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Valves & Manifolds

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Itec's Instrumentation Valves & Manifolds are designed to protect life for the sophisticated and costly instruments. Used in complex plants needing installation according to certain carefully laid down safeguards for the measurement of pressure, level, flow and critical measuring applications. A wide range of sizes and configurations leading to flexibility of installation, reliability in trouble free service with minimum maintenance.

Features :

- All types of valves have a self centering **needle non rotating** on the valve seat.
- Alternative seating to choose for every application requiring **bubble tight shut off**.
- Shroud (dust cover) with colour identification,
 - Blue - **ISOLATE**
 - Green - **EQUALIZE**
 - Red - **DRAIN / VENT**
- Handle options: T bar metal or circular plastic.
- **Stem type :**
 - CT - 400 bar pressure and high temperature.
 - Hpa - 700 bar pressure and high temperature.
 - V2 - 1400 bar pressure.
 - BD - delrin seat.
 - DS - soft tip.
 - YS - miniature with metal to metal low torque seating.
- Manifold supplied with **anti tamper facility**, specially designed bonnets with locking arrangements and rotatable nuts for flexibility in installations.
- Mounting bracket for **2" NB pipe mounting**.

Application :

Produced under rigid codes of instrumentation industry and Quality Assurance standard **BS 5770/ EN 29002/ ISO 9001:2000** for high pressure use to **withstand repeated open/close operations** essential to critical application :

- Precise regulation and shut off of gases liquids, vacuum and airlines.
- Test benches, manifolds, sampling lines, drains, control panels, vents, etc.
- Suited to control of oil, water, toxic fluids, chemicals, air and steam service.
- Any applications, a wide choice of Series is available.
- Differential measurement of liquid, viscous and gaseous media.
- Equalizing, calibrating, drain-ing or venting.
- Custody transfer
- Solids in suspension.
- Cryogenic and toxic fluids.
- Nuclear service.

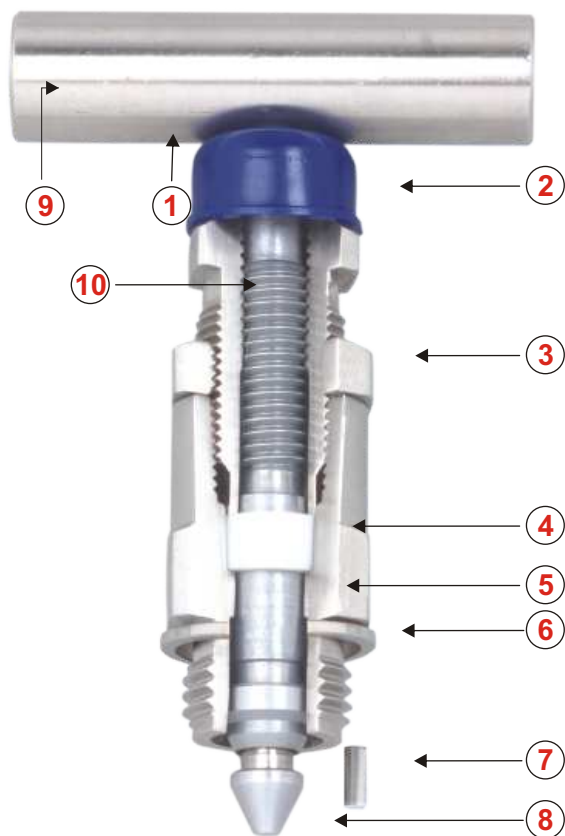
Itec's Series of Instrument Valves and Manifolds are ideal for critical applications of oil and gas industry, onshore and offshore installations, petrochemical processing industries, refineries, power generation including nuclear power stations.

Note : Company have reserved rights to change any dimension without notice.

Construction :

The Valves & Manifolds are generally made from forged bar stock body. They are commonly manufactured in various grade of Stainless Steel , Carbon steel & Monel (Alloy 400) As optional material Hastelloy C and material as per NACE specifications MR-01-75 for sour gas service are available. Valves for use on Oxygen service are provided cleaned, degreased and suitably packed.

Bonnet Assembly :



- 1) Handle.
- 2) Dust Cap.
- 3) Gland body
- 4) Packing (PTFE/ Grafoil)
- 5) Stem
- 6) Ring Washer.
- 7) Locking Pin.
- 8) Conical Tip free to rotate on the stem. Metal seat finish on the cone to grant perfect seal and long endurance.
- 9) Fixing Bolt.
- 10) Retainer

All parts precision machined with a hard seat designed to reduce packing friction giving very low torque operation. Stem seats to prevent unscrewing bonnet assembly of the stainless steel construction.

Cautions :

Control applications require a high response speed from flow measuring instruments hence mounting of these instruments is of paramount importance.

Various types of transmitter mounting are available. However mounting the manifold to the pipe stand is recommended rather than connecting to the transmitter.

TYPE CT

Stem for **standard** needle pattern valves with a specially designed **conical metal end tip**.



- Standard pressure up to 400 bar max.
- High pressure up to 700 bar
- Special valves for 20000 PSI.
- Maximum temperature PTFE 240° C
- Maximum temperature GRAFOIL 538° C

Series available:

- NV4** Needle valves for high pressure isolation of instruments lines.
- GV8** Block and bleed valves for bleeding and venting of the media.
- MGT** Multiport gauge valves for multiple positioning of gauges.
- AVT** Angle pattern needle valves for general application.
- CET** Valves with compression ends.

TYPE DS

A stem design with a metal stem and conical end tip of **Delrin material**. The custom built soft needle tip is particularly effective on **gas service**.



- Standard pressure up to 400 bar
- Temperature - 100° C

Series available:

- GSV** Needle valves specially designed for gas service and liquid applications.
- AVS** Angle pattern needle valves for gas service and liquid application
- CED** Needle valves with compression ends for gas service.

TYPE BD

Rising plug design for applications where **solid particles** contaminate the fluid. The replaceable Delrin soft seat absorbs the contaminates and ensures bubble tight sealing.



- Standard pressure up to 400 bar Max.
- PTFE gland packing
Temperature - 240° C

Series available:

- RPV** Needle valves for high capacity bi-directional flow.
- MPV** Multiport gauge valves for instrument installation ideal for viscous and plugging services.
- CEB** Compression ends valves.

TYPE HPa

Two versions for high pressure applications specially designed stems ensuring long life and bubble tight sealing.



- Pressure 700 bar - 100° C.
- Pressure 400 bar - 240° C.

Series available:

- NV10** Needle valves for high pressure isolation of Instruments lines.
- GV10** Block and bleed valves for bleeding and venting of the media
- MGT10** Multiport gauge valves for multiple positioning of gauges..

TYPE V2

Special design for high pressure application from **15000 PSI to 20000 PSI**. Comprehensive range for most demanding applications in oil and gas industry.



- Pressure up to 1400 bar max.
- Temperature - 240° C

Series available:

- NV20** Needle valves for high pressure isolation of Instruments lines.
- GV20** Block and bleed valves for bleeding and venting of the media

TYPE YS

Standard needle pattern valves. The stem design is of minimum type and is a single piece design.



- Standard pressure up to 200 bar max. with a PTFE gland packing.
- Temperature - 240° C

Series available:

- Y2** Miniature series needle valves for shut off and Flow controls.

INSTRUMENTATION VALVES



NEEDLE VALVE

NV4

Type needle valves with hard seat are designed for use on applications requiring complete isolation or throttling of the media. The conical metal tip (Stem Type CT) press fitted ensures perfect alignment for positive bubble tight shut-off. Available with end connections in sizes from 1/8" to 1" and a wide choice in connections of female screwed, male screwed, male to female screwed or socket weld.

Technical specifications

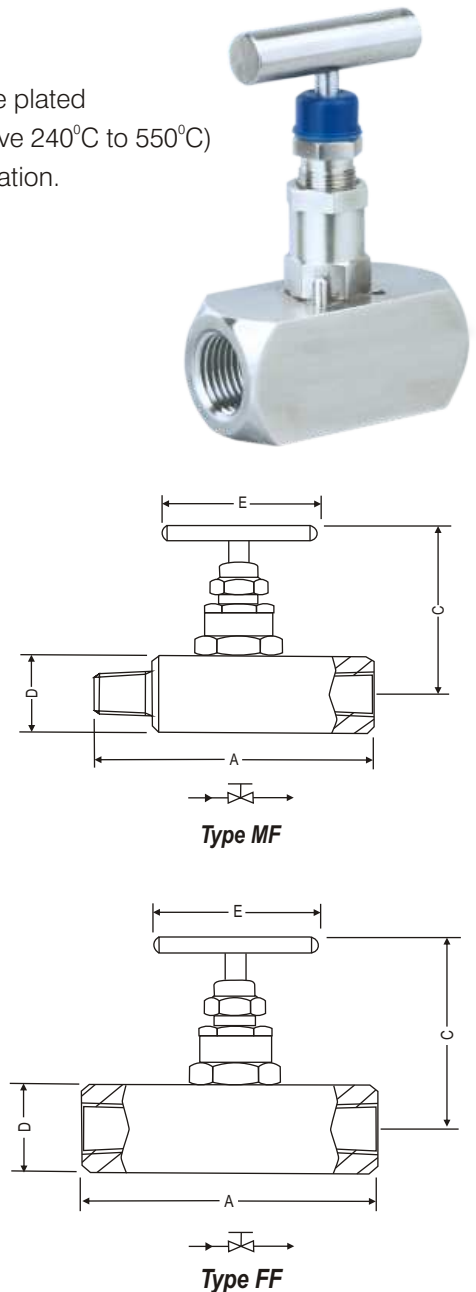
Pressure	:	400 bar
Max temp.	:	240°C
Material	:	Stainless Steel
Stem	:	(Type CT) Conical tip press fitted hard chrome plated
Gland Packing	:	PTFE (Grafoil to be used for temperature above 240°C to 550°C)
Stem packing area	:	Burnished mirror finish for Smooth valve operation.
Safety Feature	:	Back seating for preventing stem blowout.

Size	Type	Length A	Width D	Ht open C	Ht closed C	Handle E
1/8"	FxF	50	22	55	52	40
	MxF	55	22	55	52	40
	MxM	60	22	55	52	40
1/4"	FxF	55	25	63	60.5	40
	MxF	65	25	63	60.5	40
	MxM	60	25	63	60.5	40
3/8"	FxF	55	25	63	60.5	40
	MxF	65	25	63	60.5	40
	MxM	65	25	63	60.5	40
1/2"	FxF	65	32	83.6	79.6	50
	MxF	75	32	83.6	79.6	50
	MxM	70	32	83.6	79.6	50
3/4"	FxF	70	38	88.6	82.6	50
	MxF	75	38	88.6	82.6	50
	MxM	80	38	83.6	79.6	50
1"	FxF	90	45	101	96	50
	MxF	105	45	101	96	50
	MxM	105	45	101	96	50

All dimensions are in mm

Applications

- High pressure line shut off.
- Instrument isolation.
- Gauge isolation.
- Drain valve.
- Liquid and vapor service.



Optional : Also available High pressure valves with stem HPA for 10,000 psi pressure Series no. is NV10
 Also available High pressure valves with stem V2 for 20,000 psi pressure Series no. is NV20

Note : Other combination sizes available on request. Please contact factory for more details.

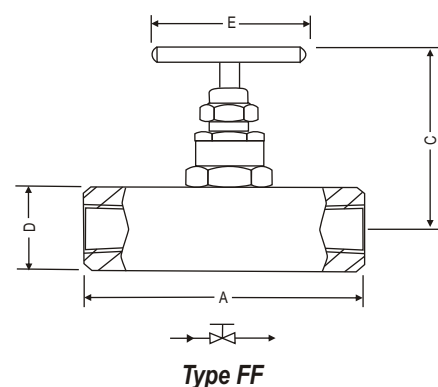
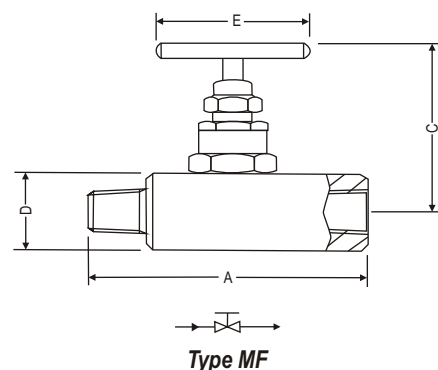
Needle Valve

GSV

Type needle valves with soft seat types are designed for use on applications requiring complete isolation or throttling of the media and for high pressure instrument lines. Ideal for use on gas services and some liquid applications. Specially designed Delrin needle tip (stem type DS) rolled in to the stem assembly in perfect location for positive bubble tight shut-off. Available with end connections in sizes from 1/4" to 1" and a wide choice of female screwed, male to female screwed or socket weld.

Technical specifications

Pressure	:	400 bar
Max temp. in C	:	100°C
Material	:	Stainless steel
Stem	:	(DS)Delrin Soft Needle Tip rolled into the needle
Gland Packing	:	PTFE
Stem packing area	:	Burnished mirror finish for smooth valve operation.
Safety Feature	:	Back seating for preventing stem blowout.



Size	Type	Length	Width	Ht open	Ht closed	Handle
		A	D	C	C	E
1/8"	FxF	50	25	63.5	61	40
	MxF	55	25	63.5	61	40
	MxM	60	25	63.5	61	40
1/4"	FxF	55	25	63.5	61	40
	MxF	65	25	63.5	61	40
	MxM	60	25	63.5	61	40
3/8"	FxF	55	25	63.5	61	40
	MxF	65	25	63.5	61	40
	MxM	65	25	63.5	61	40
1/2"	FxF	65	32	93.5	89.5	50
	MxF	75	32	93.5	89.5	50
	MxM	70	32	93.5	89.5	50
3/4"	FxF	70	38	96.5	92.5	50
	MxF	75	38	96.5	92.5	50
	MxM	80	38	93.5	89.5	50
1"	FxF	90	45	101	96	50
	MxF	105	45	101	96	50
	MxM	105	45	101	96	50

All dimensions are in mm

Applications

- Instrument line shut off.
- Instrument isolation.
- Gauge isolation.
- Drain valve.
- Specially designed for gas service and liquid applications.

Note : Other combination sizes available on request. Please contact factory for more details.

Needle Valve

RPV

Type needle valves with rising plug design meant for use **in applications on fluids containing solid particles** designed to give high capacity bi-directional flow with reliable bubble shut-off. The flow path of the valve is easily roddable on viscous fluid application cleaning. Available with end connections in sizes from 1/4" to 1" and a wide choice of female screwed, male to female screwed or socket weld.

Technical specifications

Pressure	:	400 bar
Max temp.	:	240°C
Seat	:	Delrin
Stem	:	Rising Plug (Type BD)
Stem packing area	:	Burnished mirror finish for smooth valve operation.
Safety Feature	:	Back seating for preventing stem blowout.
Feature	:	Replaceable soft seat which absorbs contaminants and operates in dirty service, with easy maintenance. Straight through design for high capacity bi-directional flow and rodding capabilities.

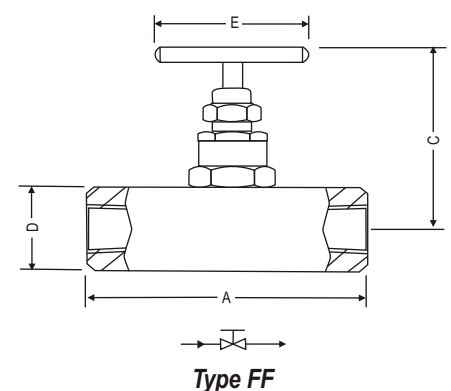
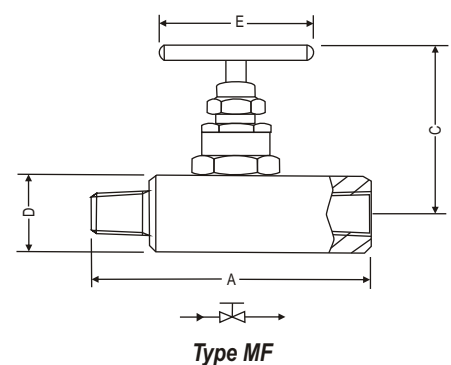


Size	Type	Length A	Width D	Ht open C	Ht closed C	Handle E
1/8"	FxF	50	25	64.5	61	40
	MxF	55	25	64.5	61	40
	MxM	60	25	64.5	61	40
1/4"	FxF	55	25	64.5	61	40
	MxF	65	25	64.5	61	40
	MxM	60	25	64.5	61	40
3/8"	FxF	55	25	64.5	61	40
	MxF	65	25	64.5	61	40
	MxM	65	25	64.5	61	40
1/2"	FxF	65	32	94	87	50
	MxF	75	32	94	87	50
	MxM	80	32	94	87	50
3/4"	FxF	70	38	97	90	50
	MxF	75	38	97	90	50
	MxM	80	38	94	87	50
1"	FxF	90	45	101	96	50
	MxF	105	45	101	96	50
	MxM	105	45	101	96	50

All dimensions are in mm

Applications

- Instrument line shut off.
- Instrument isolation.
- Gauge isolation.
- Drain / vent valve.
- Viscous and plugging service.



Note : Other combination sizes available on request. Please contact factory for more details.

How to order : NV4, NV10, NV20, RPV, GSV,

Needle Valve

Body Material	Stem Packing	Size = P x P1	Connections	Threads
C = Carbon Steel	P = PTFE	24 = 1/4" x 1/4"	FF = Female x Female	N = NPT (ANSI B1.20.1.)
S = SS 316	G = Grafoil	33 = 3/8" x 3/8"	MF = Male x Female	P = BSPP (BS2779)
S4 = SS 304		44 = 1/2" x 1/2"	MM = Male x Male	B = BSPT (BS21)
SL = SS 316L		66 = 3/4" x 3/4"	SW = Socket Weld	
M = Monel 400		88 = 1" x 1"		
H = Hastelloy C				
B = Brass				

Options -

IE : Handle circular plastic.

TF : Sour gas service to NACE standard MR-01-75.

SG: For Oxygen service, valves are supplied cleaned and degreased and suitably packed.

GH: Material test certificate

GO : Hydrotest test certificate

Example -

To place an order simply refer to the codes in the table.

