

Instrument Manifold

MA & MB Series

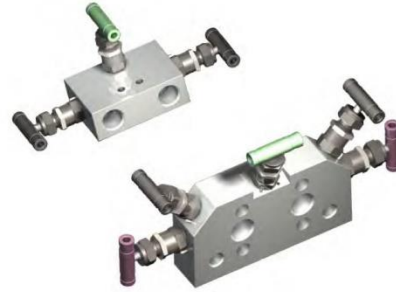


- Gauge valve , two way , three way , five way instrument manifold
- Full 316 SS , with PTFE packing
- Working pressure reach 6000psig(414 bar)
- Max temperature 648 °C (1200°F) when using Grafoil packing

MA, MB Serial Manifold

Feature

- Working pressure : 6000 psig(207 bar)
- Working temp: -65°F to 1200°F (-53 °C to 648 °C)
- Material: 316SS or other
- Connection: Chinese sleeve ,British sleeve ,NPT thread , ISO taper thread , UMB connection, flange
- Connection size :1/4 or 3/4" , 6mm to 20mm



Pressure-Temperature Rating Value

Body material	316 SS		
Packing material	PTFE	Grafoil	
Tempt °C (°F)	Working pressure psig (bar)		
-53 (-65)	37 (100)	6000 (414)	6000 (414)
	93 (200)	5160 (355)	5160 (355)
	121 (250)	4910 (338)	4910 (338)
	148 (300)	4660 (321)	4660 (321)
	176 (350)	4470 (307)	4470 (307)
	204 (400)	4280 (294)	4280 (294)
	232 (450)	4130 (284)	4130 (284)
	260 (500)	—	3980 (274)
	287 (550)	—	3870 (266)
	315 (600)	—	3760 (259)
	343 (650)	—	3700 (254)
	371 (700)	—	3600 (248)
	398 (750)	—	3520 (242)
	426 (800)	—	3460 (238)
	454 (850)	—	3380 (232)
	482(900)	—	3280 (225)
	510 (950)	—	3220 (221)
	537 (1000)	—	3030 (208)
	565 (1050)	—	3000 (206)
	593 (1100)	—	2685 (184)
	621 (1150)	—	2285 (157)
	648 (1200)	—	1715 (118)

Structure Material

Part Name	Material
	316 SS
handle ®	304 SS
Fixed bolt	SS
Packing bolt	304 SS/A276
Stem	316 SS/A276
Locking nut	316 SS/B783
Bonnet	316 SS/A479
Packing ring	316 SS/A276
Packing	PTFE
Round pin	
Packing gasket	PTFE
Valve ball	316 SS/A276
Valve body	316 SS/A479
Lubricating agent	molybdenum disulfide

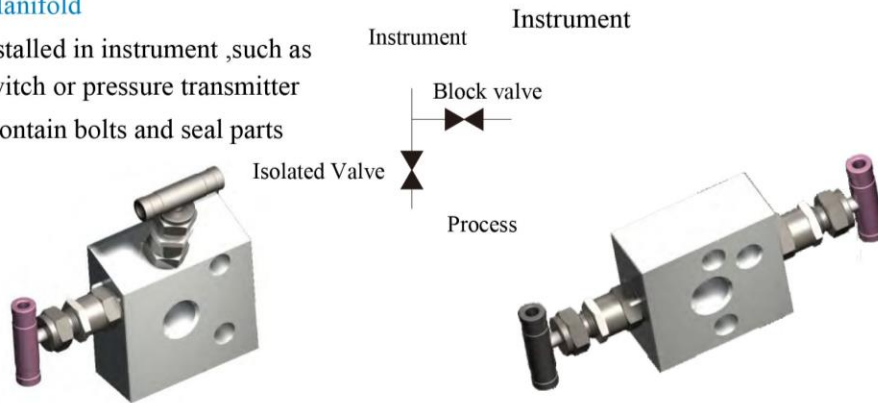
Test

- Each valve is testing under 1000 psig nitrogen , the max leakage for seat is 0.1SCCM
- Hydraulic housing test is 1.5 times than max working pressure
- Other test solution is accepted

