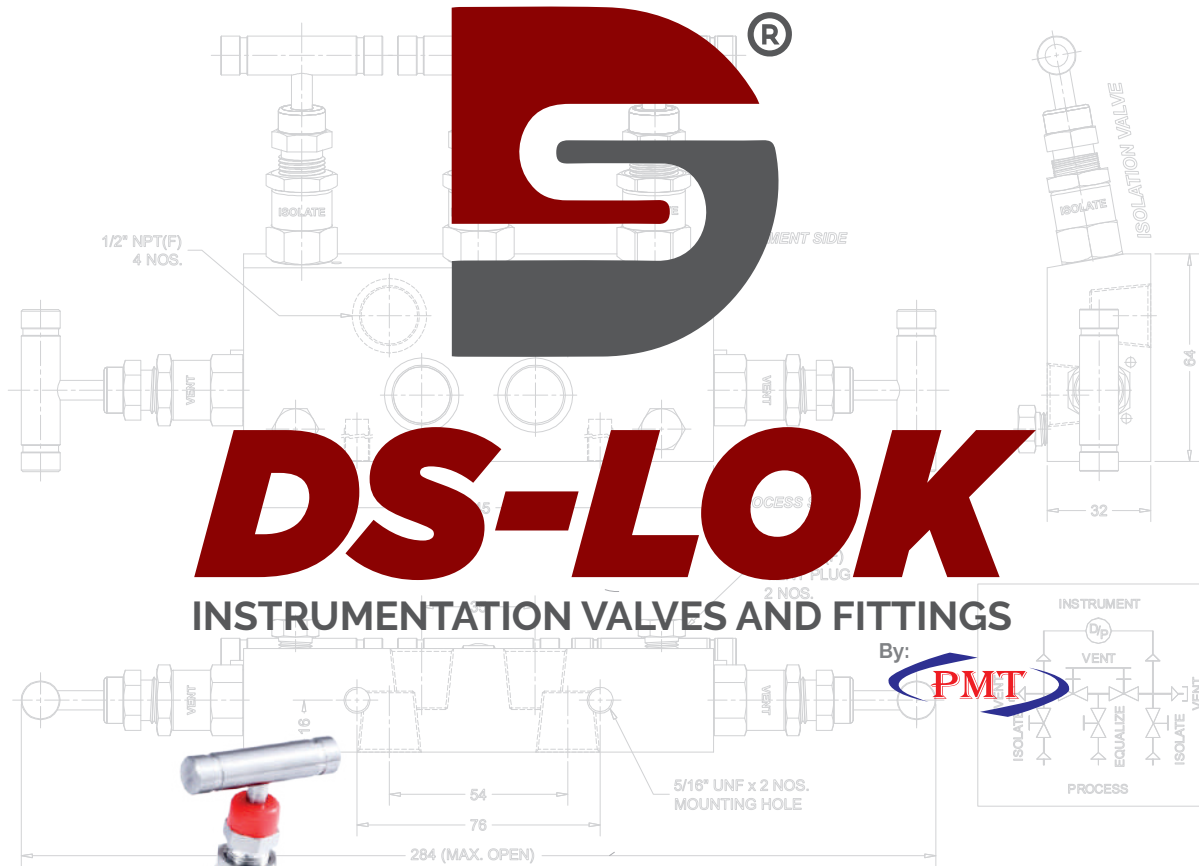




Decide with Confidence
DUNS NO. : 86-917-7745



- 2 way, 3 way 5 way Instrument manifolds valves,
- Gauge Root/Multiport valves.
- Pressure Ratings: 6,000 PSI (6K) 10,000 PSI (10K)
- NPT, ISO/BSP, Threads,
- OPTIONAL :- Hardseat/Soft Seat & NACE MR0175
- Stainless Steel (316L,316,304,304L), Hastelloy
Carbon Steel, Monel, Inconel,Titanium

MANIFOLDS VALVE

Manifold Valve

DS-LOK range of Valve Manifolds offer a safe and economical method of installation to control and measure pressure of liquids and gaseous media. They are ruggedly manufactured and precision machined to the most exacting dimensional tolerance to ensure perfect installation and application. DS-LOK Valve Manifolds are functionally installed to control, measure, isolate, equalize, calibrate, drain, vent or differentiate the pressure of liquids and gases.

Designed to reduce installation costs and improve safety performance, the consolidation of valves into one unit provides you with a combination of instrument isolation together with bleed/vent and test facilities.

Continuous product development may from time to time necessitate changes in the details contained in this catalogue. DS-LOK Hannifin reserve the right to make such changes at their discretion and without prior notification.

Manifolds : 2,3,5 Valves Construction

2-Valve Manifolds are used in pressure instruments such as pressure gauges, pressure transmitters, pressure switches, etc.

3-Valve And 5-Valve Manifolds are used in differential pressure instruments such as differential pressure transmitters, differential pressure switches, differential pressure gauges, etc.

3-Valve Manifolds are the most commonly used Manifolds. They could be provided with test ports on the process side and drain ports on the instrument side for drawing of the process and instrument lines respectively.

5-Valve Manifolds are normally used with differential pressure instruments where drain valves are required on the instrument side. They are also used for flushing of the system and for the prevention of loss of expensive fluid in the impulses.

Options for Mounting

Remote mounting "R" Type Manifold (Pipe to Pipe)

Direct Mounting "T" Type Manifold (Pipe to Flange)

Direct Mounting "H" Type Manifold (Flange to Flange)

Manifold Specifications & Features

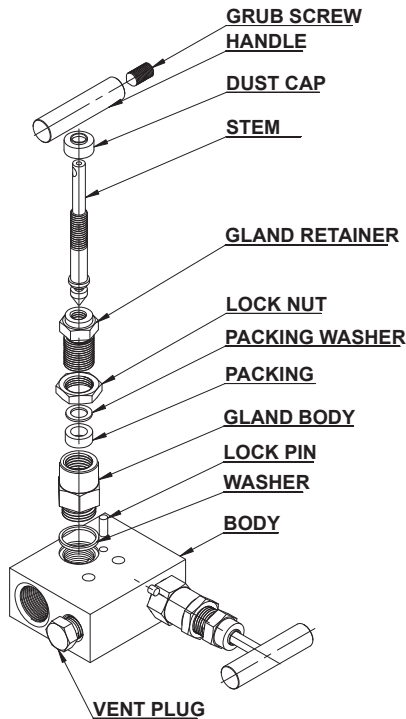
DS-LOK offers a variety of 2, 3, and 5 valve instrument manifolds. The 2 valve manifolds are designed for static pressure and liquid level applications, the 3 and 5 valve manifolds are designed for differential pressure applications. These manifolds are available in traditional and compact body designs. Manifold connections include female DS-LOK tube fittings, pipe ends (NPT and ISO 228/1), and flanges (MSS SP-99) in 1/2 and 3/4 In. and 12mm sizes.

DS-LOK Manifolds valve have been designed to provide the safest possible connection and mounting of instruments. Standard features include:

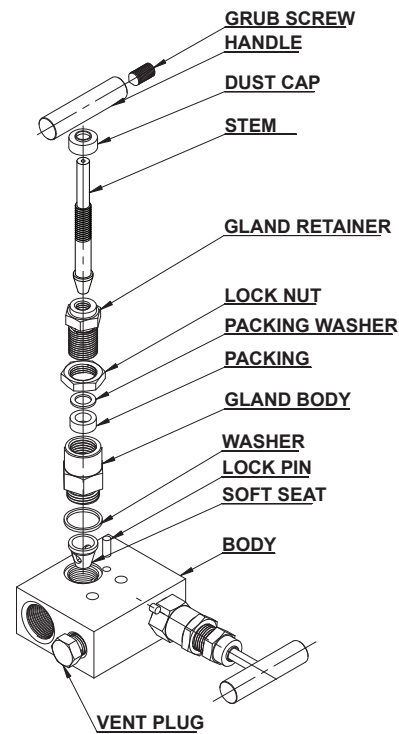
- 316/316L stainless steel construction for superior corrosion resistance.
- One-piece construction body provides strength.
- 316 stainless steel pin prevents detachment of the bonnet from the body due to vibration.
- Burr-free threads and internal surfaces reduce leaks, promoting accurate transmitter readings.
- Compact design requires minimum space for operation and installation.
- Bonnet to body seals are metal to metal, No O-rings used.
- Mounting holes provided for self-supporting application.
- All valves 100% factory tested
- Dust cap prevents ingress of contaminants
- Orifice size - 4.8mm
- Combines isolating and venting in a single valve, eliminating the need for tubing and fittings
- Hard seat Manifold valves have 10,000 psi pressure rating @ 100 °F
- Soft seat valves Manifold have 6,000 psi pressure rating @ 100 °F
- Maximum standard pressure up to 6,000 psig @ 100° F (414 barg @ 38° C)
- 100% helium leak tested to 1×10^{-4} ml/s for guaranteed performance and reliability

Design & Nomenclature of Materials

HARD SEAT DESIGN



SOFT SEAT DESIGN



BODY : Forged one piece body construction (no welding) for high strength.

GLAND BODY : For maximum packing stability and performance.

GLAND RETAINER : Standard Construction For maximum pressure rating.

STEM : Designed for low torque operating with high quality micro mirror stem finish for positive gland sealing.

LOCK NUT : A secure anti vibration locking mechanism to prevent inadvertent gland adjuster loosening.

PACKING : PTFE stem packing seals the system fluid to atmosphere.

WASHER PACKING (OPTIONAL) : Annealed sealing washer to ensure complete atmospheric leakage and allowing on site retro-fit of bonnet with 100% re-sealing assurance.

WASHER (OPTIONAL) : Metal to metal seal with body suitable for high pressure temperature applications.

HANDLE : Removable T-bar handle aids low torque operation.

VEE TIP : Self centering, non-rotational VEE tip gives successive positive bubble tight shut off assuring the user of leakage free performance and downstream functional safety.

LOCK PIN : Safety bonnet lock pin prevents accidental disassembly.

DUST CAP : Prevents contamination and lubricant washout of bonnet assembly.

SOFT SEAT : PTFE & Delrin Seat to ensure a tight-shut off even in abrasive process conditions.

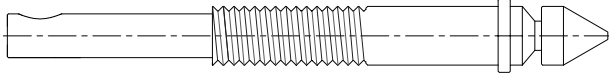
GRUB SCREW : For locking the handle.

MATERIALS OF CONSTRUCTION

ITEM NO.	PART NAME	MATERIALS	QTY.
1	BODY	A479-316L/A-105	1
2	GLAND BODY	A479-316L/A-105	1
3	GLAND RETAINER	A479-316L/A-105	1
4	STEM	A79-316L/304L	1
5	WASHER	A479-316L/304L	1
6	PACKING	PTFE/GRAPHOIL	3
7	PACKING WASHER	SS 316/304	1
8	LOCK NUT	A479-316L/A-105	1
9	HANDLE	SS 304/CS	1
10	GRUB SCREW	STEEL	1
11	DUST CAP	PLASTIC LD	1
12	VEE TIP	A564-630	1
13	LOCK PIN	SS 304/CS	1
14	VENT PLUG	A479-316L/A-105	1
15	SOFT SEAT	POM/DELTRIN	1

Different types of Stem tip

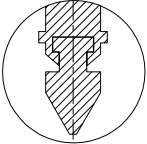
Hard seat Stem Design



- Stem is standard for pressure tightness even at elevated temperatures. Regulating Stem & Soft-seat Stem

Non-rotating Metal Vee Tip

A non-rotating Vee tip is typically used in high cycle applications to extend the service life of the valve. When the valve is closed, the Vee tip contacts the valve seat, and is driven straight into it without rotating.

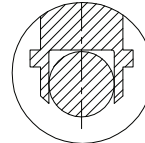


Soft seat Stem Design

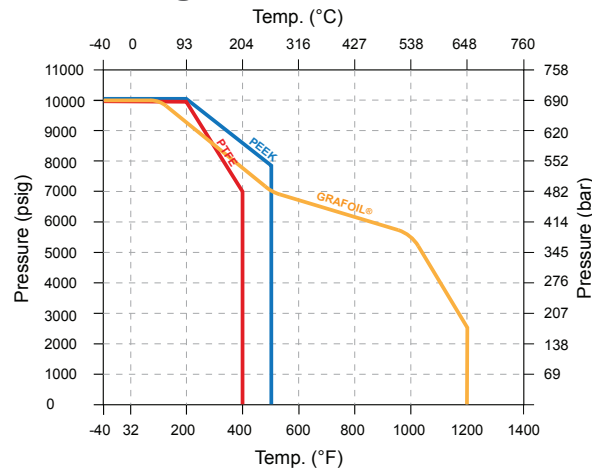


Non-rotating Metal Ball Tip

A non-rotating Ball tip operates in the same fashion as the non-rotating metal Vee tip but requires less seating torque.



Pressure temperature rating



Body Material	Packing Material	Temperature Rating	Pressure Rating @37° C (100°F)
Stainless steel	PTFE	-54 to 232° C (-65 to 450° F)	413 bar (6,000 psig)
	Grafoil	-54 to 648° C (-65 to 1200° F)	690 bar (10,000 psig)
Carbon steel	PTFE	-29 to 176° C (-20 to 350° F)	413 bar (6,000 psig)
	Grafoil	-29 to 176° C (-20 to 350° F)	690 bar (10,000 psig)

Sour Gas Service

For use valve in sour gas, materials for wetted components are selected accordance with NACE MR0175 latest revision.

Packaging

All exposed threads of the products are Protected with plastic caps to prevent damage and each assembly is packed in sealed and clear polyethylene bag for cleanliness and carefully packed in cardboard boxes to prevent transit damage. Each and every package is labeled for proper and easy identification.

Manifold Selection Information

The pressure-temperature ratings are taken for ANSI B16.34 for standard class valves and are based on class 2,500. Ratings for needle tip's design is based on specific seat materials.

Factory test

Standard Test : Each valve is factory tested with nitrogen at 1000 psig (69 bar) for leakage at the seat and packing, the maximum allowable leak rate of 0.1 SCCM.

