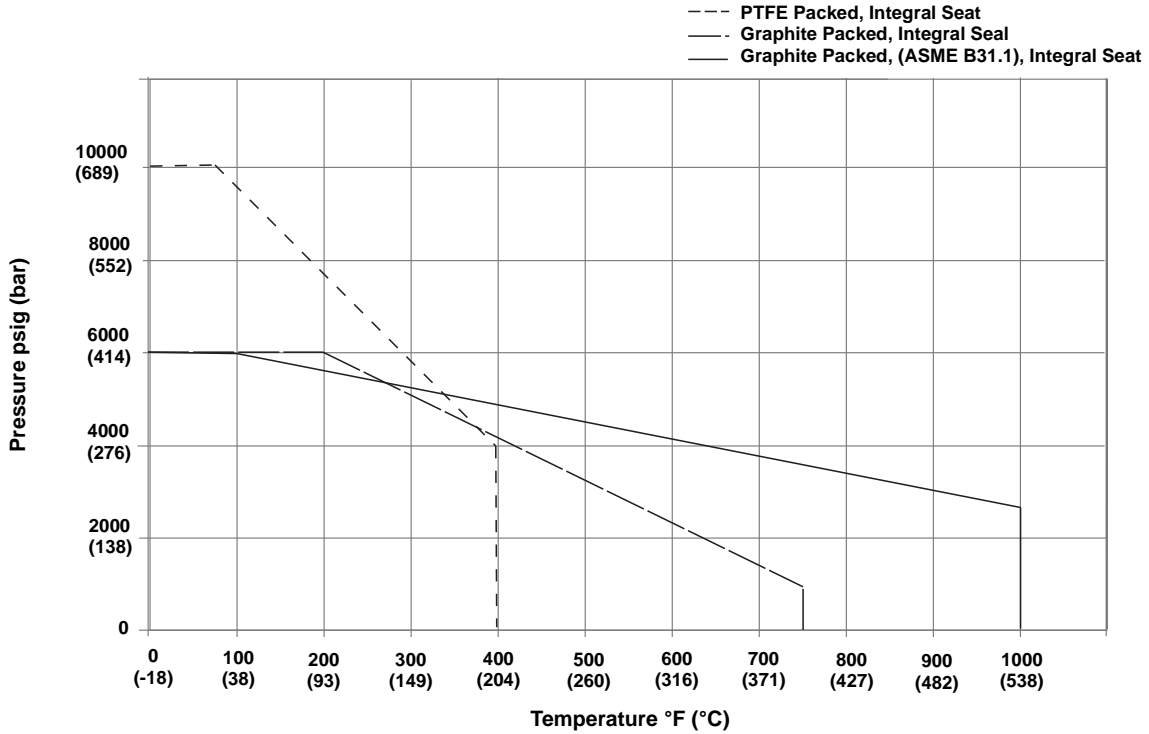


Table 7. 306 Integral Manifolds - Pressure and Temperature Ratings

Packing	Seat	Pressure and Temperature Ratings
PTFE	Integral	10000 psi @ 85 °F (689 bar @ 29 °C) 4000 psi @ 400 °F (276 bar @ 204 °C)
Graphite	Integral	6000 psi @ 200 °F (414 bar @ 93 °C) 1500 psi @ 750 °F (103 bar @ 399 °C)
Graphite (ASME B31.1)	Integral	6000 psi @ 100 °F (414 bar @ 38 °C) 2915 psi @ 1000 °F (201 bar @ 538 °C)

# Rosemount Manifolds

## Process Connections

Table 8. Process Connections

Model and Style	Connection
<b>304</b> Flange by Pipe Flange by Flange Wafer	$\frac{1}{2}$ - 14 Female NPT 2 $\frac{1}{8}$ -in. (54 mm) center-to-center connection (Process Adapters required) $\frac{1}{2}$ - 14 Female NPT  <u>Process Adapters</u> $\frac{1}{2}$ - 14 Female NPT Flange Adapter $\frac{1}{2}$ -in. Ferrule Flange Adapter 12-mm Ferrule Flange Adapter
<b>305</b> Coplanar Traditional	$\frac{1}{2}$ - 14 Female NPT $\frac{1}{4}$ - 18 Female NPT (Process Adapters optional)  <u>Optional Process Adapters</u> $\frac{1}{2}$ - 14 Female NPT Flange Adapter 12 mm Ferrule Flange Adapter
<b>306</b> Block-and-Bleed 2-Valve	$\frac{1}{2}$ - 14 Male NPT $\frac{1}{2}$ - 14 NPT (Male or Female)

## Instrument Connections

Table 9. Manifold - Transmitter Interface

Model	Connection
<b>304</b>	Mounted to traditional transmitter flange, 2 $\frac{1}{8}$ -in. (54 mm) center-to-center connection per IEC 61518, Type B shut-off device (without SPIGOT)
<b>305</b>	Mounted directly to Coplanar sensor module of transmitter, 1.3-in. (287 mm) center-to-center process isolators
<b>306</b>	$\frac{1}{2}$ - 14 Male NPT

## Test / Vent Connections

$\frac{1}{4}$ -18 Female NPT

## Manifold Bolts

Standard material is plated carbon steel per ASTM A449, Type 1

Alternative bolt materials offered through Option Codes

- L4 Austenitic 316 Stainless Steel Bolts
- L5 ASTM-A-193, Grade B7M Bolts
- L8 ASTM-A-193, Class 2, Grade B8M Bolts

## O-Rings

Figure 4. 304 Manifold O-Rings

**Manifold-to-Flange O-Rings**

Same material as specified by manifold "Packing Material"

selection:

- "1" = PTFE
- "2" = Graphite

**Flange Adapter O-Rings**  
Glass-filled PTFE

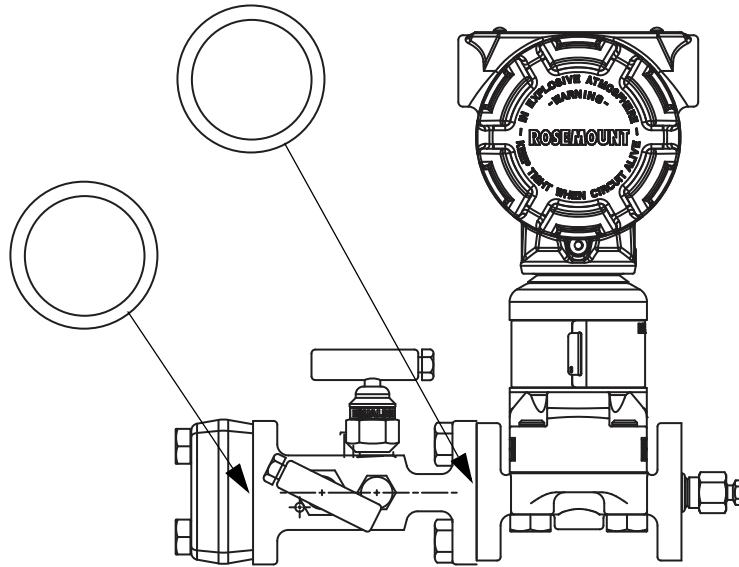
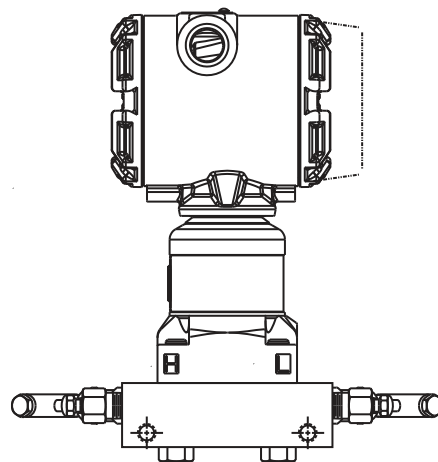


Figure 5. 305 Manifold O-Rings



# Rosemount Manifolds

Table 10. 304 Conventional Manifolds - Process Wetted Materials of Construction

Component	SST	CS	SST with SG Option
Body	316 SST	CS	316 SST
Ball / Tip	316 SST /316Ti SST	316 SST	Alloy C-276
Stem	316 SST	316 SST	Alloy C-276
Packing	PTFE / Graphite	PTFE	PTFE / Graphite
Bonnet	316 SST	316 SST	316 SST
Pipe Plug	316 SST	CS	316 SST