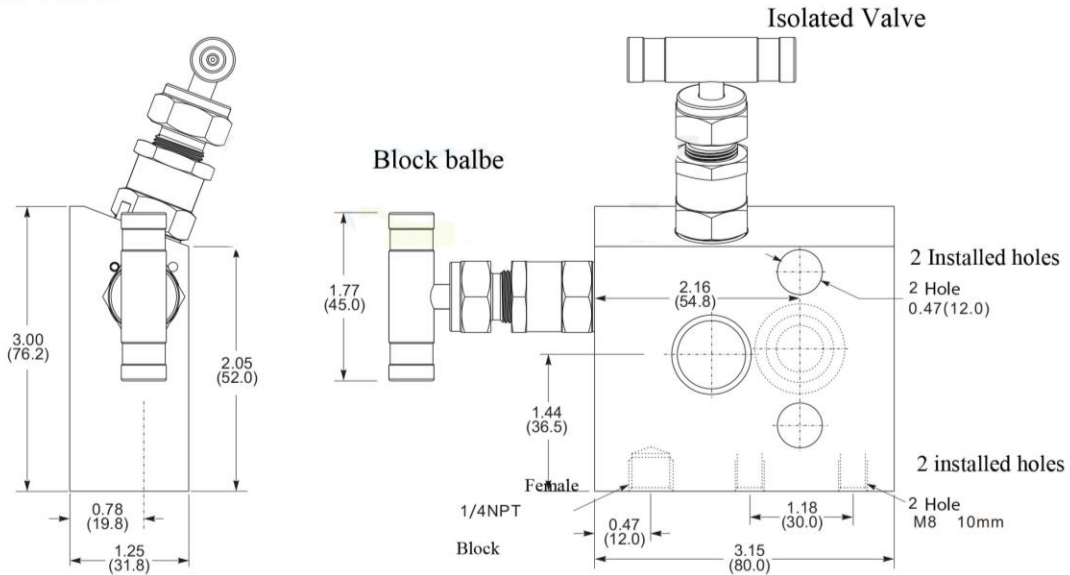
MA Serial Manifold

Two Way Manifold

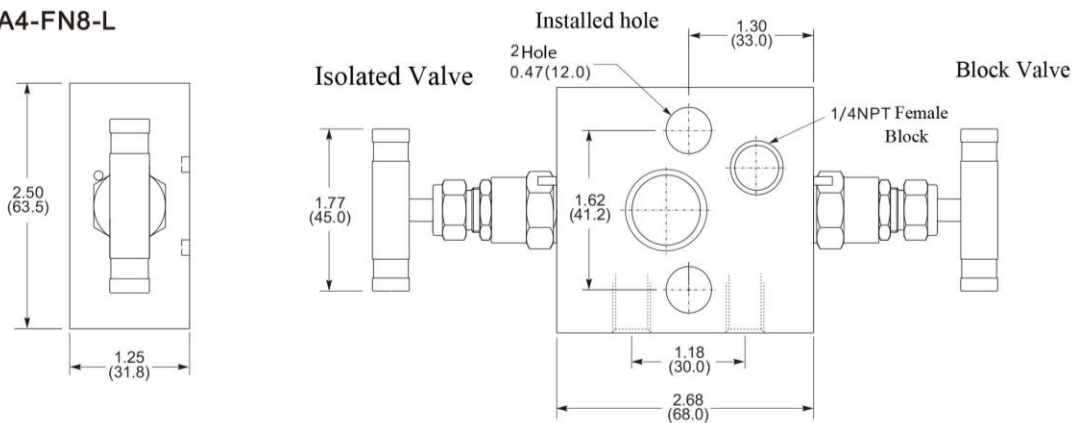
- Directly installed in instrument, such as pressure switch or pressure transmitter
- Manifold contain bolts and seal parts



