



Instrument Manifolds

Index

General Purpose Manifolds

Overview	1
2-Valve	2
3-Valve	4
5-Valve	6
Mounting kits	8

Special Application Manifolds

Trifold 3-Valve	9
Rotofold 3-Valve	12
Pentafold 5-Valve	15
Mounting kits	17



instrument manifolds

HOKE, Inc.

405 Centura Court • PO Box 4866 (29305) • Spartanburg, SC 29303
Phone (864) 574-7966 Fax (864) 587-5608
www.hoke.com • sales@hoke.com

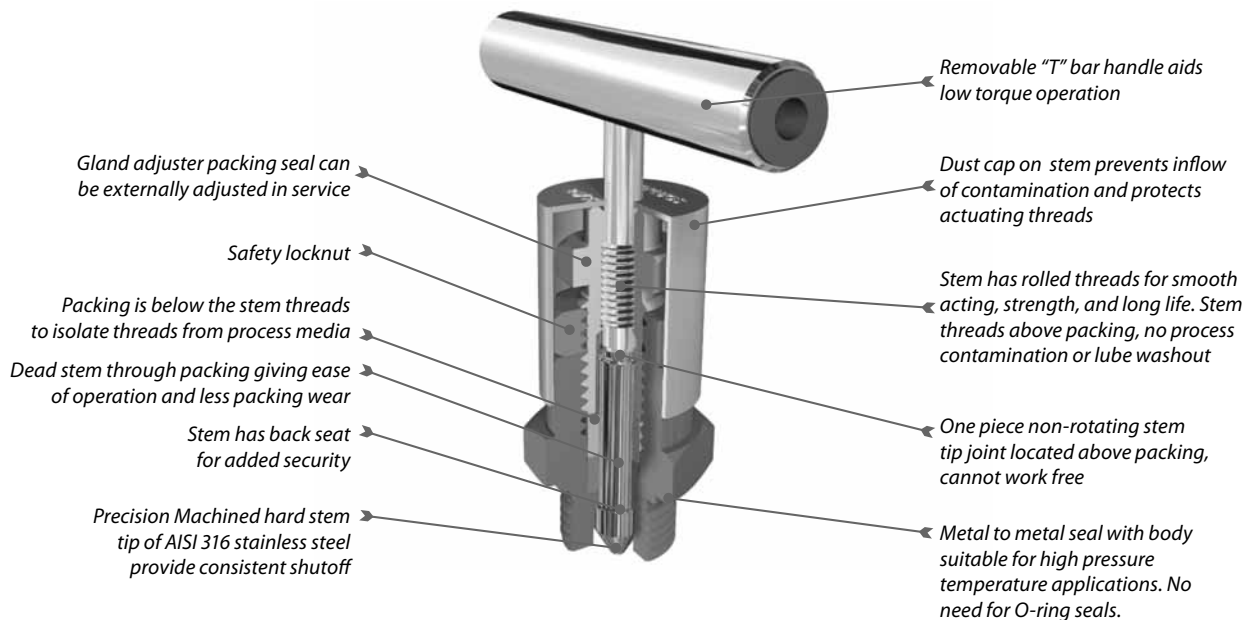


General Purpose Instrument Manifolds at a Glance

Hoke offers a variety of 2-, 3-, and 5-valve instrument manifolds in direct and remote mount styles with vent configurations to meet most flow, pressure, and level measurement application requirements. Hoke 2-valve manifolds are designed for static pressure and liquid level applications; the 3- and 5-valve manifolds are well suited for use with most differential pressure transmitters and can accept both female and flange process impulse line connections.

Valve Features

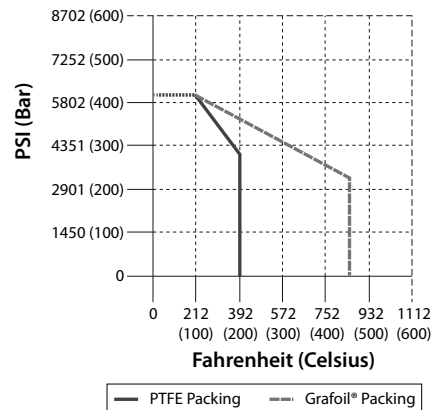
All valves are hydrostatically tested at 1.5X maximum working pressure to assure leak tight performance. Stem packing is available in PTFE or Grafoil® materials with the metal non-rotating stem tip offered as standard.



Pressure vs. Temperature Curves

PTFE PACKING*	Maximum pressure 6000 psi (413 bar) at 212° F (100° C)
	Maximum pressure 4000 psi (275 bar) at 392° F (200° C)
GRAFOIL® PACKING	Maximum pressure 6000 psi (413 bar) at 212° F (100° C)
	Maximum pressure 3300 psi (230 bar) at 842° F (450° C)

* PTFE packing rated to maximum temperature of 392° F (200° C)



HOKE, Inc.

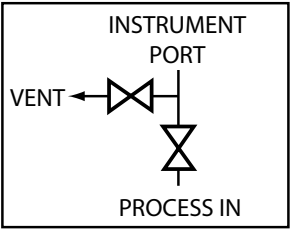
405 Centura Court • PO Box 4866 (29305) • Spartanburg, SC 29303
 Phone (864) 574-7966 Fax (864) 587-5608
 www.hoke.com • sales@hoke.com

instrument manifolds

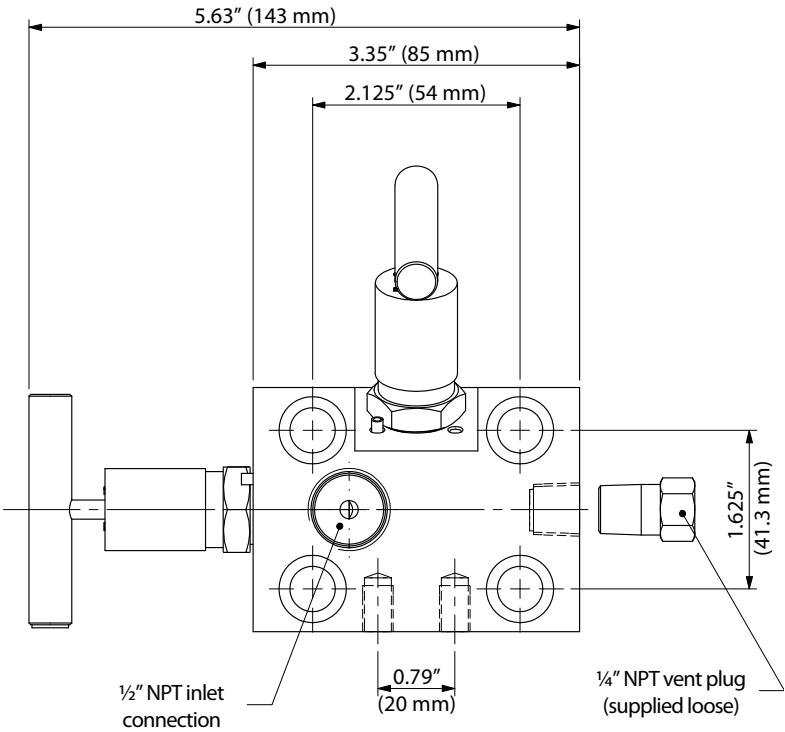
2-Valve General Purpose Manifold-Direct Mount

Dimensions

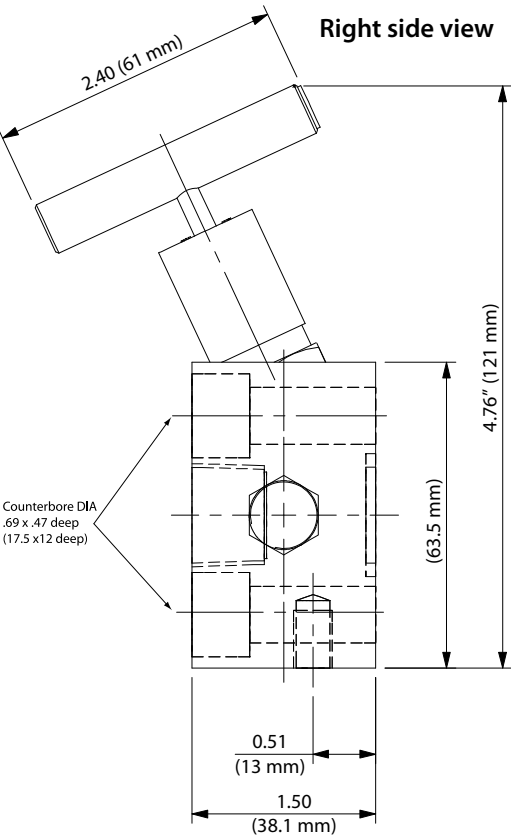
Dimensions in inches (millimeters) are for reference only and are subject to change.