Table 11. 305 Integral Manifolds - Process Wetted Materials of Construction

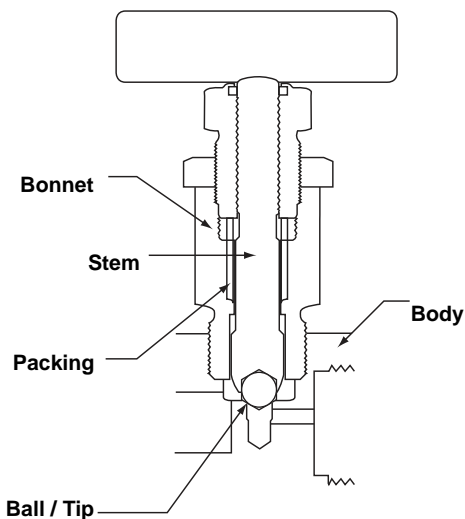
Component	SST	Alloy C-276	316 SST with SG option
Body	316 SST	Alloy C-276	316 SST
Ball / Tip	316 SST /316Ti SST	Alloy C-276	Alloy C-276
Stem	316 SST	Alloy C-276	Alloy C-276
Packing	PTFE / Graphite	PTFE / Graphite	PTFE / Graphite
Bonnet	316 SST	Alloy C-276	316 SST
Pipe Plug	316 SST	Alloy C-276	316 SST
Drain / Vent Valve	316 SST	Alloy C-276	Alloy C-276

Table 12. 306 Inline Manifolds - Process Wetted Materials of Construction

Component	SST	Alloy C-276	316 SST with SG option
Body	316 SST	Alloy C-276	316 SST
Ball / Tip	316 SST /316Ti SST	Alloy C-276	Alloy C-276
Stem	316 SST	Alloy C-276	Alloy C-276
Packing	PTFE / Graphite	PTFE / Graphite	PTFE / Graphite
Bonnet	316 SST	Alloy C-276	316 SST
Pipe Plug	316 SST	Alloy C-276	316 SST
Bleed Screw	316 SST / 316Ti SST	Alloy C-276	Alloy C-276

## Materials of Construction - Typical

Figure 6. Typical Rosemount Manifold Valve

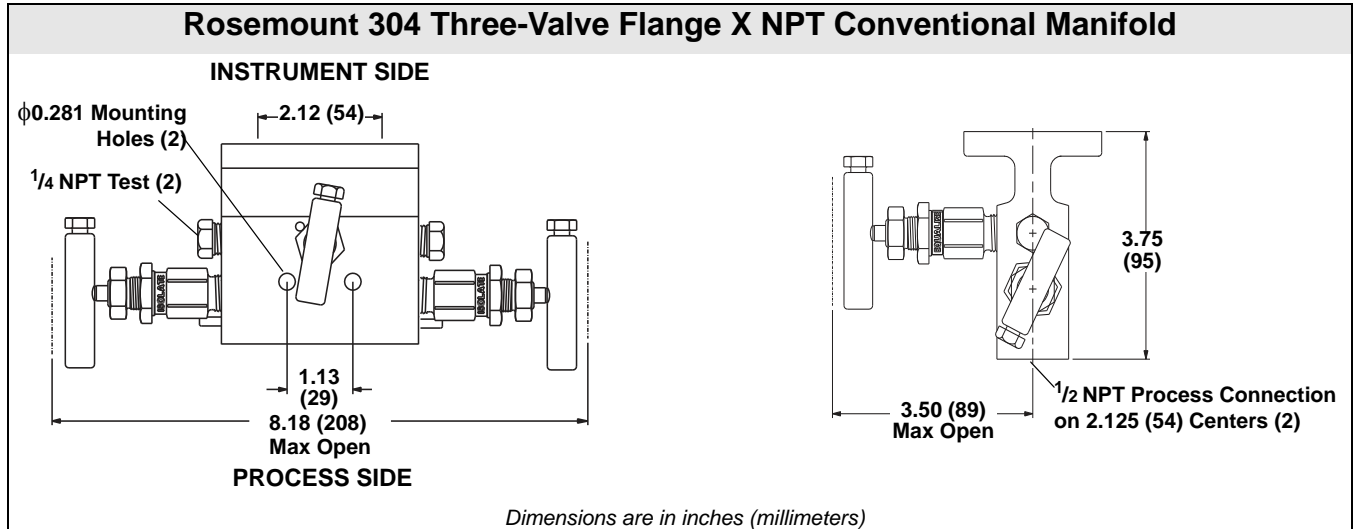
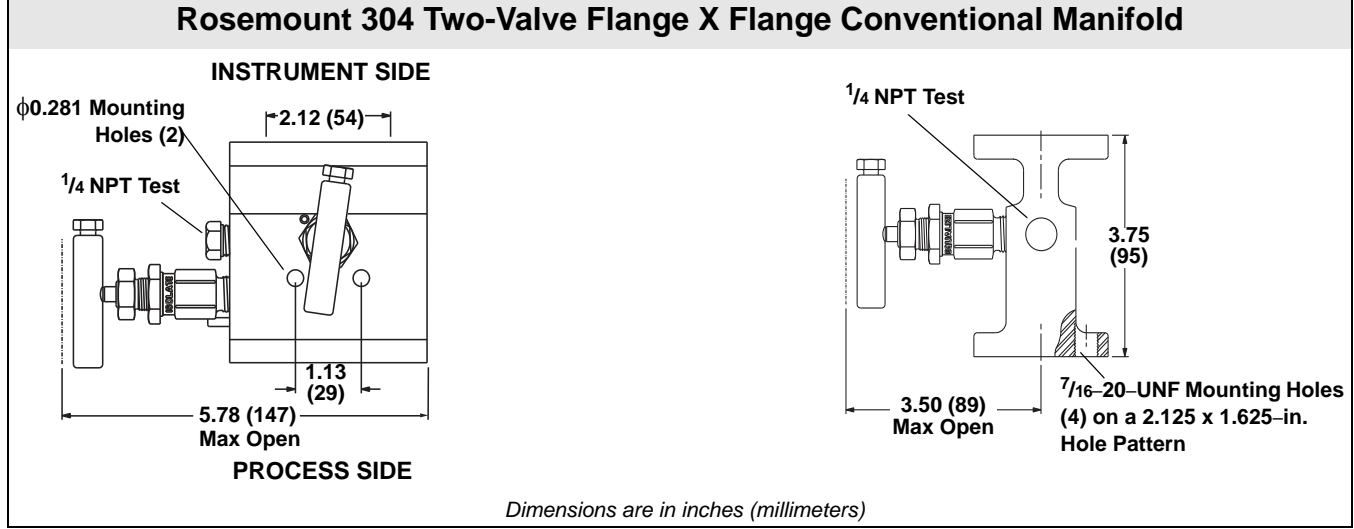
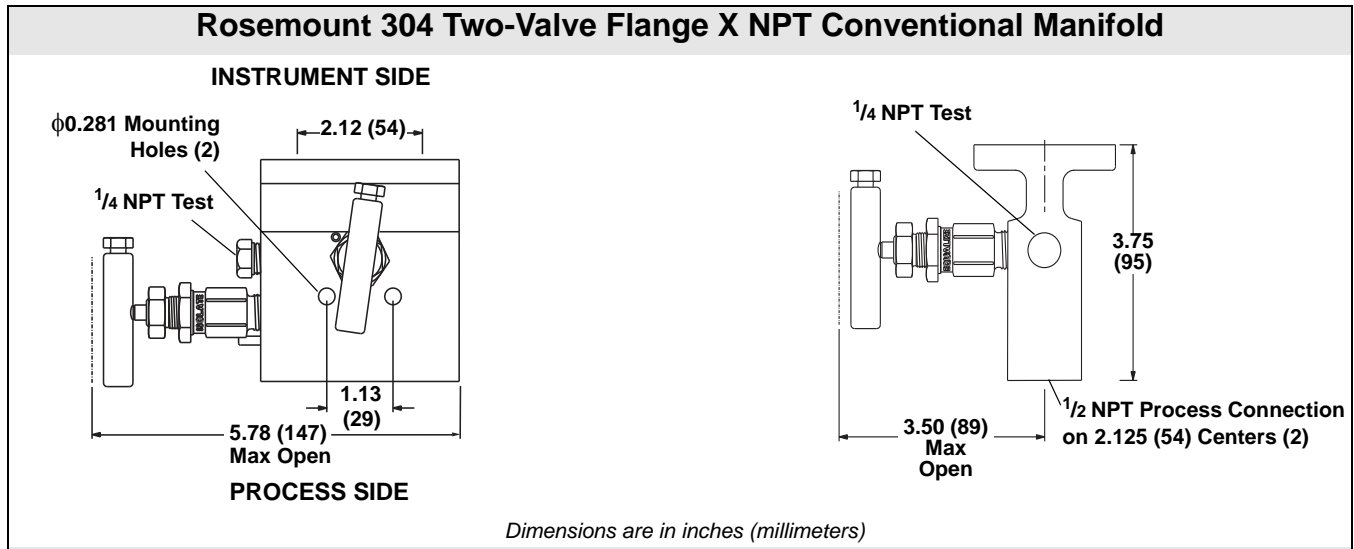