• **Optional Hydrostatic test :** This test is performed with de ionised water at 1.5 time the working pressure. Other tests like vibration, temperatures, helium etc are available upon requests.

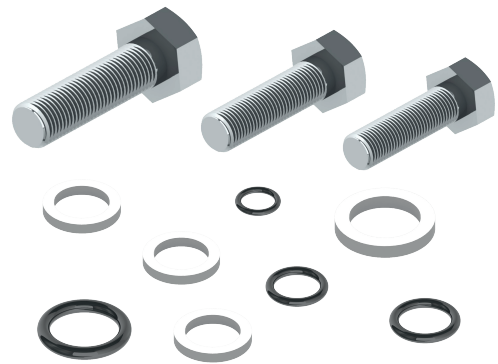
Manifold Accessories

Flange Bolts & Flange Seal

The manifold mounting kit is designed for direct or remote mounting to a two inch pipe stand. It can be used with any DS-LOK 2, 3 or 5-valve manifold by mounting a steel or stainless steel bracket directly to the manifold body. The special mounting application optional long and short bolt are available in stainless steel and carbon steel material. Flange seal are available in standard PTFE, Grafoil, and fluorocarbon FKM O-ring for system compatibility. See Specification below.

Flange Bolt	Threads	Length mm (in.)	Hex Size mm (in.)	Bolt Material
Standard hex bolt	7/16-20	45.0 (1.77)	15.87 (5/8)	Stainless steel Carbon steel
Long stud hex bolt	7/16-20	58.0 (2.28)		
Short hex head bolt	7/16-20	25.0 (0.98)		

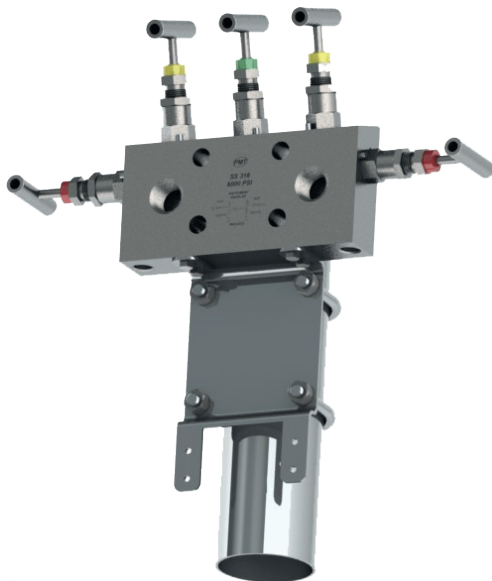
Seal Materials	Temperature Rating
PTFE	-53 to 121° C (-65 to 250° F)
Grafoil	-53 to 537° C (-65 to 1000° F)
Fluorocarbon FKM (Viton)	-28 to 204° C (-18 to 399° F)



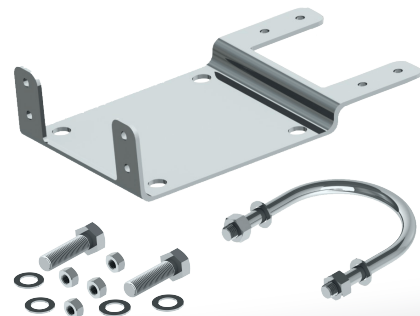
Mounting Brackets kits

Manifold mounting

Simple to install bracket on horizontal or vertical 2" standpipe. Designed for horizontal or vertical mounting of manifold giving total installation flexibility.



It is essential to fully support impulse/pressure measuring tubing lines, manifolds and instruments. All the DS-LOK manifolds are designed to accommodate bracket mounting and support full range of brackets with additional "U" bolts are available. Brackets are designed for panel and wall mounting and give full clearance for ease of hand operation. They are also suitable for vertical and horizontal positioning on 2" pipe-stand. Standard bracket are produced from 4mm thick stainless steel and carbon steel plate to provide maximum rigidity and support. For full corrosion protection the bracket materials is available upon request.



Ordering Multiple Option & Accessories

Manifolds valves are available with a wide variety of options and accessories that enable valve configurations customized to meet specific requirements. Please select or add designators from the ordering combinations as shown below:

How to order

Typical Ordering Part Number

2 — **VM** — **R** — **P** — **8** — **SS** — **HS** — **-**

Number of Valve

2 = 2 Valves
3 = 3 Valves
5 = 5 Valves

Valve Manifold

VM = Valve manifold

Options of mounting

R = Pipe to pipe
T = Pipe to Flange
H = Flange to Flange
RM = Remote Mount
DM = Direct Mount

Packing

P = PTFE
G = GRAFOIL

Options

HP = 10,000 PSI Rated
MP = 6,000 PSI Rated
AT = Anti Tamper Isolate
SG = Sour Gas Service
Conform to NACE
MR 01-75

Seat Type

SF = Soft Seat
HS = Hard Seat

Materials

SS = SS 316/316L
CS = Carbon Steel
MN = Monel
IN = Inconel

Inlet Size (Process Connection)

4 = 1/4" NPT
8 = 1/2" NPT

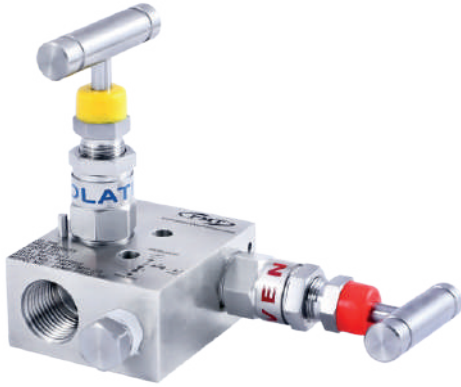
EXAMPLE: "2VMR-8P-SS-HS"

2 = 2 Valve
VM = Valve manifold
R = Pipe to Pipe
P = PTFE
8 = 1/2" NPT
SS = SS 316
HS = Hard seat

Note:-

Please consult the factory for information on special connections, o-rings, operating pressures, special material grades, temperature ratings & custom design.

2 Valve Manifold- Remote Mounting



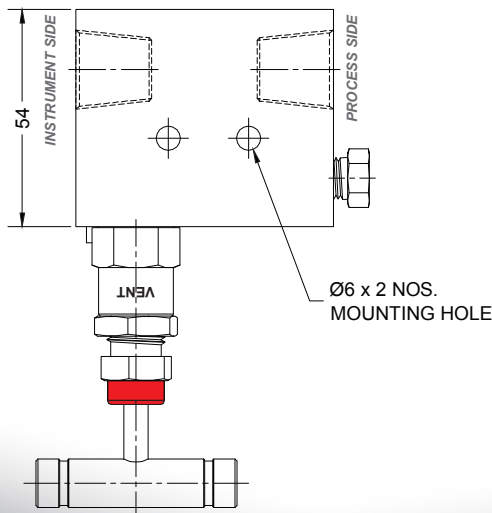
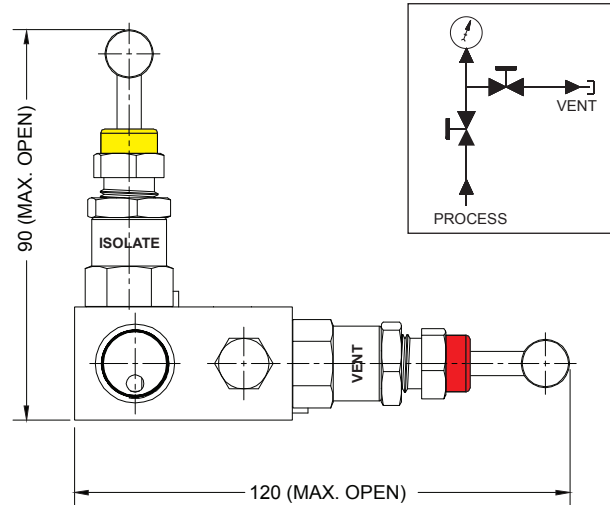
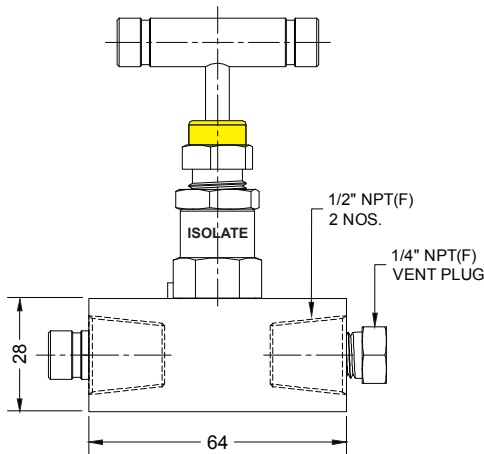
2V Pipe to pipe

Model 2VMR-P8SS-HS

DS-LOK 2 Valve Pipe to pipe manifold is designed in a single block with female screwed inlet and outlet port combining isolation valve and calibration/vent valve. Generally used on static pressure transmitters, switches or gauges.

Features

- Withstand high pressures and temperatures.
- Bonnet lock prevents accidents disassembly.
- For a Higher Temperatures Grafoil Packing is used. Reduces number of fittings and space required for installation.



Specifications

Max. Pressure	: 6,000 psi (413 bar) @100°F (38°C) 10,000 psi (789 bar) @77°F (25°C)
Seat Type	: Soft Seat /Hard Seat
Gland packing	: PTFE : For temp. -73°C (-99.4°F) to 210°C(410°C) Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)
Materials	: Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)
Service Medium	: Liquid Gas or Vapor Service
Stem	: Needle (Standard) Ball tip (optional)
Connection	: Process :1/2"NPT(F) Instrument: 1/2"NPT(F) Drain :1/4"NPT(F) with Blind Plugs

2 Valve Manifold- Remote Mounting

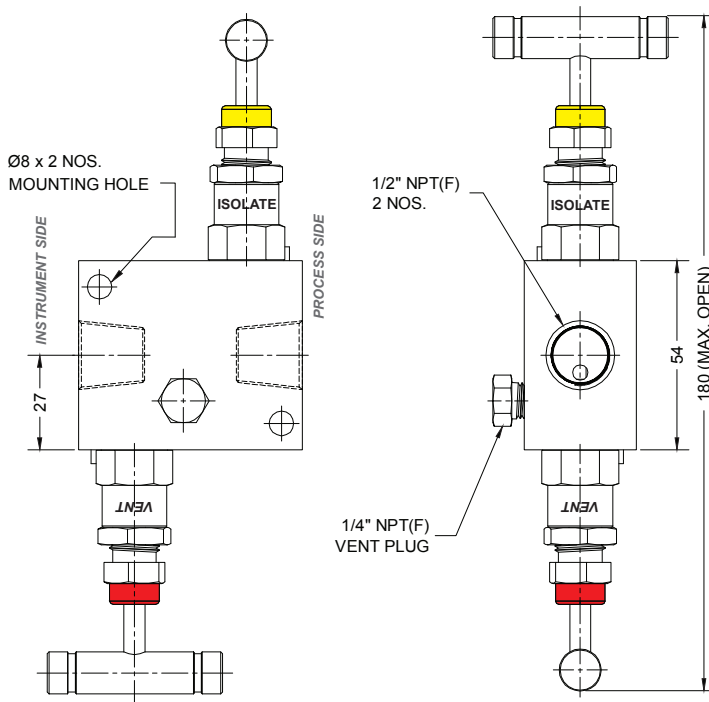
2V Pipe to pipe

Model 2VSR-P8SS-HS

DS-LOK 2 Valve Pipe to pipe manifold is designed in a single block with female screwed inlet and outlet port combining isolation valve and calibration / vent valve. Generally used on static pressure transmitters, switches or gauges.

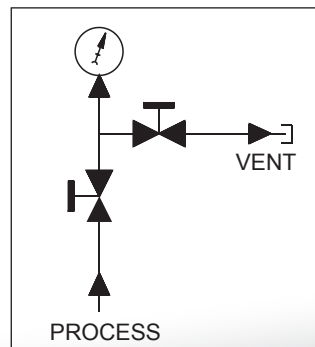
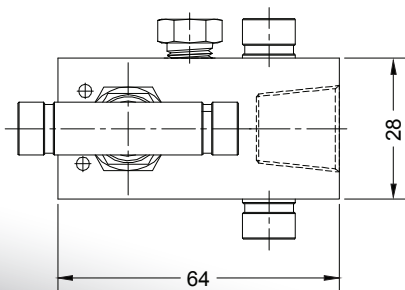
Features

- Withstand high pressures and temperatures.
- Bonnet lock prevents accidents disassembly.
- For a Higher Temperatures Grafoil Packing is used. Reduces number of fittings and space required for installation.