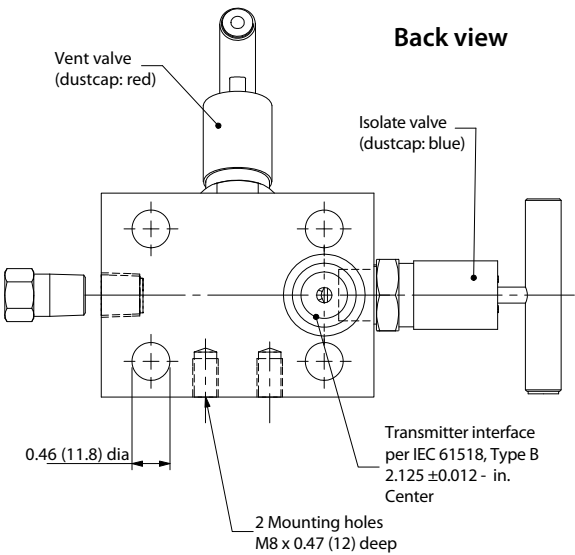
Front view



Right side view



Back view



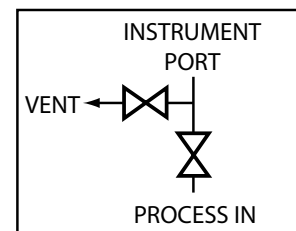
How to Order

PART NUMBER	PACKING	ACCESSORIES (NOT INCLUDED)
GP821211F8YL	PTFE	Mounting kit-Order No. 800000K1 (page 8)
GP821212F8YL	Grafoil	1.5" mounting bolts for Honeywell transmitter (4 required) - Order No. 095-0411-100

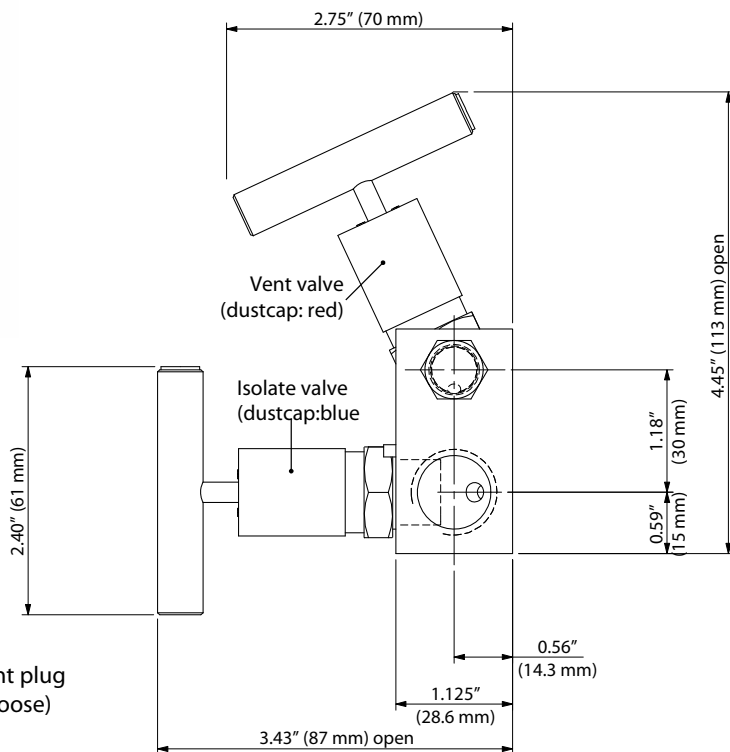
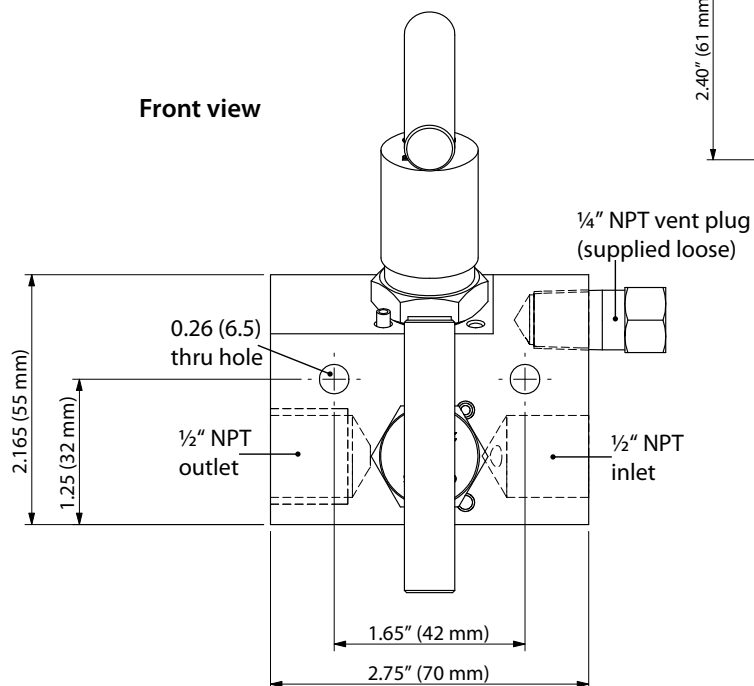
2-Valve General Purpose Manifold-Remote Mount

Dimensions

Dimensions in inches (millimeters) are for reference only and are subject to change.



Front view



Right side view

How to Order

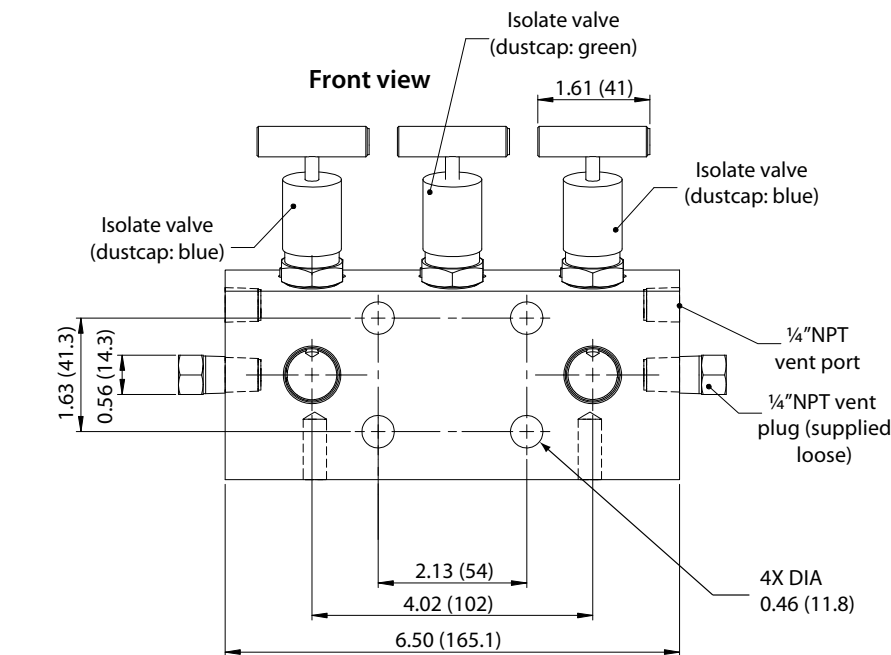
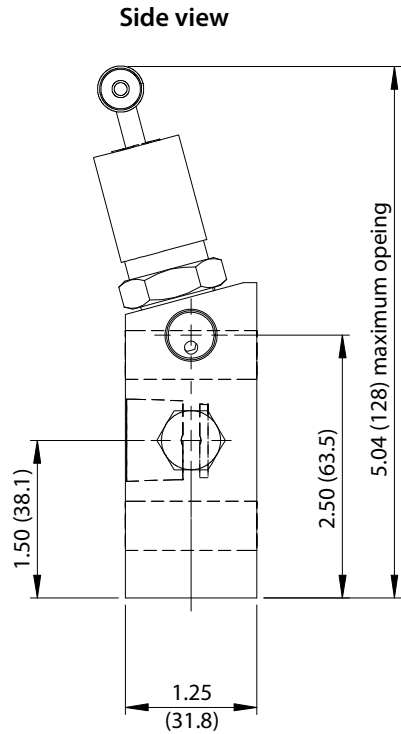
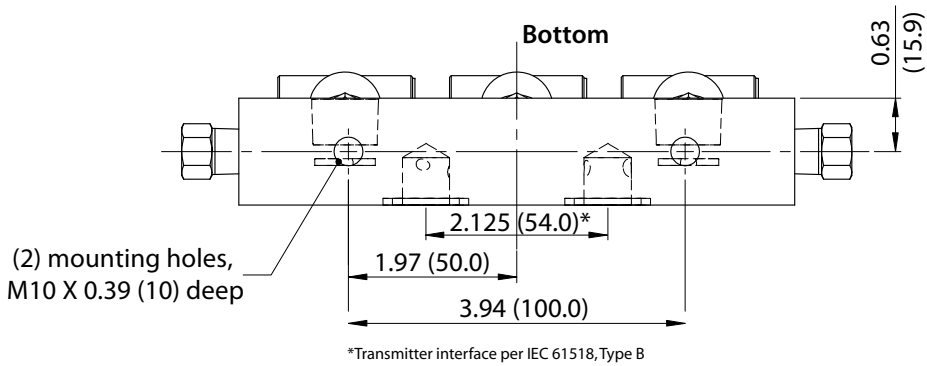
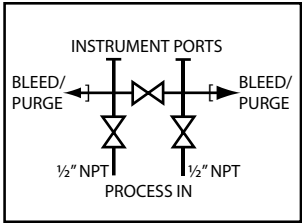
PART NUMBER	PACKING
GP823211F8YL	PTFE
GP823212F8YL	Grafoil

Mounting kit-Order No. 800000K2 (page 8)

3-Valve General Purpose Manifold-Direct Mount

Dimensions

Dimensions in inches (millimeters) are for reference only and are subject to change.