## Estimated Weight

Model and Description	Weight
<b>304</b>	
2-valve traditional flange x NPT	5.0 lbs (2.3 kg)
2-valve traditional flange-x flange	5.5 lbs (2.5 kg)
3-valve traditional flange x NPT	5.2 lbs (2.4 kg)
3-valve traditional flange x flange	5.7 lbs (2.6 kg)
3-valve wafer flange x NPT	4.0 lbs (1.8 kg)
5-valve wafer flange x NPT	5.7 lbs (2.6 kg)
5-valve traditional flange x NPT	5.7 lbs (2.6 kg)
5-valve traditional flange x flange	5.7 lbs (2.6 kg)
<b>305</b>	
2-valve Coplanar	4.5 lbs (2.0 kg)
2-valve traditional	6.0 lbs (2.7 kg)
3-valve Coplanar	4.7 lbs (2.1 kg)
3-valve traditional	6.0 lbs (2.7 kg)
5-valve Coplanar	6.5 lbs (3.0 kg)
<b>306</b>	
Block-and-Bleed	1.1 lbs (0.5 kg)
2-valve	2.5 lbs (1.1 kg)

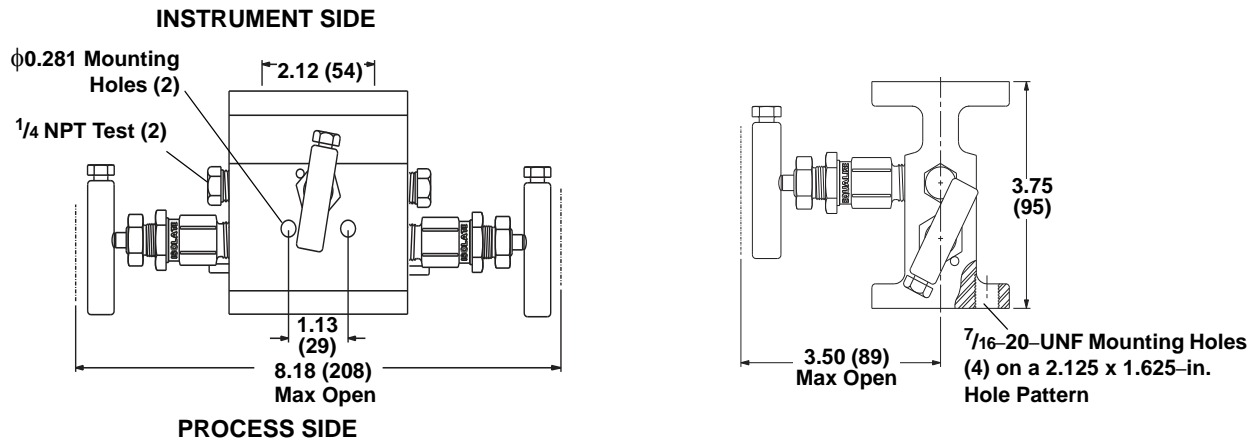


**Dimensional Drawings**



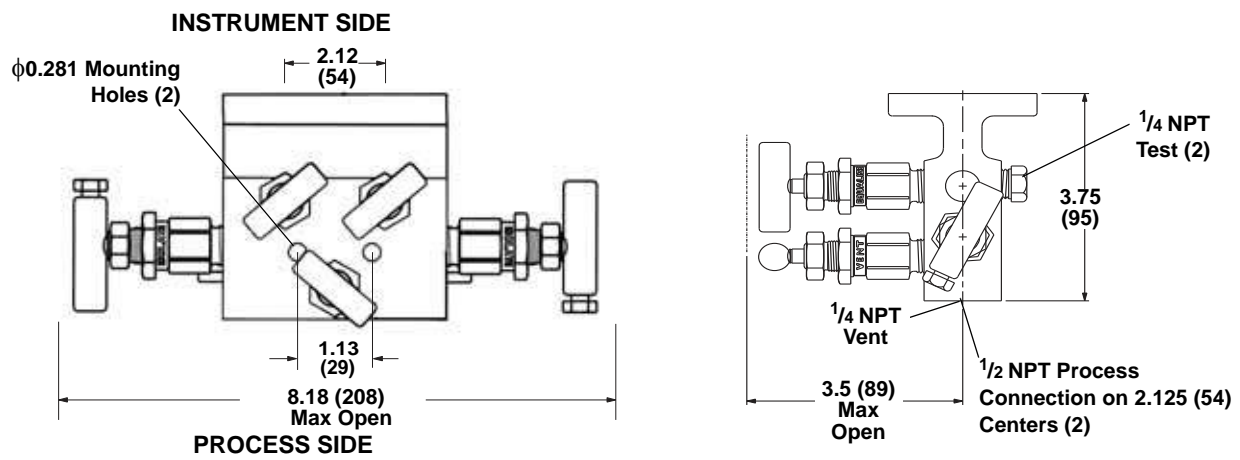
# Rosemount Manifolds

## Rosemount 304 Three-Valve Flange X Flange Conventional Manifold



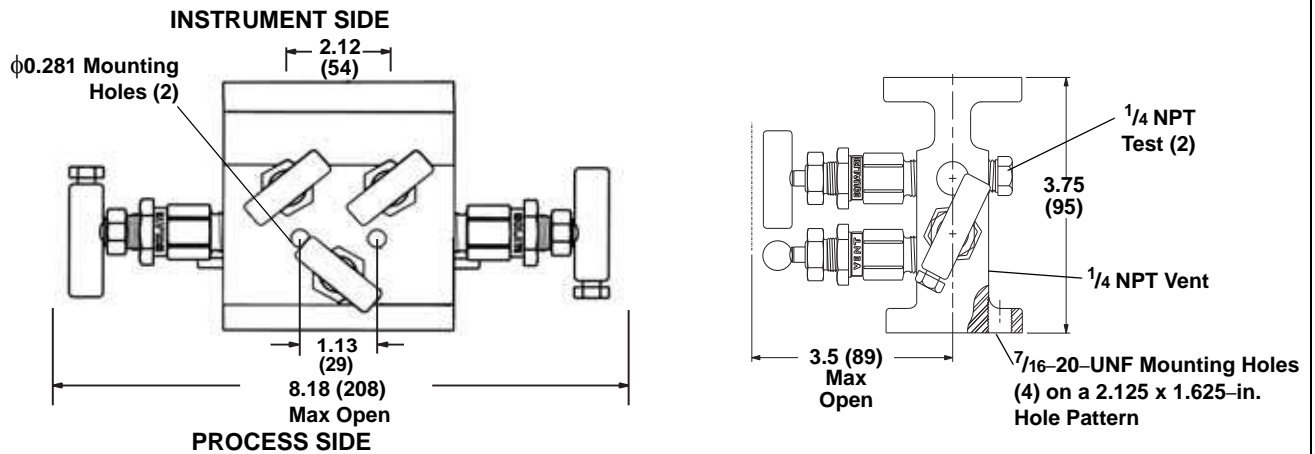
*Dimensions are in inches (millimeters)*

## Rosemount 304 Natural Gas Five-Valve Flange X NPT Conventional Manifold



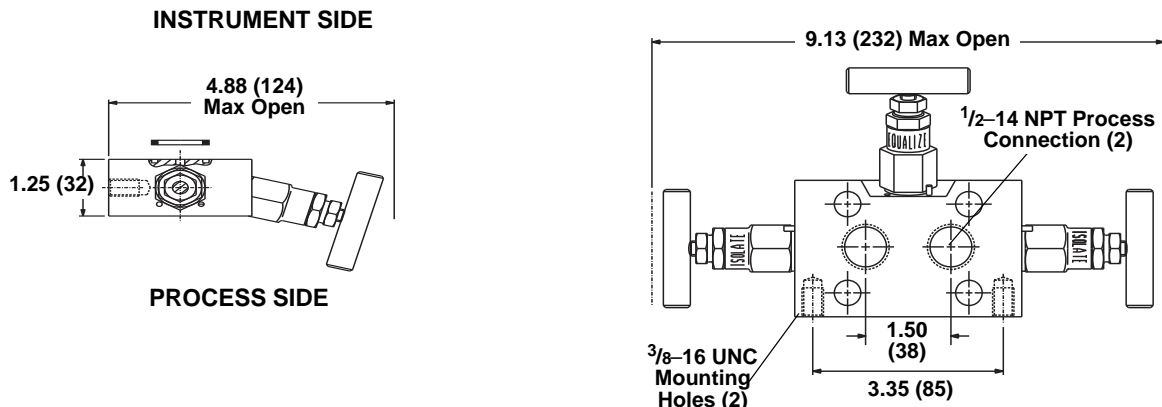
*Dimensions are in inches (millimeters)*