Valve Type : Body Material + Stem Packing + Size + Connections + Threads + Options

NV4 : S + P + 44 + FF + N = NV4 - S - P - 44 - FF - N - Options

Note -

The weld prepared types are available with a male-or-female plain end - suitable for socket weld, or male butt weld end. Always specify pipe schedule and further requirements when ordering valves for welded or Flange connections. Panel mounting option for installation in racks and panels.

Standard Valve Materials

Valve	Body	Bonnet	Stem	Tip
Carbon Steel	CS A105	SS304	SS316	SS316
Stainless Steel	SS316	SS316	SS316	SS316
Monel	Alloy 400	Alloy 400	Alloy 400	Alloy K500

NEEDLE VALVE (Special Series)

NVR

with threaded inlet and outlet port. One end of the valve is provided with a rotating nut.



Rotating End

Applications

- High pressure line shut off.
- Instrument isolation.
- Gauge isolation.
- Liquid and vapor service

NV24

Needle valves are designed for use on application requiring complete isolating or throttling of the media. Available with and connection in size 1½" (NPT, BSP) and a wide choice in connection of female screwed, male screwed etc. Withstands pressure up to 400 bar.



Size 1 1/2"

Applications

- High pressure line shut off.
- Instrument isolation.
- Gauge isolation.
- Liquid and vapor service

NV32

Needle valves are designed for use on application requiring complete isolating or throttling of the media. Available with and connection in size 2" (NPT, BSP) and a wide choice in connection of female screwed, male screwed etc. Withstands pressure up to 400 bar.



Size 2"

Applications

- High pressure line shut off.
- Instrument isolation.
- Gauge isolation.
- Liquid and vapor service

For Further details for above Series please contact factory.

NEEDLE VALVE (Compression end)

CET

Needle Valves with compression ends designed for use on general applications requiring complete isolation and throttling of media. offered with Waaree designed twin ferrules and nuts are available in imperial and metric sizes. Specially designed conical metal tip press fitted ensures perfect alignment for positive bubble tight shut-off. Available with tube end connections in sizes from 6 mm to 12 mm and 1/4" to 1/2" tube or one end screwed to male or female.

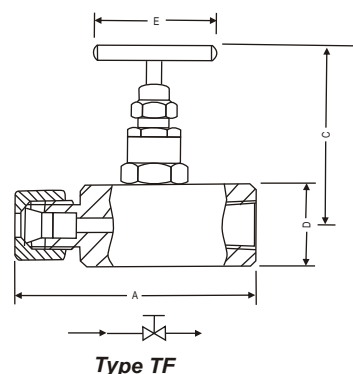
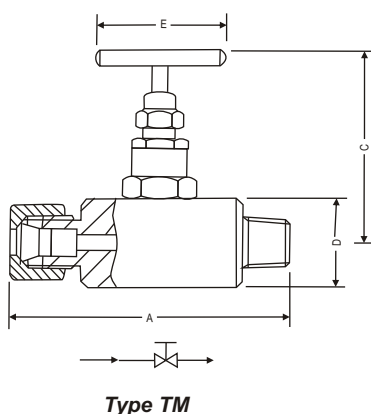
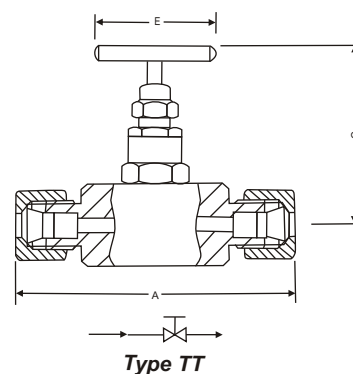
Technical specifications

Pressure	:	400 bar
Max temp.	:	240°C
Material	:	Stainless Steel
Stem	:	(CT) Conical tip press fitted hard chrome plated.
Gland Packing	:	PTFE (Grafoil to be used for temperature above 240°C till 550°C)
Stem packing area	:	Burnished mirror finish for smooth valve operation.
Safety Feature	:	Back seating for preventing stem blowout.



Type	Length A	Width D	Ht open C	Ht closed C	Handle E
6M x 6M	65	25	63	60.5	40
8M x 8M	65	25	63	60.5	40
10M x 10M	65	25	63	60.5	40
12M x 12M	65	32	83.6	79.6	50
1/4" OD x 1/4" NPTF	65	25	63	60.5	40
3/8" OD x 3/8" NPTF	65	25	63	60.5	40
1/2" OD x 1/2" NPTF	65	32	83.6	79.6	50
1/4" OD or 6M x 1/4" NPTM	65	25	63	60.5	40
8m x 1/4" NPTM	65	25	63	60.5	40
3/8" OD or 10M x 3/8" NPTM	65	25	63	60.5	40
1/2" OD or 12M x 1/2" NPTM	72	32	83.6	79.6	50

All dimensions are in mm, base on finger tight position.



Applications

- Instrument isolation
- Media throttling
- Liquid and vapor service.

Note : Other combination sizes available on request. Please contact factory for more details.

NEEDLE VALVE (Compression end)

CEB

Needle Valves with compression ends for use in applications on fluids containing solid particles designed to give high capacity bi-directional flow with reliable bubble tight shut off. The flow path of the valve is easily roddable on viscous fluid application cleaning. Offered with Waaree designed twin ferrules and nuts available in imperial and metric sizes. Available with tube end connections in sizes from 6 mm to 12 mm and 1/4" to 1/2" tube or one end screwed to male or female.

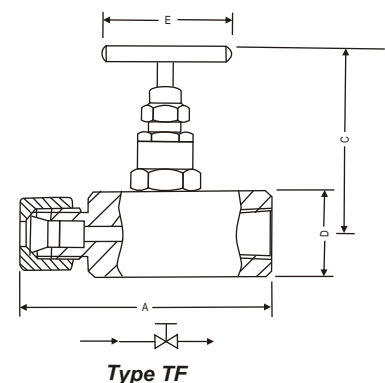
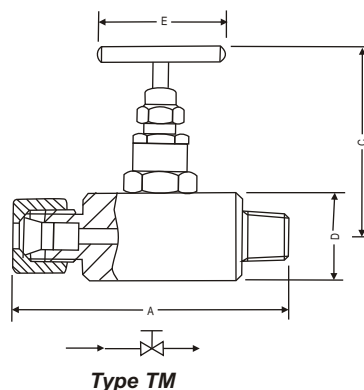
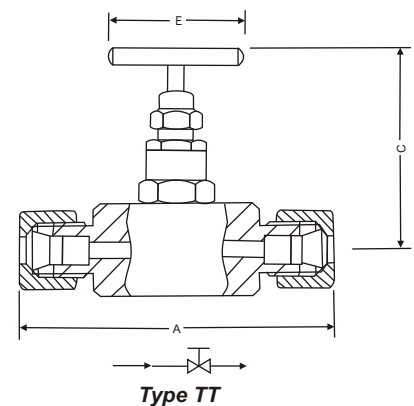
Technical specifications

Pressure : 400 bar
 Max temp. : 240°C
 Stem : Rising Plug (Type BD)
 Stem packing area : Burnished mirror finish for smooth valve operation.
 Safety Feature : Back seating for preventing stem blowout.
 Feature : Replaceable soft seat which absorbs contaminants and operates in dirty service, with easy maintenance. Straight through design for high capacity bi-directional flow and rodding capabilities.



Type	Length A	Width D	Ht open C	Ht closed C	Handle E
6M x 6M	65	25	64.5	61	40
8M x 8M	65	25	64.5	61	40
10M x 10M	65	25	64.5	61	40
12M x 12M	65	32	94	87	50
1/4" OD x 1/4" NPTF	65	25	64.5	61	40
3/8" OD x 3/8" NPTF	65	25	64.5	61	40
1/2" OD x 1/2" NPTF	65	32	94	87	50
1/4" OD or 6M x 1/4" NPTM	65	25	64.5	61	40
8M x 1/4" NPTM	65	25	64.5	61	40
3/8" OD or 10M x 3/8" NPTM	65	25	64.5	61	40
1/2" OD or 12M x 1/2" NPTM	72	32	94	87	50

All dimensions are in mm, base on finger tight position.



Applications

- Instrument isolation
- Media throttling
- Liquid and vapor service.

Note : Other combination sizes available on request. Please contact factory for more details.

NEEDLE VALVE (Compression end)

CED

Needle Valves with compression end is specially designed for use on general applications requiring complete isolation or throttling of media. Ideal for use on gas services and some liquid applications. offered with Waaree designed twin ferrules and nuts available in imperial and metric sizes. Specially designed soft Delrin needle tip rolled into the stem assembly in perfect location for positive bubble tight shut-off. Available with end connections in sizes from 6mm to 12mm and 1/4" to 1/2" tube with one end screwed to male or female.

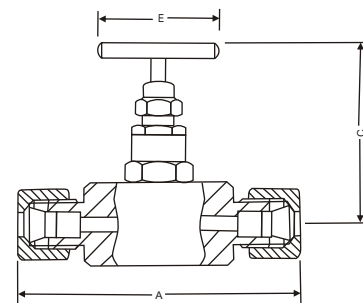
Technical specifications

- Pressure : 400 bar
- Max temp. : 100°C
- Stem : Type (DS) Delrin soft needle tip rolled into the needle.
- Material : Stainless Steel
- Gland Packing : PTFE
- Stem packing area : Burnished mirror finish for smooth valve operation.
- Safety Feature : Back seating for Preventing stem blowout.

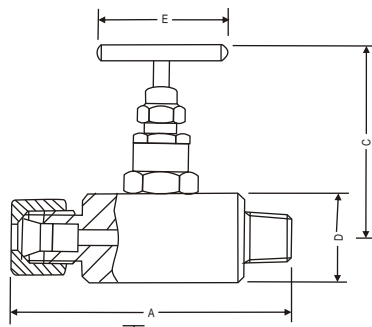


Type	Length A	Width D	Ht open C	Ht closed C	Handle E
6M x 6M	65	25	63.5	61	40
8M x 8M	65	25	63.5	61	40
10M x 10M	65	25	63.5	61	40
12M x 12M	65	32	93.5	89.5	50
1/4" OD x 1/4" NPTF	65	25	63.5	61	40
3/8" OD x 3/8" NPTF	65	25	63.5	61	40
1/2" OD x 1/2" NPTF	65	32	93.5	89.5	50
1/4" OD or 6M x 1/4" NPTM	65	25	63.5	61	40
8M x 1/4" NPTM	65	25	63.5	61	40
3/8" OD or 10M x 3/8" NPTM	65	25	63.5	61	40
1/2" OD or 12M x 1/2" NPTM	72	32	93.5	89.5	50

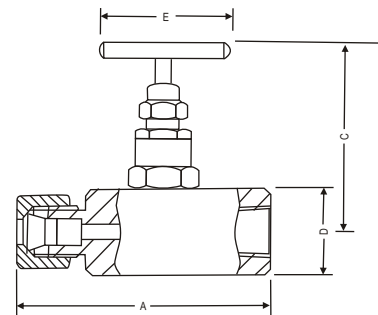
All dimensions are in mm, base on finger tight position.



Type TT



Type TM



Type TF

Applications

- Instrument isolation
- Media throttling
- Liquid and vapor service.

Note : Other combination sizes available on request. Please contact factory for more details.

How to order : CET, CEB, CED **NEEDLE VALVE (Compression end)**

Body Material	Stem Packing	Size = P x P1	Connections	Threads
C = Carbon Steel	P = PTFE	6M = 6x6mm OD	TT = Tube x Tube	N = NPT (ANSI B1.20.1.)
S = SS 316	G = Grafoil	8M = 8x8mm OD	TM = Tube x Male	P = BSPF (BS2779)
S4 = SS 304		10M = 10x10mm OD	TF = Tube x Female	B = BSPT (BS21)
SL = SS 316L		12M = 12 x 12mm OD		
M = Monel 400		4T = 1/4" x 1/4" OD		
H = Hastelloy C		6T = 3/8" x 3/8" OD		
B = Brass		8T = 1/2" x 1/2" OD		
		4 = 1/4"OD x 1/4" thread		
		6 = 3/8"OD x 3/8" thread		
		8 = 1/2"OD x 1/2" thread		

Options -

IE : Handle circular plastic.

TF : Sour gas service to NACE standard MR-01-75.

SG: For Oxygen service, valves are supplied cleaned and degreased and suitably packed.

GH: Material test certificate

GO : Hydrotest test certificate

Example -

To place an order simply refer to the codes in the table.

Valve Type : **Body Material** + **Stem Packing** + **Size** + **Connections** + **Threads** = Options

CET + C + G + 6T + TT + N = CET - C - G - 6T - TT - N - Options

Note -

The weld prepared types are available with a male-or-female plain end - suitable for socket weld, or male butt weld end. Always specify pipe schedule and further requirements when ordering valves for welded or Flange connections. Panel mounting option for installation in racks and panels.

Standard Valve Materials

Valve	Body	Bonnet	Stem	Tip
Carbon Steel	CS A105	SS304	SS316	SS316
Stainless Steel	SS316	SS316	SS316	SS316
Monel	Alloy 4000	Alloy 4000	Alloy 4000	Alloy 5000

Block & Bleed Valve

GV8

GV8 type gauge valve is a block and bleed needle pattern gauge valve with specially designed integral bleed. Ideal for use on applications requiring bleeding or venting of media. Self centering needle non-rotating, on the valve seat. The conical metal tip (stem type CT) press fitted ensures perfect alignment for positive bubble tight shut-off. Standard end connections are male inlet and female outlet or female inlet and female outlet from 1/4" to 3/4".

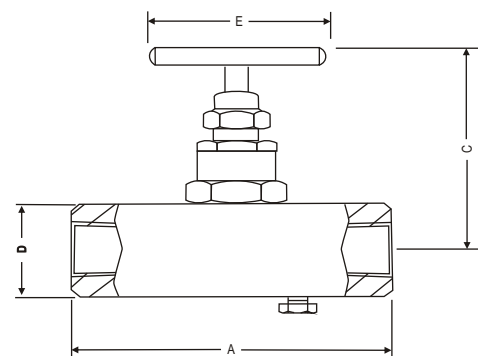
Technical specifications

- Pressure : 400 bar
- Max temp. : 240°C
- Material : Stainless Steel
- Stem : (CT) Conical tip press fitted hard chrome plated.
- Gland Packing : PTFE (Grafoil used for temperature above 240°C to 550°C)
- Stem packing area : Burnished mirror finish for smooth valve operation.
- Safety Feature : Back seating for Preventing stem blowout.

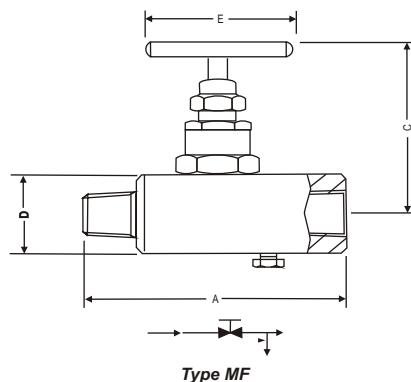


Size	Type	Length A	Width D	Ht open C	Ht closed C	Handle E
1/4"	FxF	70	25	63	60.5	40
	MxF	70	25	63	60.5	40
	MxM	75	25	63	60.5	40
3/8"	FxF	70	25	63	60.5	40
	MxF	70	25	63	60.5	40
	MxM	75	25	63	60.5	40
1/2"	FxF	75	32	83.6	79.6	50
	MxF	83	32	83.6	79.6	50
	MxM	88	32	83.6	79.6	50
3/4"	FxF	75	38	86.6	82.6	50
	MxF	83	38	86.6	82.6	50
	MxM	88	38	83.6	79.6	50

All dimensions are in mm.



Type FF



Type MF

Applications

- Installation of instrument and gauge.
- Isolation of Instrument.
- Venting of Instrument.
- Liquid and vapor service

Optional : Also available High pressure valves with stem HPA for 10,000 psi pressure Series no. is GV10
 Also available High pressure valves with stem V2 for 20,000 psi pressure Series no. is GV20

Note : Other combination sizes available on request. Please contact factory for more details.

How to order : GV8, GV10, GV20

Block & Bleed Valve

Body Material	Stem Packing	Size	Connections (inlet x outlet)	Threads
C = Carbon Steel	P = PTFE	24 = 1/4" x 1/4"	FF = Female x Female	N = NPT (ANSI B1.20.1.)
S = SS 316	G = Grafoil	33 = 3/8" x 3/8"	MF = Male x Female	P = BSPP (BS2779)
S4 = SS 304		44 = 1/2" x 1/2"	MM = Male x Male	B = BSPT (BS21)
SL = SS 316L		66 = 3/4" x 3/4"	SW = Socket Weld	
M = Monel 400				
H = Hastelloy C				
B = Brass				

Options -

IE : Handle circular plastic.

TF : Sour gas service to NACE standard MR-01-75.

SG: For Oxygen service, valves are supplied cleaned and degreased and suitably packed.

D4 : 1/4" NPT (F) drain instead of M8 bleed

GH: Material test certificate

GO : Hydrotest test certificate

Example -

To place an order simply refer to the codes in the table.

Valve Type : Body Material + Stem Packing + Size + Connections + Threads + Options

GV8 + S + P + 44 + MF + N = GV8 - S - P - 44 - MF - N - Options

Note -

The weld prepared types are available with a male-or-female plain end - suitable for socket weld, or male butt weld end. Always specify pipe schedule and further requirements when ordering valves for welded or Flange connections. Panel mounting option for installation in racks and panels.

Standard Valve Materials

Valve	Body	Bonnet	Stem	Tip
Carbon Steel	CS A105	SS304	SS316	SS316
Stainless Steel	SS316	SS316	SS316	SS316
Monel	Alloy 400	Alloy 400	Alloy 400	Alloy K500

Multi Port Valve

MPV

Type multiport gauge valve, being a completely roddable multi-outlet gauge valve, is most suitable for viscous applications and plugging services. Useable on gauge or instrument installations without additional penetration of the main piping for versatile multiple positioning purpose. The flow path of the valve is easily roddable on viscous fluid application cleaning. Available with a male inlet and three female outlet ports or female inlet and three female outlets. Main inlet either screwed or prepared for welding. Bleed valves and plugs to suit outlet ports supplied optional.