MA4-FN8-A



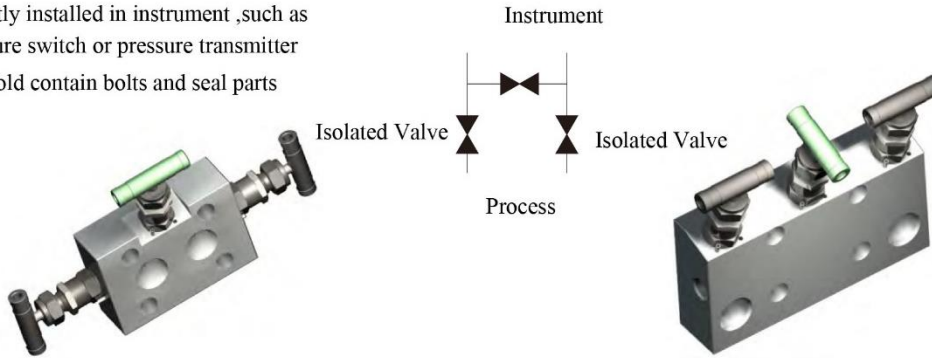
MA4-FN8-L



MA Serial Manifold

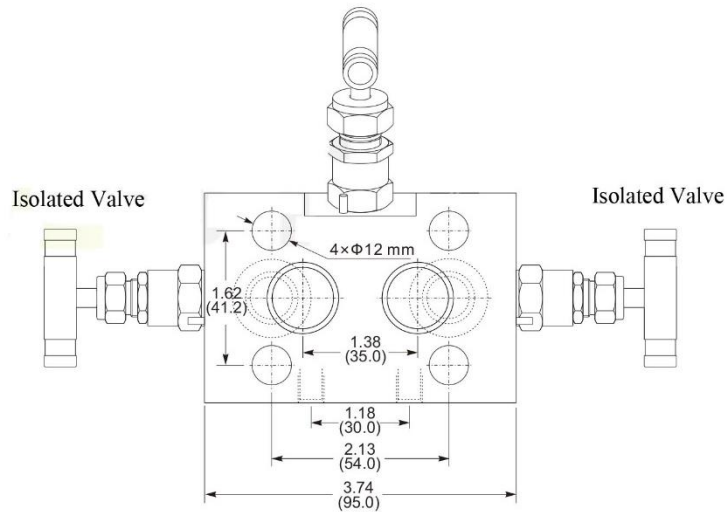
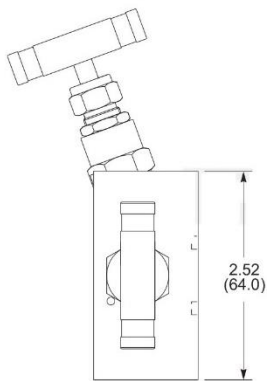
Three Way Manifold

- Directly installed in instrument, such as pressure switch or pressure transmitter
- Manifold contain bolts and seal parts

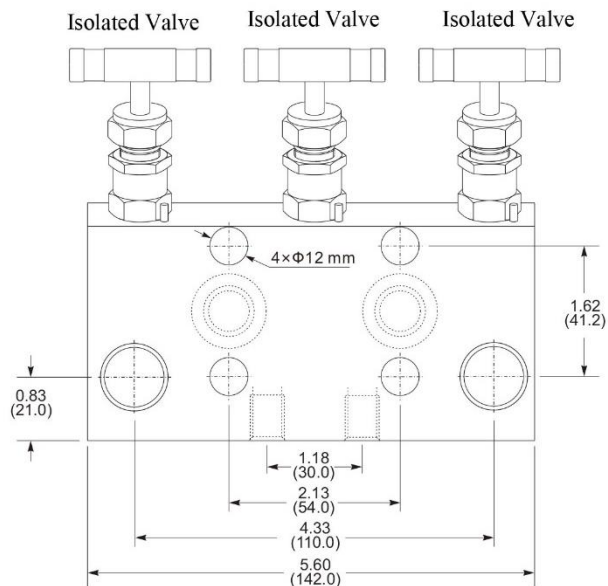
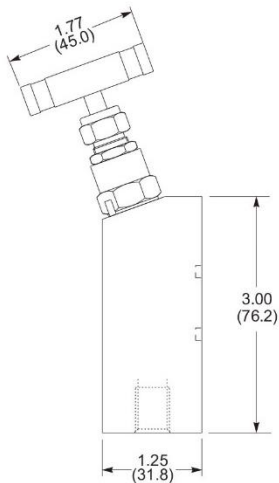


3MA4-FN8-A

Balance Valve



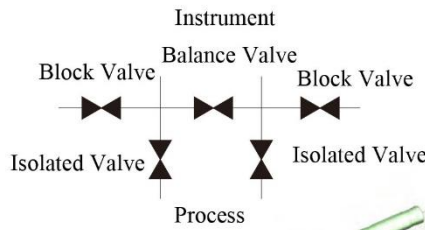
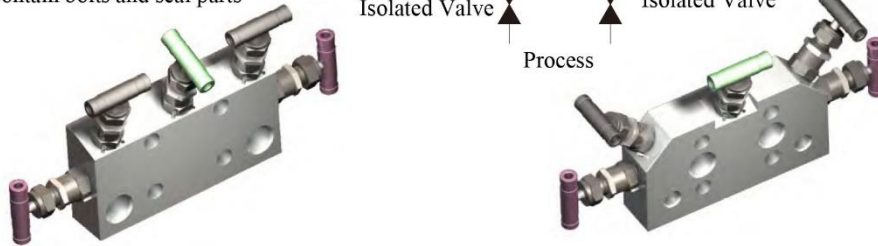
3MA4-FN8-L