How to Order

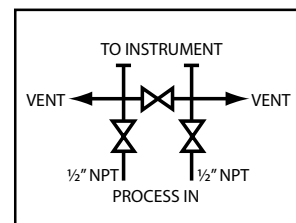
PART NUMBER	PACKING
GP831211F8YL	PTFE
GP831212F8YL	Grafoil

Mounting kit-Order No. 800000K1 (page 8)
1.5" mounting bolts for Honeywell transmitter
(4 required) - Order No. 095-0411-100

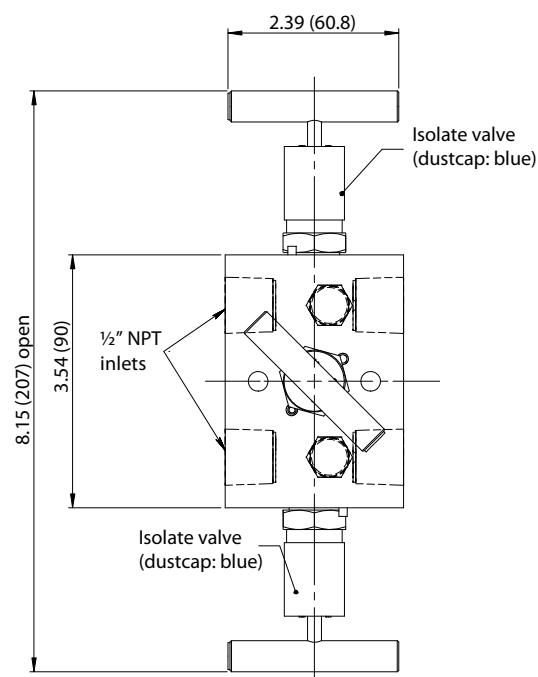
3-Valve General Purpose Manifold-Remote Mount

Dimensions

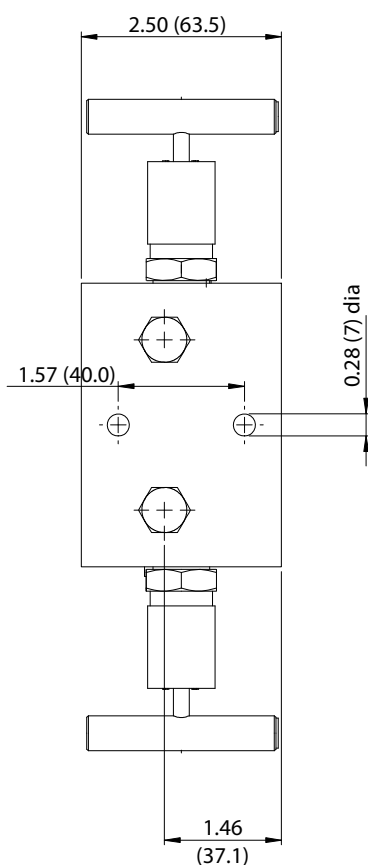
Dimensions in inches (millimeters) are for reference only and are subject to change.



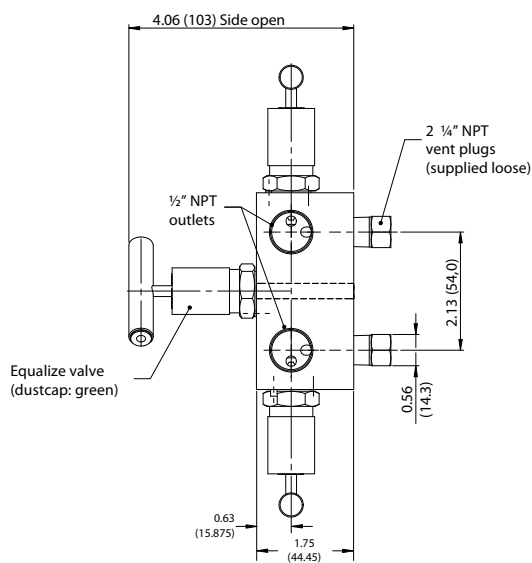
Top view



Bottom



Side view



How to Order

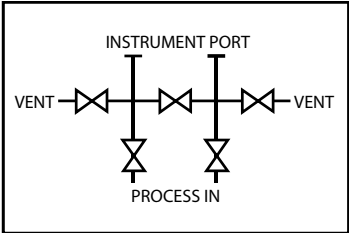
PART NUMBER	PACKING
GP833211F8YL	PTFE
GP833212F8YL	Grafoil

Mounting kit-Order No. 800000K2 (page 8)

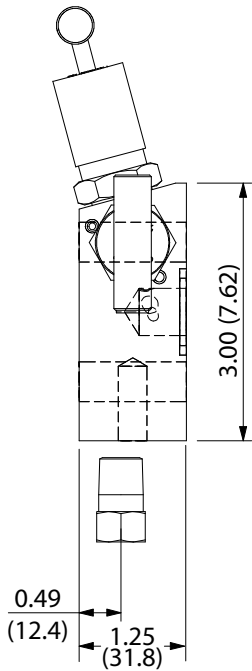
5-Valve General Purpose Manifold-Direct Mount

Dimensions

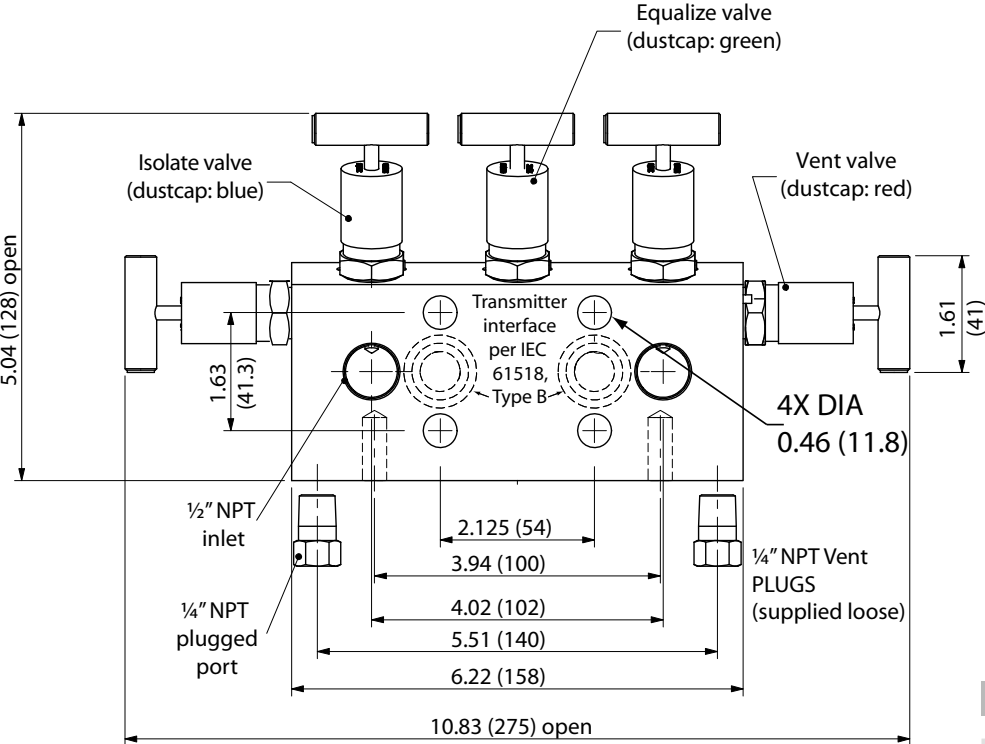
Dimensions in inches (millimeters) are for reference only and are subject to change.



Side view



Front view



How to Order

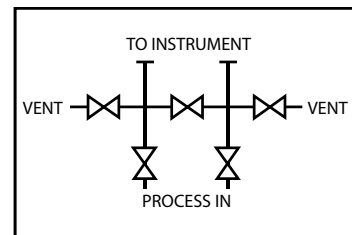
PART NUMBER	PACKING
GP851211F8YL	PTFE
GP851212F8YL	Grafoil

Mounting kit-Order No. 800000K1 (page 8)
1.5" mounting bolts for Honeywell transmitter
(4 required) - Order No. 095-0411-100

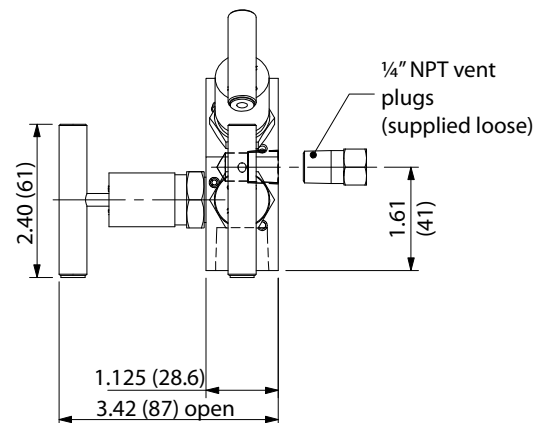
5-Valve General Purpose Manifold-Remote Mount

Dimensions

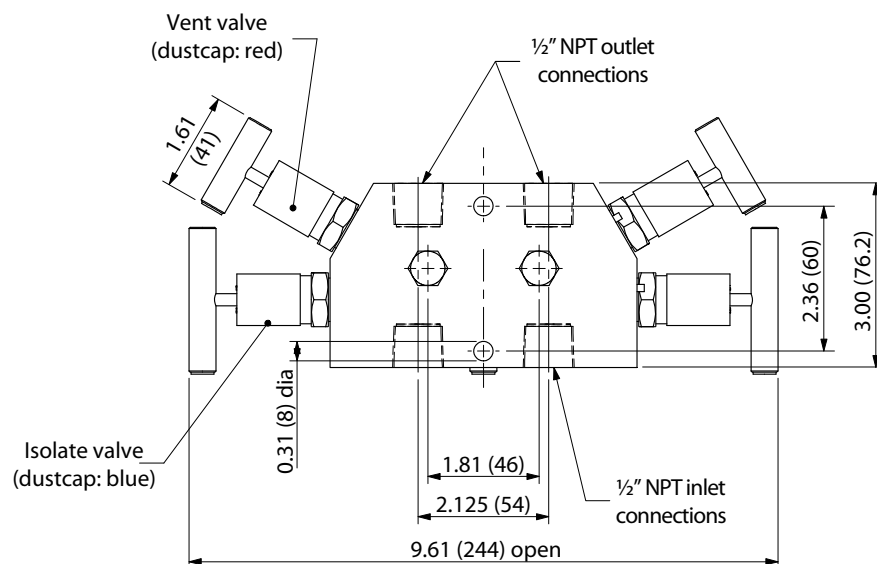
Dimensions in inches (millimeters) are for reference only and are subject to change.