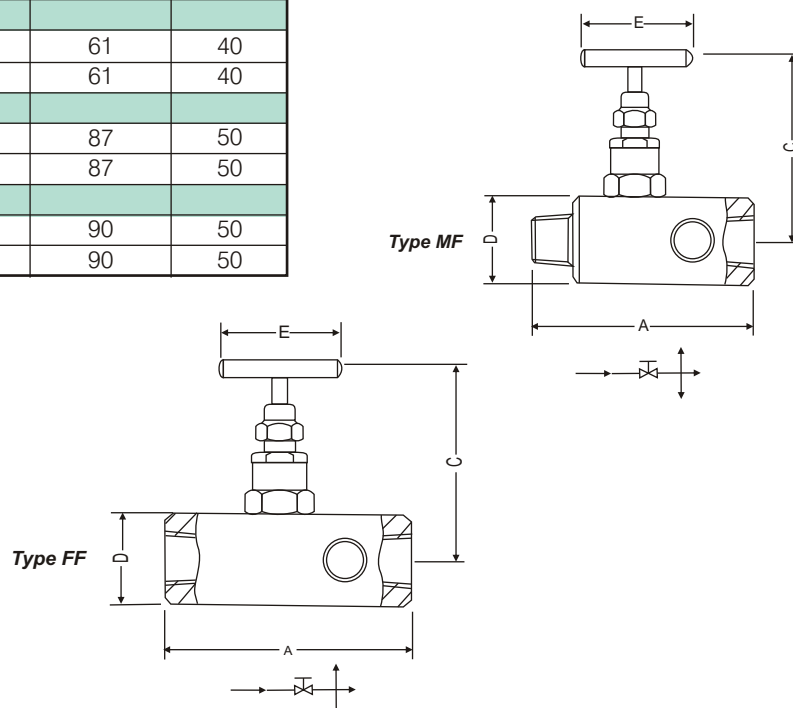
Technical specifications

- Pressure : 400 bar
- Max temp. : 240°C
- Multi outlet design up to 4" for pipe insulation extended valve inlet.
- Stem : (Type BD)
- Stem packing area : Burnished mirror finish for smooth valve operation
- Features : Replaceable soft seat which absorbs contaminants and operates in dirty service. Straight through design for high capacity bi-directional flow and rodding capabilities.



Size	Type	Length A	Width D	Ht open C	Ht closed C	Handle E
1/4"	FxF	74	25	64.5	61	40
	MxF	84	25	64.5	61	40
3/8"	FxF	74	25	64.5	61	40
	MxF	84	25	64.5	61	40
1/2"	FxF	102	32	94	87	50
	MxF	115	32	94	87	50
3/4"	FxF	102	38	97	90	50
	MxF	115	38	97	90	50

All dimensions are in mm



Applications

- Multiple gauge or instrument mounting
- Instrument isolation
- Instrument installation with separate vents and calibrate connections
- Liquid and vapor gas service

Note : Other combination sizes available on request. Please contact factory for more details.

Multi Port Valve

MGT

Type multiport gauge valves are ideal for use on gauge or instrument installations without further penetrations of the main piping. A gauge valve with multiple outlets and inlets with in various sizes and connections. The standard three 1/2" NPT female screwed outlet ports offer a flexibility of alternative applications. Available with a male inlet and three female outlet ports or female inlet and three female outlets. Bleed valves and plugs to suit outlet ports supplied optional.

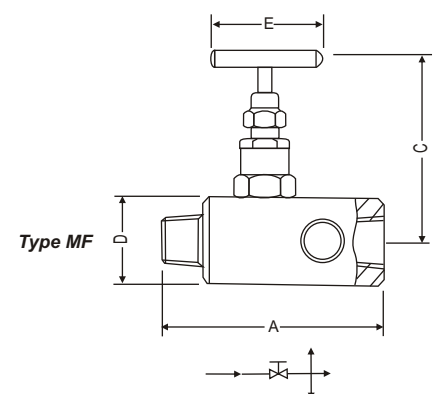
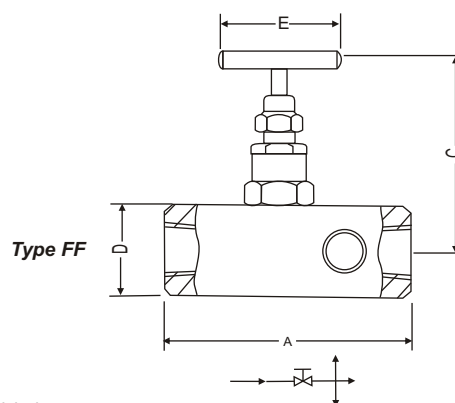
Technical specifications

- Pressure : 400 bar
- Max temp. : 240°C
- Stem : (Type CT) Conical tip press fitted hard chrome plated
- Gland Packing : PTFE (Grafoil to be used for temperature above 240°C till 550°C)
- Stem packing area : Burnished mirror finish for smooth valve operation.
- Safety Feature : Back seating for preventing stem blowout.
- Feature : Multi outlet design extended valve inlet up to 4" max. for pipe insulation.



Size	Type	Length A	Width D	Ht open C	Ht closed C	Handle E
1/4"	FxF	74	25	63	60.5	40
	MxF	84	25	63	60.5	40
3/8"	FxF	74	25	63	60.5	40
	MxF	84	25	63	60.5	40
1/2"	FxF	102	32	83.6	79.6	50
	MxF	115	32	83.6	79.6	50
3/4"	FxF	102	38	86.8	82.6	50
	MxF	115	38	86.6	82.6	50

All dimensions are in mm



Applications

- Mounting of instruments or multiple gauges
- Instrument isolation
- Instrument installation with separate vents and calibrate connections
- Liquid and vapor gas service

Optional : Also available High pressure valves with stem HPa for 10,000 psi pressure Series no. is MGT10
 Also available High pressure valves with stem V2 for 20,000 psi pressure Series no. is MGT20

Note : Other combination sizes available on request. Please contact factory for more details.

How to order : MPV, MGT, MGT10, MGT20

Multi Port Valve

Body Material	Stem Packing	Size = P x P1	Connections	Threads
C = Carbon Steel	P = PTFE	24 = 1/4" x 1/4"	FF = Female x Female	N = NPT (ANSI B1.20.1.)
S = SS 316	G = Grafoil	44 = 1/2" x 1/2"	MF = Male x Female	P = BSPP (BS2779)
S4 = SS 304		46 = 1/2" x 3/4"	SW = Socket Weld	B = BSPT (BS21)
SL = SS 316L		64 = 3/4" x 1/2"	FL = Female x extended long body end	
M = Monel 400		66 = 3/4" x 3/4"		
H = Hastelloy C				
B = Brass				

Options -

IE : Handle circular plastic.

TF : Sour gas service to NACE standard MR-01-75.

SG: For Oxygen service, valves are supplied cleaned and degreased and suitably packed.

GH: Material test certificate

GO : Hydrotest test certificate

Example -

To place an order simply refer to the codes in the table.

Valve Type : Body Material + Stem Packing + Size + Connections + Threads + Options

MGT + S + P + 44 + MF + N = MGT - S - P - 44 - MF - N - Options

Note -

The weld prepared types are available with a male-or-female plain end - suitable for socket weld, or male butt weld end.

Always specify pipe schedule and further requirements when ordering valves for welded or Flange connections. Panel mounting option for installation in racks and panels.

Standard Valve Materials

Valve	Body	Bonnet	Stem	Tip
Carbon Steel	CS A105	SS304	SS316	SS316
Stainless Steel	SS316	SS316	SS316	SS316
Monel	Alloy 4000	Alloy 4000	Alloy 4000	Alloy 5000

Miniature Valve

Y2

Type miniature compact design needle valves are ideal for bubble tight shut-off in applications where space is at a premium. The mini series are available with metal to metal low torque seating (Stem Type YS). Available with end connections in sizes 1/8" to 1/4" and as pipe connections.

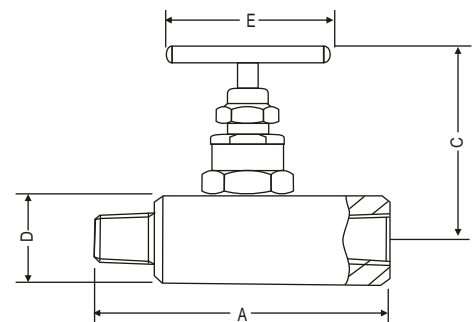
Technical specifications

Pressure	:	200 bar
Max temp.	:	240°C
Gland Packing	:	PTFE
Stem packing area	:	Burnished mirror finish for smooth valve operation.
Safety Feature	:	Back seating for preventing stem blowout.
Feature	:	Metal to metal seating Material Stainless Steel

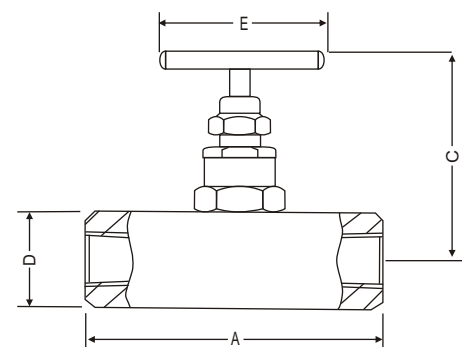


Size	Type	Length A	Width D	Ht open C	Ht closed C	Handle E
1/8"	FxF	50	22	56	54	40
	MxF	56	22	56	54	40
	MxM	60	22	56	54	40
1/4"	FxF	55	22	56	54	40
	MxF	65	22	56	54	40
	MxM	60	22	56	54	40

All dimensions are in mm



Type MF



Type FF

Applications

- Instrument air lines
- Control panels
- Air header assemblies
- Gas sampling
- Laboratory equipment
- Instrument isolation
- Control loops
- Gas and liquid service

Note : Other combination sizes available on request. Please contact factory for more details.

How to order : Y2

Miniature Valve

Body Material	Stem Packing	Size = P x P1	Connections	Threads
S = SS 316	P = PTFE	22 = 1/8" x 1/8"	FF = Female x Female	N = NPT (ANSI B1.20.1.)
S4 = SS 304		24 = 1/4" x 1/4"	MF = Male x Female	P = BSPP (BS2779)
SL = SS 316L			MM = Male x Male	B = BSPT (BS21)
B = Brass				

Options -

IE : Handle circular plastic.

TF : Sour gas service to NACE standard MR-01-75.

SG: For Oxygen service, valves are supplied cleaned and degreased and suitably packed.

GH: Material test certificate

GO : Hydrotest test certificate

Example

To place an order simply refer to the codes in the table.

Valve Type : Body Material + Stem Packing + Size + Connections + Threads + Options

Y2 + S + P + 24 + FF + N = Y2 - S - P - 24 - FF - N - Options

Note -

The weld prepared types are available with a male-or-female plain end - suitable for socket weld, or male butt weld end.

Always specify pipe schedule and further requirements when ordering valves for welded or Flange connections. Panel mounting option for installation in racks and panels.

Standard Valve Materials

Valve	Body	Bonnet	Stem	Tip
Carbon Steel	CS A105	SS304	SS316	SS316
Stainless Steel	SS316	SS316	SS316	SS316

Angle Valve

AVS

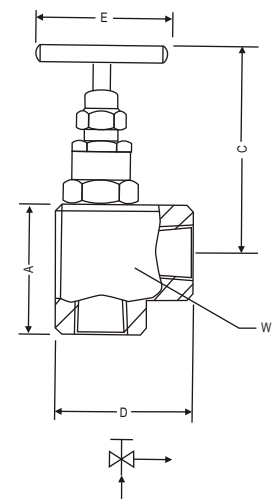
Type angle pattern needle valve designed for use in on general applications requiring complete isolation or throttling of the media. Ideal for use on gas services and some liquid applications. Produce as standard angle body at 90 degrees. Angle body 45 degrees optional. Specially designed soft Delrin needle tip (type **DS**) rolled in to the stem assembly in perfect location for positive bubble tight shut-off. Available with end connections in sizes from 1/4" to 1/2" and a wide choice of female screwed, male to female screwed or socket weld.

Technical specifications

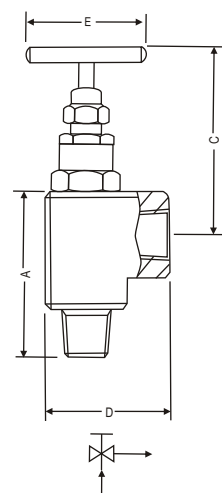
- Pressure : 400 bar
- Max temp. : 100°C
- Material : Stainless steel
- Stem : (Type DS) Delrin Soft Needle Tip rolled into the needle
- Gland Packing : PTFE
- Stem packing area : Burnished mirror finish for smooth valve operation.
- Safety Feature : Back seating for Preventing stem blowout.

Size	Type	Body dimensions			Ht open	Ht closed	Handle
		A	D	W	C	C	
1/4"	FxF	32	32	25	63	60.5	40
	MxF	48	32	25	63	60.5	40
	MxM	48	48	25	63	60.5	40
3/8"	FxF	32	32	25	63	60.5	40
	MxF	48	32	25	63	60.5	40
	MxM	48	48	25	63	60.5	40
1/2"	FxF	50	50	32	95.5	91	50
	MxF	70	50	32	95.5	91	50
	MxM	70	70	32	95.5	91	50

All dimensions are in mm



Type FF



Type MF

Applications

- Instrument line shut off.
- Instrument and gauge isolation.
- Drain valve.
- Specially designed for gas service.

Note : Other combination sizes available on request. Please contact factory for more details.

Angle Valve

AVT

Type angle pattern needle valves designed for use on general applications requiring complete isolation and throttling of media. Produced as standard angle body at 90 degrees. Specially designed conical metal tip (type CT) ensures perfect alignment for positive bubble tight shut-off. Available with end connections in sizes from 1/4" to 1/2" and a wide choice of female screwed, male to female screwed or socket weld.

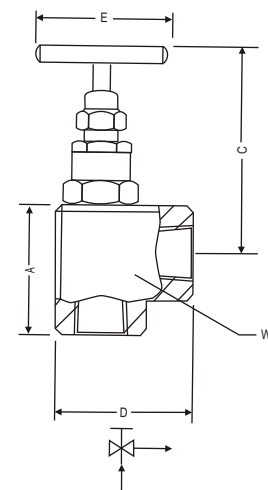
Technical specifications

Pressure	:	400 bar
Max temp.	:	240°C
Needle Tip	:	Stainless Steel
Material	:	Stainless Steel
Stem	:	(Type CT) Conical tip press fitted hard chrome plated
Gland Packing	:	PTFE (Grafoil for temperature above 240°C to 550°C)
Stem packing area	:	Burnished mirror finish for smooth valve operation.
Safety Feature	:	Back seating for preventing stem blowout.

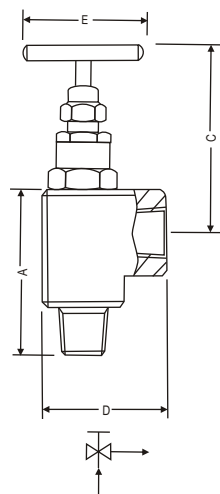


Size	Type	Body dimensions			Ht open	Ht closed	Handle
		A	D	W	C	C	
1/4"	FxF	32	32	25	62	59.5	40
	MxF	48	32	25	62	59.5	40
	MxM	48	48	25	62	59.5	40
3/8"	FxF	32	32	25	62	59.5	40
	MxF	48	32	25	62	59.5	40
	MxM	48	48	25	62	59.5	40
1/2"	FxF	50	50	32	86.6	82.6	50
	MxF	70	50	32	86.6	82.6	50
	MxM	70	70	32	86.6	82.6	50

All dimensions are in mm



Type FF



Type MF

Applications

- High pressure instrument line shut off.
- Instrument and gauge isolation.
- Drain valve.
- Liquid and vapor service.

Note : Other combination sizes available on request. Please contact factory for more details.

How to order : AVS, AVT

Angle Valve

Body Material	Stem Packing	Size = P x P1	Connections	Threads
C = Carbon Steel	P = PTFE	24 = 1/4" x 1/4"	FF = Female x Female	N = NPT (ANSI B1.20.1.)
S = SS 316	G = Grafoil	33 = 3/8" x 3/8"	MF = Male x Female	P = BSPP (BS2779)
S4 = SS 304		44 = 1/2" x 1/2"	MM = Male x Male	B = BSPT (BS21)
SL = SS 316L			SW = Socket Weld	
M = Monel 400				
H = Hastelloy C				
B = Brass				

Options -

IE : Handle circular plastic.

TF : Sour gas service to NACE standard MR-01-75.

SG: For Oxygen service, valves are supplied cleaned and degreased and suitably packed.

GH: Material test certificate

GO : Hydrotest test certificate

Example -

To place an order simply refer to the codes in the table.