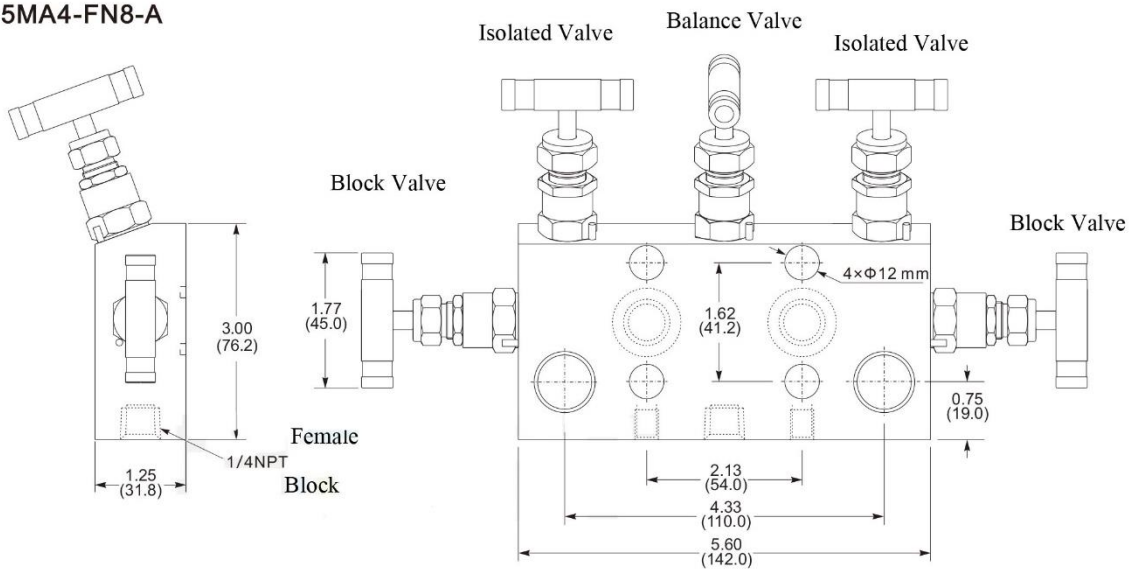
MA Serial Manifold

Five Way Manifold

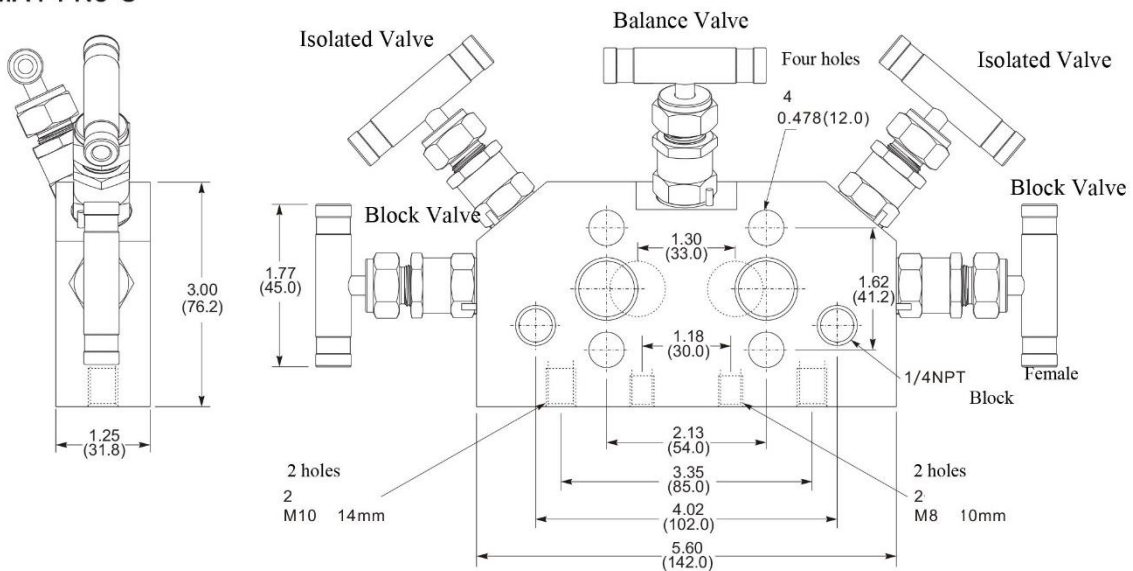
- Directly installed in instrument ,such as pressure switch or pressure transmitter
- Manifold contain bolts and seal parts