## Rosemount 304 Natural Gas Five-Valve Flange X Flange Conventional Manifold



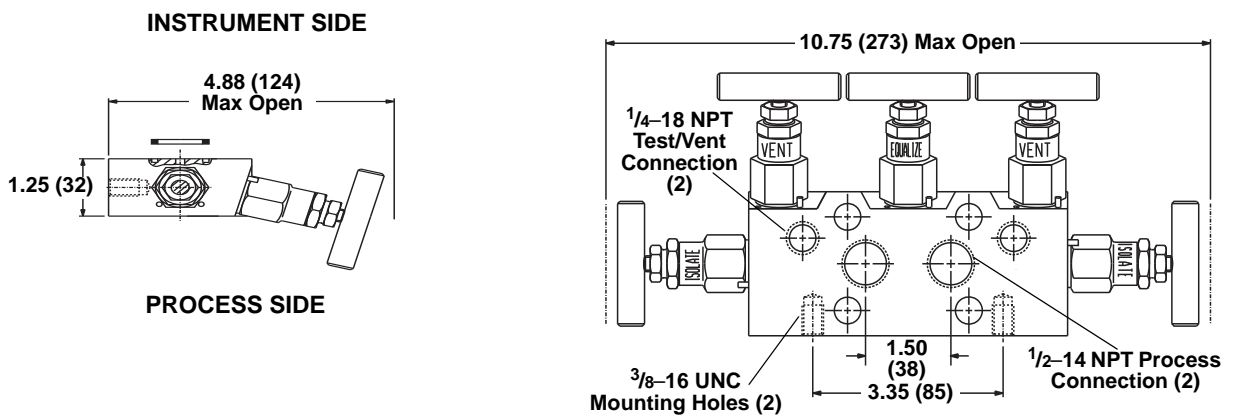
*Dimensions are in inches (millimeters)*

## Rosemount 304 Three-Valve Wafer Manifold



*Dimensions are in inches (millimeters)*

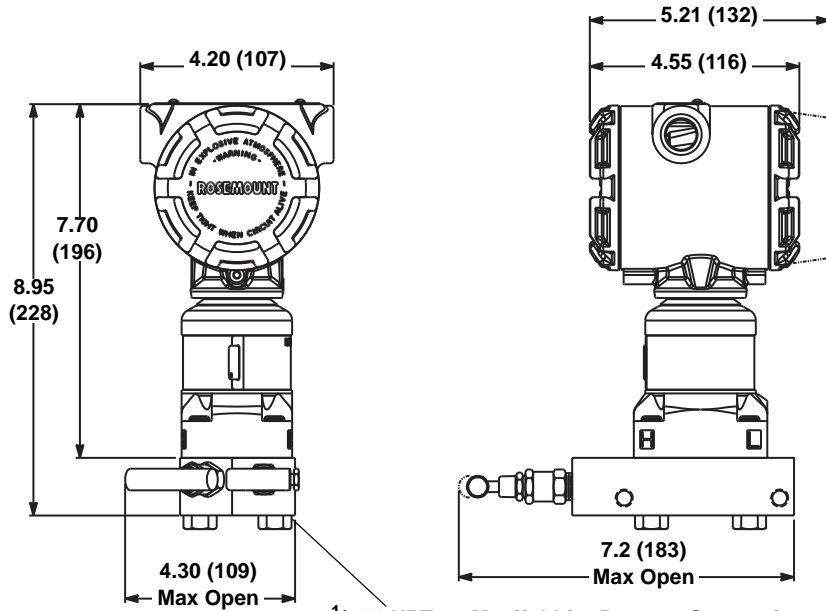
## Rosemount 304 Five-Valve Wafer Manifold



*Dimensions are in inches (millimeters)*

# Rosemount Manifolds

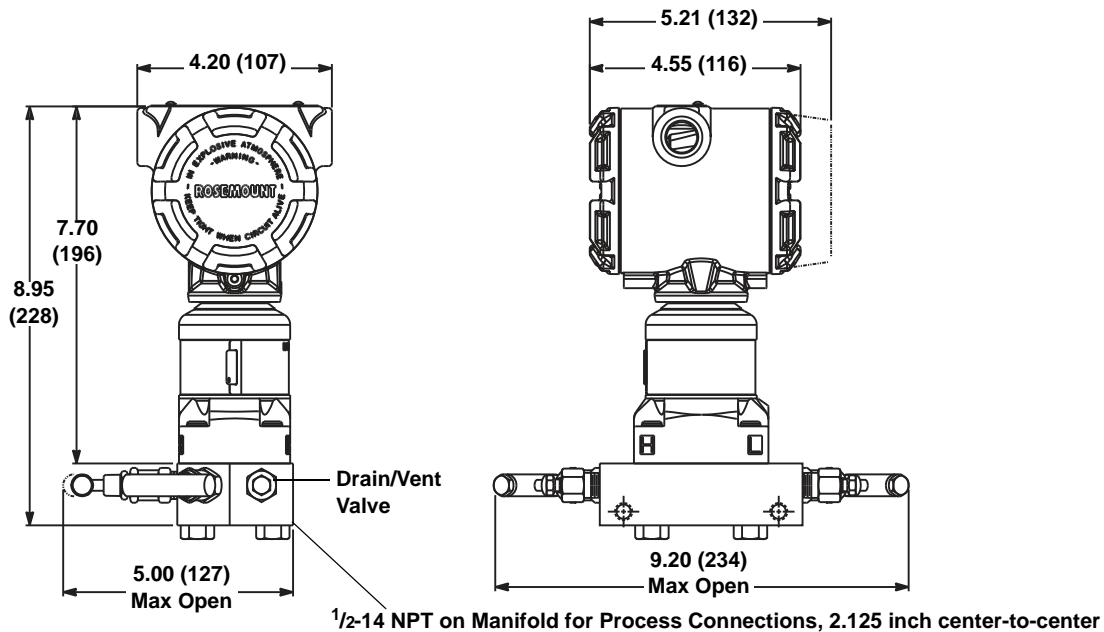
## Rosemount 305R Two-Valve Coplanar Style Manifold



$\frac{1}{2}$ -14 NPT on Manifold for Process Connection  
 $\frac{1}{4}$ -18 NPT for test/vent connection.

Dimensions are in inches (millimeters)

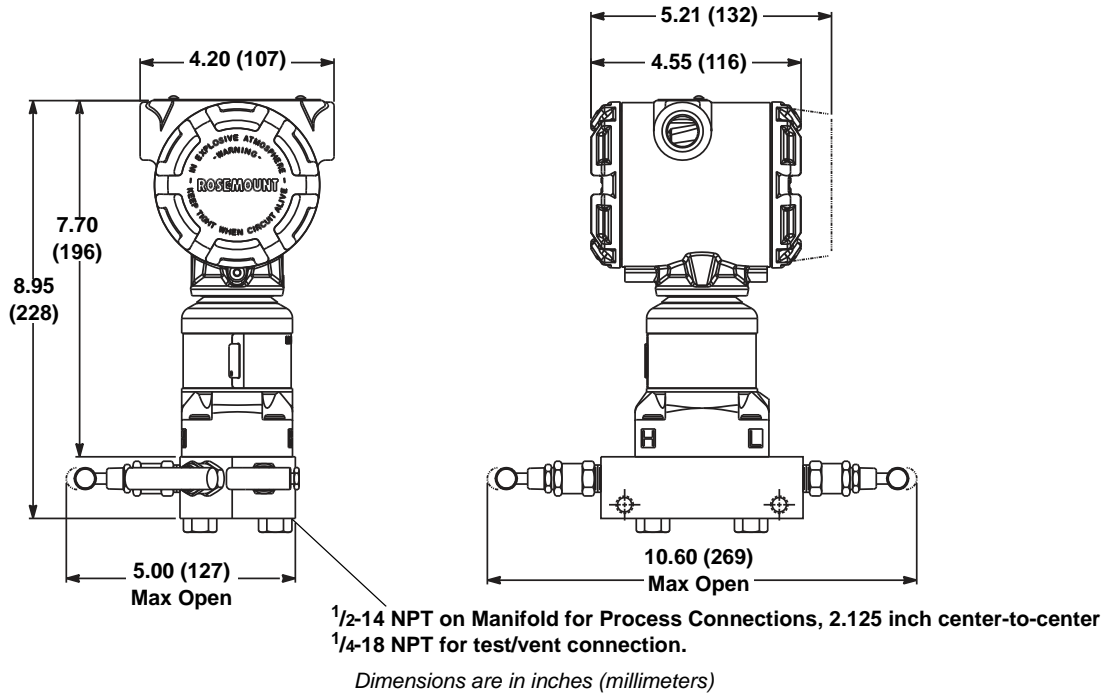
## Rosemount 305R Three-Valve Coplanar Style Manifolds