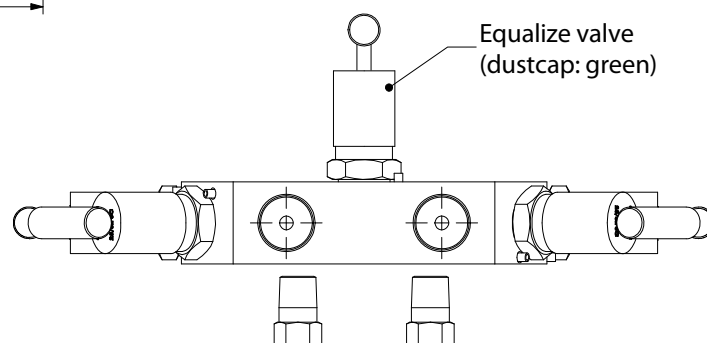
Right side view



Back view



Top view



How to Order

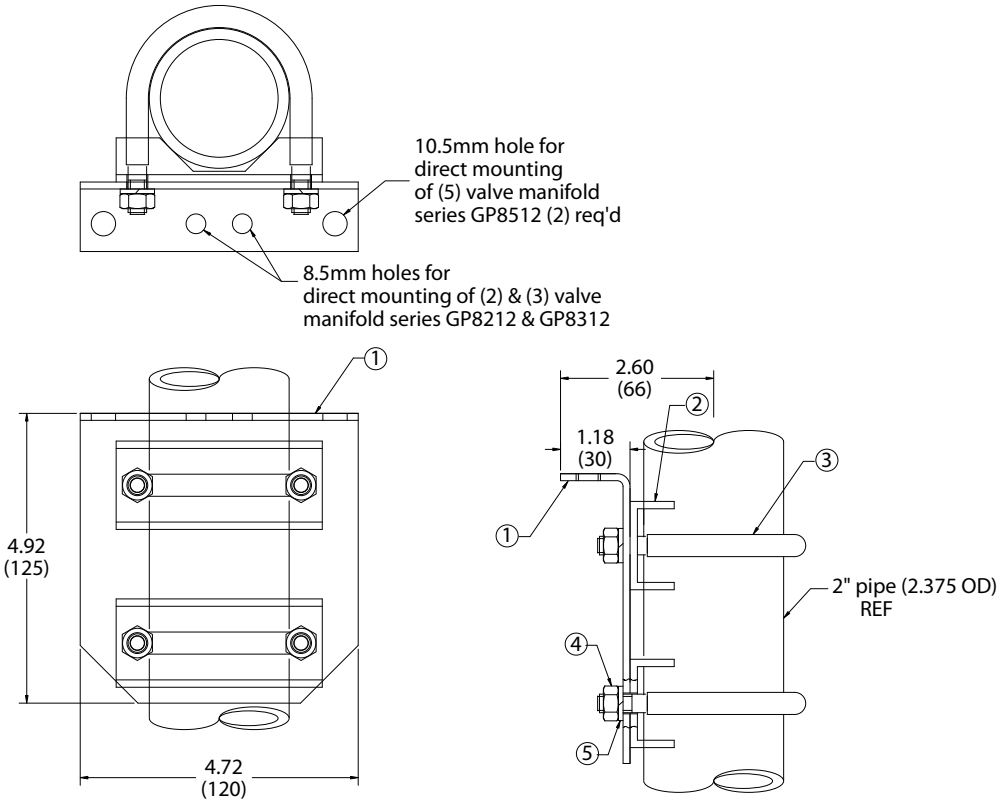
PART NUMBER	PACKING
GP853211F8YL	PTFE
GP853212F8YL	Grafoil

Mounting kit-Order No. 800000K2 (page 8)

General Purpose Manifold Mounting Kits

800000K1 – For Direct Mount Models

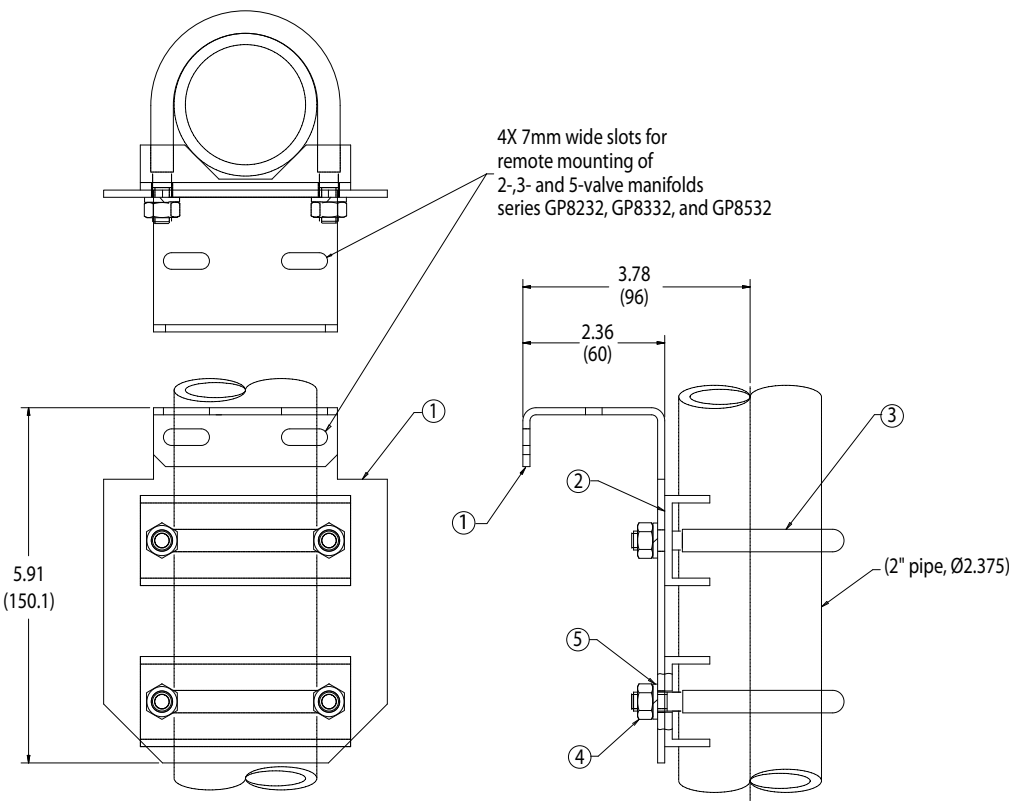
Dimensions are in inches (millimeters) are for reference only and are subject to change.



ITEM	TITLE	MATERIAL
1	Bracket	SST 304
2	Clamp Plate	SST 304
3	U-Bolt	SST 316
4	Nut, Hex	SST
5	Washer, Lock	SST

800000K2 – For Remote Mount Models

Dimensions are in inches (millimeters) are for reference only and are subject to change.



ITEM	TITLE	MATERIAL
1	Bracket	SST 304
2	Clamp Plate	SST 304
3	U-Bolt	SST 316
4	Nut, Hex	SST
5	Washer, Lock	SST



Trifold Needle Valve Manifold

The Hoke 3-Valve Trifold manifold is designed for direct mounting to differential pressure transmitters having 2.125 inches (34 mm) center-to-center process connections.

Pipe by Flange

When direct coupling to orifice plate flanges is not desired, the pipe by flange Trifold Manifold allows for two ½" NPT process connections in addition to direct mounting of the transmitter.

Flange by Flange

When direct coupling to orifice plate flanges is required, the flange by flange Trifold Manifold mounts directly between the flange and the transmitter. If direct coupling to orifice plate flanges is not required, process futbol connectors may also be used.



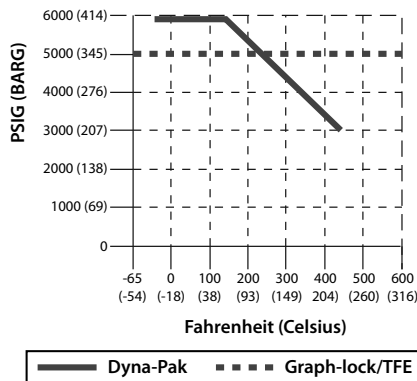
Technical Data

MAXIMUM OPERATING PRESSURE	<i>Dyna-Pak/Metal Stem Tip</i> • 6000 psig (414 barg) -65° F to +150° F (-54°C to +66° C) • 3000 psig (307 barg) at +450° F (+232° C)
	<i>Graph-Lock/TFE Wafer Packing</i> • 5000 psig (345 barg) -60° F to +600° F (-51°C to +316° C) • 3000 psig (307 barg) at +450° F (+232° C)
OPERATING TEMPERATURE RANGE	<i>Dyna-Pak/Metal Stem Tip</i> • -65° F to +450° F (-54°C to +232° C)
	<i>Graph-Lock/TFE Wafer Packing</i> • -60° F to +600° F (-51°C to +316° C)

Features & Benefits

- Purge ports are provided on the process side of block valves for applications requiring continuous purging.
- Bleed or vent ports on the instrument side of the block valves.
- Dyna-Pak TFE or high-temperature 600° F (316° C) Graph-lock/TFE wafer packing is standard.
- Bonnet locks prevent accidental disengagement of the bonnet.
- Non-rotating hardened metal stem tip.
- Integral backseats on all valve stems prevent accidental removal.
- Mounting bolts and TFE gaskets are standard.
- Packing below stem threads prevents process liquids from contaminating or washing away the thread lubricants.
- Special High Tolerance NPT Thread

Pressure Temperature Curves



HOKE, Inc.