Specifications

Max. Pressure	: 6,000 psi (413 bar) @100°F (38°C) 10,000 psi (789 bar) @77°F (25°C)
Seat Type	: Soft Seat /Hard Seat
Gland packing	: PTFE : For temp. -73°C (-99.4°F) to 210°C(410°C) Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)
Materials	: Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-0175 is available. (For Sour gas Service)
Service Medium	: Liquid Gas or Vapor Service
Stem	: Needle (Standard) Ball tip (optional)
Connection	: Process :1/2"NPT(F) Instrument: 1/2"NPT(F) Drain :1/4"NPT(F) with Blind Plugs



2 Valve Manifold- Remote Mounting

2V Remote Mount

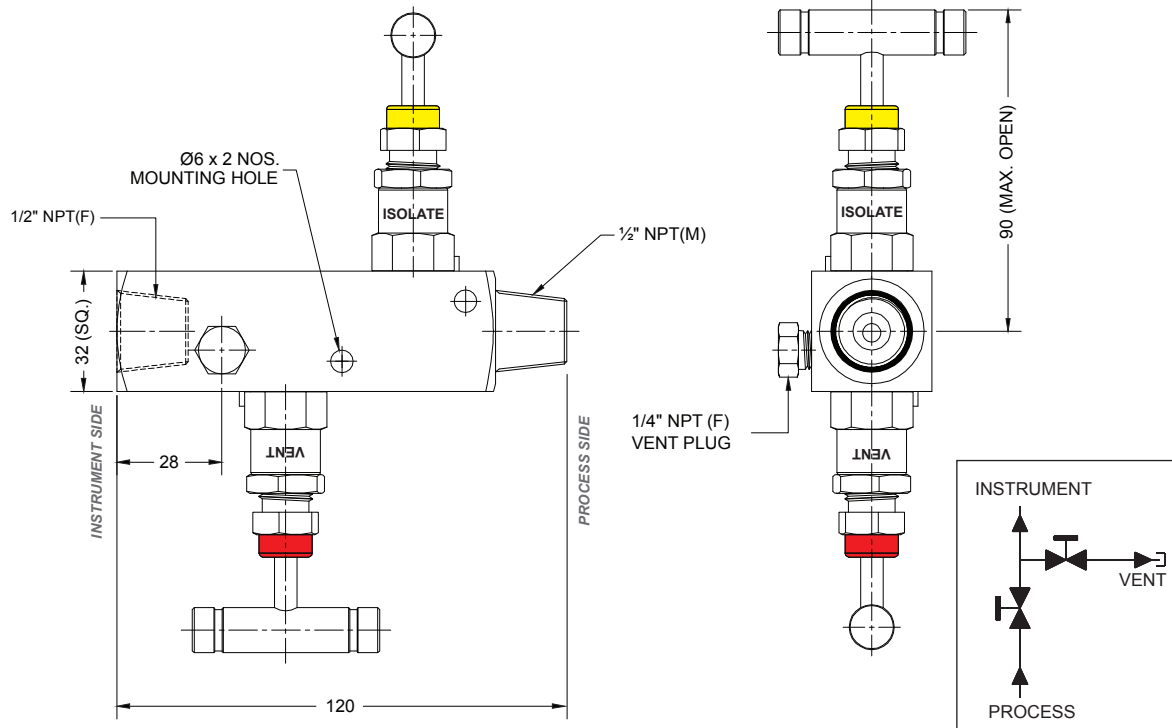
Model 2VL1-P8SS-HS



DS-LOK 2 Valve Remote Mount manifolds are designed in such a manner, which helps in connecting system impulse line & transmitters. Our range of manifold consist two valve configuration witch allows for easy isolation, calibration, block and bleed for gauges, pressure switches and static pressure transmitting instruments.

Features

- Withstand high pressures and temperatures.
- Bonnet lock prevents accidents disassembly.
- For a Higher Temperatures Grafoil Packing is used.
- Reduces number of fittings and space required for installation.
- Packing below stem threads prevents stem lubrication washout and isolate threads from system fluids.



Specifications

Max. Pressure	: 6,000 psi (413 bar) @100°F (38°C) 10,000 psi (789 bar) @77°F (25°C)
Seat Type	: Soft Seat /Hard Seat
Gland packing	: PTFE : For temp. -73°C (-99.4°F) to 210°C(410°C) Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)

Service Medium	: Liquid Gas or Vapor Service
Stem	: Needle (Standard) Ball tip (optional)
Connection	: Process : 1/2"NPT(M) Instrument: 1/2"NPT(F) Drain :1/4"NPT(F) with Blind Plugs
Materials	: Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

2 Valve Manifold- Remote Mounting

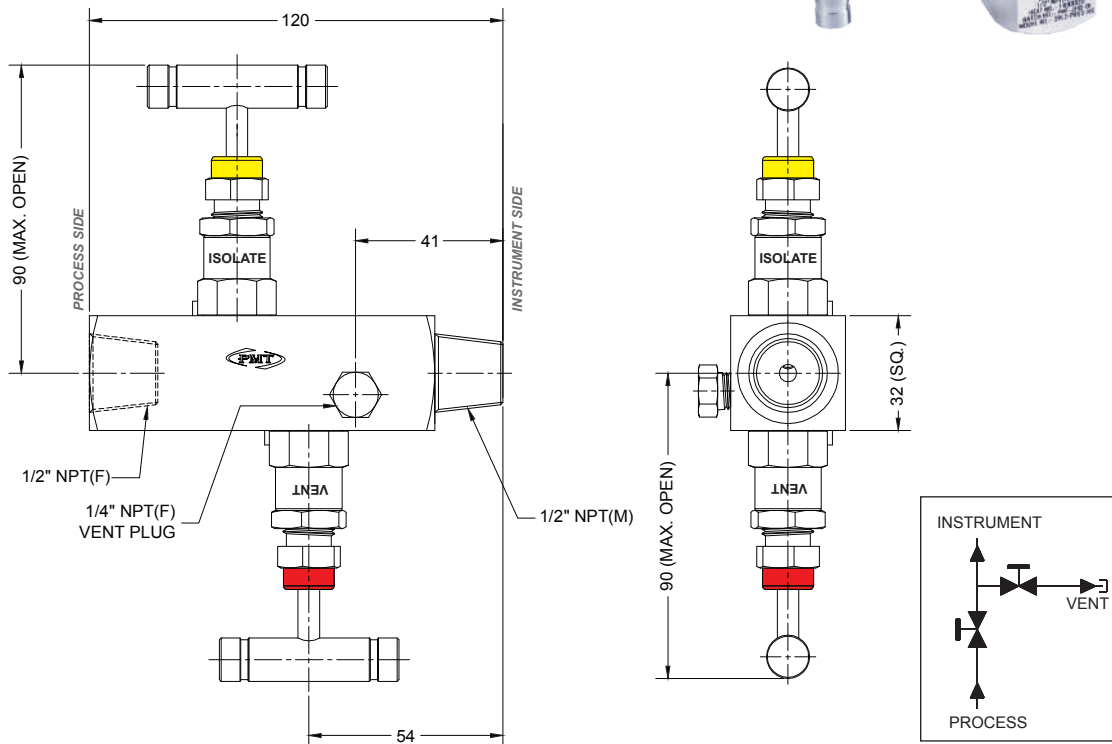
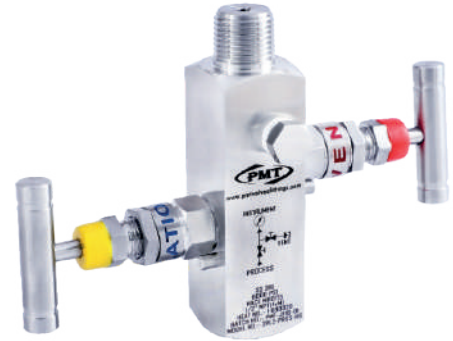
2V Remote Mount

Model 2VL2-P8SS-HS

DS-LOK Valve Remote Mount manifolds are designed with the vent is positioned near the male instrument connection side.

Features

- Withstand high pressures and temperatures.
- Bonnet lock prevents accidents disassembly.
- For a Higher Temperatures Grafoil Packing is used.
- Reduces number of fittings and space required for installation.
- Packing below stem threads prevents stem lubrication washout and isolate threads from system fluids.



Specifications

Max. Pressure	: 6,000 psi (413 bar) @100°F (38°C) 10,000 psi (789 bar) @77°F (25°C)
Seat Type	: Soft Seat /Hard Seat
Gland packing	: PTFE : For temp. -73°C (-99.4°F) to 210°C(410°C) Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)

Service Medium	: Liquid Gas or Vapor Service
Stem	: Needle (Standard) Ball tip (optional)
Connection	: Process :1/2"NPT(M) Instrument: 1/2"NPT(F) Drain :1/4"NPT(F) with Blind Plugs
Materials	: Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

2 Valve Manifold- Remote Mounting

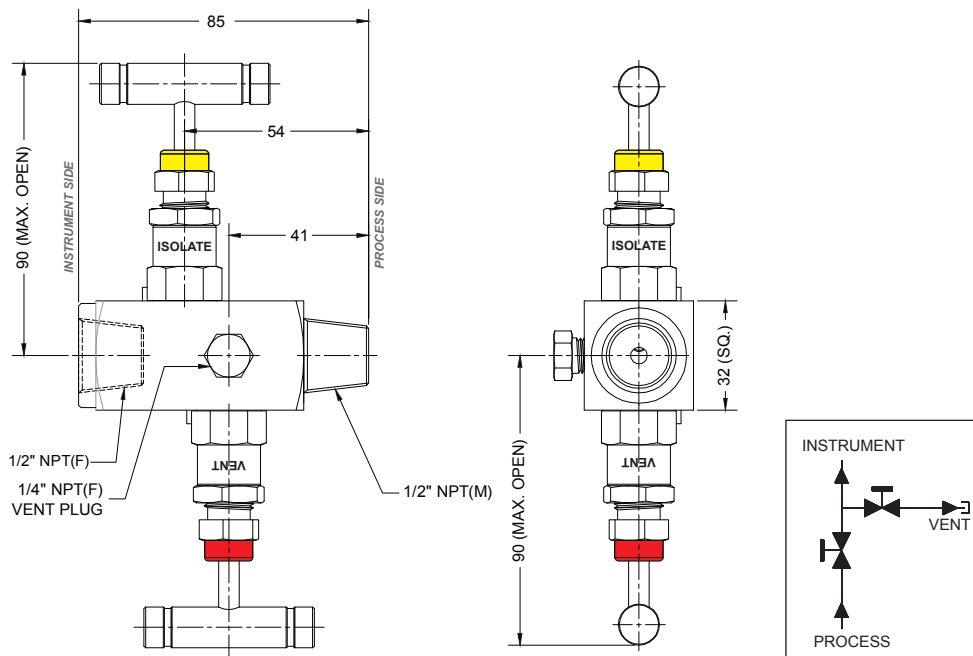
2V Remote Mount

Model 2VL3-P8SS-HS

DS-LOK 2 Valve Remote Mount manifolds are designed in such a manner, which helps in connecting system impulse line & transmitters. Our range of manifold consist two valve configuration which allows for easy isolation, calibration, block and bleed for gauges, pressure switches and static pressure transmitting instruments.

Features:

- Withstand high pressures and temperatures.
- Bonnet lock prevents accidents disassembly.
- For a Higher Temperatures Grafoil Packing is used.
- Reduces number of fittings and space required for installation.
- Packing below stem threads prevents stem lubrication washout and isolate threads from system fluids.



Specifications

Max. Pressure	: 6,000 psi (413 bar) @100°F (38°C) 10,000 psi (789 bar) @77°F (25°C)
Seat Type	: Soft Seat /Hard Seat
Gland packing	: PTFE : For temp. -73°C (-99.4°F) to 210°C(410°C) Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)

Service Medium	: Liquid Gas or Vapor Service
Stem	: Needle (Standard) Ball tip (optional)
Connection	: Process :1/2"NPT(M) Instrument: 1/2"NPT(F) Drain :1/4"NPT(F) with Blind Plugs
Materials	: Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

2 Valve Manifold- Direct Mounting

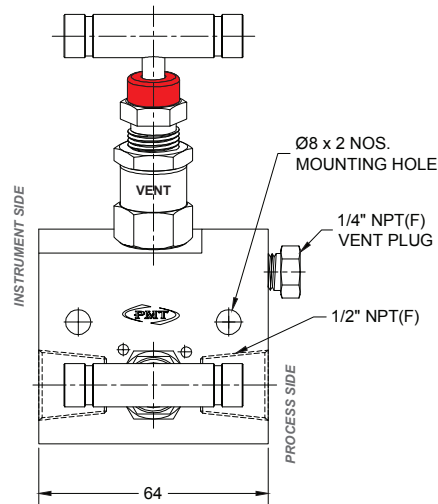
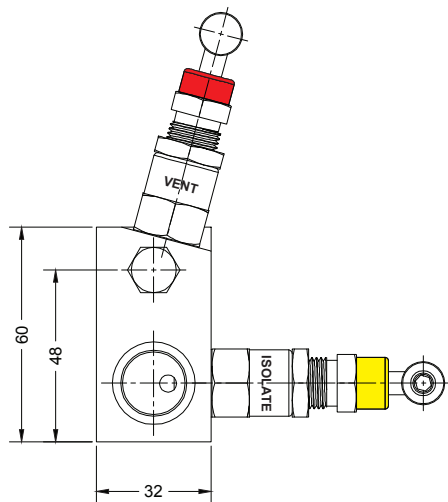
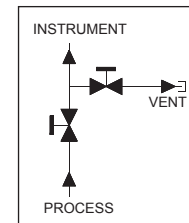
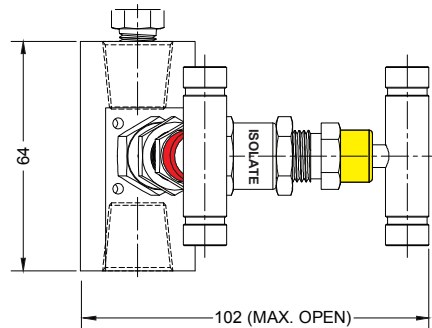
2V Direct Mount

Model 2AR-P8SS-HS

DS-LOK 2 Valve Direct Mount manifolds Direct mount valves are designed in such a manner, which helps in connecting system impulse line & transmitters. Our range of manifold consist two valve configuration which allows for easy isolation, calibration, block and bleed for gauges, pressure switches and static pressure transmitting instruments

Features

- Withstand high pressures and temperatures.
- Bonnet lock prevents accidents disassembly.
- For a Higher Temperatures Graphoil Packing is used.
- Reduces number of fittings and space required for installation.