5MA4-FN8-A



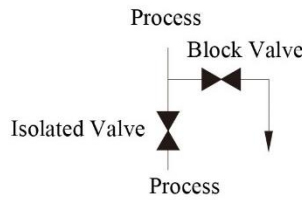
5MA4-FN8-C



MB Serial Manifold

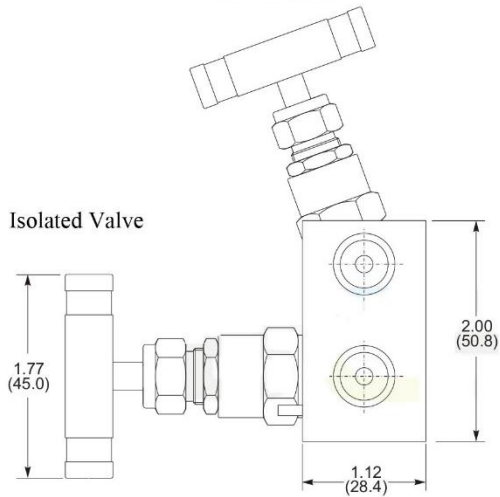
Two way Manifold

- Directly installed in instrument ,such as pressure switch or pressure transmitter
- Manifold contain bolts and seal parts

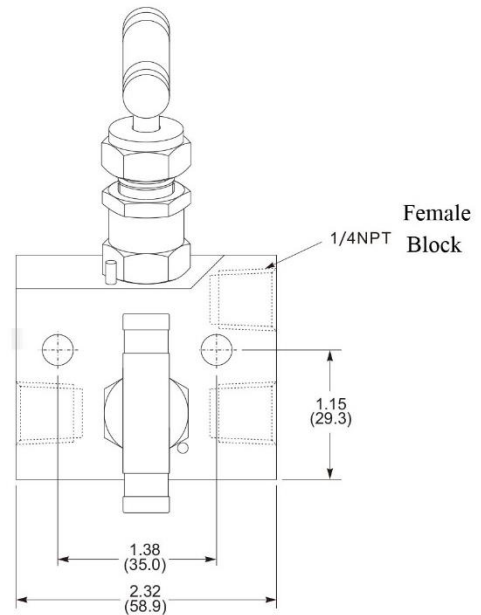


MB4-FN4-A

Block Valve

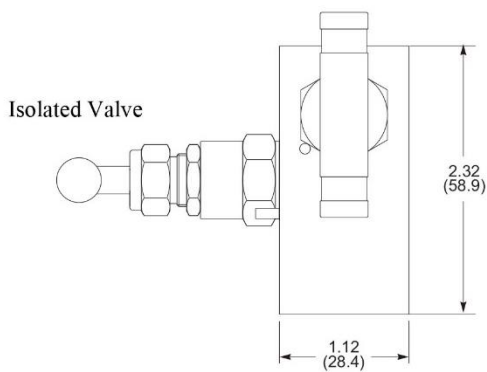


Isolated Valve

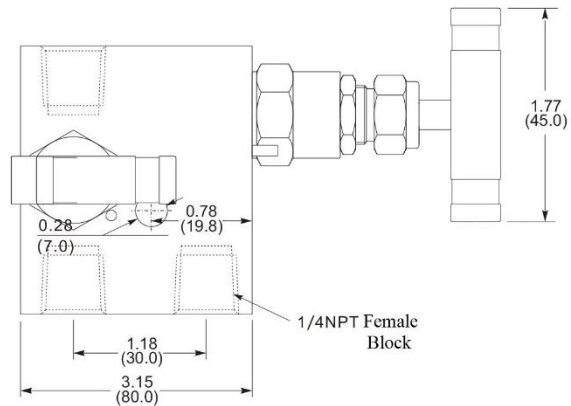