Valve Type : Body Material + Stem Packing + Size + Connections + Threads + Options

AVS + H + G + 44 + MM + N = AVS - H - G - 44 - MM - N - Options

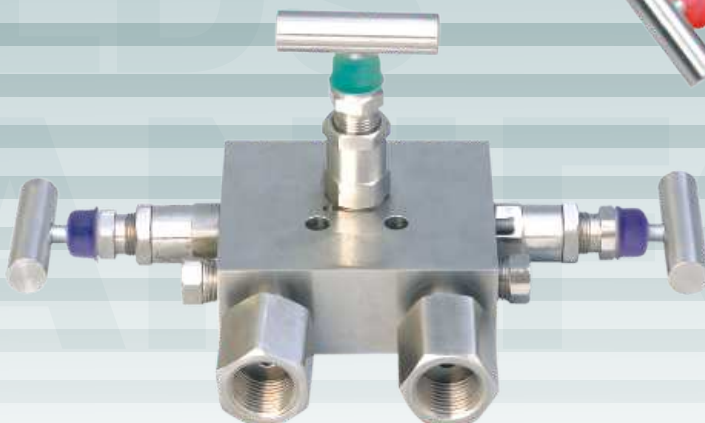
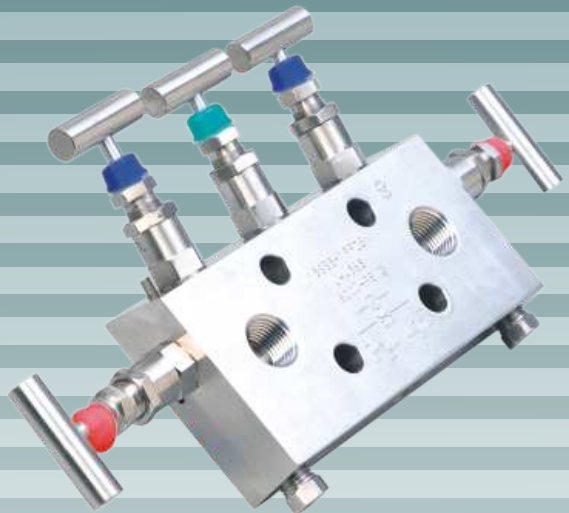
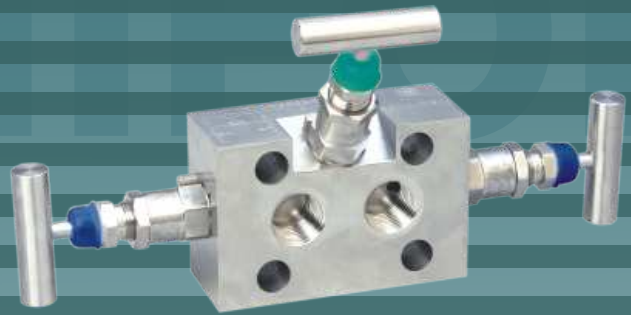
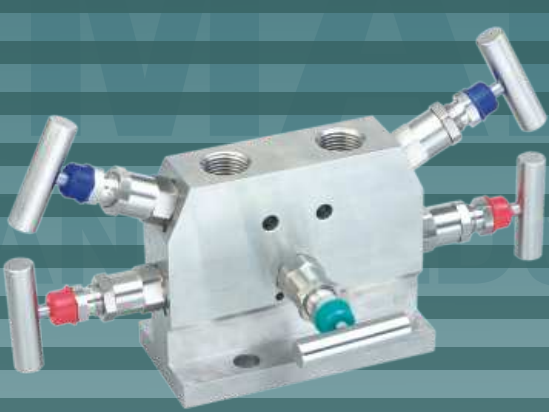
Note -

The weld prepared types are available with a male-or-female plain end - suitable for socket weld, or male butt weld end. Always specify pipe schedule and further requirements when ordering valves for welded or Flange connections. Panel mounting option for installation in racks and panels.

Standard Valve Materials

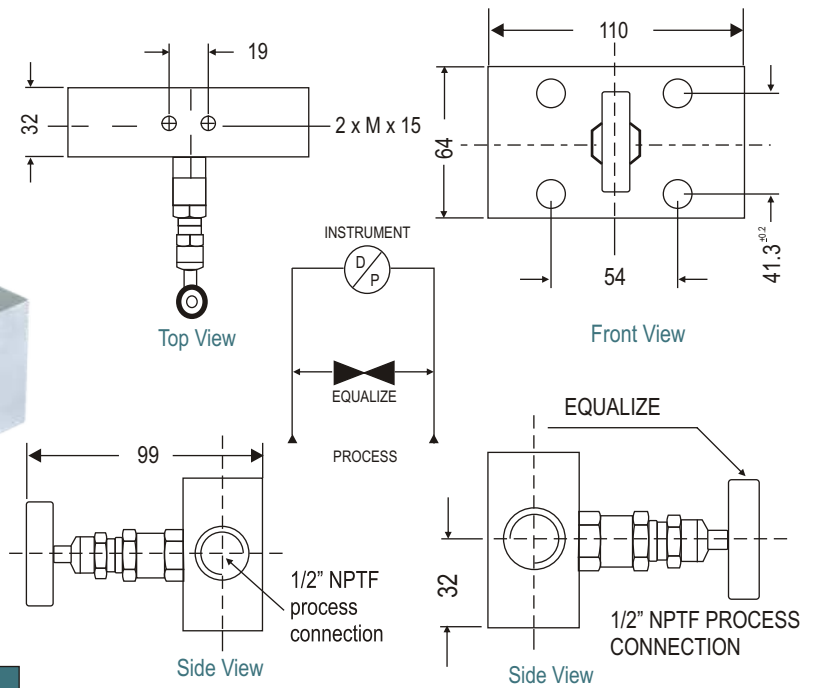
Valve	Body	Bonnet	Stem	Tip
Carbon Steel	CSA 105	SS304	SS316	SS316
Stainless Steel	SS316	SS316	SS316	SS316
Monel	Alloy 4000	Alloy 4000	Alloy 4000	Alloy 5000

MANIFOLDS



SVH

With threaded horizontal port inlet and outlet and Flange instrument connection with 54 mm centre bolting. The equal-izing bonnet is positioned on the front side.

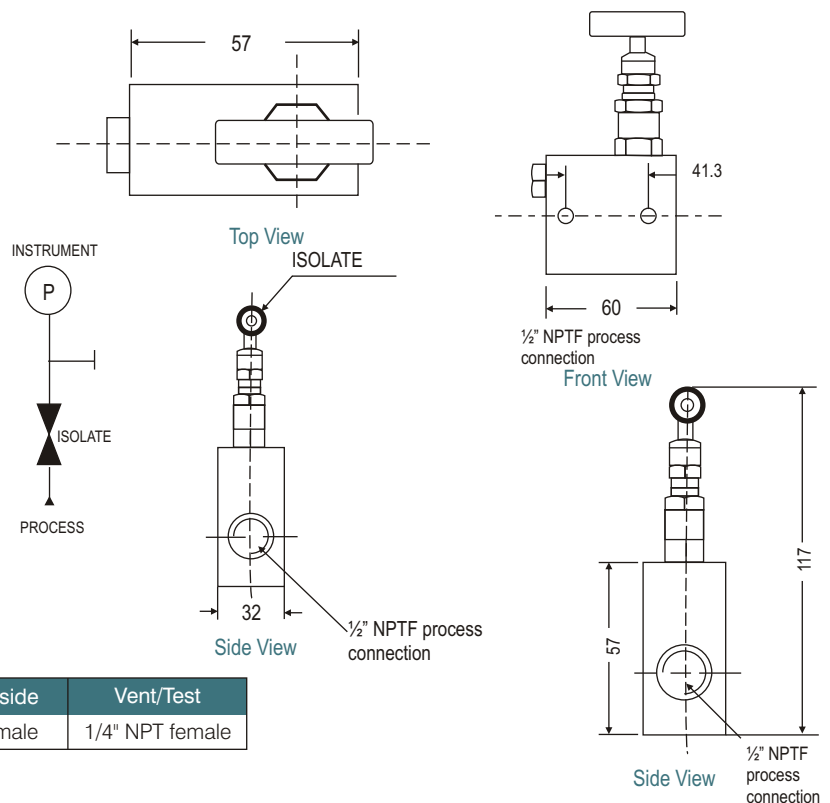


Standard connection

Product	Process side	Instrument side
SVH	1/2" NPT female	Flange

SVV

With threaded horizontal port inlet, outlet and vent/test connection located at the right hand side. The venting bonnet is positioned on the top.



Standard connection

Product	Process side	Instrument side	Vent/Test
SVV	1/2" NPT female	1/2" NPT female	1/4" NPT female



Drain



Equalize



Isolate

Standard version specifications of Series SVH, SVV

Body	: SS 316
Stem	: SS 316
Valve assembly	: SS 316
T' bar handle	: SS 304
Maximum working pressure	: 6000 psi
Maximum working temperature	: 240°C
Packing	: PTFE (Grafoil for temperature above 240°C to 550°C)
Type of stem	: Type CT; Stem with conical metal tip
Drain port	: 1/4" NPT [F]; provided with SS 316 plug [not available in Series SVV]
Bracket mounting holes	: 2 Nos.. of 7 mm diameter [not available in Series SVH]
Hard Chrome plating	: Provided on stem tip

How to order : Valve Type - SVH, SVV

Body Material	Stem Type	Stem Packing	Size = Inlet x Outlet	Connections	Threads
C = Carbon Steel	CT (std)	P = PTFE (std)	24 = 1/4" x 1/4"	FF = Female x Female (Std)	N = NPT (ANSI B1.20.1)
S = SS 316 (std)	DS	G = Grafoil	33 = 3/8" x 3/8"	SW = Socket Weld	P = BSPP (BS2779)
S4 = SS 304			44 = 1/2" x 1/2" (std)	FD = Female x Flange	B = BSPT (BS21)
SL = SS 316L			2F = 1/4"x Flange	(54mm)	
M = Monel 400			3F = 3/8"x Flange		
H = Hastelloy C			4F = 1/2"x Flange		

Options

- GH : Material test certificate
- GO : Hydro test certificate
- MBC : Mounting bolts [7/16" UNF] in carbon steel
- MBS : Mounting bolts [7/16" UNF] in SS
- IE : Circular plastic.
- TF : Sour gas service to NACE standard MR-01-75.
- SG : Oxygen service. (manifolds are supplied cleaned and degreased)
- DS : Valves with stem having soft conical and delrin tip rolled into the needle for gas service.

Example

To place an order simply refer to the codes in the table.

Valve Type +
 Body Material +
 Stem Type +
 Stem Packing +
 Size +
 Connections +
 Threads +
 Options

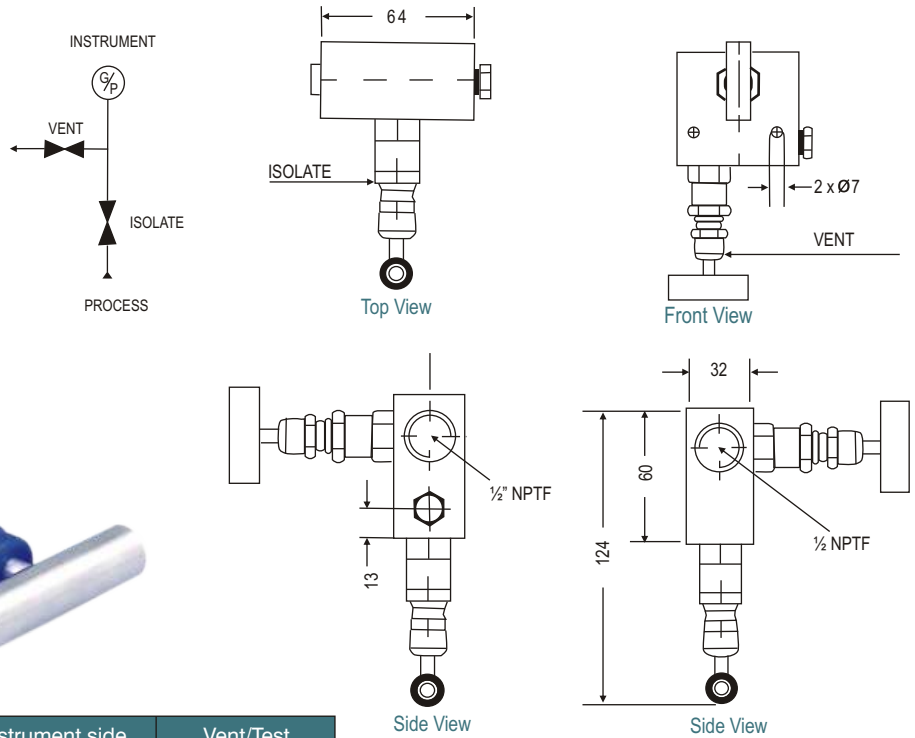
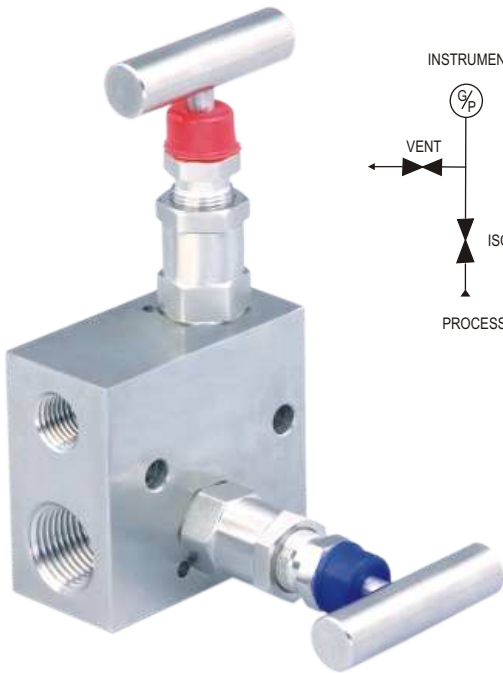
SVH + S + CT + P + 44 + FF + N = SVH-S-CT-P-44-FF-N-Option

NOTE:

- The weld prepared types are available with female plain end - suitable for socket weld.
- Anti-tamper bonnet - special design on request with locking arrangement if desired.

2VH

With threaded horizontal port inlet, outlet and vent/test connection on the left hand side. The venting bonnet is positioned on the top and the isolating bonnet on the front.

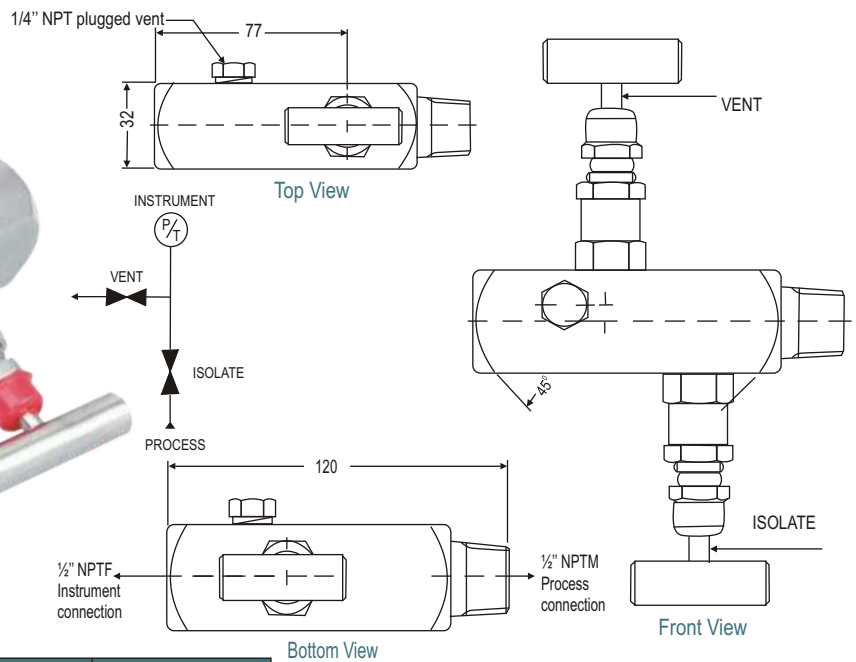
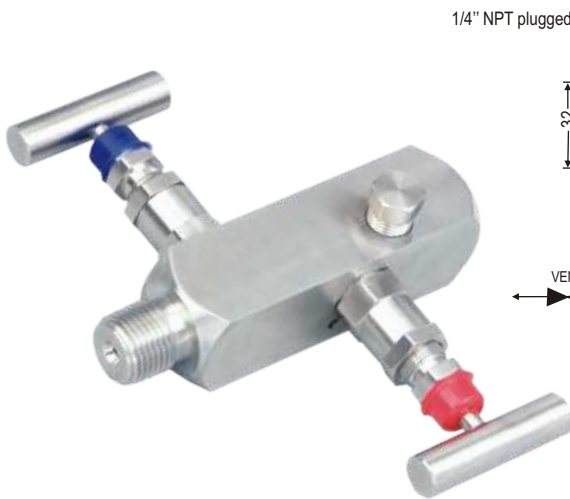


Standard connection

Product	Process side	Instrument side	Vent/Test
2VH	1/2" NPT female	1/2" NPT female	1/4" NPT female

2VT

With threaded vertical port inlet and female outlet. The vent/test connection is positioned on the front side. The venting bonnet is positioned on the right hand side and the isolating bonnet on left hand side.

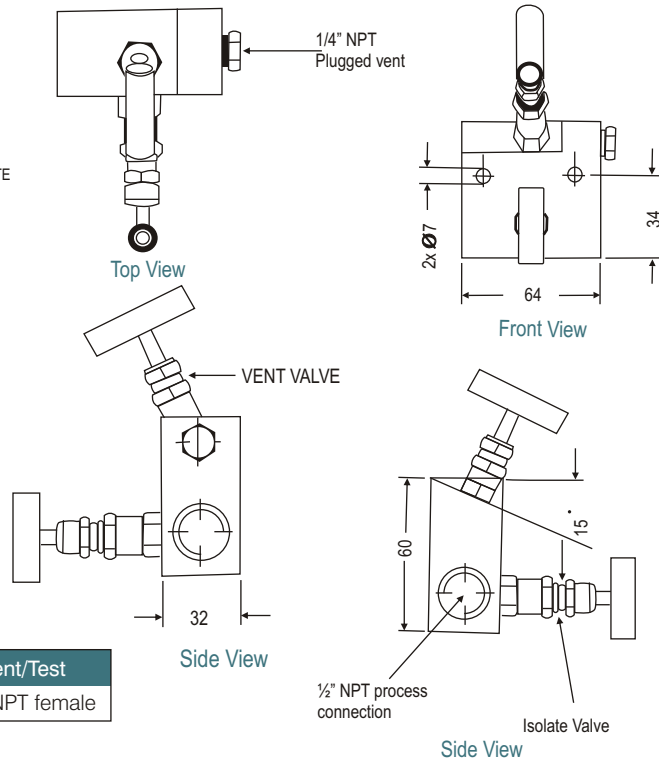
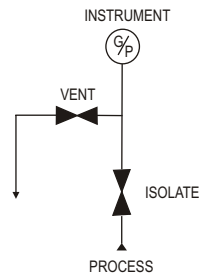
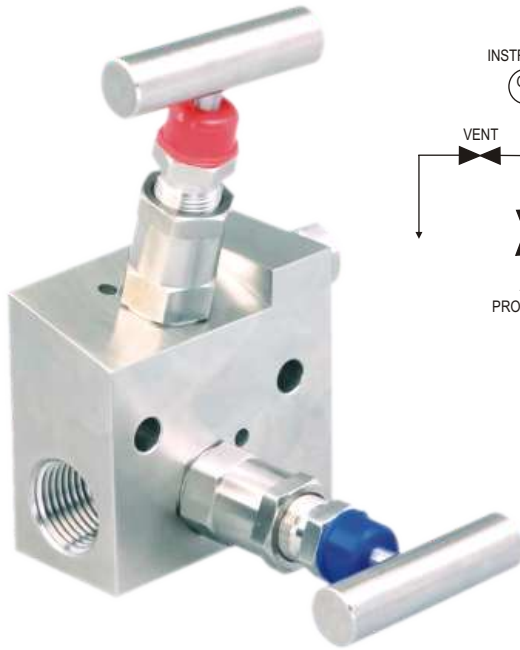


Standard connection

Product	Process side	Instrument side	Vent/Test
2VT	1/2" NPT male	1/2" NPT female	1/4" NPT female

2VA

With threaded horizontal port inlet and outlet and vent/test connection on the right hand side. The venting bonnet is positioned angular on the top and the isolating bonnet on the front.