Specifications

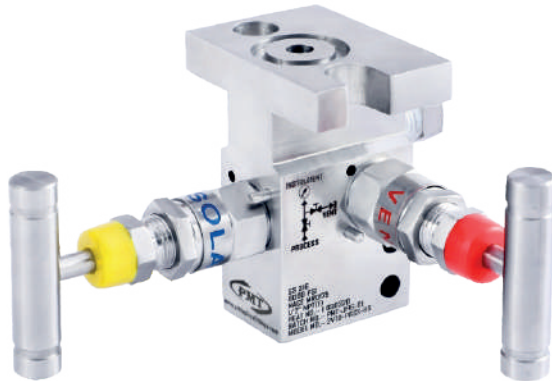
Max. Pressure	: 6,000 psi (413 bar) @100°F (38°C) 10,000 psi (789 bar) @77°F (25°C)
Seat Type	: Soft Seat /Hard Seat
Gland packing	: PTFE : For temp. -73°C (-99.4°F) to 210°C(410°C) Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)

Service Medium	: Liquid Gas or Vapor Service
Stem	: Needle (Standard) , Ball tip (optional)
Connection	: Process :1/2"NPT(F), Instrument: 1/2" NPT(F) Drain :1/4"NPT(F) with Blind Plugs
Materials	: Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

2 Valve Manifold- Direct Mounting

2V Pipe to Flange

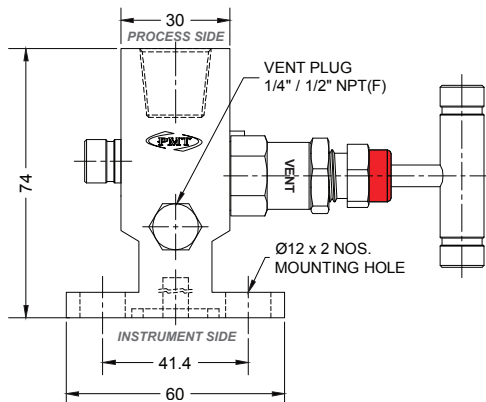
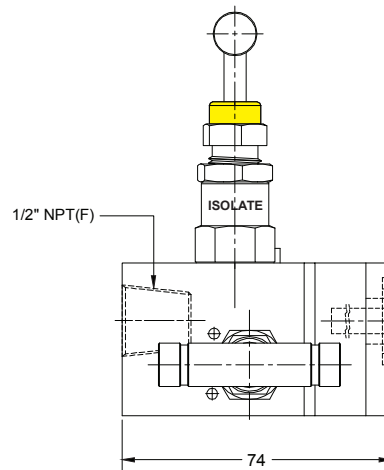
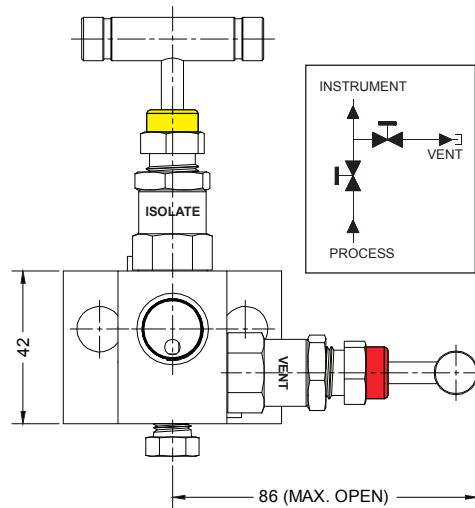
Model 2VTD-P8SS-HS



DS-LOK 2 Valve Pipe to Flange manifolds is designed in a single block with female screwed inlet and outlet port combining isolation valve and vent/calibration valve. Generally used on static pressure transmitters, switches or gauges. Which eliminates several joints and no of parts.

Features

- Withstand high pressures and temperatures.
- Bonnet lock prevents accidents disassembly.
- For a Higher Temperatures Graphoil Packing is used.
- Reduces number of fittings and space required for installation.



Specifications

Max. Pressure	: 6,000 psi (413 bar) @100°F (38°C) 10,000 psi (789 bar) @77°F (25°C)
Seat Type	: Soft Seat /Hard Seat
Gland packing	: PTFE : For temp. -73°C (-99.4°F) to 210°C(410°C) Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)
Materials	: Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)
Service Medium	: Liquid Gas or Vapor Service
Stem	: Needle (Standard) Ball tip (optional)
Connection	: Process :1/2"NPT(F) Instrument: Flange Drain :1/4"NPT(F)

3 Valve Manifold- Remote Mounting

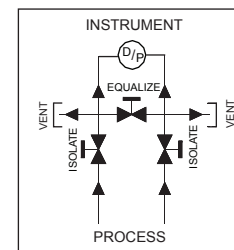
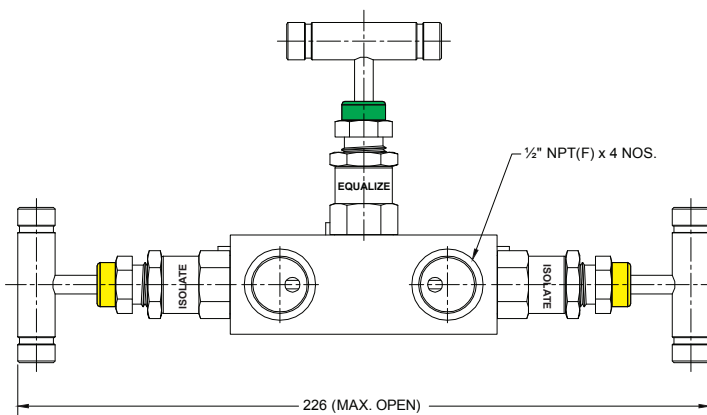
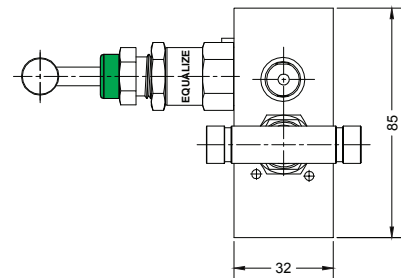
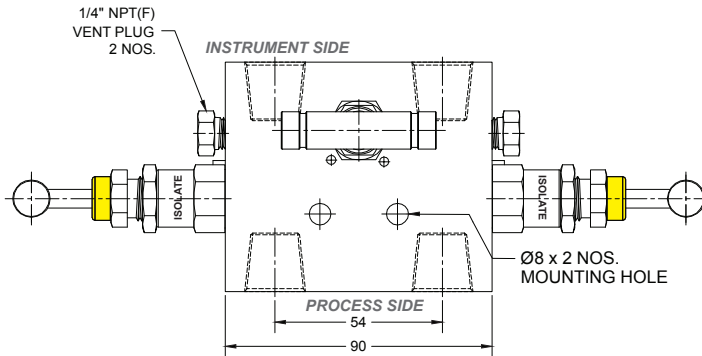
3V Pipe to Pipe

Model 3VMR-P8SS-HS

DS-LOK 3 Valve Pipe to Pipe Manifold are Designed for applications to facilitate remote mounting of differential pressure instruments. Two mounting Holes are provided for 1/4" bolts used with DP Gauges, Pressure Transmitters & Pressure Switches. Please consult us for these dimensions. Used for installations in remote fields eliminating conventional method of piping.

Features:

- Stem threads rolled and hard plated provides maximum service life.
- For a Higher Temperatures Graphoil Packing is used.
- Bonnet lock prevents accidents disassembly.
- Hard seat designed to reduce packing friction giving very low torque operation.



Specifications

Max. Pressure : 6,000 psi (413 bar) @100°F (38°C)
10,000 psi (789 bar) @77°F (25°C)

Seat Type : Soft Seat /Hard Seat

Gland packing : **PTFE** : For temp. -73°C (-99.4°F) to 210°C(410°C)
Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)

Service Medium : Liquid Gas or Vapor Service

Stem : Needle (Standard) , Ball tip (optional)

Connection : Process :1/2"NPT(F), Instrument: 1/2" NPT(F)
Drain :1/4"NPT(F) with Blind Plugs

Materials : Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

3 Valve Manifold- Remote Mounting

3V Flange to Flange

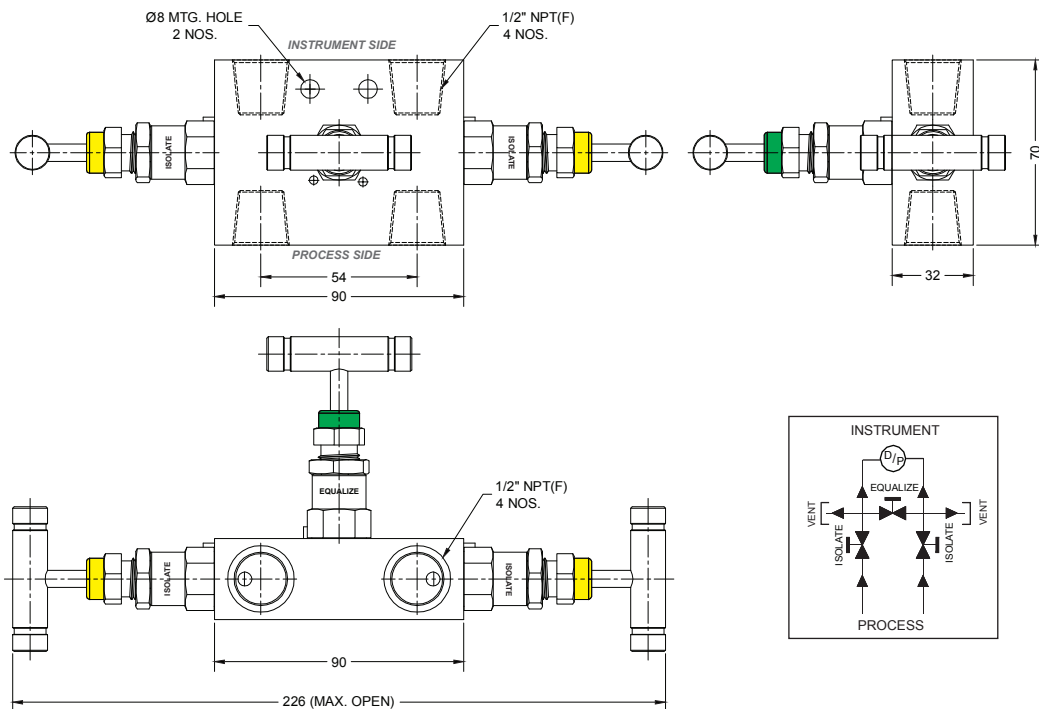
Model 3VMR-P8SS-HS

DS-LOK 3 Valve Flange to Flange Manifold are Designed for Direct or remote mounting of differential pressure Transmitters. For remote mounting two oval/kidney flanges are used for connecting process pipe to manifold block. The manifold block incorporate two main valves for process isolation and one valve for equalizing.



Features

- Stem threads rolled and hard plated provides maximum service life.
- For a Higher Temperatures Graphoil Packing is used.
- Bonnet lock prevents accidents disassembly.
- Stem threads rolled and hard plated provides maximum service life.



Specifications

Max. Pressure	: 6,000 psi (413 bar) @100°F (38°C) 10,000 psi (789 bar) @77°F (25°C)
Seat Type	: Soft Seat /Hard Seat
Gland packing	: PTFE : For temp. -73°C (-99.4°F) to 210°C(410°C) Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)

Service Medium	: Liquid Gas or Vapor Service
Stem	: Needle (Standard) ,Ball tip (optional)
Connection	: Process :1/2"NPT(M), Instrument: 1/2" NPT(F) Drain :1/4"NPT(F) with Blind Plugs
Materials	: Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

3 Valve Manifold- Direct Mounting

3V Pipe to Flange

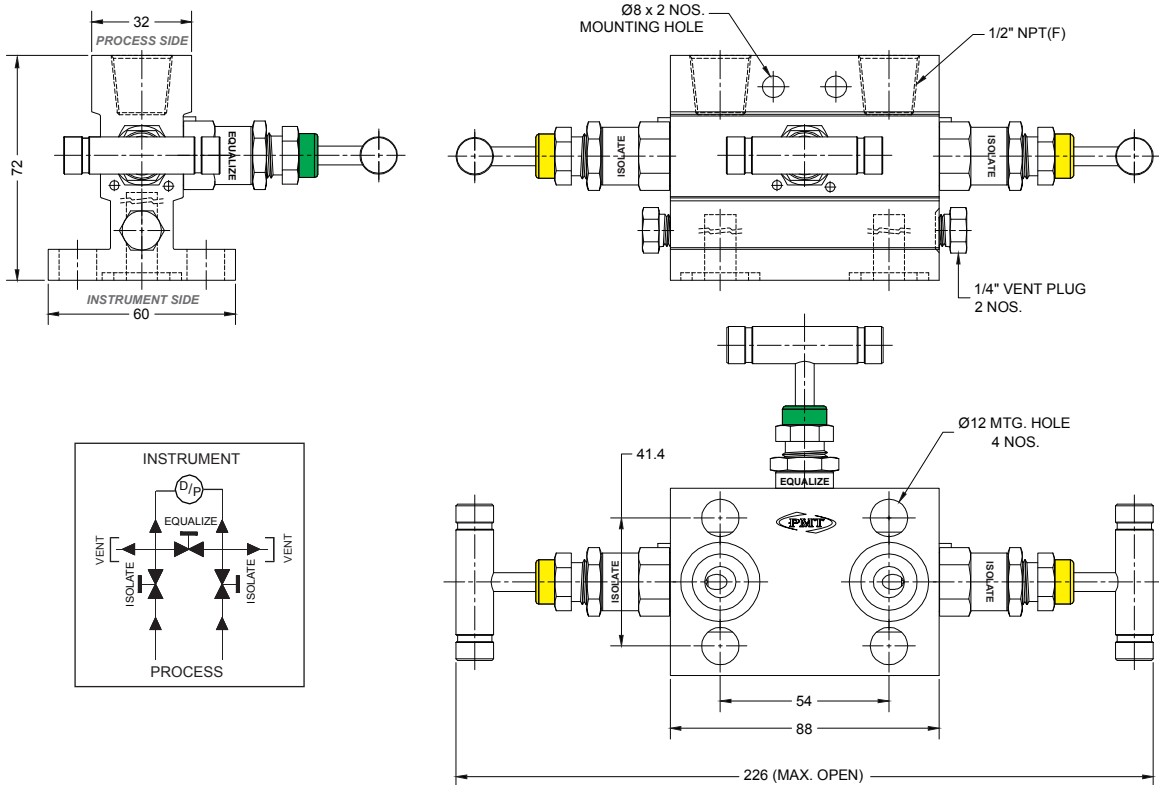
Model 3VMR-P8SS-HS

DS-LOK 3 Valve Pipe to Flange type Manifold are Designed for direct mountin on to standard differential pressure transmitters. This manifold block incorporates three valves, two main process isolation valves and one equalizing valve. Can be mounted directly on DP Gauges, Pressure Transmitter & Pressure Switches having 54 mm C/C connection with center bolting, supplied with four 7/16" Bolts & two PTFE Seals.