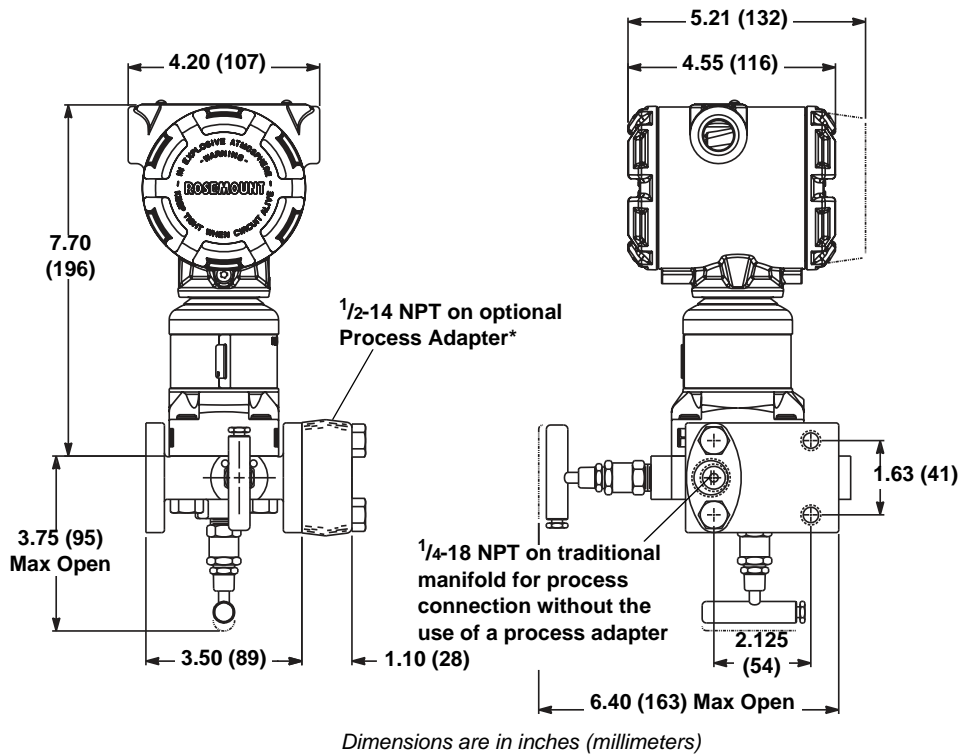
$\frac{1}{2}$ -14 NPT on Manifold for Process Connections, 2.125 inch center-to-center

Dimensions are in inches (millimeters)

**Rosemount 305R Five-Valve Coplanar Style Manifold**

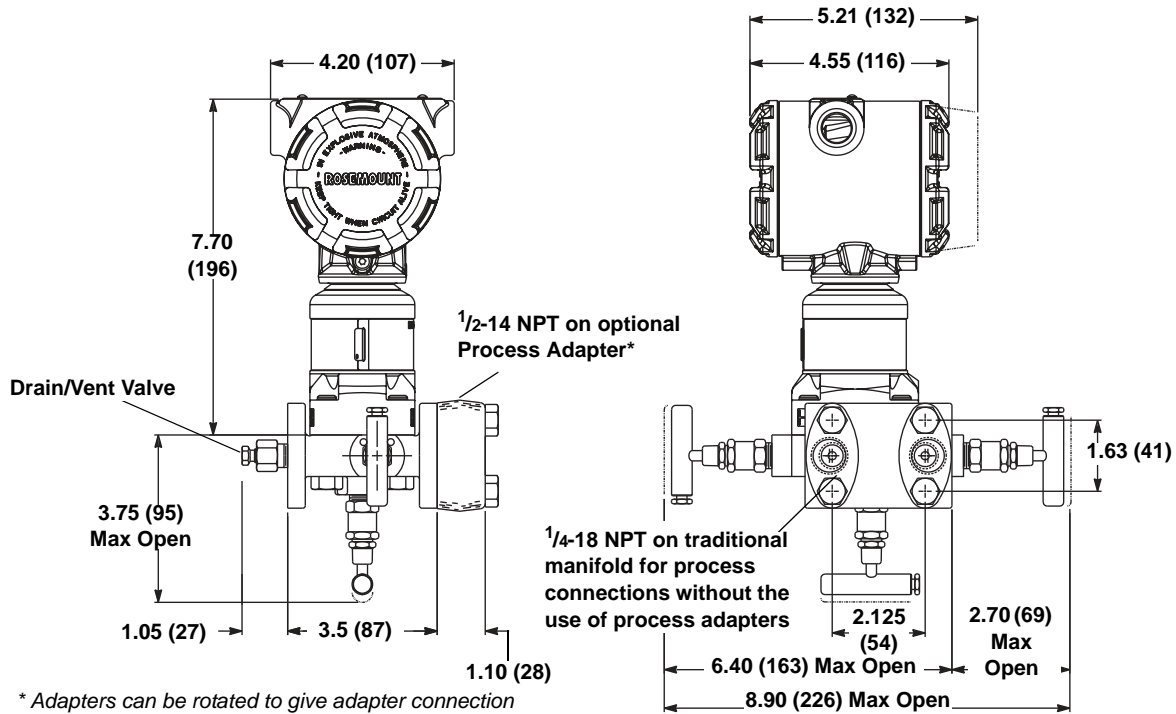


**Rosemount 305RT Two-Valve Traditional Style Manifold**



# Rosemount Manifolds

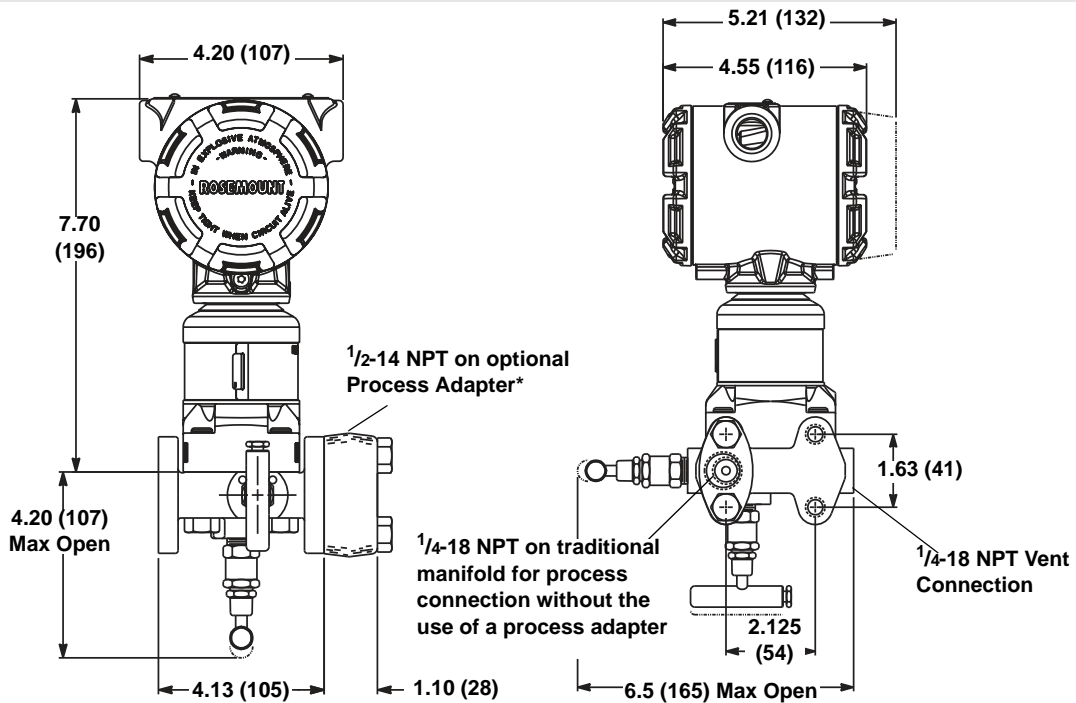
## Rosemount 305RT Three-Valve Traditional Style Manifold



\* Adapters can be rotated to give adapter connection centers of 2.0 (51), 2.125 (54), or 2.25 (57).

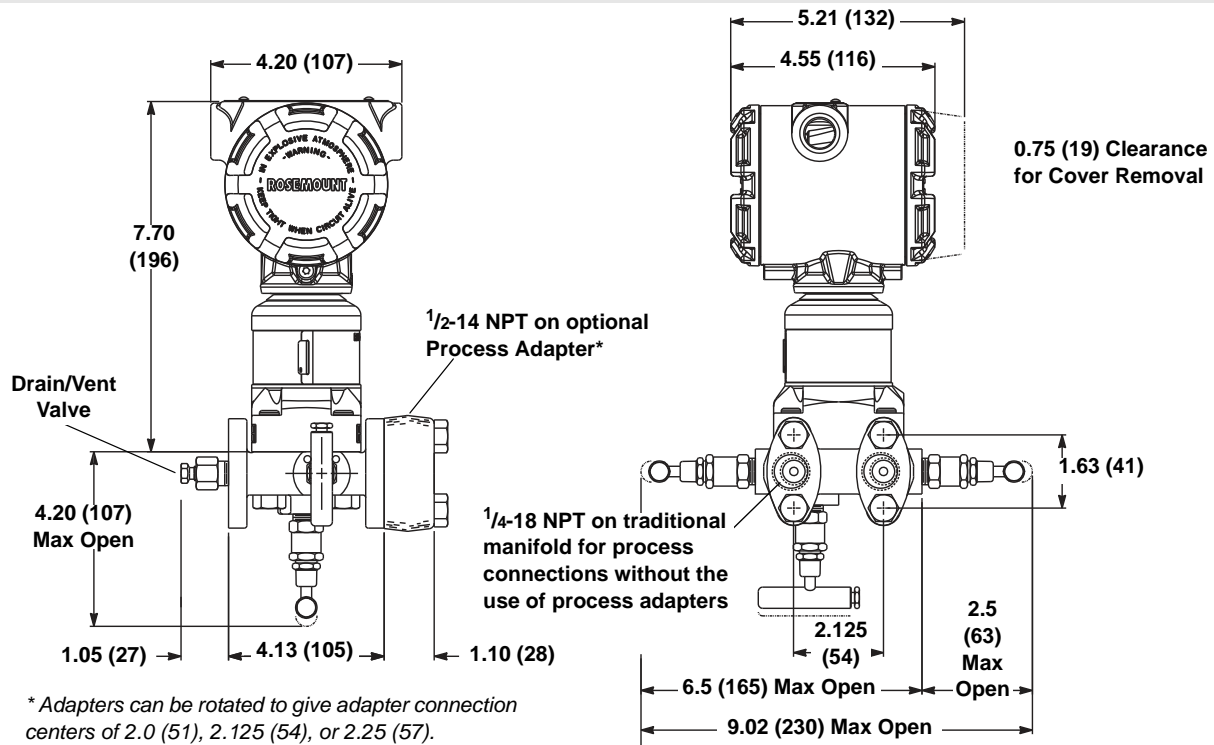
Dimensions are in inches (millimeters)