MB4-FN4-C

Block Valve



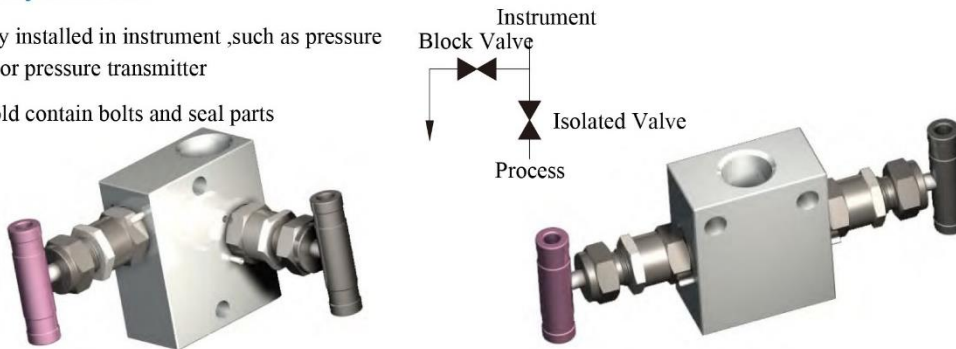
Isolated Valve



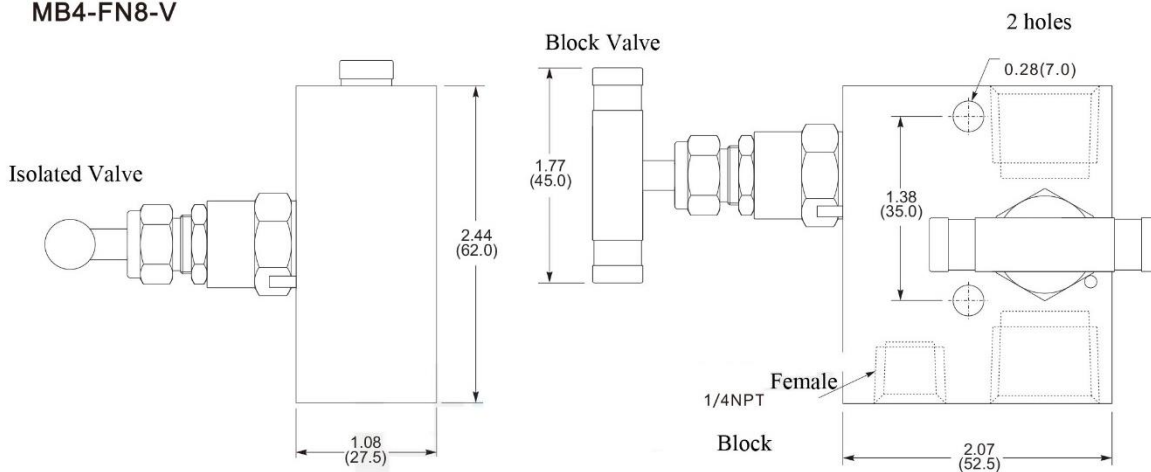
MB Serial Manifold

Two Way Manifold

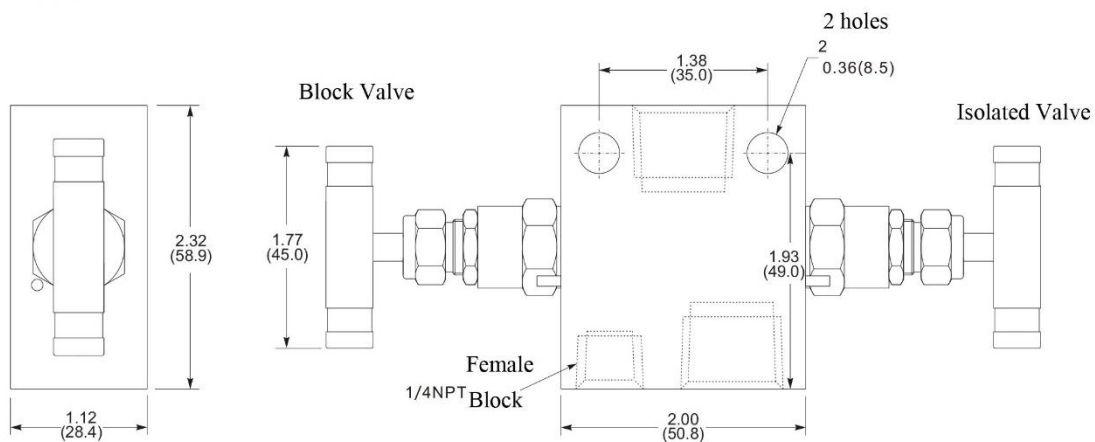
- Directly installed in instrument ,such as pressure switch or pressure transmitter
- Manifold contain bolts and seal parts



MB4-FN8-V



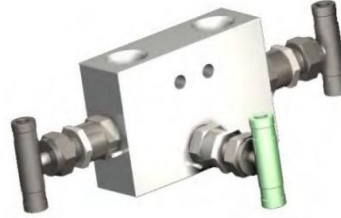
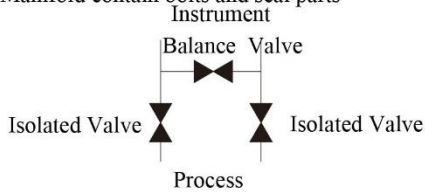
MB4-FN8-L