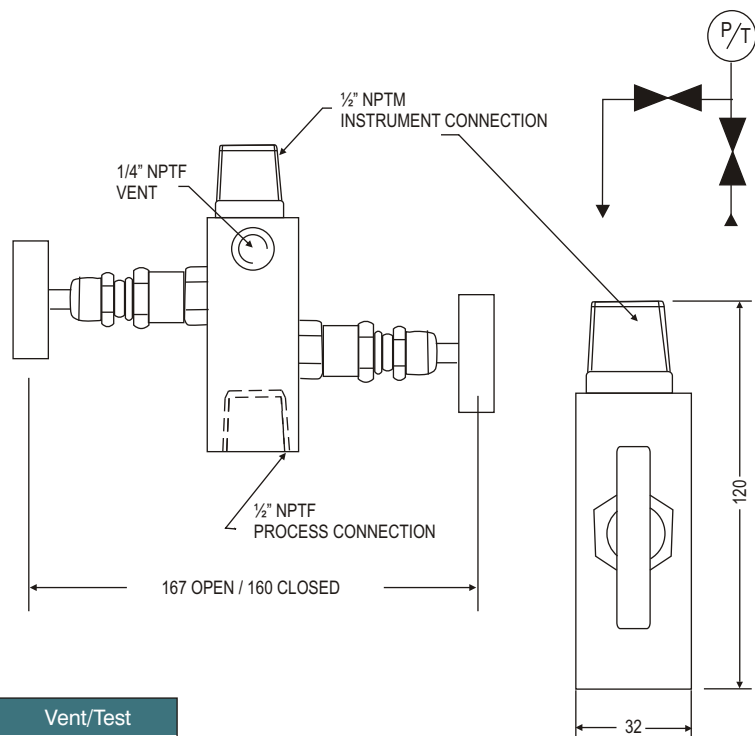
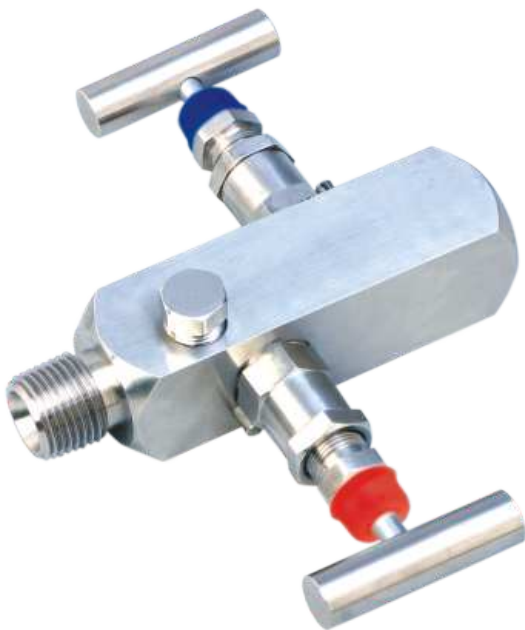


Standard connection

Product	Process side	Instrument side	Vent/Test
2VA	1/2" NPT female	1/2" NPT female	1/4" NPT female

2VTF

With the vent is positioned near the male instrument connection side.

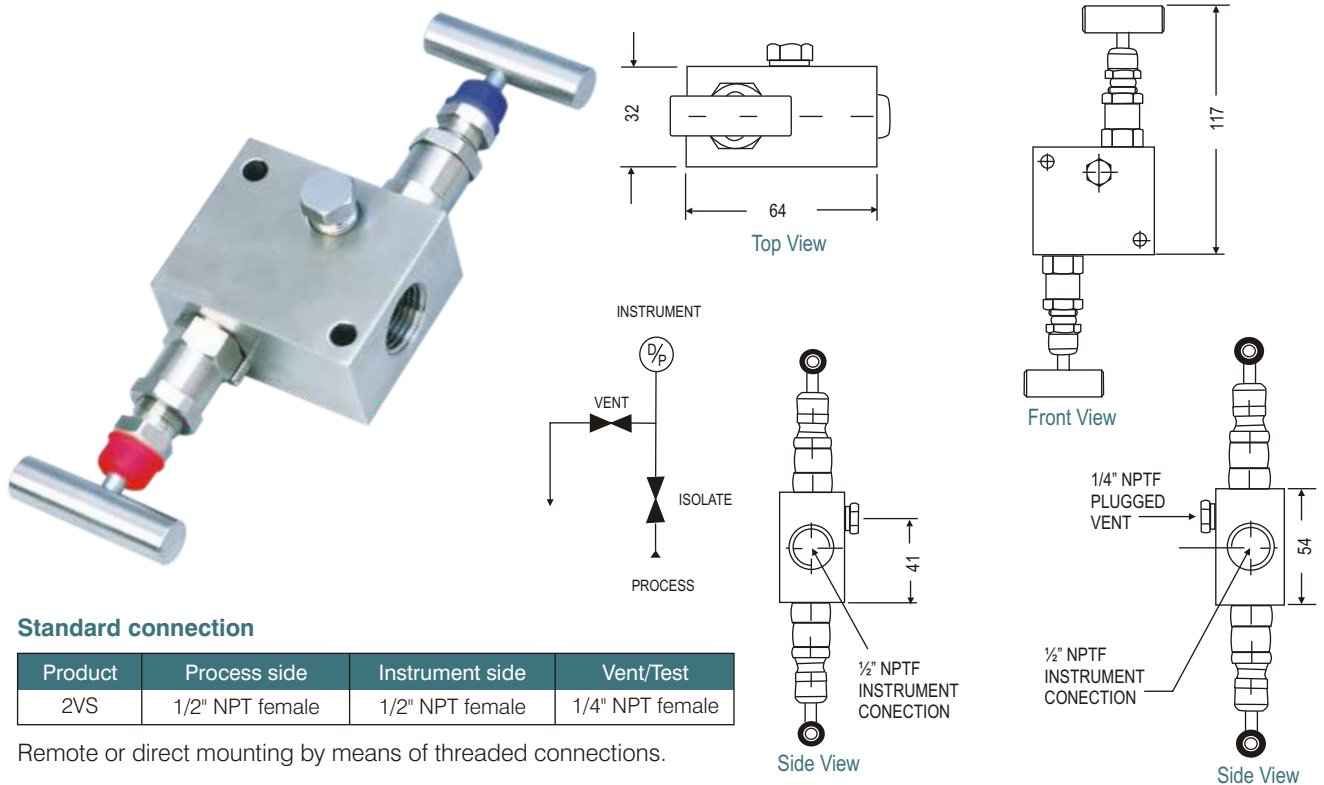


Standard connection

Product	Process side	Instrument side	Vent/Test
2VTF	1/2" NPT Female	1/2" NPT Male	1/4" NPT Female

2VS

With threaded vertical port inlet and outlet. The vent/test connection is positioned on the front side. The drain bonnet is positioned on the right hand side and the isolating bonnet on the left hand side.



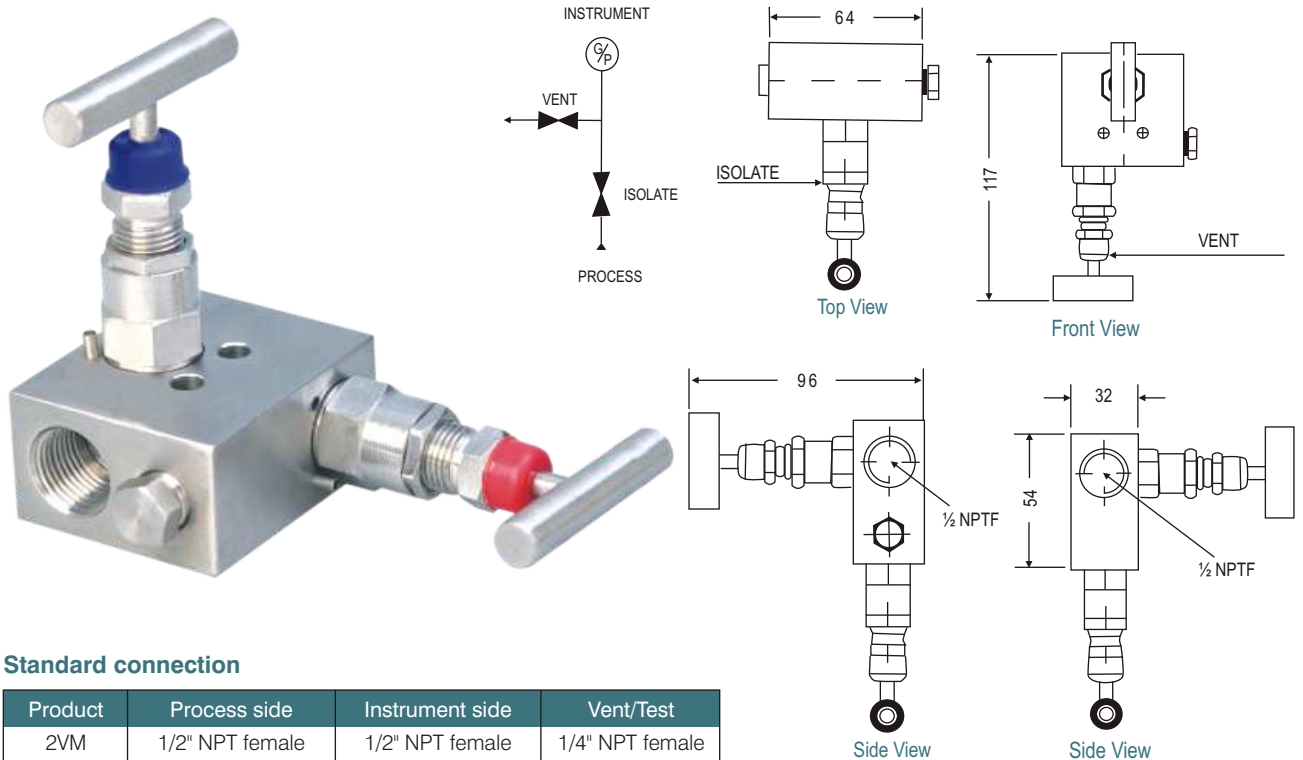
Standard connection

Product	Process side	Instrument side	Vent/Test
2VS	1/2" NPT female	1/2" NPT female	1/4" NPT female

Remote or direct mounting by means of threaded connections.

2VM

With threaded horizontal port inlet, outlet and vent/test connection on the left hand side. The venting bonnet is positioned on the top and the isolating bonnet on the front.



Standard connection

Product	Process side	Instrument side	Vent/Test
2VM	1/2" NPT female	1/2" NPT female	1/4" NPT female

Standard version specifications of Series 2VH,2VT, 2VTF, 2VA, 2VS, 2VM

Body	: SS 316
Stem	: SS 316
Valve assembly	: SS 316
'T' bar handle	: SS 304
Maximum working pressure	: 6000 psi
Maximum working temperature	: 240°C
Packing	: PTFE (Grafoil for temperature above 240°C to 550°C)
Type of stem	: Type CT; Stem with conical metal tip
Drain port	: 1/4" NPT [F]; provided with SS 316 plug
Bracket mounting holes	: 2 Nos. (Not available in Series 2VT, 2VTF)
Hard Chrome plating	: Provided on stem tip and female threads of valve.

How to order : Valve Type - 2VH,2VT, 2VTF, 2VA, 2VS, 2VM

Body Material	Stem Type	Stem Packing	Size = Inlet x Outlet	Connections	Threads
C = Carbon Steel	CT	P = PTFE	24 = 1/4" x 1/4"	MF = Male x Female	N = NPT (ANSI B1.20.1)
S = SS 316	DS	G = Grafoil	33 = 3/8" x 3/8"	FF = Female x Female	P = BSPP (BS2779)
S4 = SS 304			44 = 1/2" x 1/2"	SW = Socket weld	B = BSPT (BS21)
SL = SS 316L			66 = 3/4" x 1/2"	FM = Female x Male	
M = Monel 400			2F = 1/4"x Flange		
H = Hastelloy C			3F = 3/8"x Flange		
			4F = 1/2"x Flange		

Options

- GH : Material test certificate
- GO : Hydro test certificate
- IE : Circular plastic.
- TF : Sour gas service to NACE standard MR-01-75.
- SG : Oxygen service. (manifolds are supplied cleaned and degreased)
- DS : Valves with stem having soft conical and delrin tip rolled into the needle for gas service.
- MB : Mounting bracket
- MBC : Mounting bolts [7/16" UNF] in carbon steel
- MBS : Mounting bolts [7/16" UNF] in SS

Example

To place an order simply refer to the codes in the table.

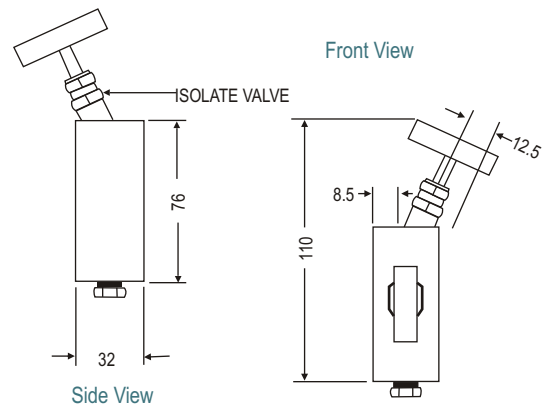
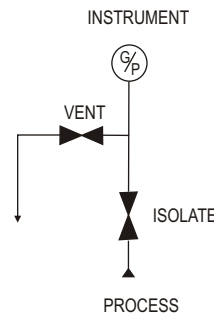
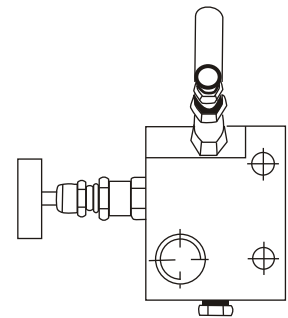
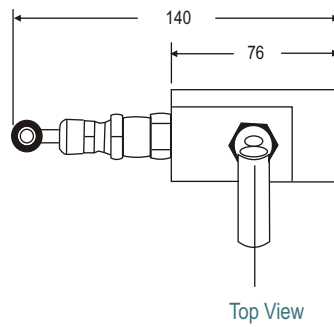
Valve Type	:	Body Material	+	Stem Type	+	Stem Packing	+	Size	+	Connections	+	Threads	+	Options
2VA		S		CT		P		44		FF		N		= 2VA-S-CT-P-44-FF-N-Options

NOTE:

- The weld prepared types are available with female plain end - suitable for socket weld.
- Anti-tamper bonnet - special design on request with locking arrangement if desired.

2VF

With threaded horizontal port inlet with a Flange outlet instrument connection. A vent/test port on base. The venting bonnet is positioned on the left hand side and the isolating bonnet angular on the top.



Standard connection

Product	Process Side	Instrument Side	Vent/Test
2VF	1/2" NPT female	Flanged	1/4" NPT female

Standard version specifications of Series 2VF

- Body : SS 316
- Stem : SS 316
- Valve assembly : SS 316
- 'T' bar handle : SS 304
- Maximum working pressure : 6000 psi
- Maximum working temperature : 240°C
- Packing : PTFE (Grafoil for temperature above 240°C to 550°C)
- Type of stem : Type CT; Stem with conical metal tip
- Drain port : 1/4" NPT [F]; provided with SS 316 plug
- Bracket mounting holes : 2 Nos.
- Hard Chrome plating : Provided on stem tip.



How to order : Valve Type - 2VF

Body Material	Stem Type	Stem Packing	Size = Inlet x Outlet	Connections	Threads
C = Carbon Steel	CT	P = PTFE	24 = 1/4" x 1/4"	MF = Male x Female	N = NPT (ANSI B1.20.1)
S = SS 316	DS	G = Grafoil	33 = 3/8" x 3/8"	FF = Female x Female	P = BSPP (BS2779)
S4 = SS 304			44 = 1/2" x 1/2"	SW = Socket weld	B = BSPT (BS21)
SL = SS 316L			66 = 3/4" x 1/2"	FM = Female x Male	
M = Monel 400			2F = 1/4" x Flange		
H = Hastelloy C			3F = 3/8" x Flange		
			4F = 1/2" x Flange		

Options

- GH : Material test certificate
- GO : Hydrotest test certificate
- IE : Circular plastic.
- TF : Sour gas service to NACE standard MR-01-75.
- SG : Oxygen service. (manifolds are supplied cleaned and degreased)
- DS : Valves with stem having soft conical and delrin tip rolled into the needle for gas service.
- MB : Mounting bracket
- MBC : Mounting bolts [7/16" UNF] in carbon steel
- MBS : Mounting bolts [7/16" UNF] in SS

Example

To place an order simply refer to the codes in the table.