Features

- Stem threads rolled and hard plated provides maximum service life.
- For a Higher Temperatures Graphoil Packing is used.
- Bonnet lock prevents accidents disassembly.
- Hard seat designed to reduce packing friction giving very low torque operation.



Specifications

Max. Pressure	: 6,000 psi (413 bar) @100°F (38°C) 10,000 psi (789 bar) @77°F (25°C)
Seat Type	: Soft Seat /Hard Seat
Gland packing	: PTFE : For temp. -73°C (-99.4°F) to 210°C(410°C) Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)

Service Medium	: Liquid Gas or Vapor Service
Stem	: Needle (Standard) , Ball tip (optional)
Connection	: Process :1/2"NPT(F), Instrument: Flange Drain :1/4"NPT(F) with Blind Plugs
Materials	: Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

3 Valve Manifold- Direct Mounting

3V Flange to Flange

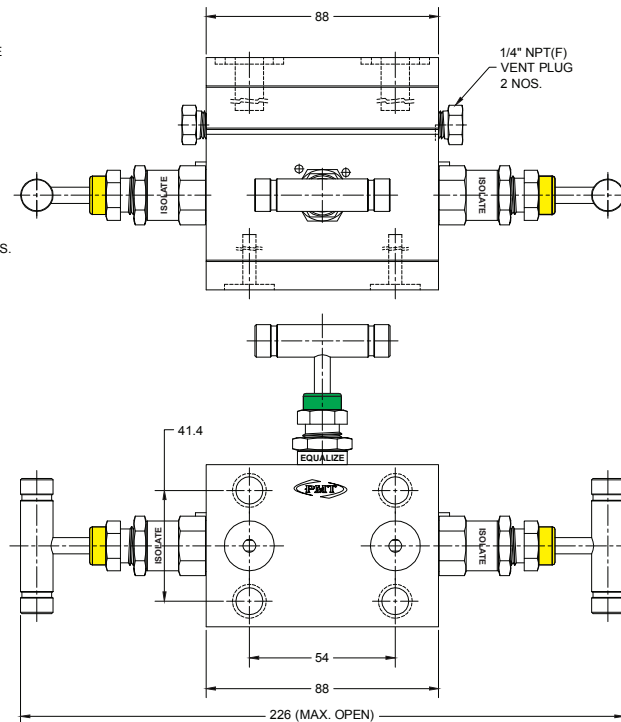
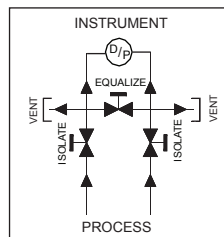
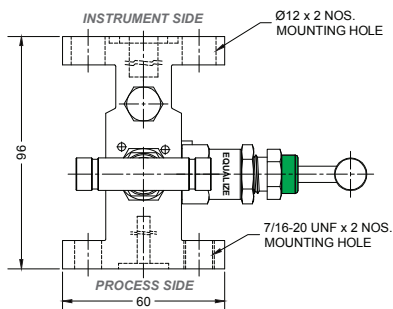
Model 3VHD-P8SS-HS



DS-LOK 3 Valve Flange to Flange Manifold are Designed for direct or remote mounting of differential pressure Transmitters. For remote mounting two oval/kidney flanges are used for connecting process pipe to manifold block. The manifold block incorporate two main valves for process isolation and one valve for equalizing.

Features

- Stem threads rolled and hard plated provides maximum service life.
- For a Higher Temperatures Graphoil Packing is used.
- Bonnet lock prevents accidents disassembly.
- Stem threads rolled and hard plated provides maximum service life.



Specifications

Max. Pressure	: 6,000 psi (413 bar) @100°F (38°C) 10,000 psi (789 bar) @77°F (25°C)
Seat Type	: Soft Seat /Hard Seat
Gland packing	: PTFE : For temp. -73°C (-99.4°F) to 210°C(410°C) Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)

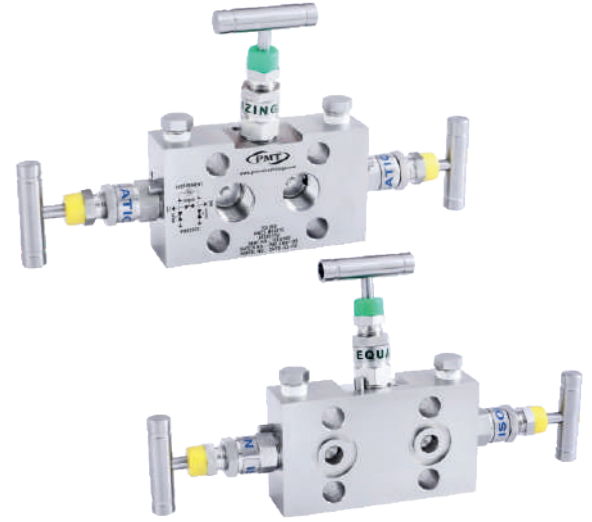
Service Medium	: Liquid Gas or Vapor Service
Stem	: Needle (Standard) ,Ball tip (optional)
Connection	: Process :Flange , Instrument: Flange Drain :1/4"NPT(F) with Blind Plugs
Materials	: Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

3 Valve Manifold- Direct Mounting

3V Direct Mount

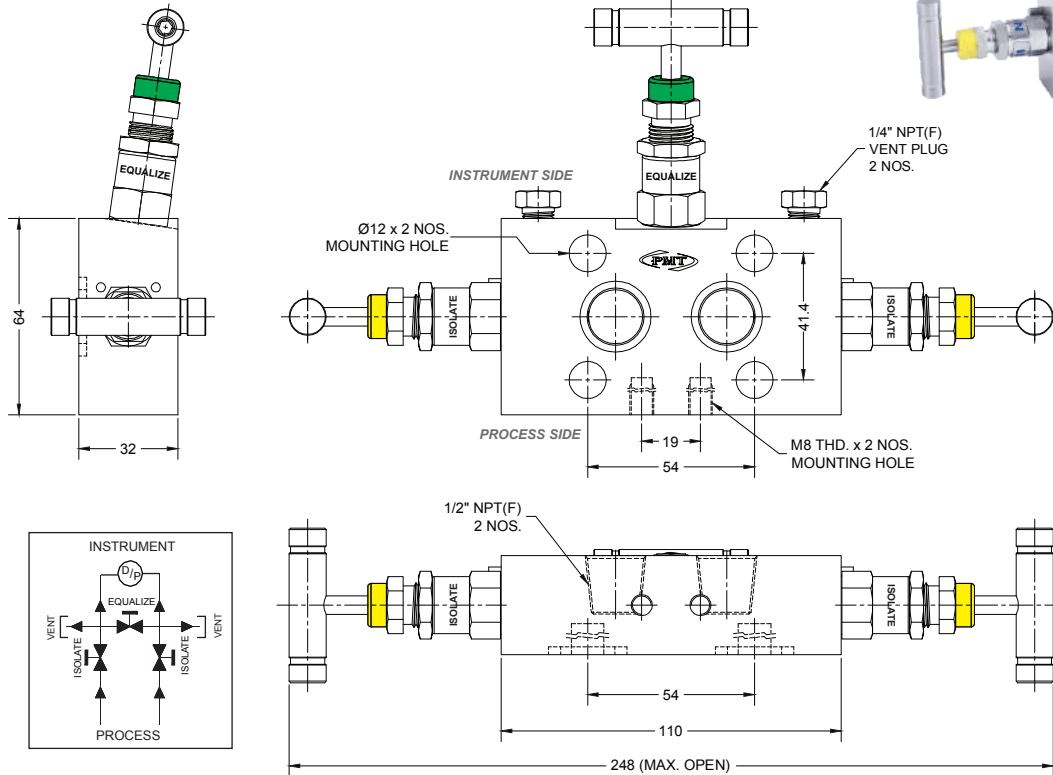
Model 3VSD-P8SS-HS

DS-LOK 3 Valve Direct Mount Manifold are Designed for direct mounting on to standar differential pressure transmitters. The two isolate bonnet are on the left and right side, the equalizing bonnet is of the angular design on the top for easy operation. Can be mounted directly on DP Gauges, Pressure Transmitter & Pressure Switches.



Features

- Stem threads rolled and hard plated provides maximum service life.
- For a Higher Temperatures Graphoil Packing is used.
- Bonnet lock prevents accidents disassembly
- Stem threads rolled and hard plated provides maximum service life.



Specifications

Max. Pressure : 6,000 psi (413 bar) @100°F (38°C)
10,000 psi (789 bar) @77°F (25°C)

Seat Type : Soft Seat /Hard Seat

Gland packing : **PTFE** : For temp. -73°C (-99.4°F) to 210°C(410°C)
Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)

Service Medium : Liquid Gas or Vapor Service

Stem : Needle (Standard) , Ball tip (optional)

Connection : Process :1/2"NPT(F), Instrument: Flange
Drain :1/4"NPT(F) with Blind Plugs

Materials : Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

5 Valve Manifold- Remote Mounting

5V Pipe to Pipe

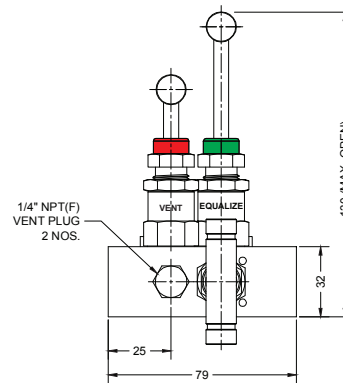
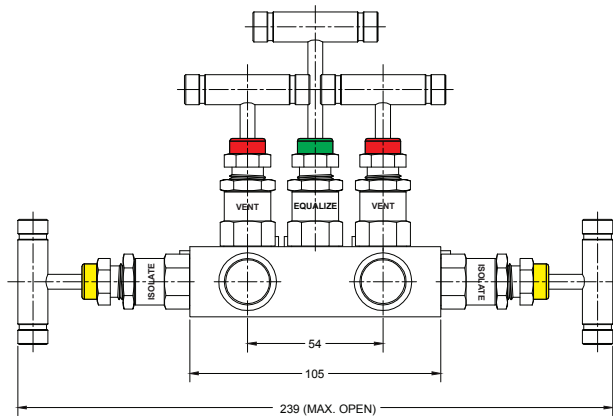
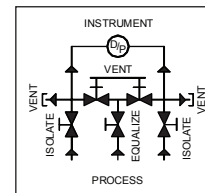
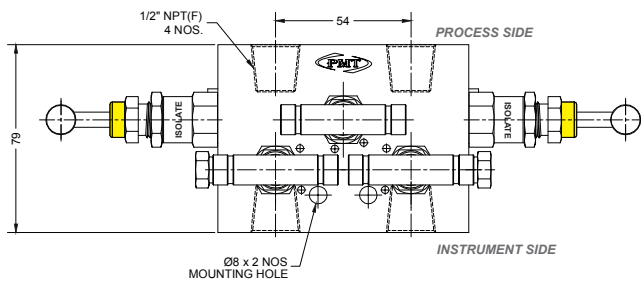
Model 5VMR-P8SS-HS



DS-LOK 5 Valve Pipe Manifold incorporate two process isolation valves, one equalizer valve and two drain/vent valves with separate connections in a compact manifold block. The Model is designed for remote mounting away from the differential pressure instrument and joined by tube or pipe impulse lines.

Features

- Stem threads rolled and hard plated provides maximum service life.
- For a Higher Temperatures Graphoil Packing is used.
- Bonnet lock prevents accidents disassembly.
- Stem threads rolled and hard plated provides maximum service life.



Specifications

Max. Pressure : 6,000 psi (413 bar) @100°F (38°C)
10,000 psi (789 bar) @77°F (25°C)

Seat Type : Soft Seat /Hard Seat

Gland packing : **PTFE** : For temp. -73°C (-99.4°F) to 210°C(410°C)
Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)

Service Medium : Liquid Gas or Vapor Service

Stem : Needle (Standard) , Ball tip (optional)

Connection : Process :1/2"NPT(F), Instrument: 1/2" NPT(F)
Drain :1/4"NPT(F) with Blind Plugs

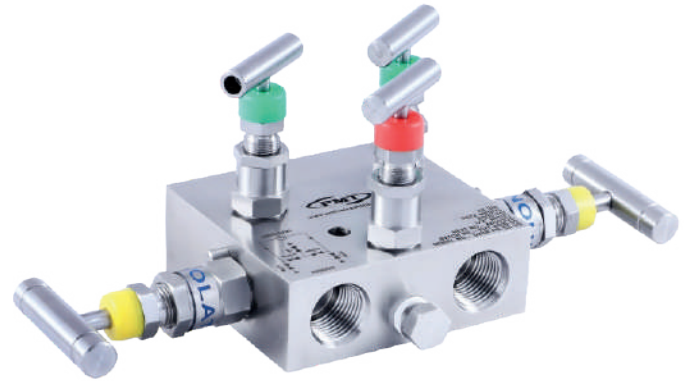
Materials : Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

5 Valve Manifold- Remote Mounting

5V Pipe to Pipe

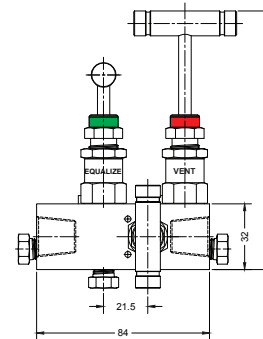
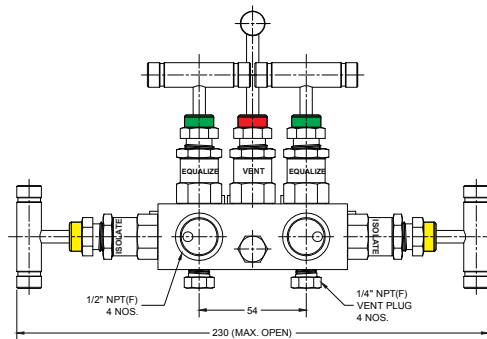
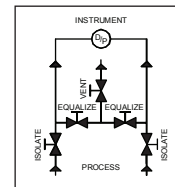
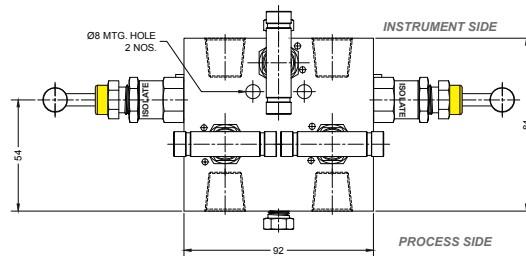
Model 5VGR-P8SS-HS

DS-LOK 5 Valve Pipe to Pipe Manifold are Designed with vertical port inlets and outlets. The Vent/Test ports are positioned on the bottom and top of the body. The isolating bonnets are positioned on the left and right hand side and the venting and equalizing bonnets are positioned on the front side. Specially designed for remote mounting to fields meters, differential transmitters and chart recorders on gas service allowing fail configuration preventing pressure loss from the high to low pressure impulse lines.