405 Centura Court • PO Box 4866 (29305) • Spartanburg, SC 29303

Phone (864) 574-7966 Fax (864) 587-5608

www.hoke.com • sales@hoke.com

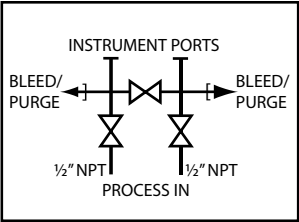
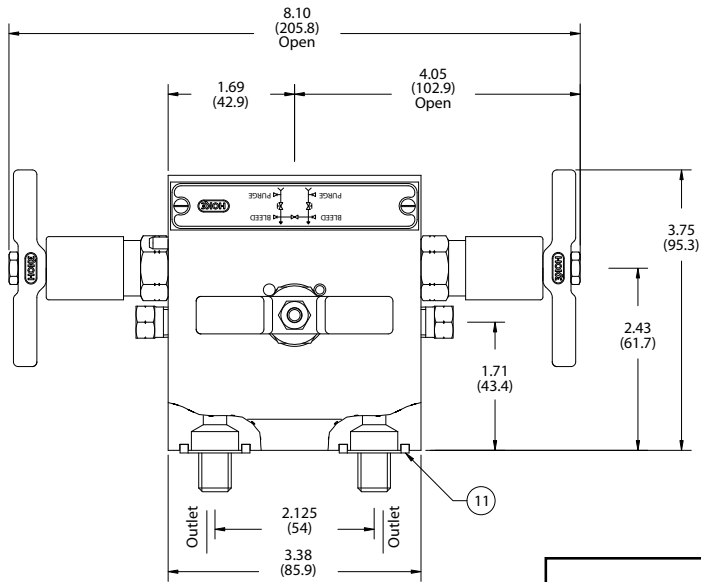
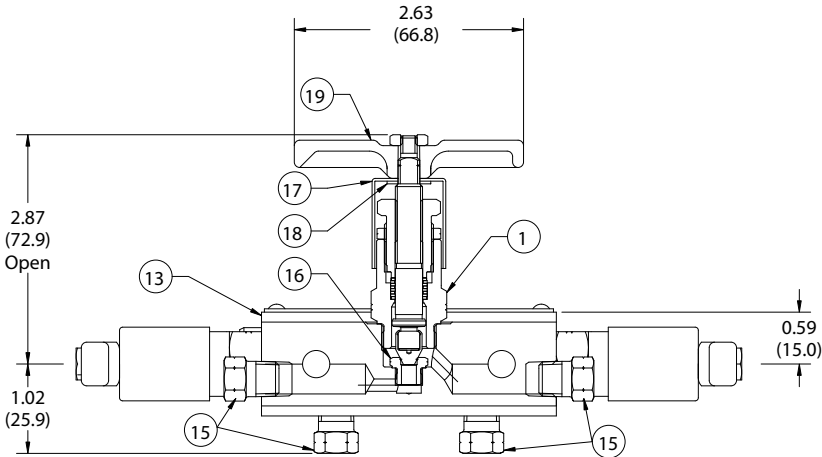
instrument manifolds

Trifold Needle Valve Manifold– Pipe by Flange

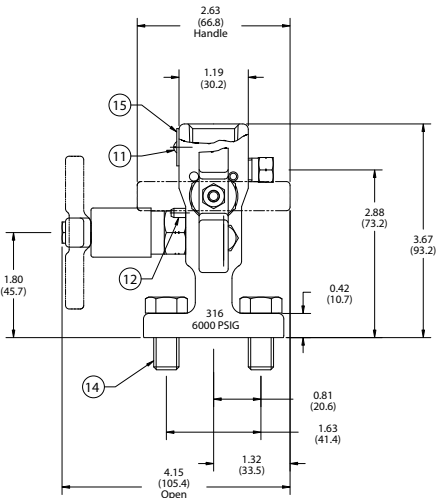
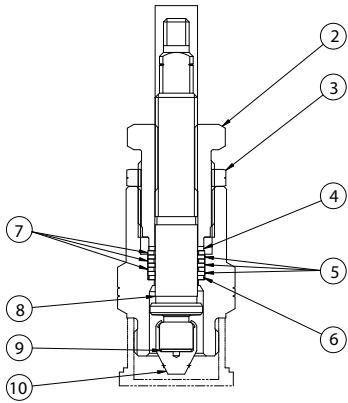
Special Application Manifolds

Dimensions and Materials

Dimensions are in inches (millimeters) are for reference only and are subject to change



	DESCRIPTION	MATERIAL
1	HOUSING	316 stainless steel
2	PACKING NUT	316 stainless steel
3	LOCK NUT	316 stainless steel
4	WASHER	316 stainless steel
5	WASHER	Teflon® tape
6	WASHER	316 stainless steel
7	SPACER	316 stainless steel
8	STEM	316 stainless steel
9	DISC	17-7PH stainless steel
10	STEM POINT	17-4PH stainless steel
11	WASHER	Teflon®
12	SPRING PIN	302 stainless steel
13	MANIFOLD BLOCK	316 stainless steel
14	CAP SCREW	18-8 stainless steel
15	PIPE PLUG	316 stainless steel
16	SEAT INSERT	316 stainless steel
17	CAP LUG	Polyethylene
18	WASHER	304 stainless steel
19	HANDLE	316 stainless steel



How to Order Trifold Pipe by Flange

CONNECTIONS		MODEL NUMBER	STEM POINT	PACKING
PROCESS	INSTRUMENT			
1/2" Female NPT	Flange	8122F8Y	Non-rotating 17-4PH	Dyna-Pak
1/2" Female NPT	Flange	8128F8Y	Non-rotating 17-4PH	Graph-lock/TFE wafers

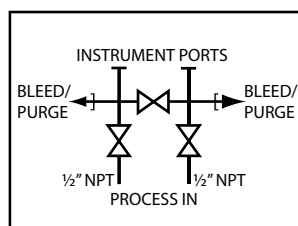
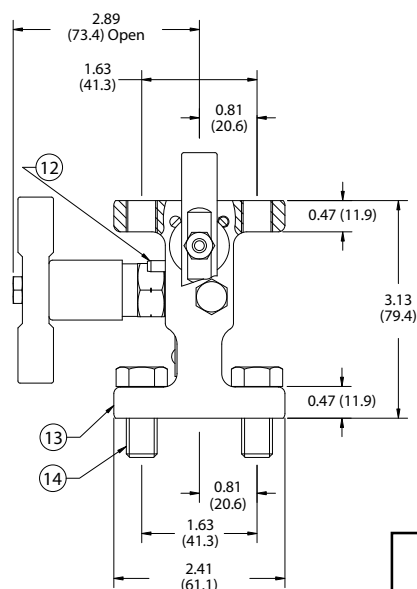
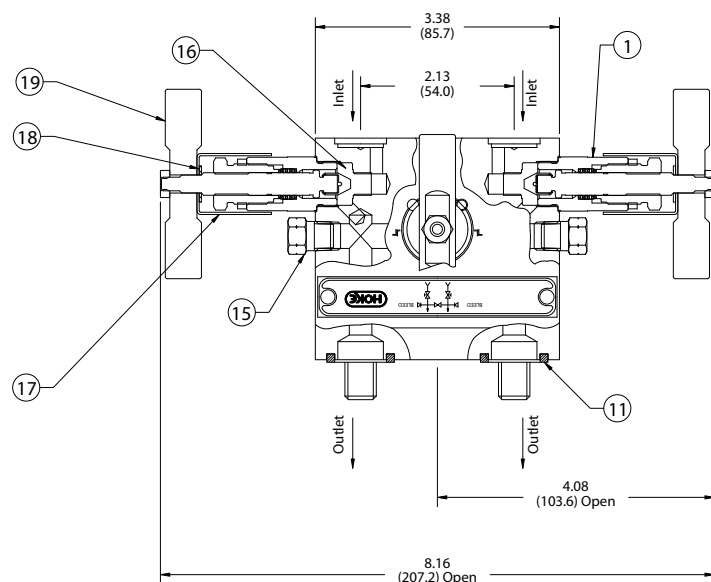
Mani-Mount mounting module see page 17 for details (available for 8122F8Y only)

Trifold Needle Valve Manifold– Flange by Flange

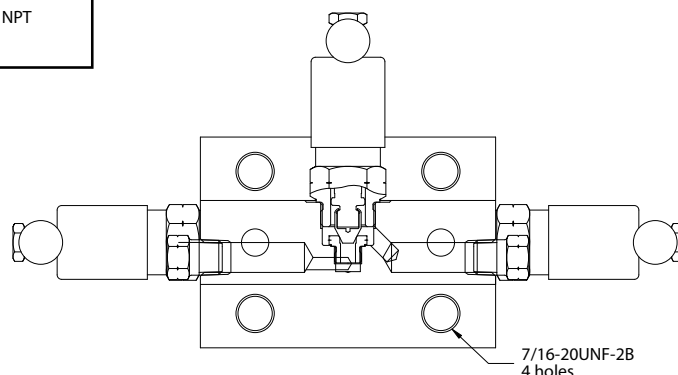
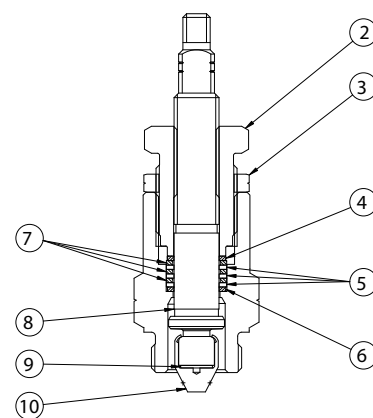
Special Application Manifolds

Dimensions and Materials

Dimensions are in inches (millimeters) are for reference only and are subject to change



	DESCRIPTION	MATERIAL
1	HOUSING	316 stainless steel
2	PACKING NUT	316 stainless steel
3	LOCK NUT	316 stainless steel
4	WASHER	316 stainless steel
5	WASHER	Teflon® tape
6	WASHER	316 stainless steel
7	SPACER	316 stainless steel
8	STEM	316 stainless steel
9	DISC	17-7PH stainless steel
10	STEM POINT	17-4PH stainless steel
11	WASHER	Teflon®
12	SPRING PIN	302 stainless steel
13	MANIFOLD BLOCK	316 stainless steel
14	CAP SCREW	18-8 stainless steel
15	PIPE PLUG	316 stainless steel
16	SEAT INSERT	316 stainless steel
17	CAP LUG	Polyethylene
18	WASHER	304 stainless steel
19	HANDLE	316 stainless steel