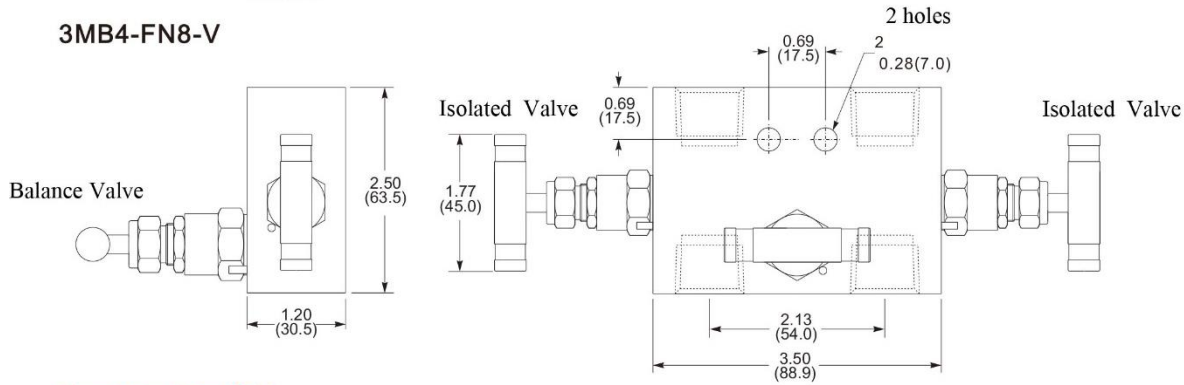
MB Serial Manifold

Three Way Manifold

- Directly installed in instrument ,such as pressure switch or pressure transmitter
- Manifold contain bolts and seal parts

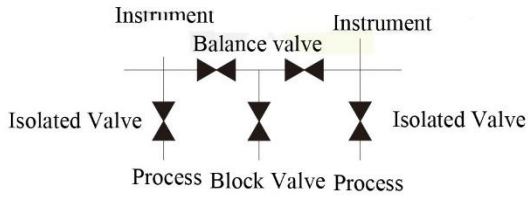


3MB4-FN8-V

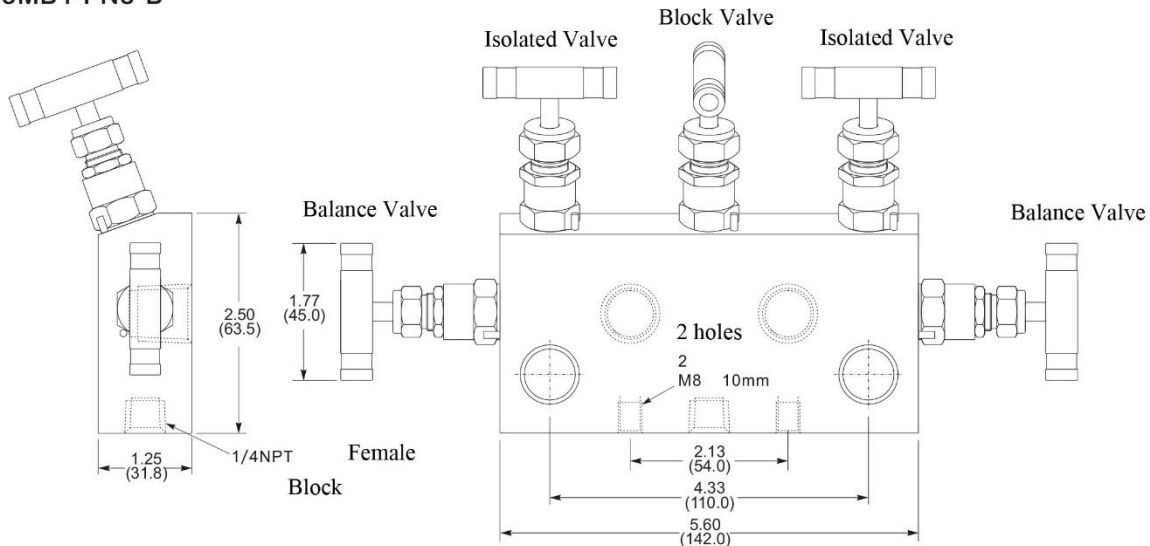


Five Way Manifold

- Directly installed in instrument ,such as pressure switch or pressure transmitter
- Manifold contain bolts and seal parts



5MB4-FN8-B



Option Selection

High temperature packing

- Grafoil valve packing for high temperature usage, pls check Page 3' pressure-temperature degree
- Including Grafoil flange sealing parts on MSS flange. If ordering manifolds with Grafoil packing, pls add '-G' after the ordering code, like: 316-MA4-FN8-A-G

Flange Sealing Material

- MSS flange sealing parts can be made of Grafoil, pure PTFE and strengthened PTFE for compatibility with system
- Pls check the temperature degree at following list When ordering manifolds with MSS flange, add material code after ordering code. Like: 316-MA4-FN8-A-T

MSS Flange sealing Material	Basic ordering code	Temp degree °C (°F)
Pure PTFE	T-MA-PA	-53 to 537 (-65 to 1000)
Strengthened	R-MA-PA	
Grafoil	G-MA-PA	-53 to 121 (-65 to 250)