Features

- Stem threads rolled and hard plated provides maximum service life.
- For a Higher Temperatures Graphoil Packing is used.
- Bonnet lock prevents accidents disassembly.
- Stem threads rolled and hard plated provides maximum service life.



Specifications

Max. Pressure : 6,000 psi (413 bar) @100°F (38°C)
10,000 psi (789 bar) @77°F (25°C)

Seat Type : Soft Seat /Hard Seat

Gland packing : **PTFE** : For temp. -73°C (-99.4°F) to 210°C(410°C)
Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)

Service Medium : Liquid Gas or Vapor Service

Stem : Needle (Standard) ,Ball tip (optional)

Connection : Process :1/2"NPT(F), Instrument: 1/2"NPT(F)
Drain :1/4"NPT(F) with Blind Plugs

Materials : Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

5 Valve Manifold- Direct Mounting

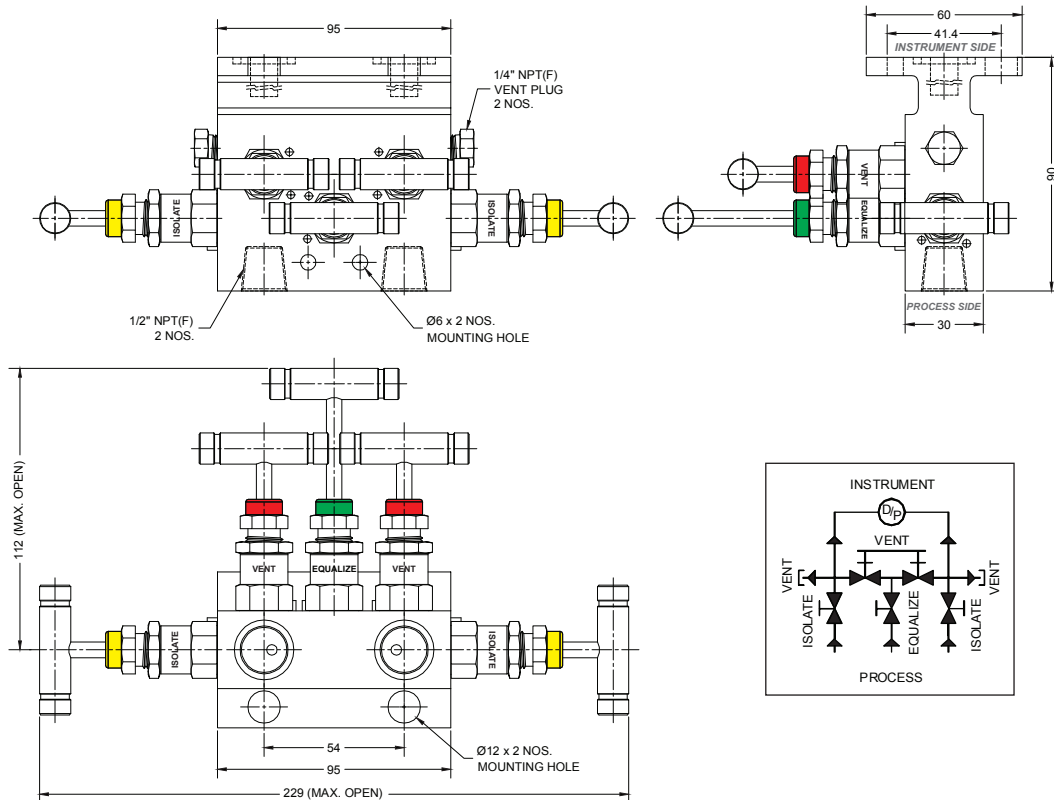
5V Pipe to Pipe

Model 5VTD-P8SS-HS

DS-LOK 5 Valve Pipe to pipe Manifold incorporate two process isolation valves, one equalizer valve and two drain/vent valves with separate connections in a compact manifold block. The Model is designed for remote mounting away from the differential pressure instrument and joined by tube or pipe impulse lines.

Feature

- Stem threads rolled and hard plated provides maximum service life.
- For a Higher Temperatures Graphoil Packing is used.
- Bonnet lock prevents accidents disassembly
- Stem threads rolled and hard plated provides maximum service life.



Specifications

Max. Pressure	: 6,000 psi (413 bar) @100°F (38°C) 10,000 psi (789 bar) @77°F (25°C)
Seat Type	: Soft Seat /Hard Seat
Gland packing	: PTFE : For temp. -73°C (-99.4°F) to 210°C(410°C) Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)

Service Medium	: Liquid Gas or Vapor Service
Stem	: Needle (Standard) , Ball tip (optional)
Connection	: Process :1/2"NPT(F), Instrument: Flange Drain :1/4"NPT(F) with Blind Plugs
Materials	: Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

5 Valve Manifold- Direct Mounting

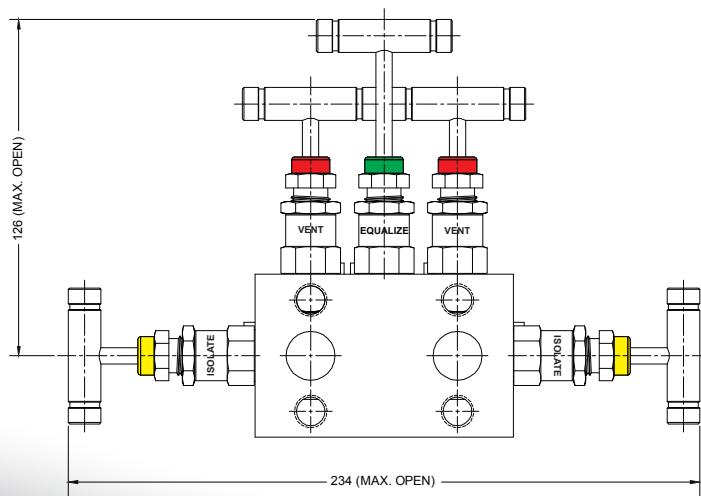
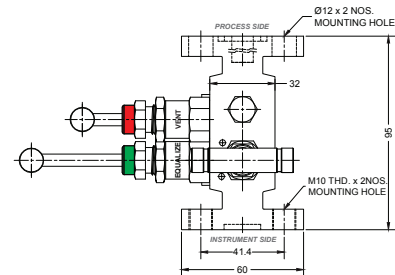
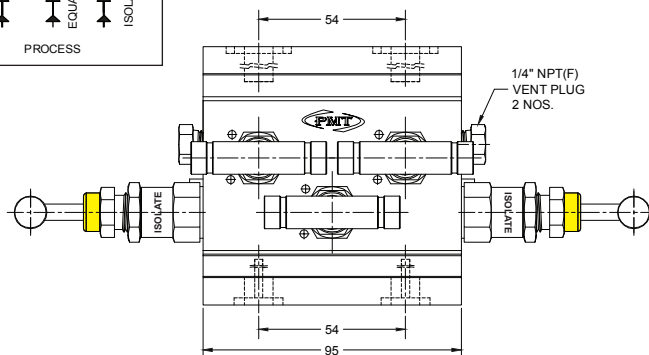
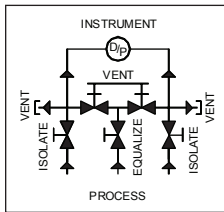
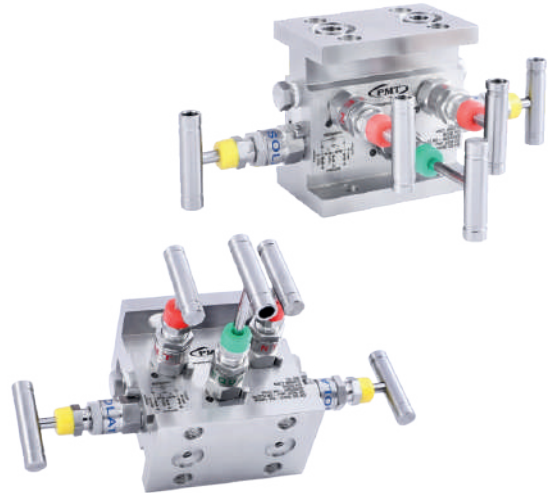
5V Flange to Flange

Model 5VHD-P8SS-HS

DS-LOK 5 Valve Flange to Flange Manifold are Designed for direct or remote mounting of differential pressure transmits. For remote mounting two oval/kidney flanges are used for connecting process pipe to manifold block. The manifold block incorporate two main valves for process isolation and one valve for equalizing.

Features

- One Piece Bar stock Forged Body for high strength and fully safety.
- Bonnet lock prevents accidents disassembly.
- Two Part Stem tip, stellite and hardened provides excellent flow control and ensures bubble-tight shut off.
- Packing material – PTFE / Graphoil.



Specifications

Max. Pressure	: 6,000 psi (413 bar) @100°F (38°C) 10,000 psi (789 bar) @77°F (25°C)
Seat Type	: Soft Seat /Hard Seat
Gland packing	: PTFE : For temp. -73°C (-99.4°F) to 210°C(410°C) Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)
Materials	: Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)
Service Medium	: Liquid Gas or Vapor Service
Stem	: Needle (Standard) Ball tip (optional)
Connection	: Process :Flange Instrument: Flange Drain :1/4"NPT(F) with Blind Plugs

5 Valve Manifold- Direct Mounting

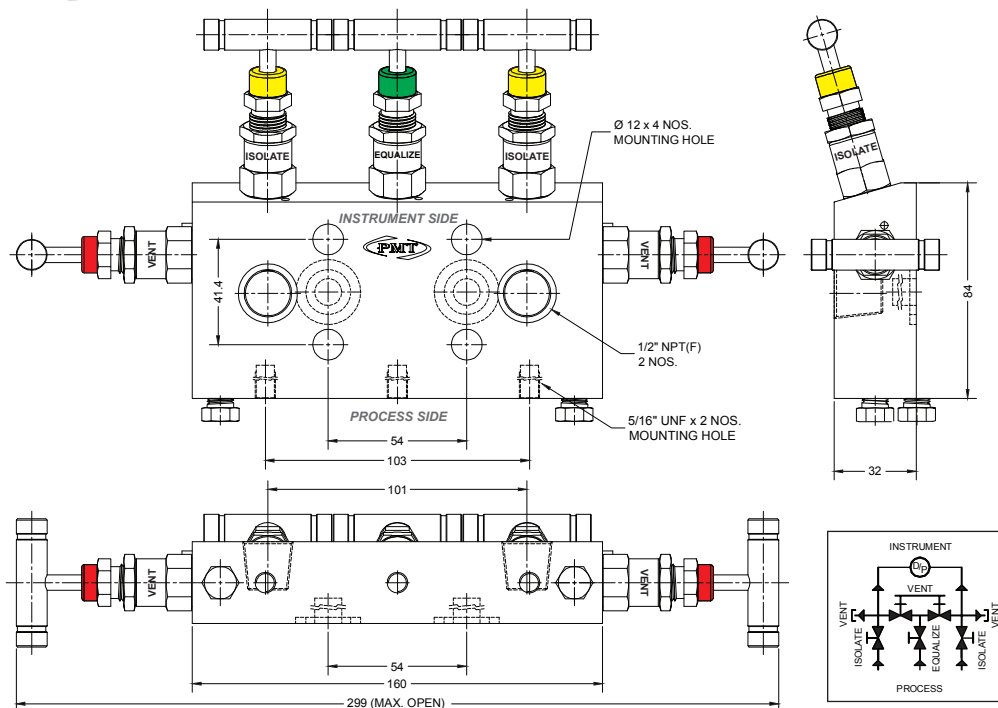
5V Direct Mounting

Model 5VQD-P8SS-HS

DS-LOK 5 Valve Direct Mount Manifold are Designed as a new series of process instrument manifold for particular transmitter models. The coplanar manifold when assembled to transmitter has the advantage of compact size with ease for operation in minimum space, thereby eliminating several components in integrating the manifold to the transmitter.

Features

- One Piece Bar stock Forged Body for high strength and fully safety.
- Bonnet lock prevents accidents disassembly.
- Two Part Stem tip, stelled and hardened provides excellent flow control and ensures bubble-tight shutt off.
- Packing material – PTFE / Graphoil.