How to Order Trifold Flange by Flange

CONNECTIONS		MODEL NUMBER	STEM POINT	PACKING
PROCESS	INSTRUMENT			
Flange	Flange	8132YY	Non-rotating 17-4PH	Dyna-Pak
Flange	Flange	8138YY	Non-rotating 17-4PH	Graph-lock/ TFE wafers



Rotofold Ball Valve Manifold

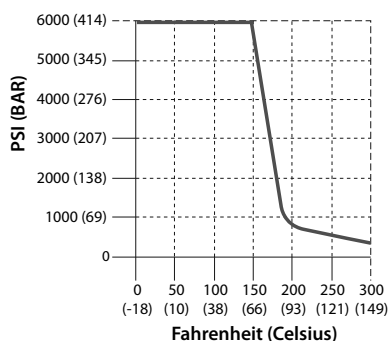
The Hoke Rotofold ball valve manifold has a unique design that utilizes quarter turn ball valves for blocking process impulse lines and performing equalizing functions. They also provide easy rod through of all passages when clean-out is necessary. PCTFE seats and Teflon® stem packing are easily replaced if maintenance is required. The pipe by flange Rotofold design allows the manifold to be directly mounted to integral orifice transmitters by simply reversing the flanges and flange fittings. The pipe by pipe Rotofold design allows the manifold to be remotely mounted separately from the process.



Technical Data

MAXIMUM OPERATING PRESSURE	6000 psig (414 barg) -65° F to +150° F (-54°C to +66° C)
	400 psig @ +300° F (28 barg @ +149° C)
OPERATING TEMPERATURE RANGE	0° F to +300° F (-18°C to +149° C)

Pressure Temperature Curves



Features & Benefits

- Flange can be reversed for direct mounting to an integral orifice type transmitter
- Connections on instrument side of block valves for bleeding and venting.
- Replaceable PCTFE seats on all valves provide longer service life.
- All media passages can be rodded for easy cleaning.
- ¼ turn handle provides visual indication of valve mode.
- Mounting bolts and TFE gaskets are standard with flange models.
- Cam handles provide error-proof sequencing of valves.
- Mani-Mount mounting kit available for NPT pipe style (see Mani-mount mounting system, page 17)
- Special High Tolerance NPT Thread

Cam-Valve Interlocking Sequencing Handles

The correct sequencing of opening and closing manifold valves is critical to eliminating pressure transmitter damage due to over ranging. By attaching cams to the equalizing and block valve handles, the inter-locking design assures proper initial service and transmitter zeroing during calibration.

Cam kit 8200K5 can be field installed or factory assembled to the manifold at time of order. For factory assembled, add part number 8200K5 to the end of the manifold part number.

HOKE, Inc.

405 Centura Court • PO Box 4866 (29305) • Spartanburg, SC 29303

Phone (864) 574-7966 Fax (864) 587-5608

www.hoke.com • sales@hoke.com

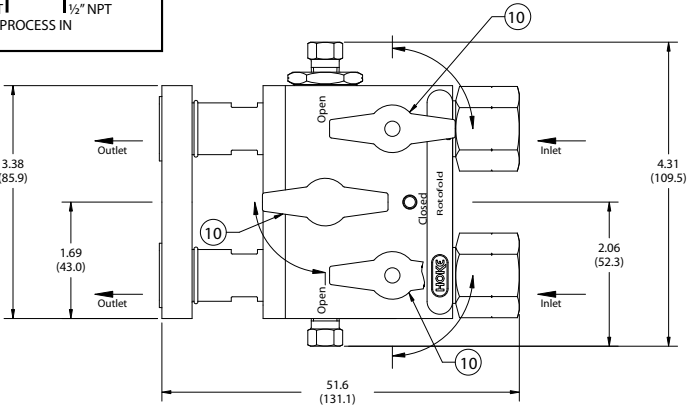
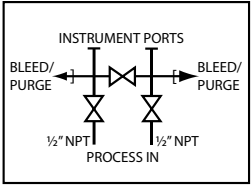
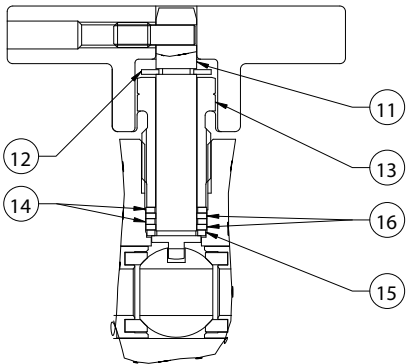
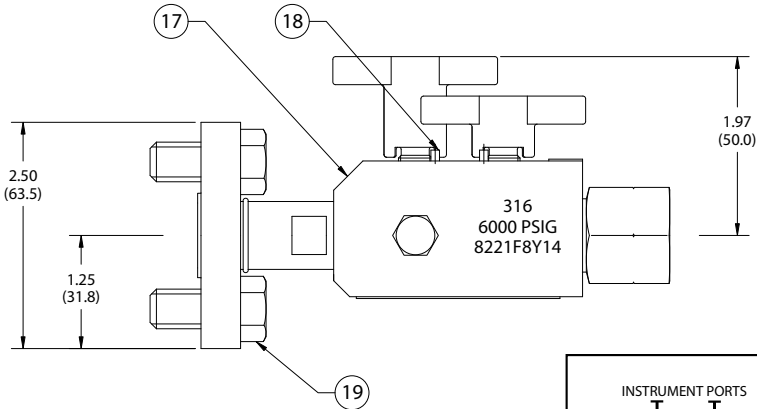
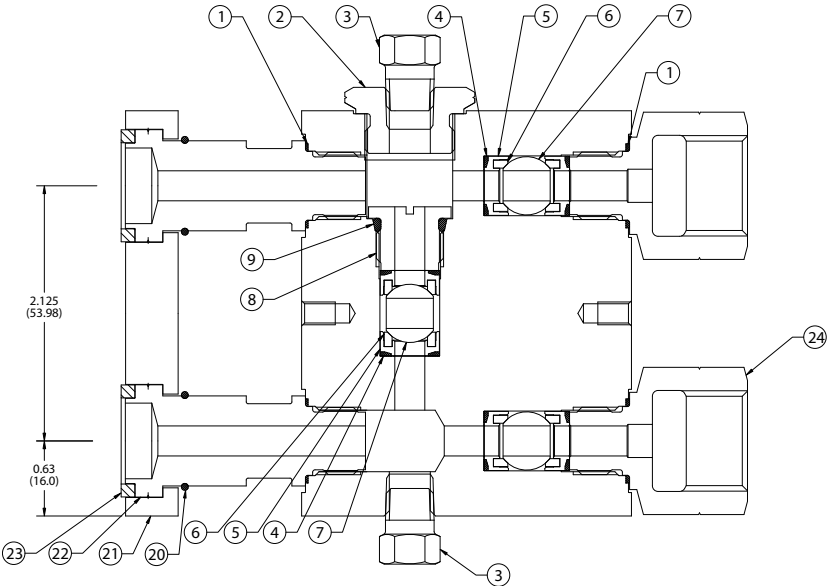
instrument manifolds

Rotofold Ball Valve Manifold - Pipe by Flange

Special Application Manifolds

Dimensions and Materials

Dimensions are in inches (millimeters) are for reference only and are subject to change



	DESCRIPTION	MATERIAL
1	PLUG WASHER	Teflon®
2	VENT FITTING	316 stainless steel
3	PIPE PLUG	316 stainless steel
4	WASHER	Viton®
5	SEAT RETAINER	316 stainless steel
6	SEAT	PCTFE
7	BALL	316 stainless steel
8	INSERT	316 stainless steel
9	O-RING	Fluorelastomer
10	HANDLE	Aluminum alloy 360
11	STEM	316 stainless steel
12	RETAINING RING	PH15-7MO
13	STEM RETAINER	316 stainless steel
14	SHIM WASHER	316 stainless steel
15	SHIM WASHER	316 stainless steel
16	SHIM WASHER	Teflon®
17	MANIFOLD BODY	316 stainless steel
18	SPIRAL PIN	302 stainless steel
19	CAP SCREW	Carbon Steel
20	RETAINING RING	302 stainless steel
21	FLANGE	Carbon Steel
22	FLANGE CONNECTOR	316 stainless steel
23	WASHER	Teflon®
24	END FITTING	316 stainless steel

How to Order Rotofold-Pipe by Flange

CONNECTIONS			ORDERING NUMBER
BODY OUTLET STYLE	INLET PROCESS	OUTLET INSTRUMENTATION	
Flange	1/2" Female NPT	Flange	8221F8Y