## Rosemount 305RM Two-Valve Traditional Style Manifold



Dimensions are in inches (millimeters)

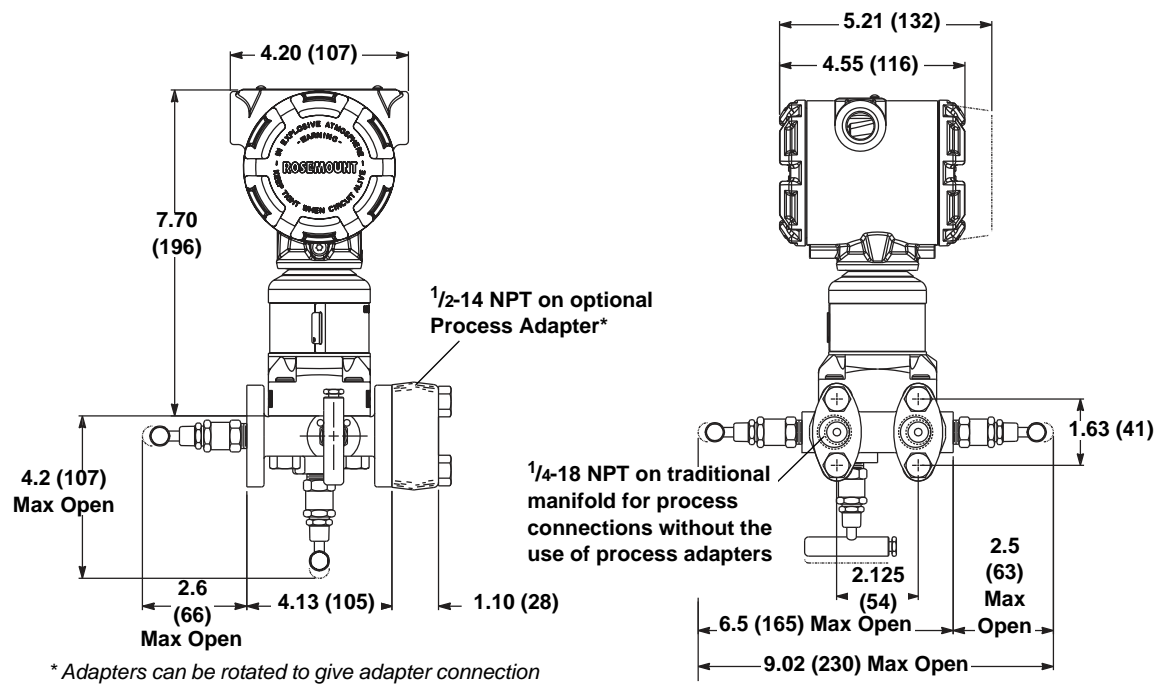
## Rosemount 305RM Three-Valve Traditional Style Manifold



\* Adapters can be rotated to give adapter connection centers of 2.0 (51), 2.125 (54), or 2.25 (57).

Dimensions are in inches (millimeters)

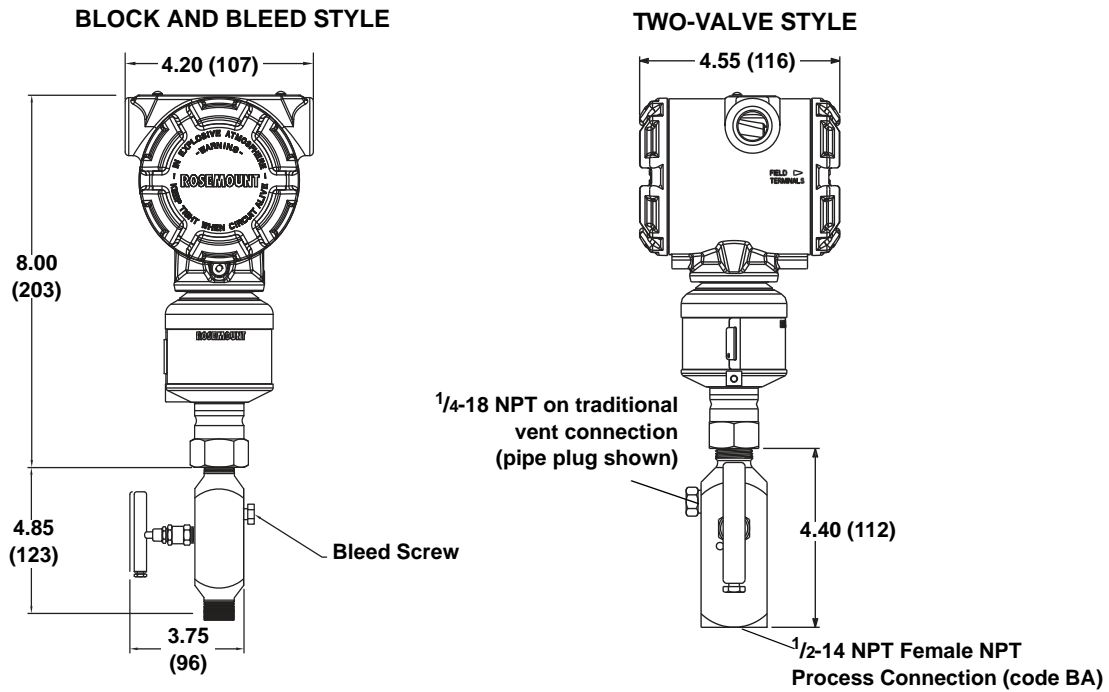
## Rosemount 305RM Five-Valve Traditional Style Manifold



\* Adapters can be rotated to give adapter connection centers of 2.0 (51), 2.125 (54), or 2.25 (57).

Dimensions are in inches (millimeters)

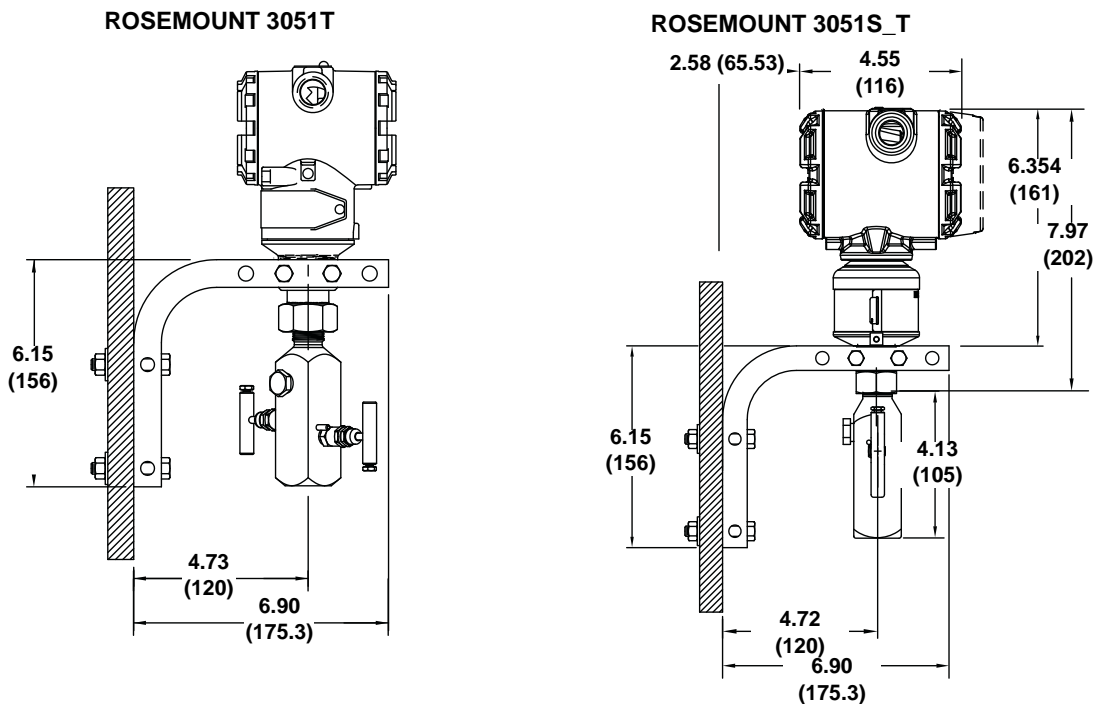
## Rosemount 306R Pressure Style Manifold (3051S\_T Shown)



Manifold valve orientation may vary with respect to transmitter mounting holes.