Specifications

Max. Pressure	: 6,000 psi (413 bar) @100°F (38°C) 10,000 psi (789 bar) @77°F (25°C)
Seat Type	: Soft Seat /Hard Seat
Gland packing	: PTFE : For temp. -73°C (-99.4°F) to 210°C(410°C) Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)

Service Medium	: Liquid Gas or Vapor Service
Stem	: Needle (Standard) ,Ball tip (optional)
Connection	: Process :1/2"NPT(F), Instrument: Flange Drain :1/4"NPT(F) with Blind Plugs
Materials	: Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

5 Valve Manifold- Direct Mounting

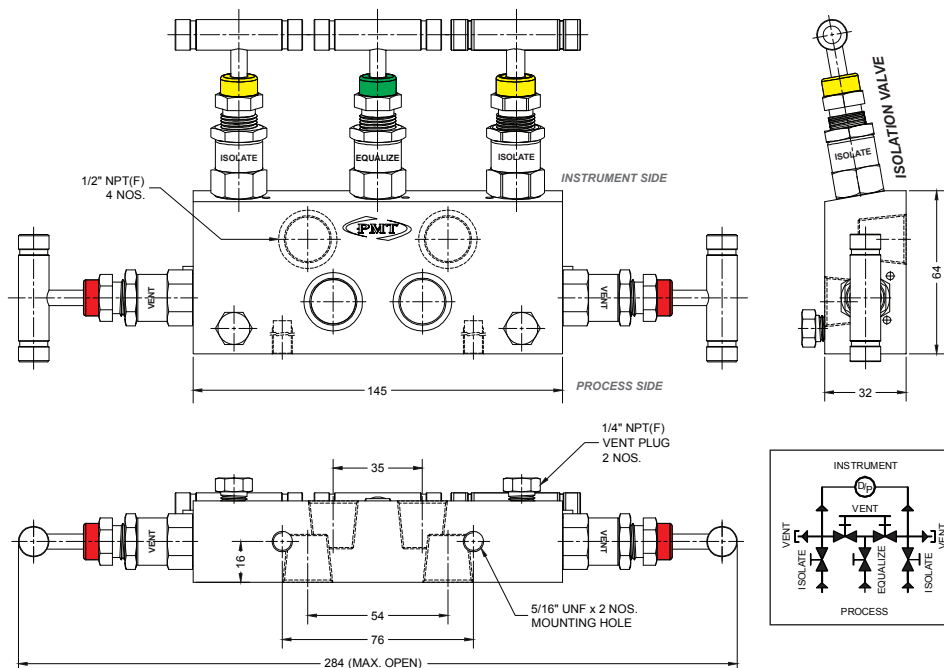
5V Direct Mount

Model 5VQR-P8SS-HS

DS-LOK 5 Valve Direct Mount Manifold are Designed as a new series of process instrument manifold for particular transmitter models. The coplanar manifold when assembled to transmitter has the advantage of compact size with ease for operation in minimum space, thereby eliminating several components in integrating the manifold to the transmitter.

Features

- One Piece Bar stock Forged Body for high strength and fully safety.
- Bonnet lock prevents accidents disassembly.
- Two Part Stem tip, stelled and hardened provides excellent flow control and ensures bubble-tight shut off.
- Packing material – PTFE / Graphoil.



Specifications

Max. Pressure : 6,000 psi (413 bar) @100°F (38°C)
10,000 psi (789 bar) @77°F (25°C)

Seat Type : Soft Seat /Hard Seat

Gland packing : **PTFE** : For temp. -73°C (-99.4°F) to 210°C(410°C)
Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)

Service Medium : Liquid Gas or Vapor Service

Stem : Needle (Standard) , Ball tip (optional)

Connection : Process :1/2"NPT(F), Instrument: 1/2" NPT(F)
Drain :1/4"NPT(F) with Blind Plugs

Materials : Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

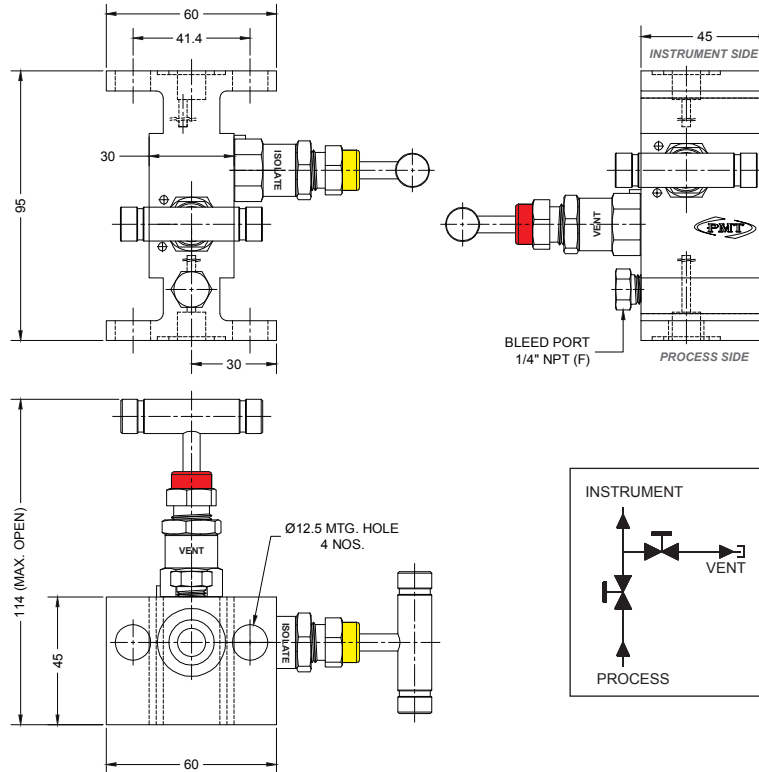
2 Valve Manifold- Direct Mounting 2V Flange to flange

Model 2VHD-P8SS-HS

DS-LOK 2 Valve Flange to Flange Manifolds valves are designed in such a manner, which helps in connecting system impulse line & transmitters. Our range of manifold consist two calce configuration which allows for easy isolation, calibration, block and bleed for gauges, pressure switches and static pressure transmitting instruments.

Features

- Withstand high pressures and temperatures.
- Bonnet lock prevents accidents disassembly.
- For a Higher Temperatures Grafoil Packing is used.
- Reduces number of fittings and space required for installation.



Specifications

Max. Pressure	: 6,000 psi (413 bar) @100°F (38°C) 10,000 psi (789 bar) @77°F (25°C)
Seat Type	: Soft Seat /Hard Seat
Gland packing	: PTFE : For temp. -73°C (-99.4°F) to 210°C(410°C) Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)

Service Medium	: Liquid Gas or Vapor Service
Stem	: Needle (Standard) ,Ball tip (optional)
Connection	: Process :Flange , Instrument: Flange Drain : 1/4"NPT(F) with Blind Plugs
Materials	: Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

Valve Manifold- Direct Mounting

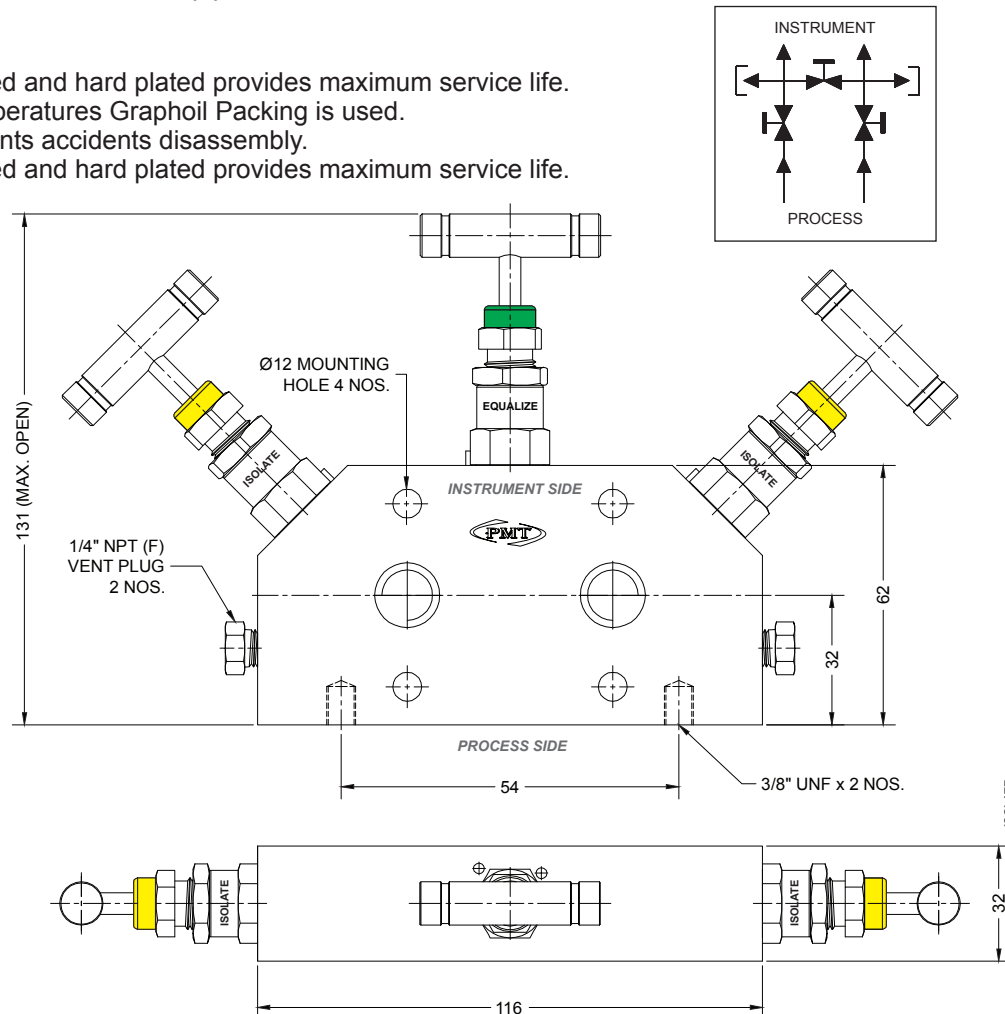
3V Direct Mount

Model 3VQD-P8SS-HS

DS-LOK 3 Valve Direct Mount Manifold are Designed for direct mounting on to standard differential pressure transmitters. This manifold block incorporates three valves, two main process isolation valves and one equalizing valve. This design is suitable where the straight valve may foul with the instrument and to provide ease of operation. It is mounted with Oval flange to connect the process line with 1/2" pipe or tube connections.

Features

- Stem threads rolled and hard plated provides maximum service life.
- For a Higher Temperatures Graphoil Packing is used.
- Bonnet lock prevents accidents disassembly.
- Stem threads rolled and hard plated provides maximum service life.



Specifications

Max. Pressure : 6,000 psi (413 bar) @100°F (38°C)
10,000 psi (789 bar) @77°F (25°C)

Seat Type : Soft Seat /Hard Seat

Gland packing : **PTFE** : For temp. -73°C (-99.4°F) to 210°C(410°C)
Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)

Service Medium : Liquid Gas or Vapor Service

Stem : Needle (Standard) , Ball tip (optional)

Connection : Process :1/2"NPT(F), Instrument: 1/2" NPT(F)
Drain :1/4"NPT(F) with Blind Plugs

Materials : Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

5 Valve Manifold- Direct Mounting

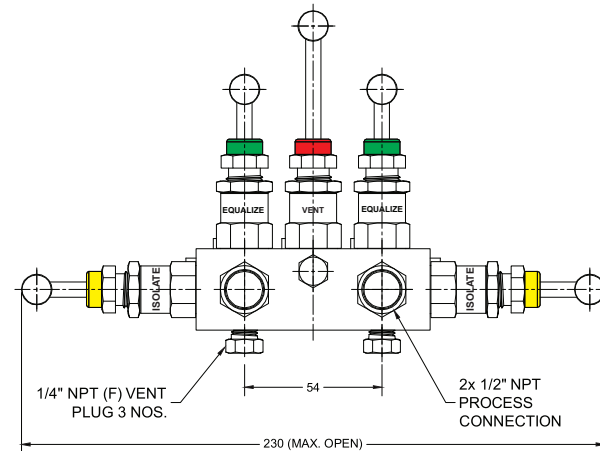
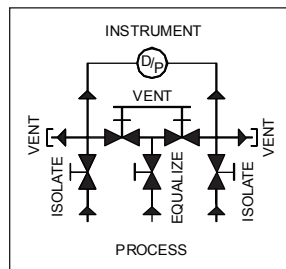
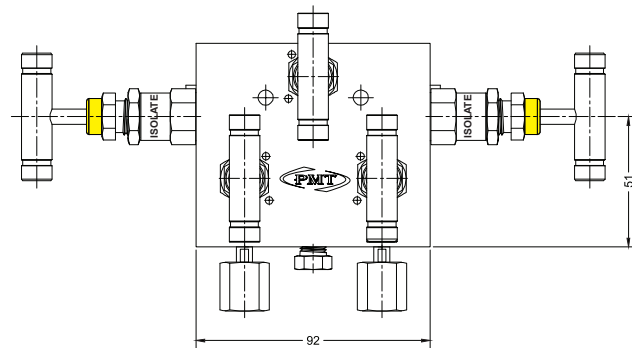
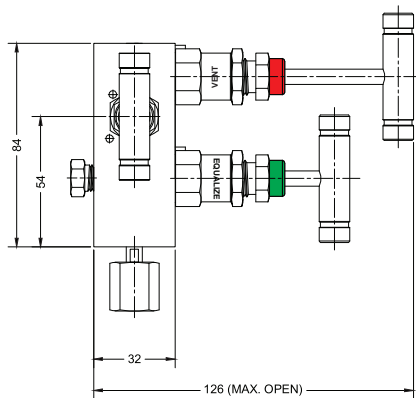
5V Differential Gauges

Model 5VGD-P8SS-HS

DS-LOK 5 Valve are Designed for differential Gauges with 2 intlers NPT Female at bottom and 2 Outlet with rotating nuts on top side. Also available in 54mm tap spacings model.

Features

- Withstand high pressures and temperatures.
- Bonnet lock prevents accidents disassembly.
- For a Higher Temperatures Grafoil Packing is used.
- Reduces number of fittings and space required for installation.