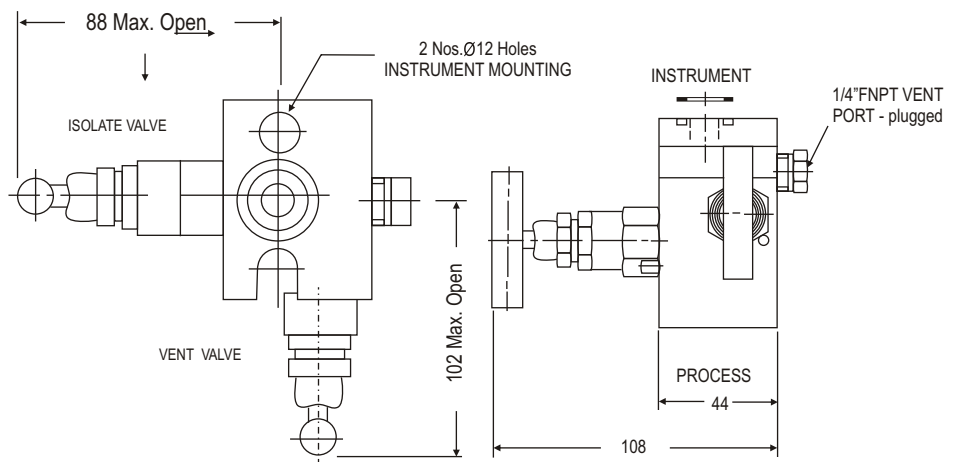
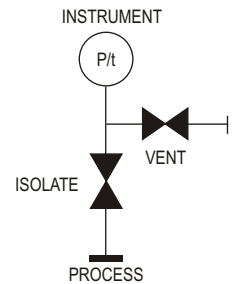
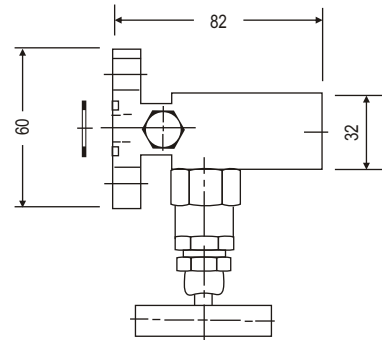
Valve Type : **Body Material** + **Stem Type** + **Stem Packing** + **Size** + **Connections** + **Threads** + Options
 2VF + S + CT + P + 44 + FF + N = 2VF-S-CT-P-44-FF-N-Options

NOTE:

- The weld prepared types are available with female plain end - suitable for socket weld.
- Anti-tamper bonnet - special design on request with locking arrangement if desired.

2VQ

With threaded horizontal port inlet on the front side and Flange outlet on the back side, test connection on the body. The isolating bonnet are positioned on the left and right hand side and the Equalizing Bonnet is positioned on the top.



Standard connection

Product	Process side	Instrument side	Vent/Test
2VQ	1/2" NPT female	Flange	1/4" NPT female

Standard version specifications of Series 2VQ

- Body : SS 316
- Stem : SS 316
- Valve assembly : SS 316
- 'T' bar handle : SS 304
- Maximum working pressure : 6000 psi
- Maximum working temperature : 240°C
- Packing : PTFE (Grafoil for temperature above 240°C to 550°C)
- Type of stem : Type CT; Stem with conical metal tip
- Drain port : 1/4" NPT [F]; provided with SS 316 plug
- Hard Chrome plating : Provided on stem tip

How to order : Valve Type - 2VQ

Body Material	Stem Type	Stem Packing	Size = Inlet x Outlet	Connections	Threads
C = Carbon Steel	CT	P = PTFE	2F = 1/4"x Flange	FF = Female x Female	N = NPT (ANSI B1.20.1)
S = SS 316	DS	G = Grafoil	3F = 3/8"x Flange	SW = Socket weld	P = BSPP (BS2779)
S4 = SS 304			4F = 1/2"x Flange (std)		B = BSPT (BS219)
SL = SS 316L					
M = Monel 400					
H = Hastelloy C					

Options

- GH : Material test certificate
- GO : Hydro test certificate
- IE : Circular plastic.
- TF : Sour gas service to NACE standard MR-01-75.
- SG : Oxygen service. (manifolds are supplied cleaned and degreased)
- DS : Valves with stem having soft conical and delrin tip rolled into the needle for gas service.
- MB : Mounting bracket
- MBC : Mounting bolts [7/16" UNF] in carbon steel
- MBS : Mounting bolts [7/16" UNF] in SS

Example

To place an order simply refer to the codes in the table.

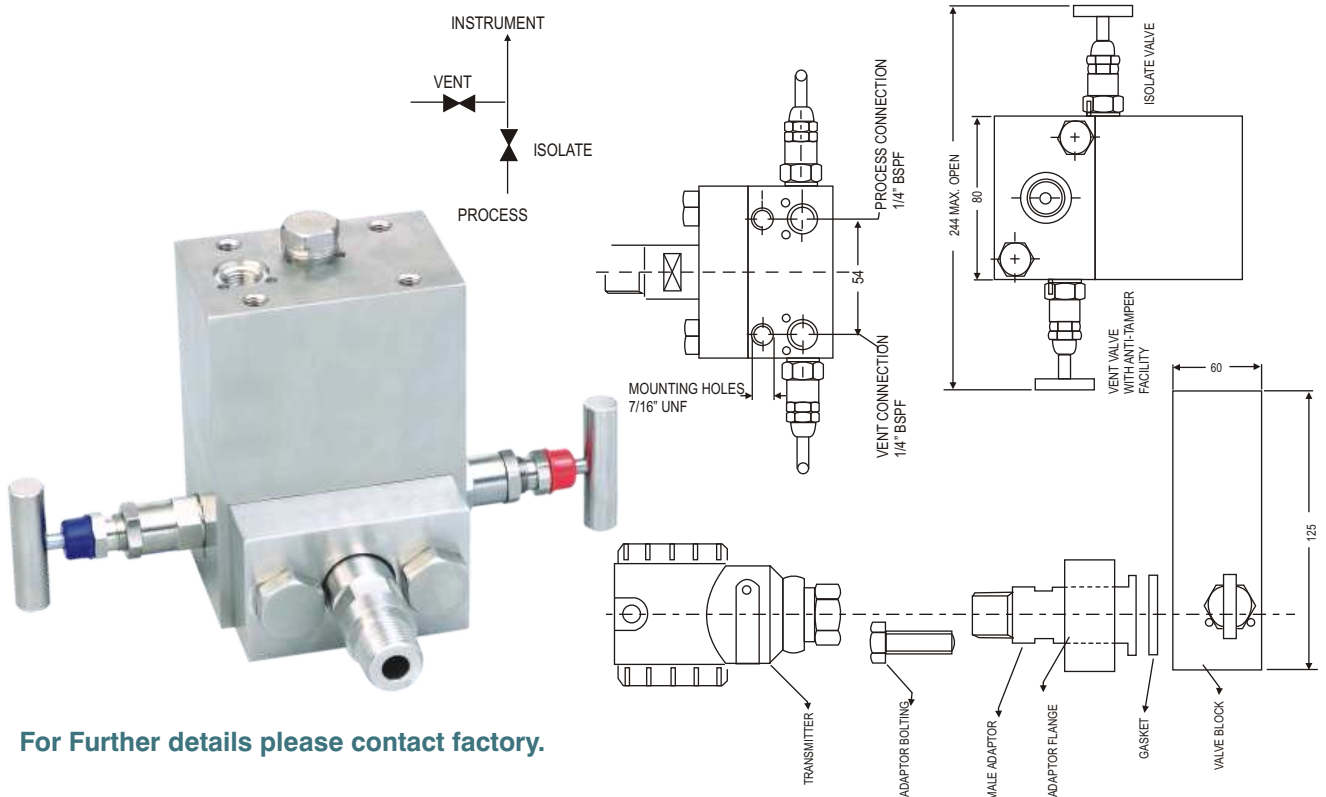
Valve Type : **Body Material** + **Stem Type** + **Stem Packing** + **Size** + **Connections** + **Threads** + Options
 2VQ + S + CT + P + 4F + FF + N = 2VQ-S-CT-P-4F-FF-N-Options

NOTE:

- The weld prepared types are available with female plain end - suitable for socket weld.
- Anti-tamper bonnet - special design on request with locking arrangement if desired.

2VR

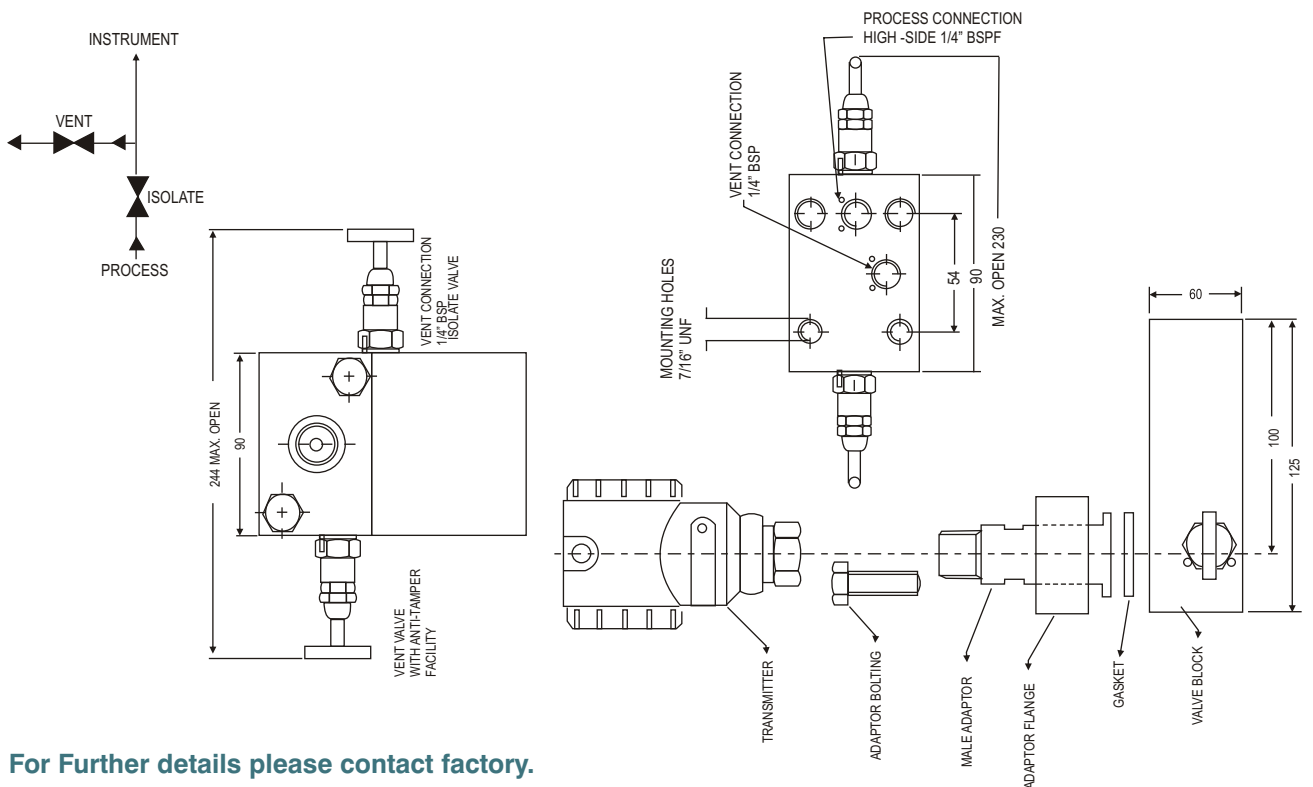
Special two valve manifold designed to accommodate threaded direct transmitters and pressure instruments with inlet at front and outlet on top, vent/test connection at front; venting bonnet at left side and isolating bonnet at right.



For Further details please contact factory.

2VRM

Special two valve manifold designed to accommodate threaded direct transmitters and pressure instruments with inlet at front and outlet on top, vent/test connection at front; venting bonnet at left side and isolating bonnet at right. (measurement differs from the Series 2VR)

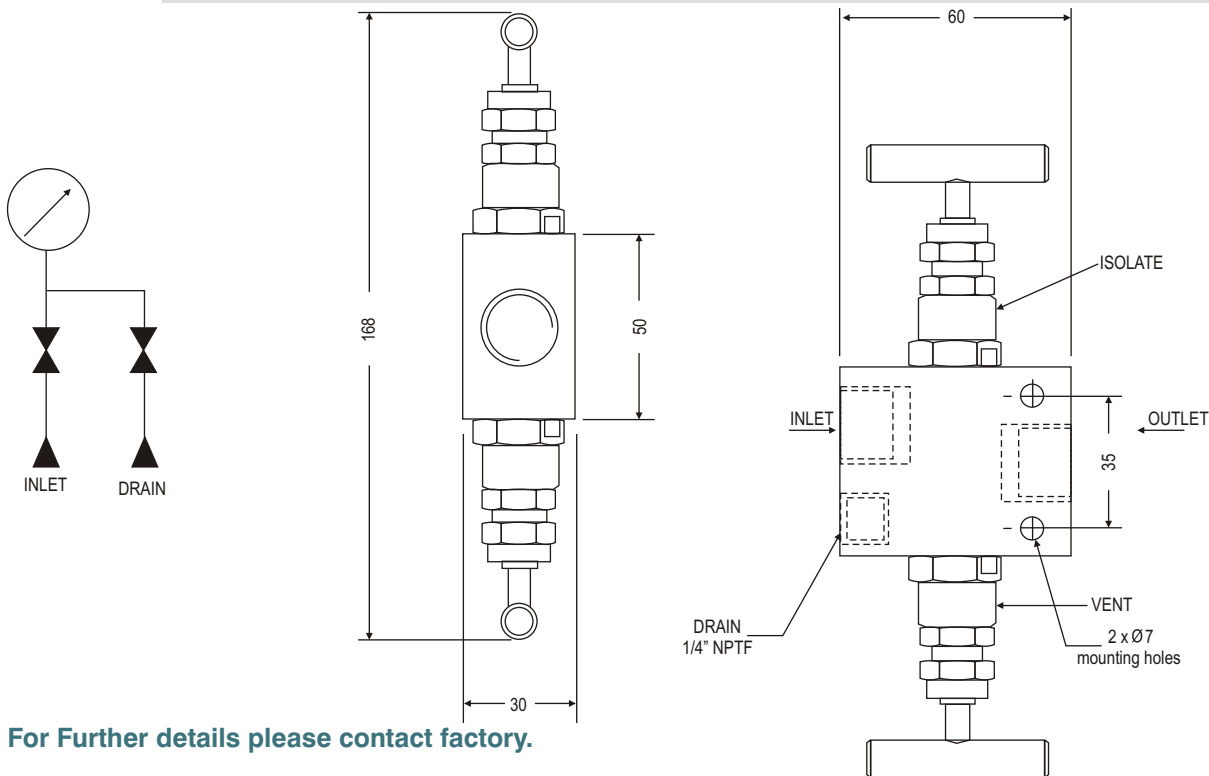


For Further details please contact factory.



2VB

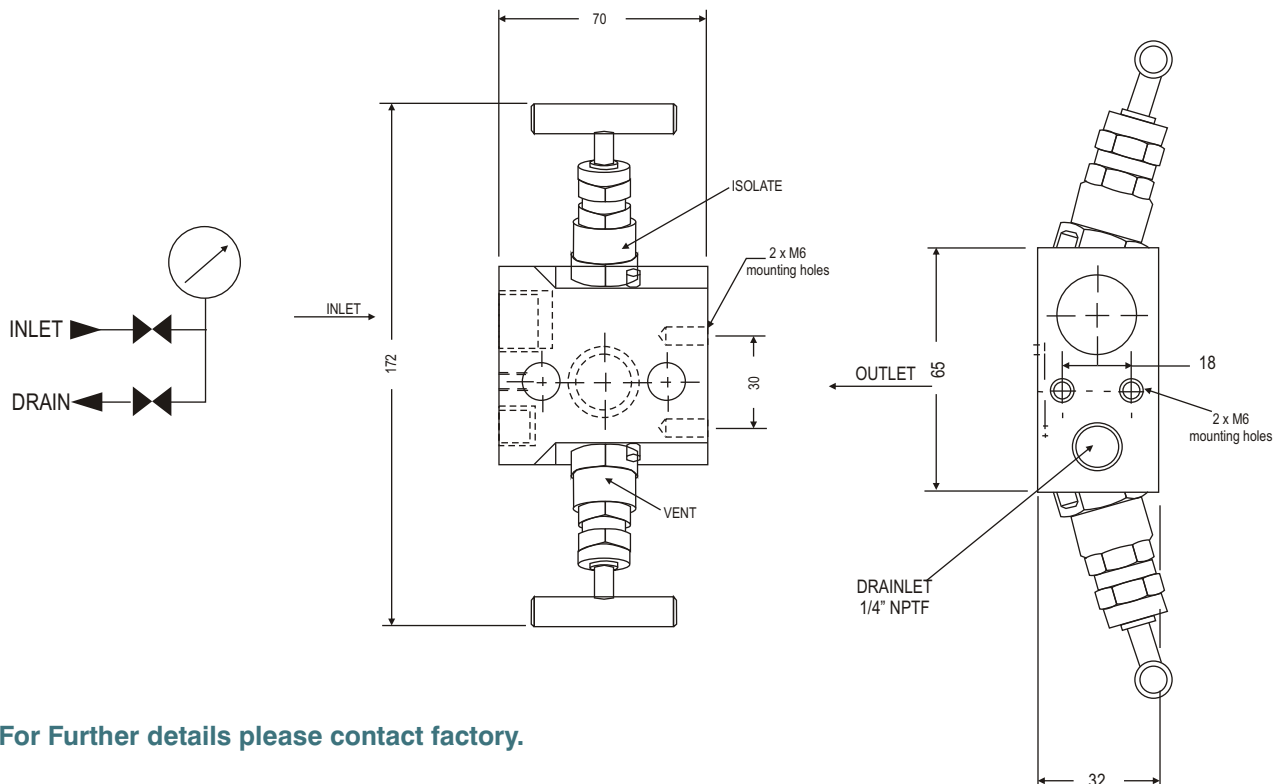
Special two valve manifold with threaded port for inlet and outlet. The isolating bonnet is on the left side and the venting bonnet is on the right side.



For Further details please contact factory.