Dimensions are in inches (millimeters)

## Installations for Rosemount 3051T and 3051S\_T Transmitters for Panel Mounting

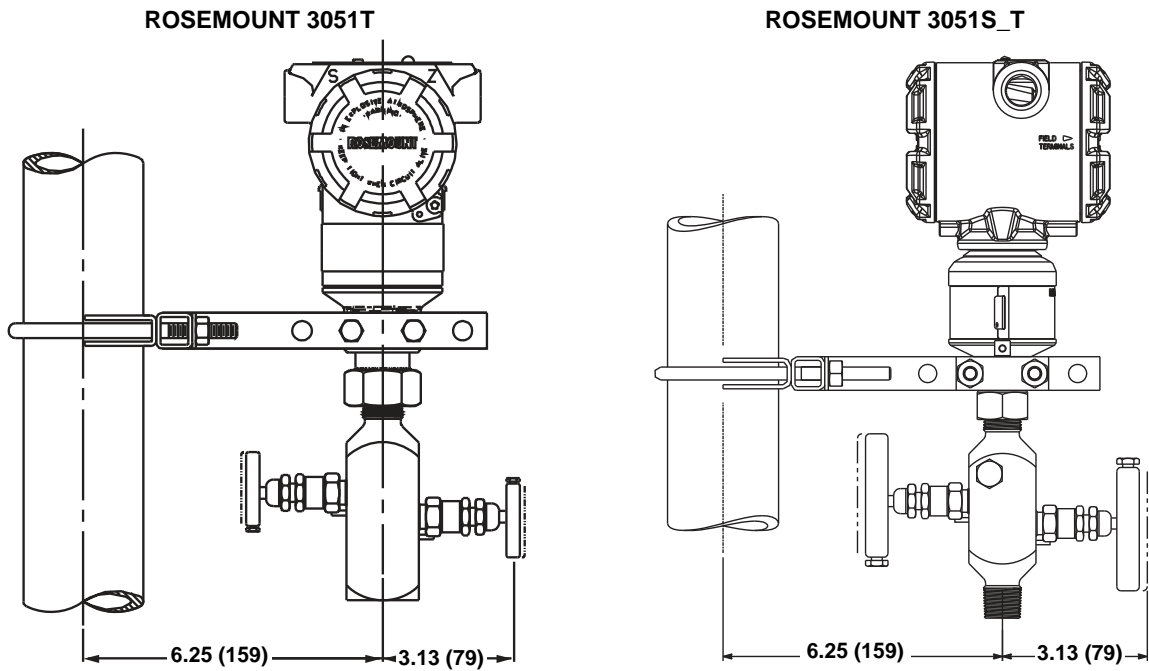


Manifold valve orientation may vary with respect to transmitter mounting holes.

Dimensions are in inches (millimeters)



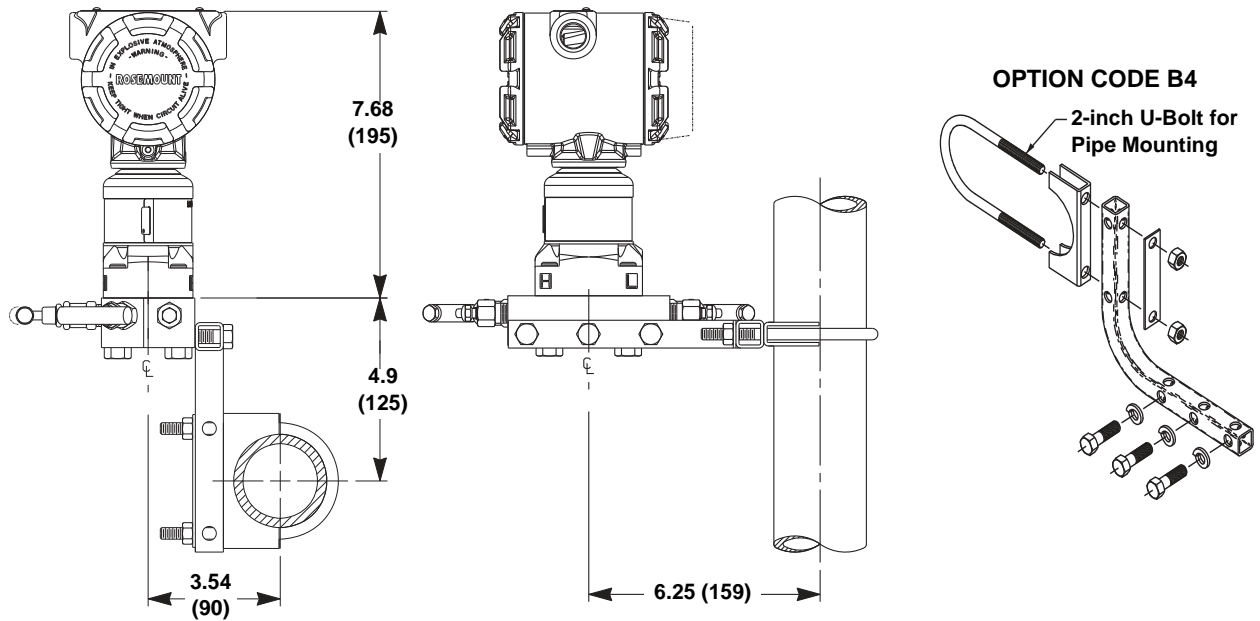
## Installations for Rosemount 3051T and 3051S\_T Transmitters for 2-in. Pipe Mounting



*Manifold valve orientation may vary with respect to transmitter mounting holes.*

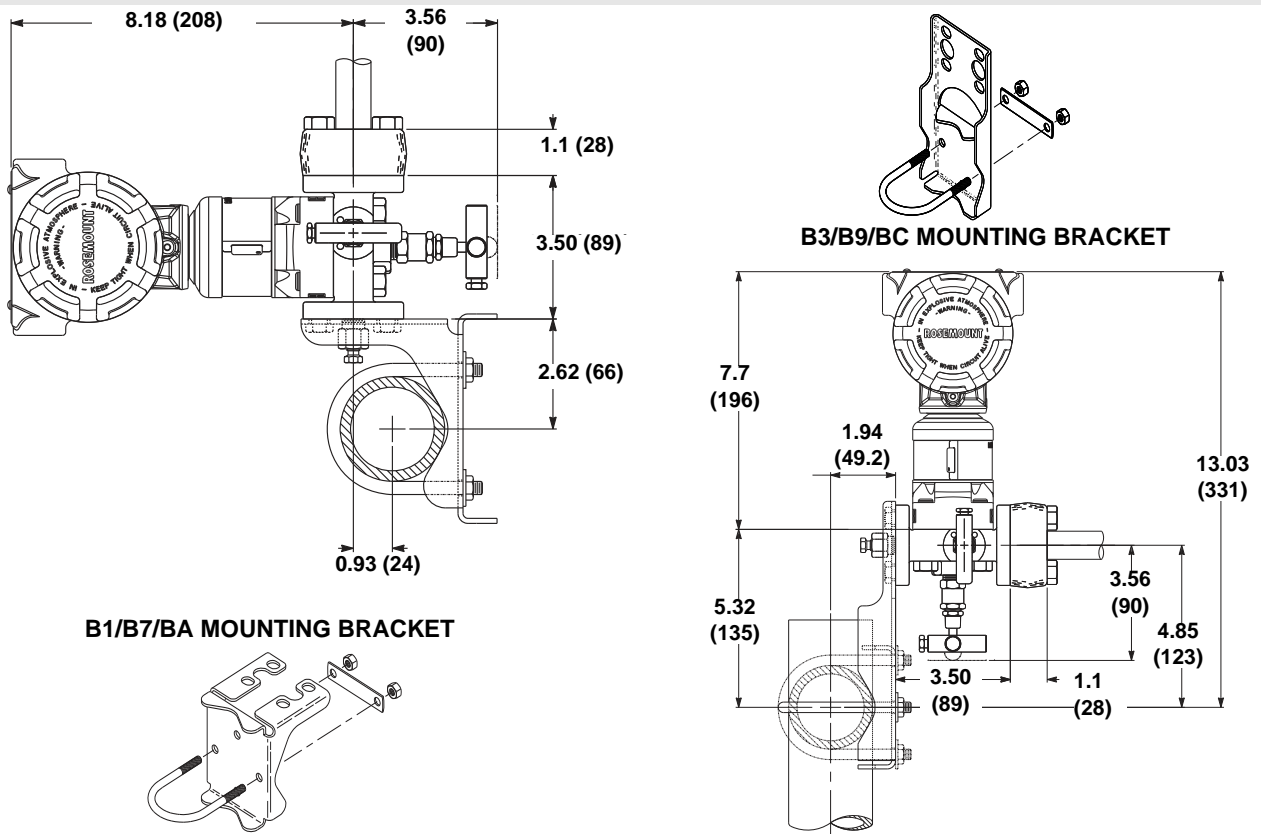
*Dimensions are in inches (millimeters)*