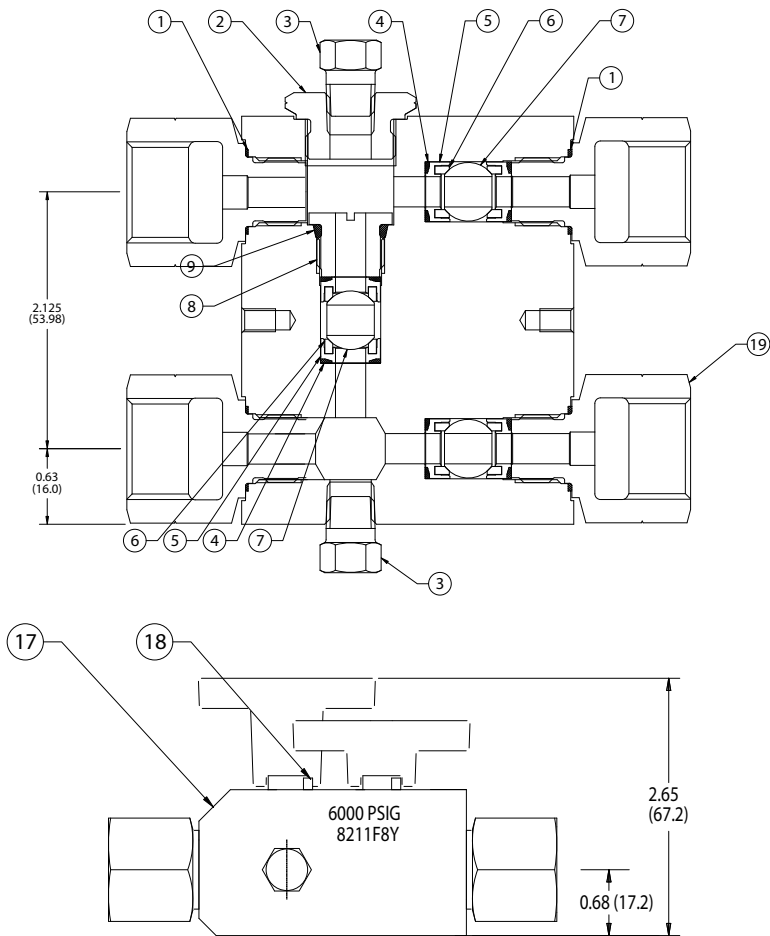
Cam-valve sequencing handles order No. 8200K5
Mani-Mount mounting module - see page 17 for details (available for 8221F8Y only)

Rotofold Ball Valve Manifold - Pipe by Pipe

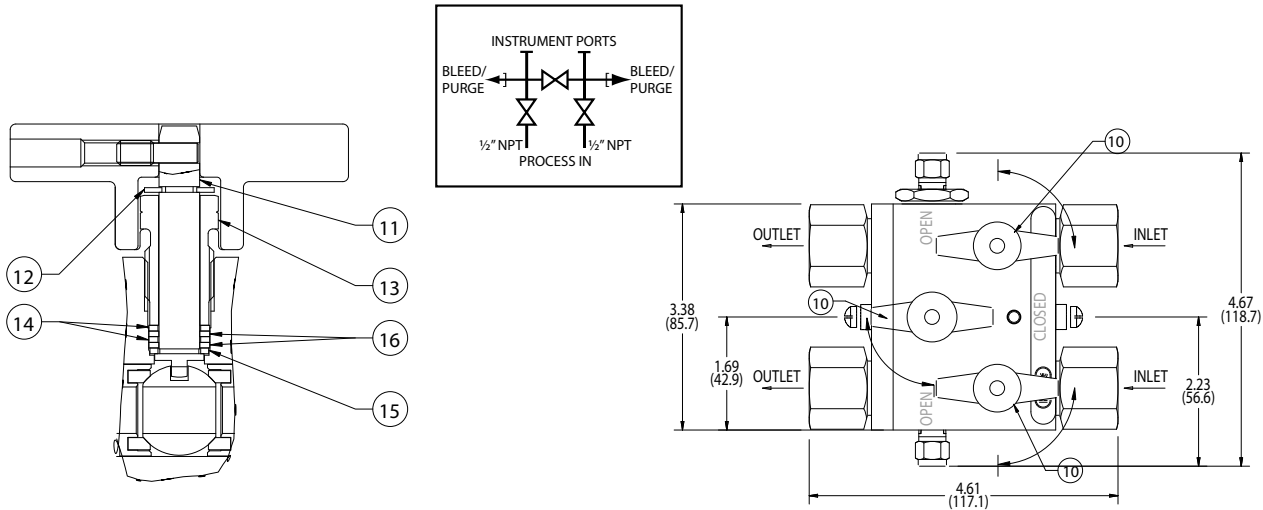
Special Application Manifolds

Dimensions and Materials

Dimensions are in inches (millimeters) are for reference only and are subject to change



	DESCRIPTION	MATERIAL
1	PLUG WASHER	Teflon®
2	VENT FITTING	316 stainless steel
3	PIPE PLUG	316 stainless steel
4	WASHER	Viton®
5	SEAT RETAINER	316 stainless steel
6	SEAT	PCTFE
7	BALL	316 stainless steel
8	INSERT	316 stainless steel
9	O-RING	Fluorelastomer
10	HANDLE	Aluminum alloy 360
11	STEM	316 stainless steel
12	RETAINING RING	PH15-7MO
13	STEM RETAINER	316 stainless steel
14	SHIM WASHER	316 stainless steel
15	SHIM WASHER	316 stainless steel
16	SHIM WASHER	Teflon®
17	MANIFOLD BODY	316 stainless steel
18	SPIRAL PIN	302 stainless steel
19	END FITTING	316 stainless steel



How to Order Rotofold-Pipe by Pipe

CONNECTIONS			ORDERING NUMBER
BODY OUTLET STYLE	INLET PROCESS	OUTLET INSTRUMENTATION	
NPT Pipe	1/2" Female NPT	1/2" Female NPT	8211F8Y

Cam-valve sequencing handles order No. 8200K5



Pentafold 5-Valve Manifold

The Hoke Pentafold 5-valve manifold is specifically designed for use with differential pressure transmitters when applied to gas flow measurement. This manifold design uses two PCTFE seated ball valves and three needle valves with non-rotating PCTFE stem tips as bypass or equalizing valves and vent valves. The two by-pass valves assure no leakage across the high and low side of the orifice meter for critical gas flow measurement. The pipe by pipe Pentafold design allows the manifold to be mounted away from the process but close to a differential pressure transmitter through the use of impulse piping.



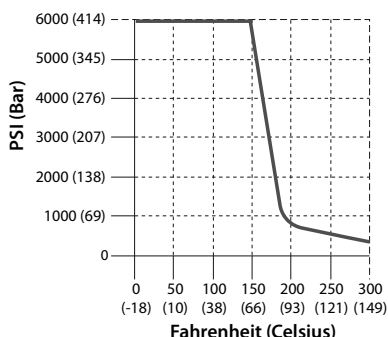
Technical Data

MAXIMUM OPERATING PRESSURE	6000 psig (414 barg) -20° F to +150° F (-29°C to +66° C)
	400 psig @ +300° F (28 barg @ +149° C)
OPERATING TEMPERATURE RANGE	0° F to +300° F (-18°C to +149° C)

Features & Benefits

- Static or vent ports provided on instrument side.
- Replaceable ball seats and stem tips extend service life, reducing cost.
- Threaded mounting hole provided on all models.
- Single manifold block has fewer potential leak paths than individually assembled valves.
- TFE standard packing in all valves.
- Special High Tolerance NPT Thread

Pressure Temperature Curves



HOKE, Inc.

405 Centura Court • PO Box 4866 (29305) • Spartanburg, SC 29303
Phone (864) 574-7966 Fax (864) 587-5608
www.hoke.com • sales@hoke.com