Erection of set parts

MSS flange fasteners

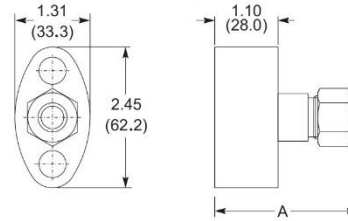
- For the special flange erection, long stud or lag bolt. Pls check the following table for flange fastener types, length, specification and codes
- All the fasteners are of SS with 7/16-20 UNF thread
- Fasteners can be provided for all the MA series manifolds with MSS flange

MSS Flange Fastening	Length in. (mm)	Hexagon Size in.	Fastening Code
Standard hexagon bolt	1.0 (25.4)	5/8	SS-MA-FF-A
Long stud with hexagon nut	2.6 (66.0)	11/16	SS-MA-FF-B
Short hex head bolt	0.875 (22.2)	5/8	SS-MA-FF-C

Pls check the table above if ordering fasteners with flange, like SS-MA-FF-A

MSS Flange

Concentric flange

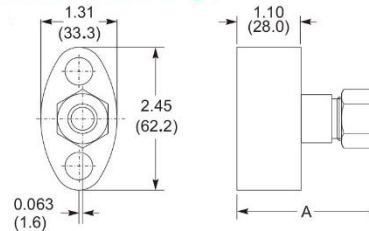


Order information

Concentric flange basic order number	Connection type and size	A in. (mm)
316-CF-F8	1/2 in. T tube connector	2.48 (64.0)
316-CF-TB8	1/2 in. T butt welding	2.10 (53.3)
316-CF-FN4	1/4 in Female NPT	1.10 (28.0)
316-CF-FN8	1/4 in Female NPT	1.10 (28.0)

A set of concentric flange includes a PTFE flange sealing ring and two 7/16-20 UNF hexagon bolt.

Eccentric Flange



Order information

Eccentric flange basic order number	Connection type and size	A in. (mm)
316-EF-F8	1/2 in. T	2.48 (64.0)
316-EF-TB8	1/2 in. T	2.10 (53.3)
316-EF-FN4	1/4 in NPT	1.10 (28.0)
316-EF-FN8	1/4 in NPT	1.10 (28.0)

A set of eccentric flange includes two flanges, two PTFE flange sealing ring and four 7/16-20 UNF

Acid Gas Service

The material of valve body shall be in accordance with NACE MR0175-2003 with ultra strong sulphur vapor stress fracture.

When ordering, pls add-SG after ordering code.

Like: 316-3MA4-FN8-LT-T-SG

MA, MB Flange Model Selection

A 316 - **B** 3 **C** MA **D** 4 - **E** FN **F** 8 - **G** L **H** T - **I** T

A	Body Material							
Material	316 SS	304 SS	Titanium	Alloy 20	Alloy 400	Alloy 600	Alloy C-276	Brass
Code	316	304	TI	20	400	600	C276	BR
B	Manifold Serial							
Name	Two Way Manifold			Three Way Manifold		Five Way Manifold		
Code	2			3		5		
C	Installation							
Name	Directly Installed				Remote Installed			
Code	MA				MB			
D	Hole Dimension							
Name	0.157 in. (4.0mm)				0.236 in. (6.0 mm)			
Code	4				6			
E	Process Connection							
Standard	Chinese	British	Female NPT	Flange	ISO taper F thread	UMB Connector		
Code	M	F	FN	FL	FRC	UMB		
F	Connection Size							
Size	1/4 in.		3/8 in.		1/2 in.		3/4 in.	
Code	4		6		8		12	
Size	6 mm	8 mm	10 mm	12 mm	14 mm	16 mm	20 mm	
Code	6	8	10	12	14	16	20	
G	Body Structure							
Structure	Angle	Double Adjust	Compact	Coaxial	Horizontal	Red Nylon		
	A	B	C	L	H	V		
H	Packing Material							
Material	Graphite				PTFE			
Code	Empty				T			
I	Block Valve							
Name	With out				With			
Code	Empty				T			

① ISO 7/1, BS EN 10226-1, DIN-2999, JIS B0203

According to ISO 7/1, BCS En 10226-1, Din-2999, JIS B0203



FAHM Co.

FARABOARD HOUSHMAND MIHAN

Main Office: Unit 8, 4th Floor, No.37, Tohid St., Tehran, Iran

Tel: +98 21 66123710-13 Fax: +98 21 66123714

Factory: Garmsar Industrial Zone, Sanat 2 St.

E-Mail: sales@faraboard.com