## Coplanar Manifold with Optional Bracket for 2-in. Pipe Mounting



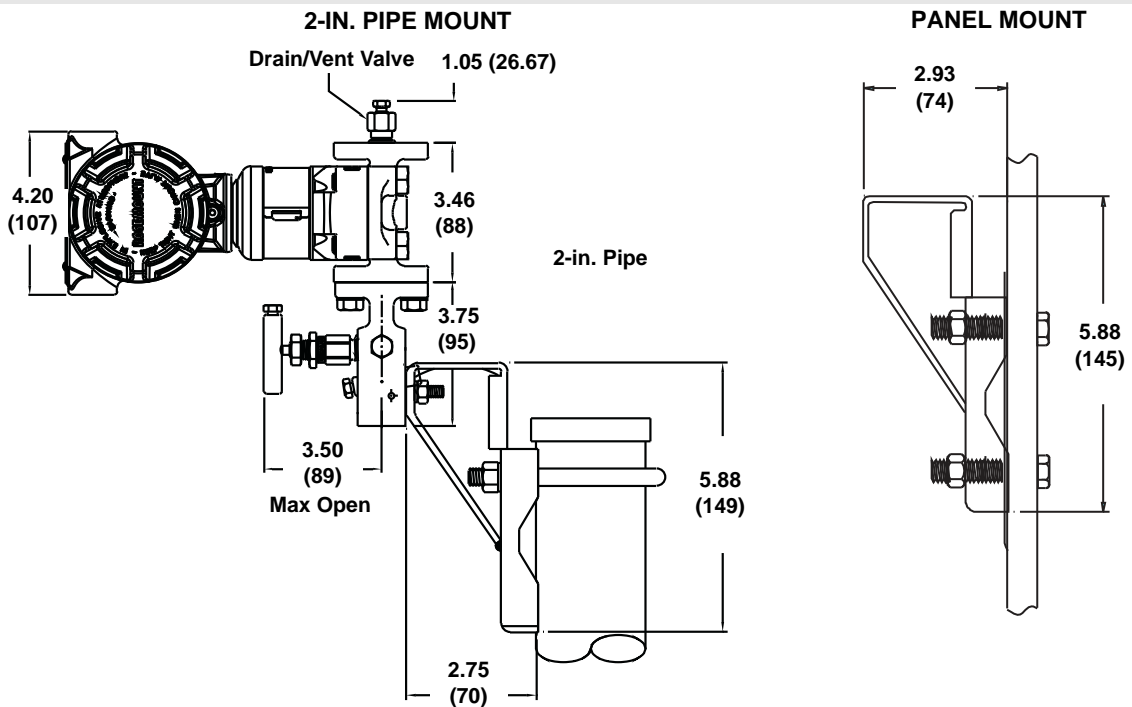
*Dimensions are in inches (millimeters)*

## Traditional Manifold with Optional Brackets for 2-in. Pipe Mounting



Dimensions are in inches (millimeters)

## VSVC Heavy Duty Manifold Mounting Bracket



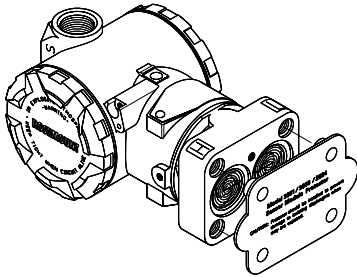
Dimensions are in inches (millimeters)

## OPTIONS

### Module Guard

A sensor module guard is available to protect the transmitter process isolating diaphragms. This guard should be used whenever the transmitter is removed from the integral manifold to avoid damage to the isolating diaphragms.

- Part number: 00305-1000-0001 (5/pack)



### P2 Cleaning for Special Services

Per ASTM G93-96, this option minimizes process contaminants by cleaning wetted surfaces with a suitable detergent.

### SG Sour Gas

Materials of Construction comply with recommendations per NACE MR 0175/ISO 15156 for sour oil field production environments. Environmental limits apply to certain materials. Consult latest standard for details. Selected materials also conform to NACE MR0103 for sour refining environments.

### Heat Block Kits

Rosemount 304 Manifolds are available with steam heat block kits for cold environments and services. The steam block attaches directly to the manifold to prevent the process from freezing.

## ASME B31.1 Power Piping Code

Rosemount Manifolds are available in configurations that meet the requirements of the ASME B31.1 Power Piping Code. This code specifies design criteria for most air, gas, steam, water, and oil systems used in electric generating systems, central and district heating systems, industrial power plants, and geothermal plants. ASME B31.1 includes requirements for manifolds, valves, and piping. Transmitters and other measuring devices do not fall within the scope of this code.

## Marking

Manifolds are tagged with a part number, schematic drawing, temperature, and pressure limits.

## Other Publications

For additional information, go to [www.rosemount.com](http://www.rosemount.com).

# Rosemount Manifolds

## SPARE PARTS LIST

Table 13. Rosemount 304 Conventional Manifold

Part Description	Part Number (Traditional Style)	Part Number (Wafer Style)
<b>Mounting Brackets (qty. 1)</b>		
Manifold Heavy Duty Mounting Bracket, CS	01166-8005-0002	NA
Manifold Heavy Duty Mounting Bracket, SST	01166-8005-0001	NA
Manifold SST Mounting Bracket for 2-in. Pipe Mount	NA	00305-0405-0001
<b>O-Rings (set of 12)</b>		
Manifold-to-Flange O-Ring, Glass-filled PTFE	03031-0019-0003	03031-0019-0003
Manifold-to-Flange O-Ring, Graphite-filled PTFE	03031-1302-0002	03031-1302-0002
<b>Manifold-to-Flange Bolt Kits (set of 4)</b>		
Consult factory for part numbers	Consult Factory	Consult Factory
<b>Heater Block Kits (qty. 1)</b>		
Steam Block Kit	00305-0406-0001	NA

Table 14. Rosemount 305 Integral Manifold

Part Description	Part Number (Traditional Style)	Part Number (Coplanar Style)
<b>Mounting Brackets (qty. 1)</b>		
Manifold SST Mounting Bracket for 2-in Pipe Mount	NA	00305-0405-0001
<b>Bolt Kits (set of 4)</b>		
CS Bolt Kit	03031-0312-0001	03031-0311-0001
SST Bolt Kit	03031-0312-0002	03031-0311-0002
ANSI/ASTM-A-193-B7M Bolt Kit	03031-0312-0003	03031-0311-0003
<b>Drain/Vents (qty. 1)</b>		
316 SST Drain/Vent for use with 3-valve 305 Manifold	01151-0028-0012	01151-0028-0012
Alloy C-276 Drain/Vent for use with 3-valve 305 Manifold	01151-0028-0013	01151-0028-0013
<b>Coplanar Flange Kits (qty. 1)</b>		
Differential Flange Kit, SST	NA	00305-1001-0001
Gauge Flange Kit, SST	NA	00305-1001-1001
<b>O-Rings (set of 12)</b>		
Manifold-to-Module O-Ring, Glass-filled PTFE	03031-0234-0001	03031-0234-0001
Manifold-to-Module O-Ring, Graphite-filled PTFE	03031-0234-0002	03031-0234-0002
<b>Sensor Guard (set of 5)</b>		
Coplanar Module Sensor Guard	00305-1000-0001	00305-1000-0001



*Standard Terms and Conditions of Sale can be found at [www.rosemount.com/terms\\_of\\_sale](http://www.rosemount.com/terms_of_sale)  
The Emerson logo is a trade mark and service mark of Emerson Electric Co.  
Rosemount and the Rosemount logotype are registered trademarks of Rosemount Inc.  
Coplanar is a trademark of Rosemount Inc.  
© 2010 Rosemount, Inc. All rights reserved.*

**Emerson Process Management  
Rosemount Measurement**  
8200 Market Boulevard  
Chanhassen MN 55317 USA  
Tel (USA) 1 800 999 9307  
Tel (International) +1 952 906 8888  
Fax +1 952 949 7001

**Emerson Process Management**  
Blegistrasse 23  
P.O. Box 1046  
CH 6341 Baar  
Switzerland  
Tel +41 (0) 41 768 6111  
Fax +41 (0) 41 768 6300

**Emerson FZE**  
P.O. Box 17033  
Jebel Ali Free Zone  
Dubai UAE  
Tel +971 4 811 8100  
Fax +971 4 886 5465

**Emerson Process Management Asia Pacific  
Pte Ltd**  
1 Pandan Crescent  
Singapore 128461  
Tel +65 6777 8211  
Fax +65 6777 0947  
Service Support Hotline : +65 6770 8711  
Email : [Enquiries@AP.EmersonProcess.com](mailto:Enquiries@AP.EmersonProcess.com)