Specifications

Max. Pressure	: 6,000 psi (413 bar) @100°F (38°C) 10,000 psi (789 bar) @77°F (25°C)
Seat Type	: Soft Seat /Hard Seat
Gland packing	: PTFE : For temp. -73°C (-99.4°F) to 210°C(410°C) Graphoil : For temp. (180°C 356°F) to 540°C (1001°F)

Service Medium	: Liquid Gas or Vapor Service
Stem	: Needle (Standard) ,Ball tip (optional)
Connection	: Process :1/2" NPT(F) , Instrument: 1/2" NPT(F) Drain : 1/4"NPT(F) with Blind Plugs
Materials	: Stainless Steel (316L,316, 304,304L), Monel,Inconel, Carbon Steel,Duplex Steel. NACE MR-01-75 is available. (For Sour gas Service)

GAUGE ROOT VALVE

The Short and long extension are multi-port gauge valves allowing the versatile positioning of gauges or pressure switches without requiring additional penetration of the main piping. For high-pressure applications, the Long extension root valve is a metal seat version of the lightweight, compact instrument isolation valve. The standard configuration has a male or female inlet and three 1/2-inch Female-NPT outlet ports. All valves with male inlet connections are available threaded or prepared for welding and with either standard or extended inlets. The Short gauge root valve is available with an integral metal seat or as a soft seated plug type allowing the valve to be rodded out.

Features

- 316/316L stainless steel construction for superior corrosion resistance.
- One-piece construction body provides strength.
- Logging extension body available for insulation clearance.
- Burr-free threads and internal surfaces reduce leaks, promoting accurate transmitter readings.
- 1/2" and 3/4" male to 1/2" NPT female end connection.
- Non-rotating ball-tip and plug-tip Stem design
- 1/2" Female gauge port standard design.
- Schedule 160 pipe wall or heavier on valve inlet fitting for strength.
- Dust cap prevents ingress of contaminants
- Orifice size - 4.8mm
- Pressure rating up to 6000 psig (413bar) @38°C (100°F).
- Temperature rating from -53°C (-65°F) to 232°C (450°F) with Standard PTFE packing up to 648°C(1200°F) With Grafoil packing.
- Hardened Stem (steam) threads and one piece of bar stock body for long cycle life.
- Multiple outlets for accommodation of a variety of gauge position.

Sour Environment Services

DS-LOK Gauge root are comply with NACE MR-0175/ISO 115156 for sour oilfield applications or NACE MR-0103 for petroleum refining operations. For other information and ordering number please contact our factory.

Factory test

Standard Test : Each valve is factory tested with nitrogen at 1000 psig (69 bar) for leakage at the seat and packing, the maximum allowable leak rate of 0.1 SCCM.

• **Optional Hydrostatic test :** This test is performed with diagnosed water at 1.5 time the working pressure. Other tests like vibration, temp., helium etc are available upon requests.

Application

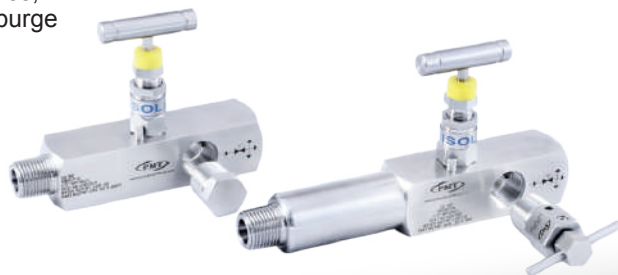
A safe & economical method of installing pressure switches, gauges and differential transmitters Block and bleed for purge valve, sampling line and test pressure source.

Packaging

All exposed threads of the products are Protected with plastic caps to prevent damage and each assembly is packed in sealed and clear polyethylene bag for cleanliness and carefully packed in cardboard boxes to prevent transit damage. Each and every package is labeled for proper and easy identification.

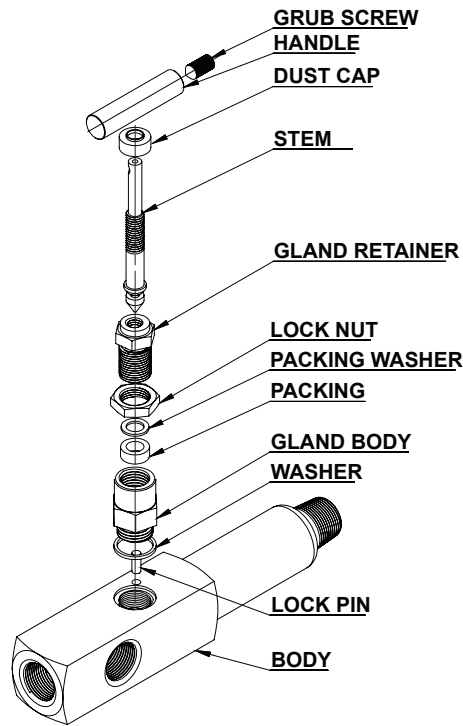
Important Notification

Proper installation material compatibility , operation and main-tenance of these valve are the responsibility of the user. The total system design must be taken into consideration to ensure optional performance and safety. The packing adjustment may be required during the valve's service life.

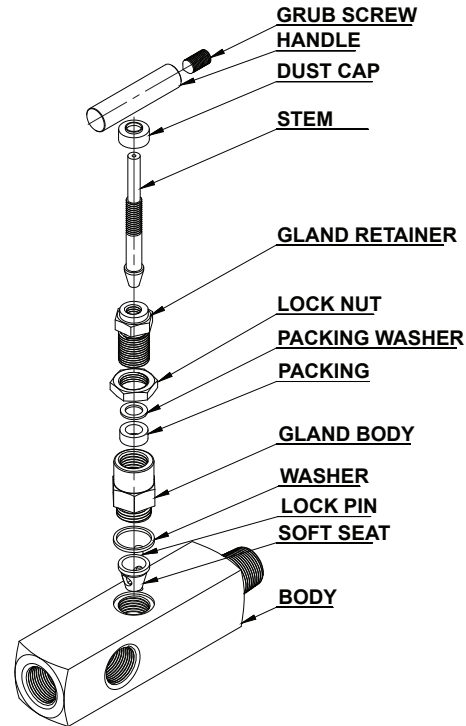


Design & Nomenclature of Materials

HARD SEAT DESIGN



SOFT SEAT DESIGN



BODY : Forged one piece body construction (no welding) for high strength.

GLAND BODY : For maximum packing stability and performance.

GLAND RETAINER : Standard Construction For maximum pressure rating.

STEM : Designed for low torque operating with high quality micro mirror stem finish for positive gland sealing.

LOCK NUT : A secure anti vibration locking mechanism to prevent inadvertent gland adjuster loosening.

PACKING : PTFE stem packing seals the system fluid to atmosphere.

WASHER PACKING (OPTIONAL) : Annealed sealing washer to ensure complete atmospheric leakage and allowing on site retro-fit of bonnet with 100% re-sealing assurance.

WASHER (OPTIONAL) : Metal to metal seal with body suitable for high pressure temperature applications.

HANDLE : Removable T-bar handle aids low torque operation.

VEE TIP : Self centering, non-rotational VEE tip gives successive positive bubble tight shut off assuring the user of leakage free performance and downstream functional safety.

LOCK PIN : Safety bonnet lock pin prevents accidental disassembly.

DUST CAP : Prevents contamination and lubricant washout of bonnet assembly.

SOFT SEAT : PTFE & Delrin Seat to ensure a tight-shut off even in abrasive process conditions.

GRUB SCREW : For locking the handle.

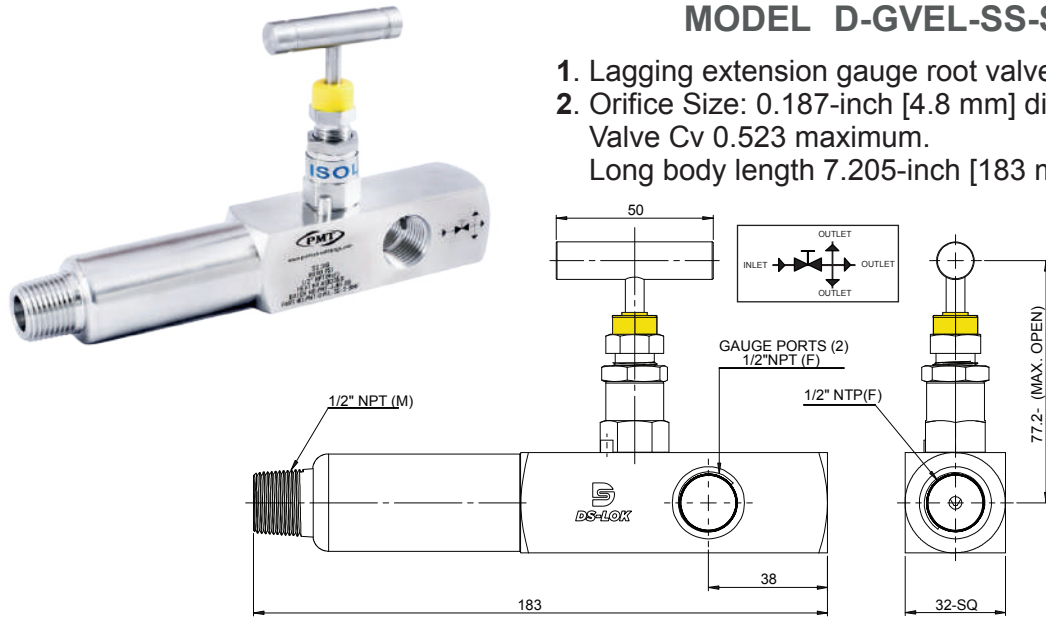
MATERIALS OF CONSTRUCTION

ITEM NO.	PART NAME	MATERIALS	QTY.
1	BODY	A479-316L/A-105	1
2	GLAND BODY	A479-316L/A-105	1
3	GLAND RETAINER	A479-316L/A-105	1
4	STEM	A276-316	1
5	WASHER	A479-316L/A-105	1
6	PACKING	PTFE/GRAPHOIL	3
7	PACKING WASHER	A276-316L/A-105	1
8	LOCK NUT	A479-316L/A-105	1
9	HANDLE	A276-304/A-105	1
10	GRUB SCREW	STEEL	1
11	DUST CAP	PLASTIC LD	1
12	VEE TIP	A564-630	1
13	LOCK PIN	A479-316L/A-105	1
14	VENT PLUG	A479-316L/A-105	1
15	SOFT SEAT (OPTIONAL)	POM	1

LAGGING EXTENSION - GAUGE ROOT VALVE

MODEL D-GVEL-SS-S8MF

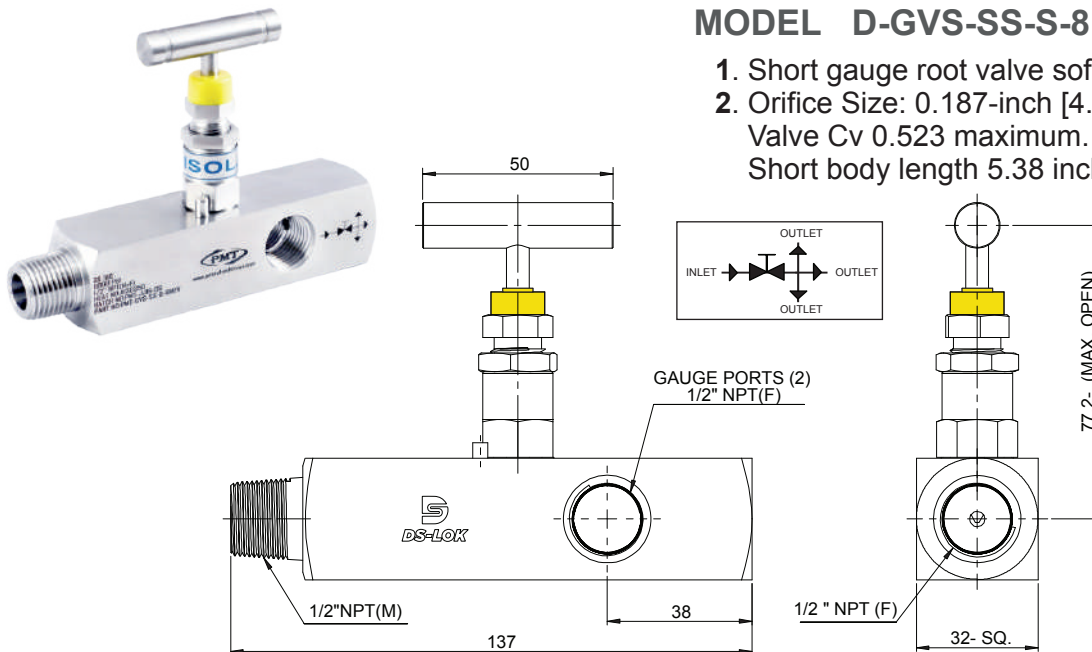
1. Lagging extension gauge root valve metal seat only.
2. Orifice Size: 0.187-inch [4.8 mm] diameter.
Valve Cv 0.523 maximum.
Long body length 7.205-inch [183 mm]



SHORT - GAUGE ROOT VALVE

MODEL D-GVS-SS-S-8MFV

1. Short gauge root valve soft seat only.
2. Orifice Size: 0.187-inch [4.8 mm] diameter.
Valve Cv 0.523 maximum.
Short body length 5.38 inch [137mm]





DS-LOK

INSTRUMENTATION VALVES AND FITTINGS



Valves

- Needle Valves
- Manifold Valves
- In Line Check Valve
- Proportional Relief Valves
- Instrument Ball Valves
- Mono Flange Valves
- Integral Block & Bleed Valves
- Bleed & Purge Valves
- Thermowells
- Pressure gauge Accessories

Fittings

- Tube Fittings
- Pipe Fittings
- High Pressure- Pipe Fittings
- Hydraulic Fittings
(DIN 2353, JIC Fittings, ORFS Fittings)

Forged Steel Valves

- Forged Steel Globe Valves (Cryogenic Available)
- Forged Steel Gate Valves (Cryogenic Available)
- Forged Steel Lift check Valves
- Forged Steel Ball Valves (Cryogenic Available)