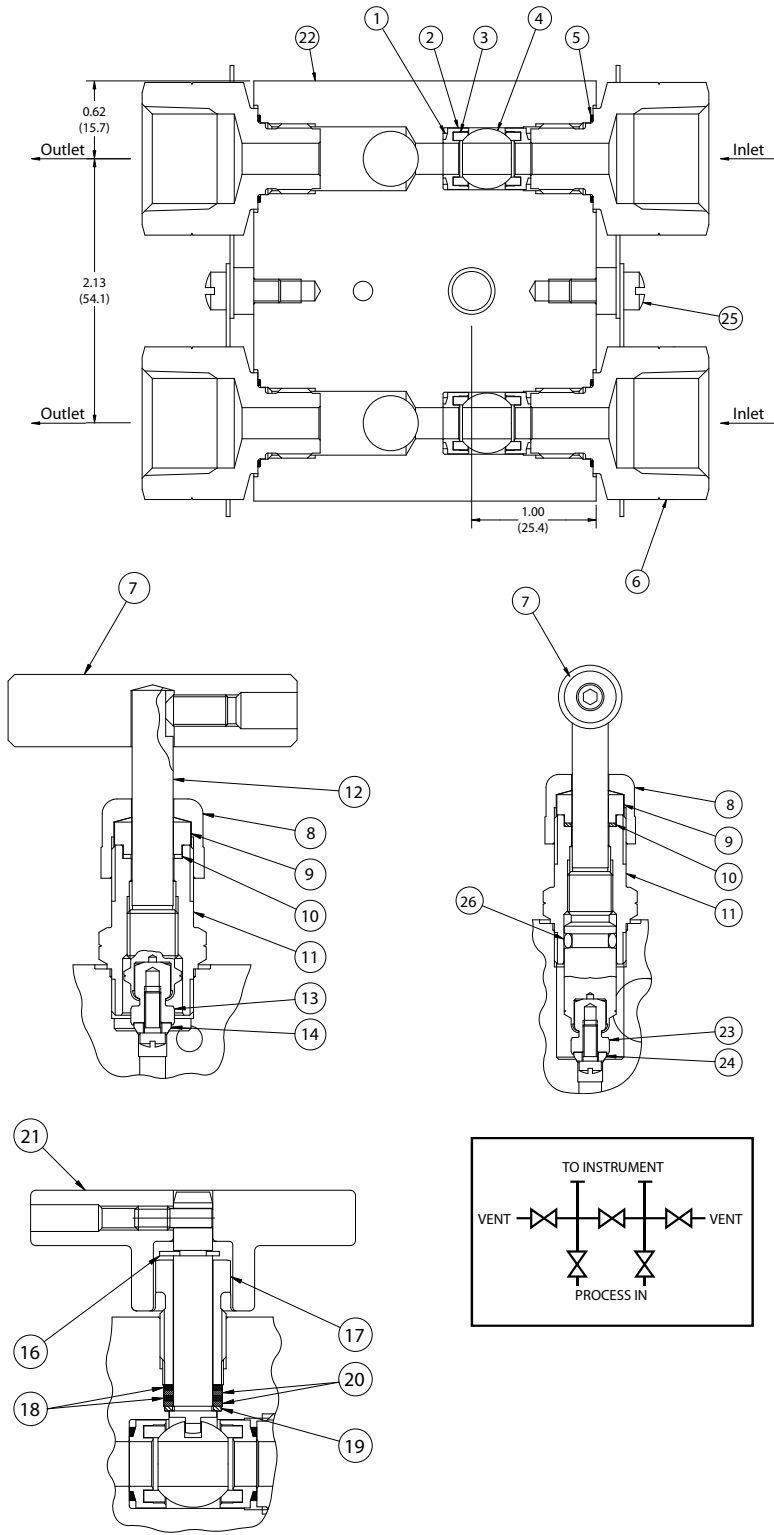
instrument manifolds

Pentafold 5-Valve Manifold

Special Application Manifolds

Dimensions and Materials

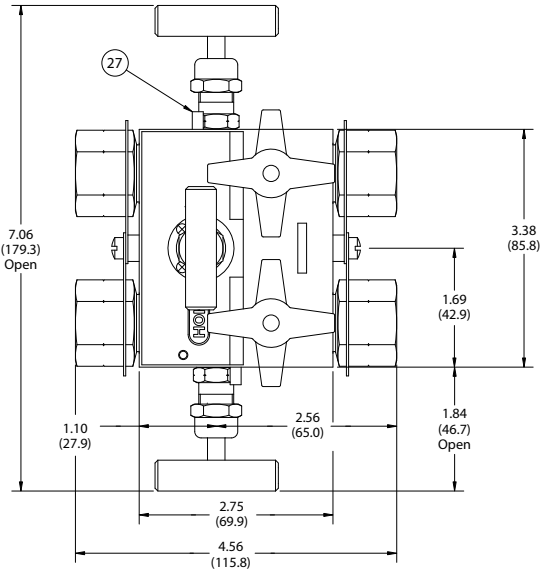
Dimensions are in inches (millimeters) are for reference only and are subject to change



	DESCRIPTION	MATERIAL
1	WASHER	Fluorelastomer
2	SEAT RETAINER	316 stainless steel
3	SEAT	PCTFE
4	BALL	316 stainless steel
5	PLUG WASHER	Teflon®
6	END FITTING	316 stainless steel
7	HANDLE	316 stainless steel
8	PACKING NUT	316 stainless steel
9	PACKING	Teflon®
10	SPACER	316 stainless steel
11	HOUSING	316 stainless steel
12	SPINDLE	316 stainless steel
13	SEAT RETAINER	316 stainless steel
14	SEAT	PCTFE
15	STEM	316 stainless steel
16	RETAINING RING	Stainless steel
17	STEM RETAINER	316 stainless steel
18	SHIM WASHER	316 stainless steel
19	SHIM WASHER	316 stainless steel
20	SHIM WASHER	Teflon®
21	HANDLE	Aluminum alloy 360
22	BODY	316 stainless steel
23	SEAT RETAINER	316 stainless steel
24	SEAT	PCTFE
25	SCREW	18-8 stainless steel
26	O-RING	Fluorelastomer
27	SPRING PIN	302 stainless steel

How to Order Pentafold

CONNECTIONS		ORDERING NUMBER
INLET PROCESS	OUTLET INSTRUMENTATION	
1/2" Female NPT	Flange	8613F8Y



Manifold Accessories

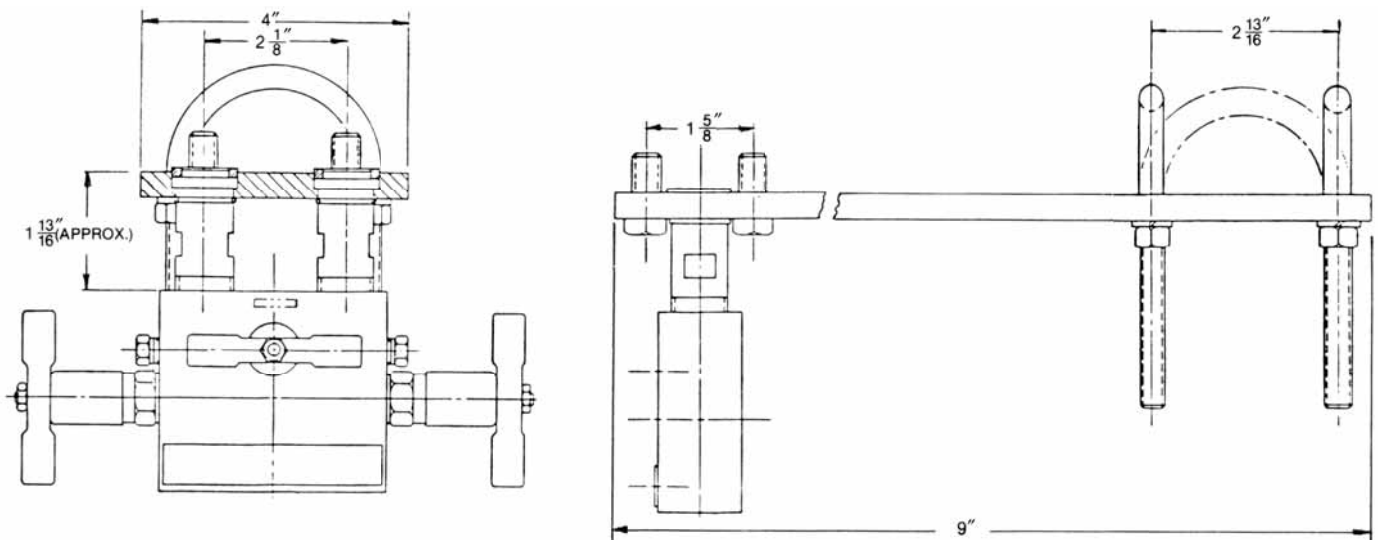
Mani-Mount Manifold Mounting System*

This installation method provides for rigid mounting of a Trifold or Rotofold manifold to a 2 inch pipe stand instead of a differential pressure transmitter. Only the manifold is mounted during construction, which permits storage of the transmitter until needed. The Mani-Mount not only provides a simple universal mounting solution, but also converts the manifold to a single flange design for direct mounting to the transmitter. The Mani-Mount can be used with any standard transmitter having 2 1/8" center to center process connections. Typical installation hardware costs are reduced because transmitter mounting brackets are not necessary.

**Available for Special Application Trifold 8122F8Y and Rotofold 8221F8Y models only*

Features & Benefits

- Allows for rigid mounting of the manifold, instead of the transmitter.
- Simple universal mounting system for vertical, horizontal or either side of 2 inch pipe stand.
- Only the manifold needs to be mounted during construction; the transmitter can be securely stored until final installation.
- Transmitter mounting bracket is not necessary, reducing costs.
- Provides easy access to the transmitter by loosening 4 flange bolts.
- Fast installation process, saving time and money on costly conventional installations.
- Converts the manifold to a single flange style for direct mounting to the transmitter cell.
- Special High Tolerance NPT Thread



How to Order Kit*

PART NUMBER

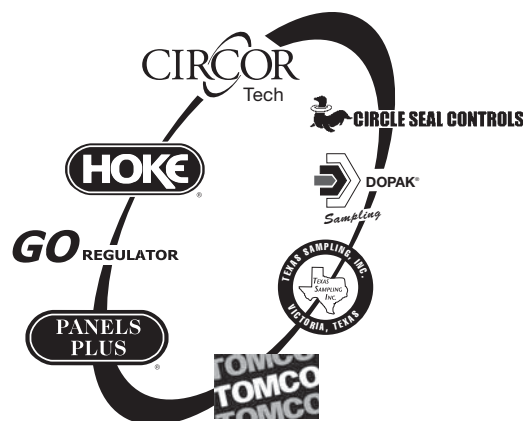
8200K9

** manifold not included*

Notes

Notes

Notes



Hoke • GO Regulator • Tomco • CIRCOR Tech

405 Centura Court • PO Box 4866 (29305)

Spartanburg, SC 29303

Tel (864) 574-7966 • Fax (864) 587-5608

www.circortechnologies.com

Hoke Controls / Panels Plus

2054 Francis St.

Ontario, CA 91761

Tel (909) 923-3770

Fax (909) 923-2550

www.circor-panelsplus.com

Dopak Inc.

9572 Kempwood

Houston, Texas 77080

Tel (713) 460-8311

Fax (713) 460-8578

www.dopak.com

Texas Sampling, Inc

3706 Rio Grande

Victoria, Texas 77901

Tel (361) 575-8087

Fax (361) 575-8157

www.texassampling.com

Circle Seal Controls

2301 Wardlow Circle

Corona, CA 92880

Tel (951) 270-6200

Fax (951) 270-6201

www.circlesealcontrols.com

CIRCOR Instrumentation Technologies

Central Europe

Leeuwenhoekweg 24

2661 CZ Bergschenhoek

The Netherlands

Tel +31 10 4206011 • Fax +31 10 4566774

www.circortechnologies.com

Hoke GmbH

Weitzesweg 11

Postfach 1541

D-61118 Bad Vilbel-Dortelweil

Germany

Tel +49 6101 82 56 0

Fax +49 6101 82 56 40

www.hoke.de

CIRCOR Instrumentation Technologies

CIRCOR Instrumentation Technologies (CIT) is a product group of CIRCOR International (NYSE: CIR), specializing in fluid process control solutions with orifice sizes typically up to 1". Our main product lines include ball, needle, packless, diaphragm, solenoid, and metering valves, pressure regulators, quick couplers, Gyrolok® compression tube fittings, and fully integrated sampling systems.

CIT markets primarily to the petrochemical, refining, power generation, food and beverage, semiconductor, and pharmaceutical industries, and to OEM's. CIT separates itself from the competition by offering highly engineered components manufactured to exacting standards and a variety of custom options.