2VC

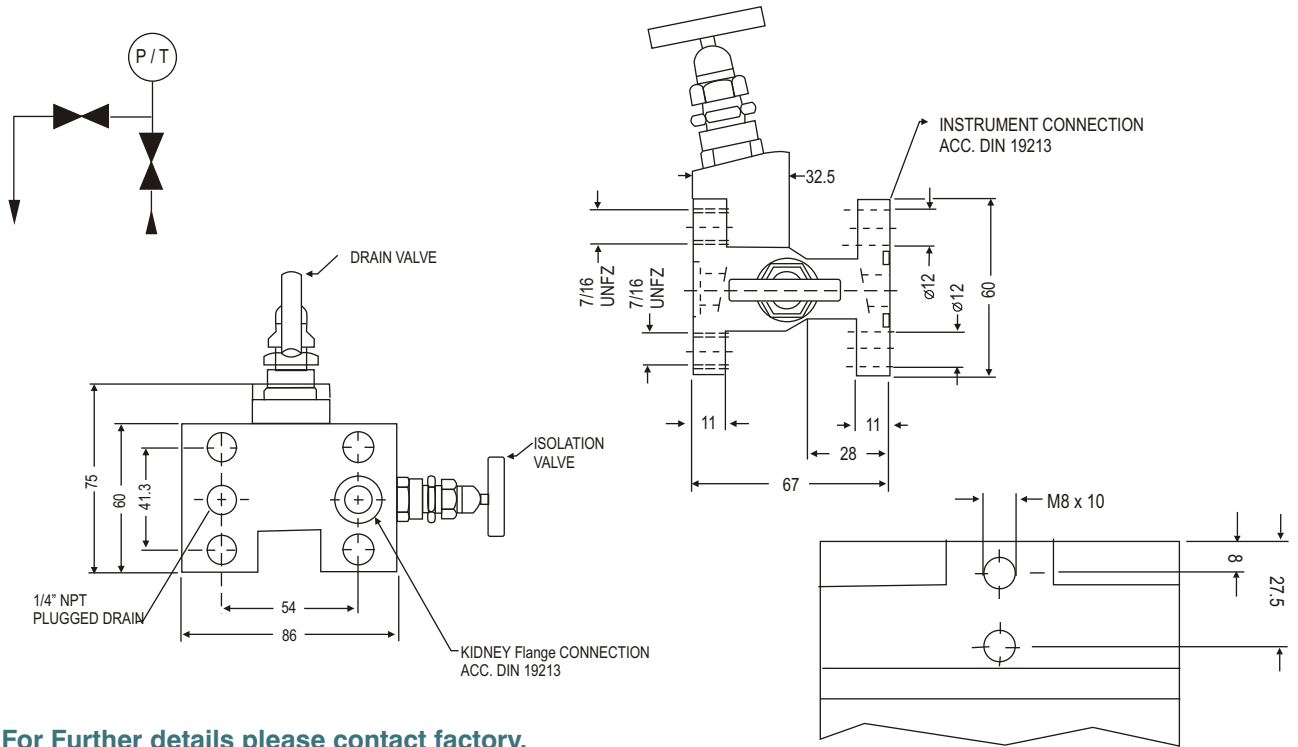
Special two valve manifold with threaded inlet port on the bottom side process connecting on the back side. The isolating bonnet is on the left side and the venting bonnet is on the right side.



For Further details please contact factory.

2VK

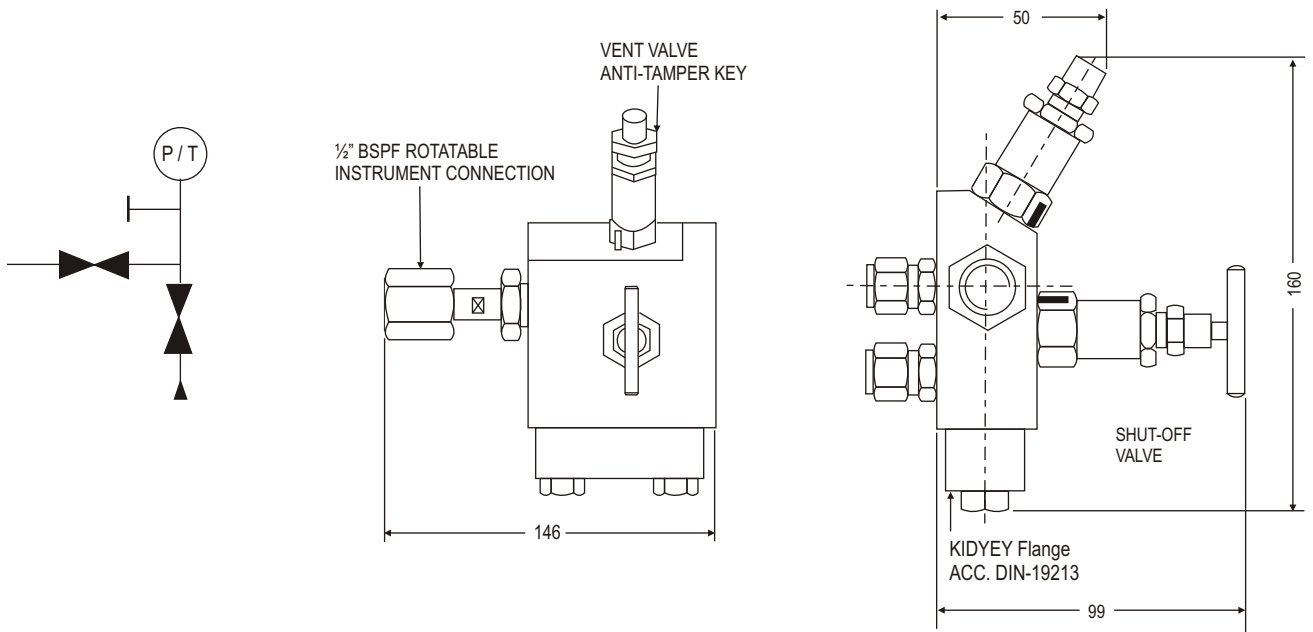
Special two valve compact manifold to accommodate any full DIN 19213 interface compliant pressure transmitter with inlet Flange to fit DIN 19213 and outlet also Flange to DIN 19213. Vent/test connection at front side, venting bonnet at right side and isolating bonnet on top.



For Further details please contact factory.

2VFS

Special two valve manifold with threaded horizontal port NPT female inlet and horizontal BSP female rotatable instrument connection with vent/test connection at the back side. The venting bonnet is positioned angular at top side and the isolating bonnet at front side.

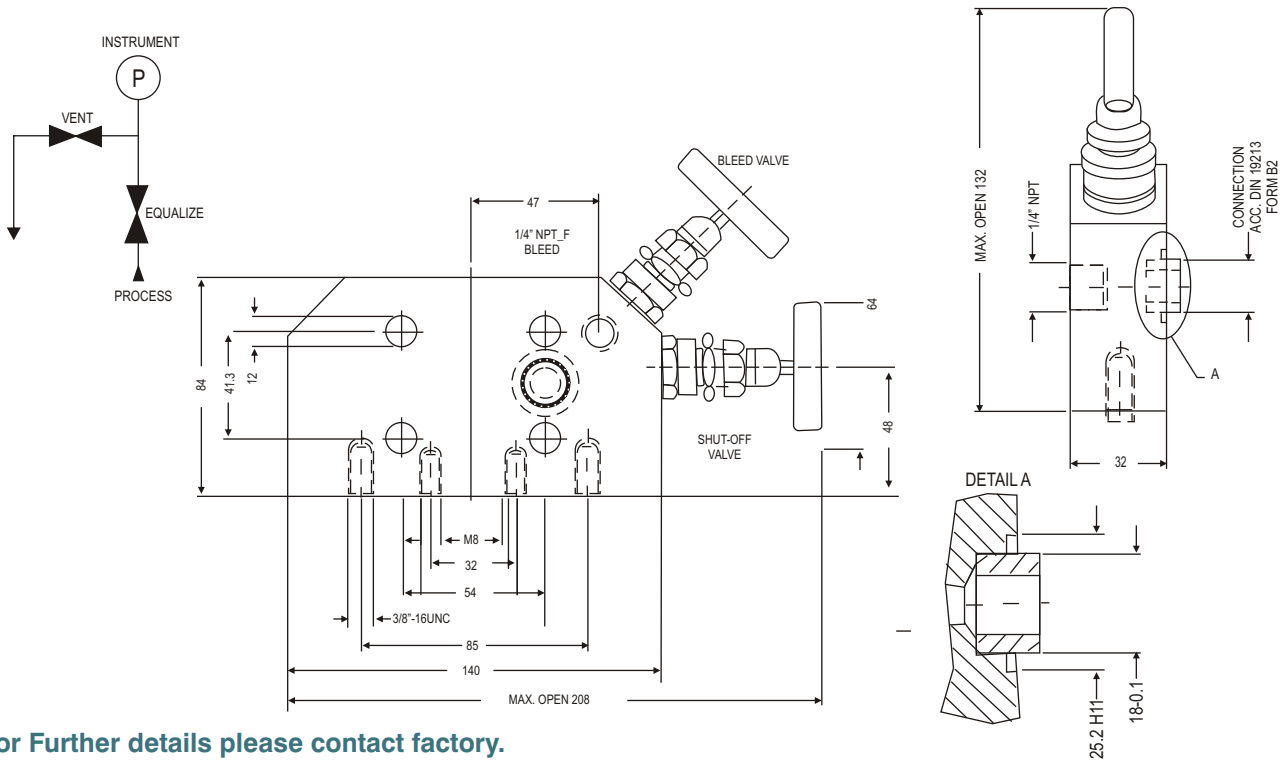


For Further details please contact factory.



2V42

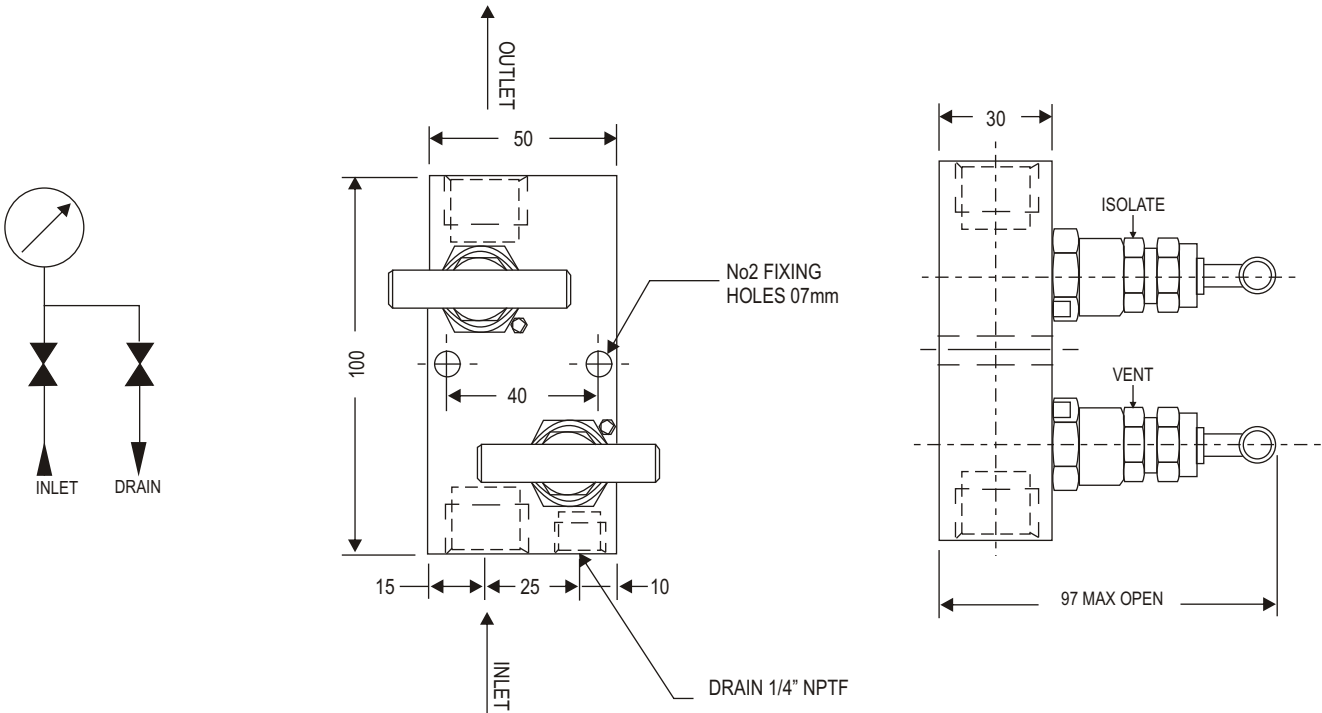
Special two valve manifold especially designed to suit FR 3051 transmitters with inlet NPT female at front, outlet Flange to DIN 19213 at back side-vent/test connection at back, isolating bonnet at left, venting bonnet angular at left hand side.



For Further details please contact factory.

2VZ

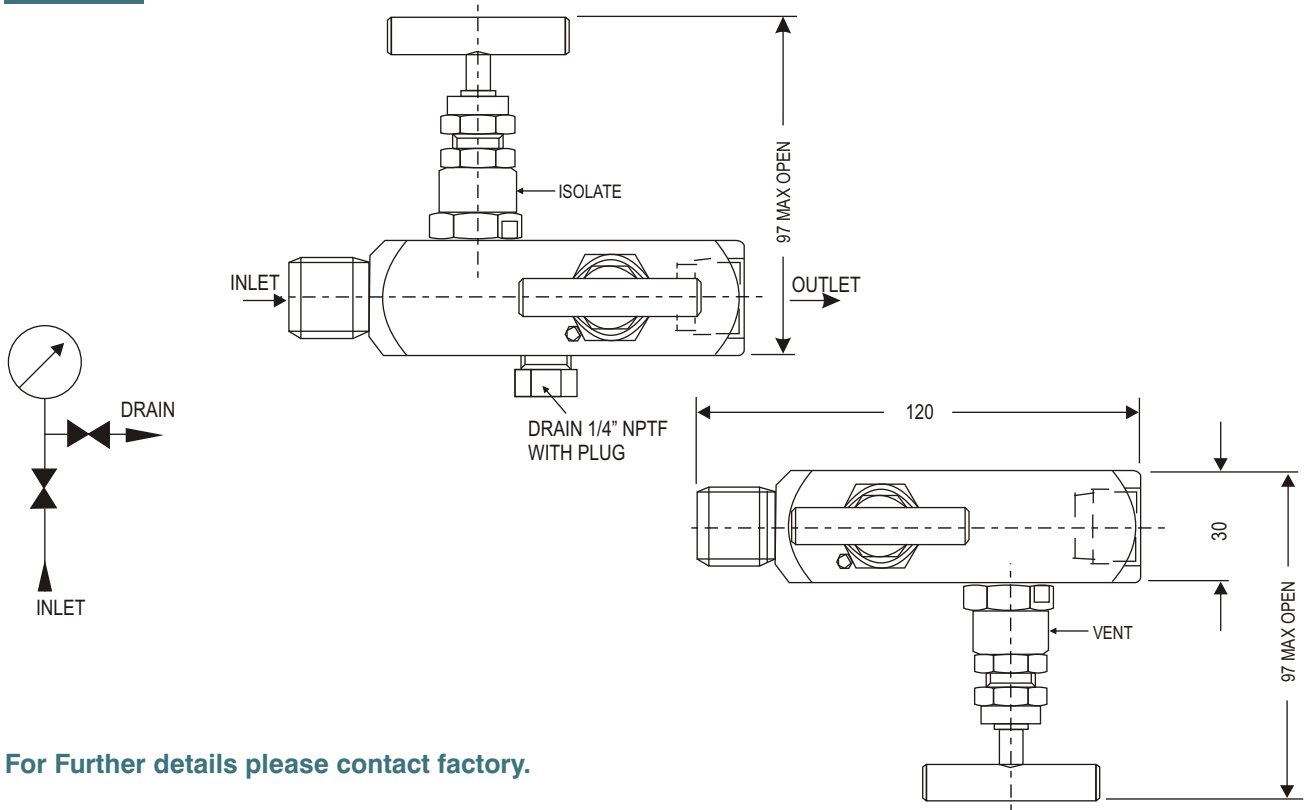
Special two valve manifold with vertical threaded port at inlet and outlet. Isolating and venting bonnet on top and drain port near inlet port.



For Further details please contact factory.

2VDR

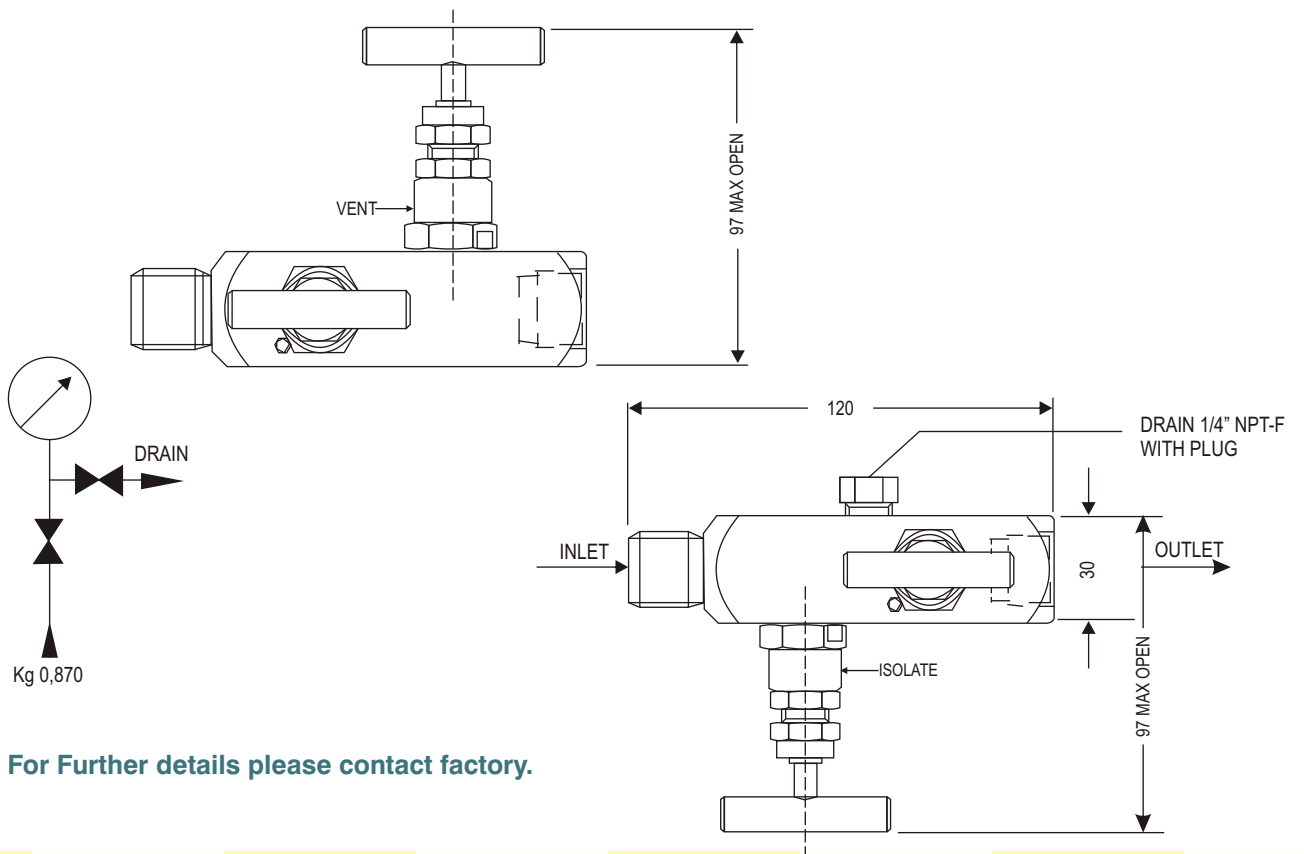
Special two valve manifold with threaded vertical port inlet and outlet. The vent/test connection is positioned on the right side, venting bonnet is positioned on top and isolating on left side.



For Further details please contact factory.

2VDL

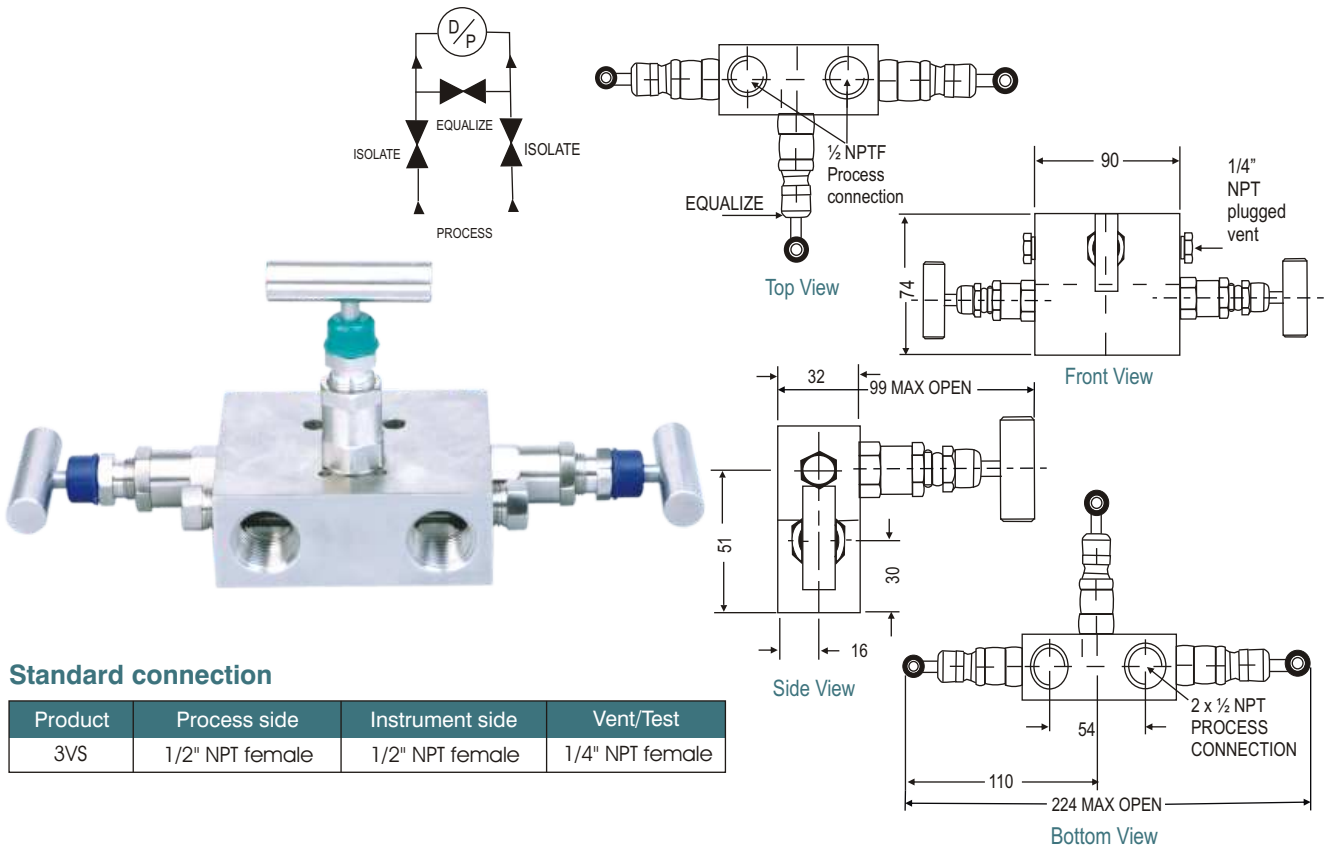
Special two valve manifold with threaded vertical port inlet and outlet. The vent/test port is positioned on left side, venting bonnet is on top and isolating bonnet is on right side.



For Further details please contact factory.

3VS

With two threaded vertical port inlets and outlets, both test connections are positioned on the left and right hand side. The two isolating bonnets are positioned on the left and right hand side and the equalizing bonnet is positioned on the front.

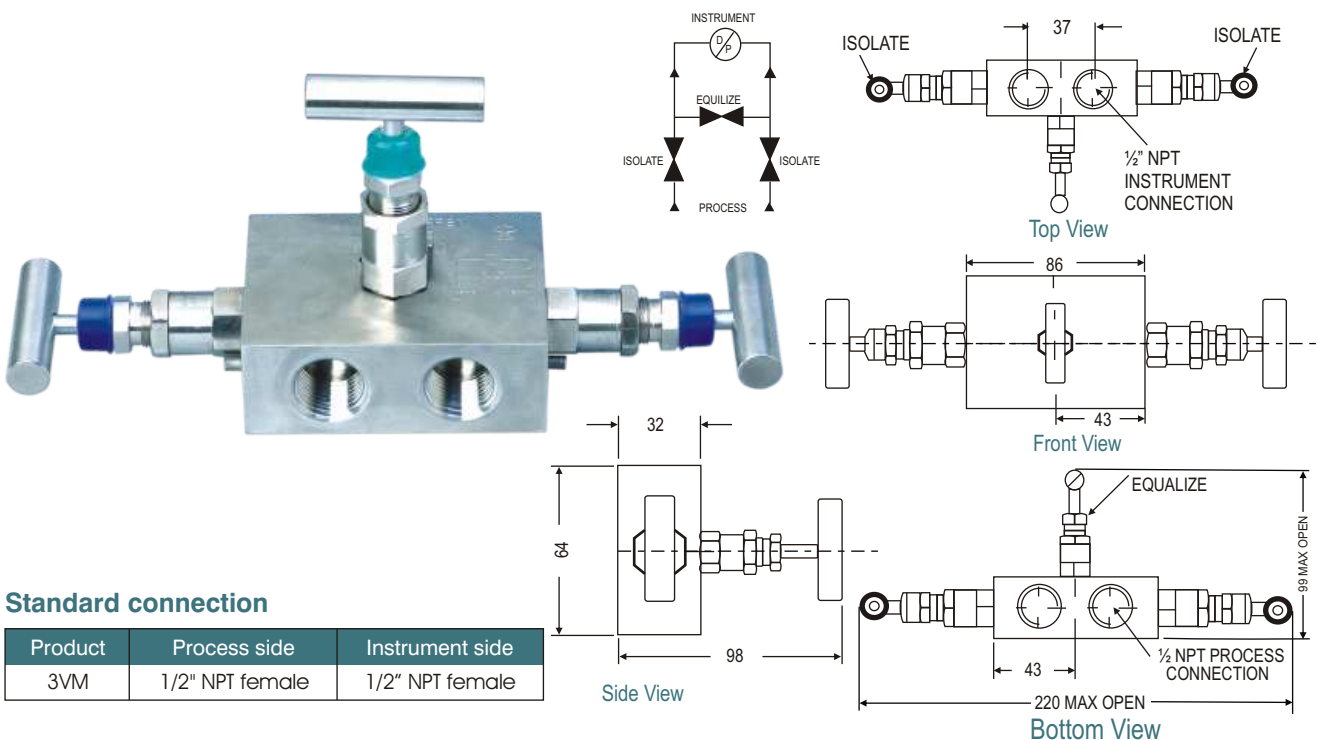


Standard connection

Product	Process side	Instrument side	Vent/Test
3VS	1/2" NPT female	1/2" NPT female	1/4" NPT female

3VM

With threaded vertical port inlets and outlets. The isolating bonnets are positioned on the left and right hand side and the equalizing bonnet is positioned on the front. This manifold is specially designed as miniature valve to be remote mounted.



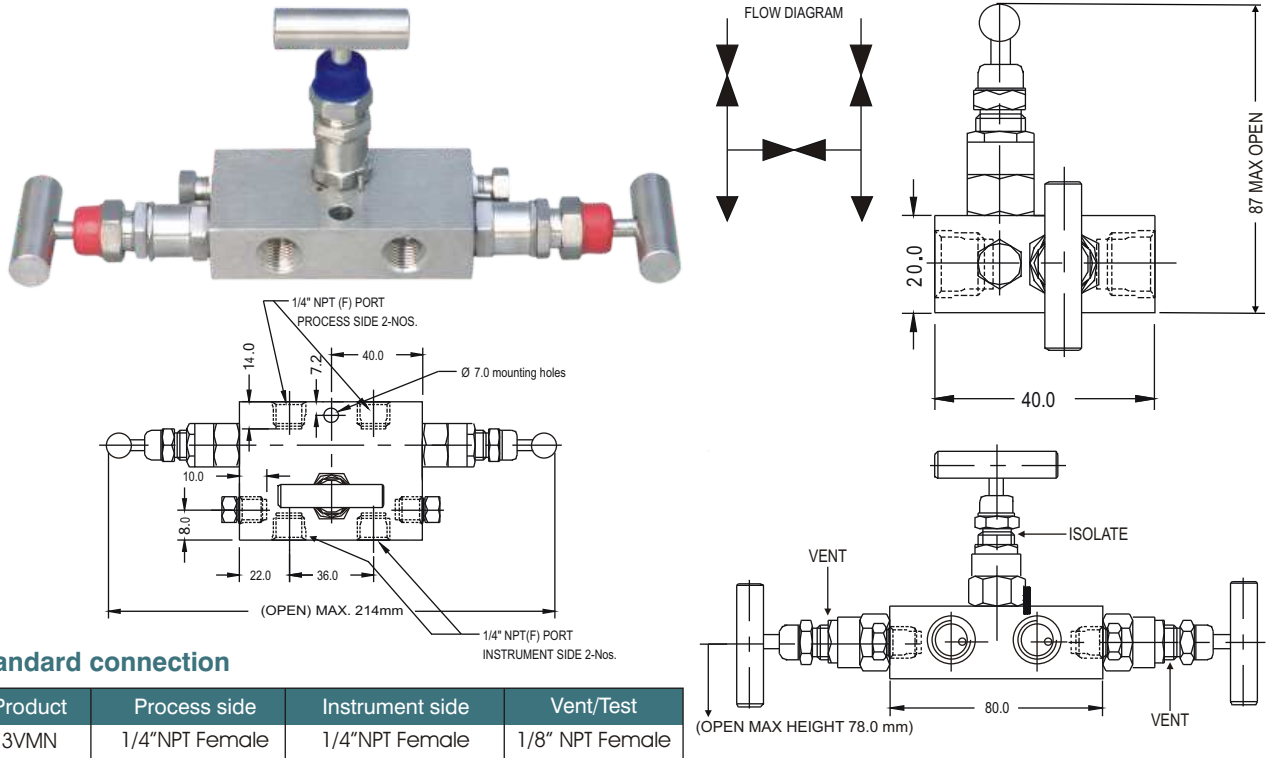
Standard connection

Product	Process side	Instrument side
3VM	1/2" NPT female	1/2" NPT female

3VMN

Three valve **Miniature** manifold with compact design having threaded port for inlet and outlet and finds application for isolating and venting the process media. This is used where space is a constraint. The isolating bonnets positioned on top and venting bonnets are positioned on right and left hand side.

Connection : 1/4" (F) For Instrument and process along with 1/8" (F) Drain
Maximum Working Pressure 3000 PSI

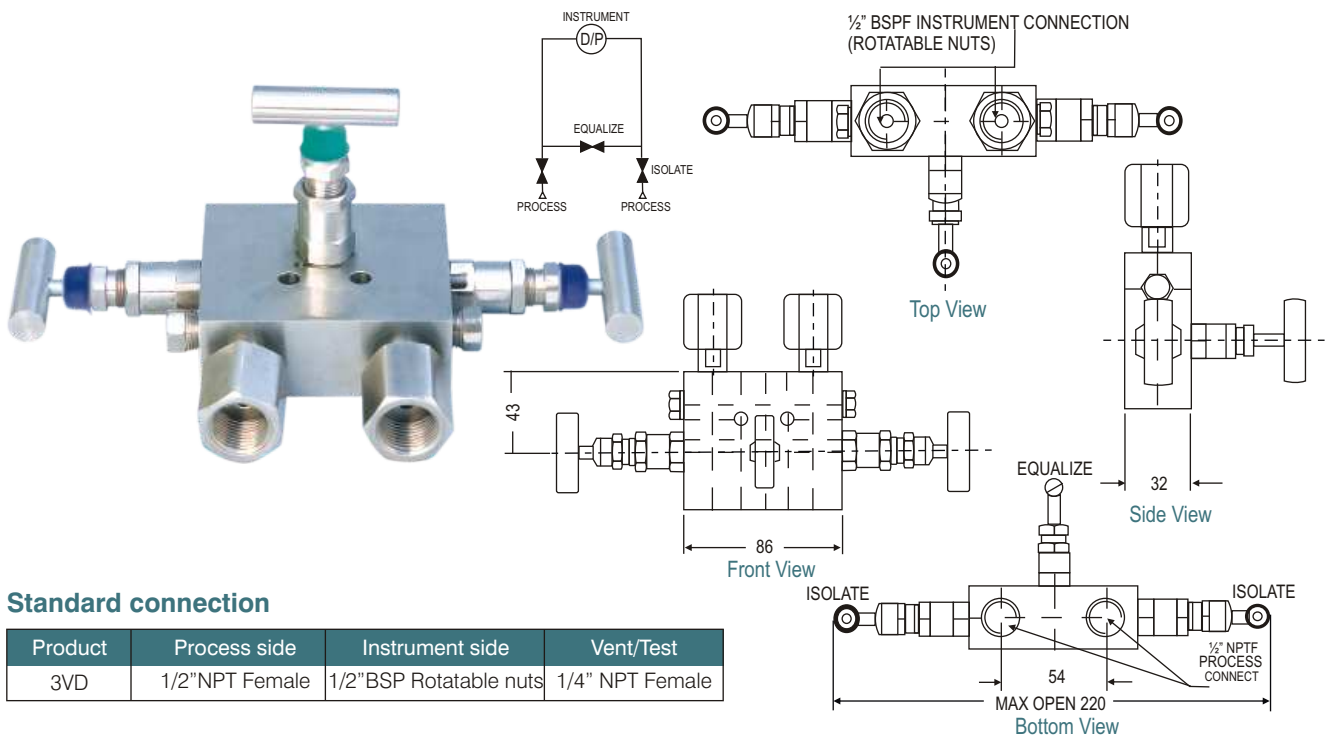


Standard connection

Product	Process side	Instrument side	Vent/Test
3VMN	1/4"NPT Female	1/4"NPT Female	1/8" NPT Female

3VD

Three valve manifold or differential pressure gauges. Two horizontal inlets NPT female at bottom side. Two outlets with rotating nuts on top side and vent/test connection on top. Equalizing bonnet at front, isolating bonnets at left and right hand side. **Also available in 54mm tap spacings Series - 3VD54.**



Standard connection

Product	Process side	Instrument side	Vent/Test
3VD	1/2"NPT Female	1/2"BSP Rotatable nuts	1/4" NPT Female



Standard version specifications of Series 3VS, 3VM, 3VMN, 3VD

Body	: SS 316
Stem	: SS 316
Valve assembly	: SS 316
'T' bar handle	: SS 304
Maximum working pressure	: 6000 psi [not available in Series 3VMN]
Maximum working temperature	: 240°C
Packing	: PTFE (Grafoil for temperature above 240°C to 550°C)
Type of stem	: Type CT; Stem with conical metal tip
Drain port	: 1/4" NPT [F]; provided with SS 316 plug [not available in Series 3VMN]
Hard Chrome plating	: Provided on stem tip

How to order : Valve Type - 3VS, 3VM, 3VMN, 3VD

Body Material	Stem Type	Stem Packing	Size = Inlet x Outlet	Connections	Threads
C = Carbon Steel	CT (std)	P = PTFE (std)	24 = 1/4" x 1/4"	FF = Female x Female (Std)	N = NPT (ANSI B1.20.1)
S = SS 316 (std)	DS	G = Grafoil	44 = 1/2" x 1/2" (std)	SW = Socket Weld	P = BSPP (BS2779)
S4 = SS 304					B = BSPT (BS21)
SL = SS 316L					
M = Monel 400					
H = Hastelloy C					

Options

- GH : Material test certificate
- GO : Hydro test certificate
- MBC : Mounting bolts [7/16" UNF] in carbon steel
- MBS : Mounting bolts [7/16" UNF] in SS
- IE : Circular plastic.
- TF : Sour gas service to NACE standard MR-01-75.
- SG : Oxygen service. (manifolds are supplied cleaned and degreased)
- DS : Valves with stem having soft conical and delrin tip rolled into the needle for gas service.
- MB : Mounting bracket

Example

To place an order simply refer to the codes in the table.

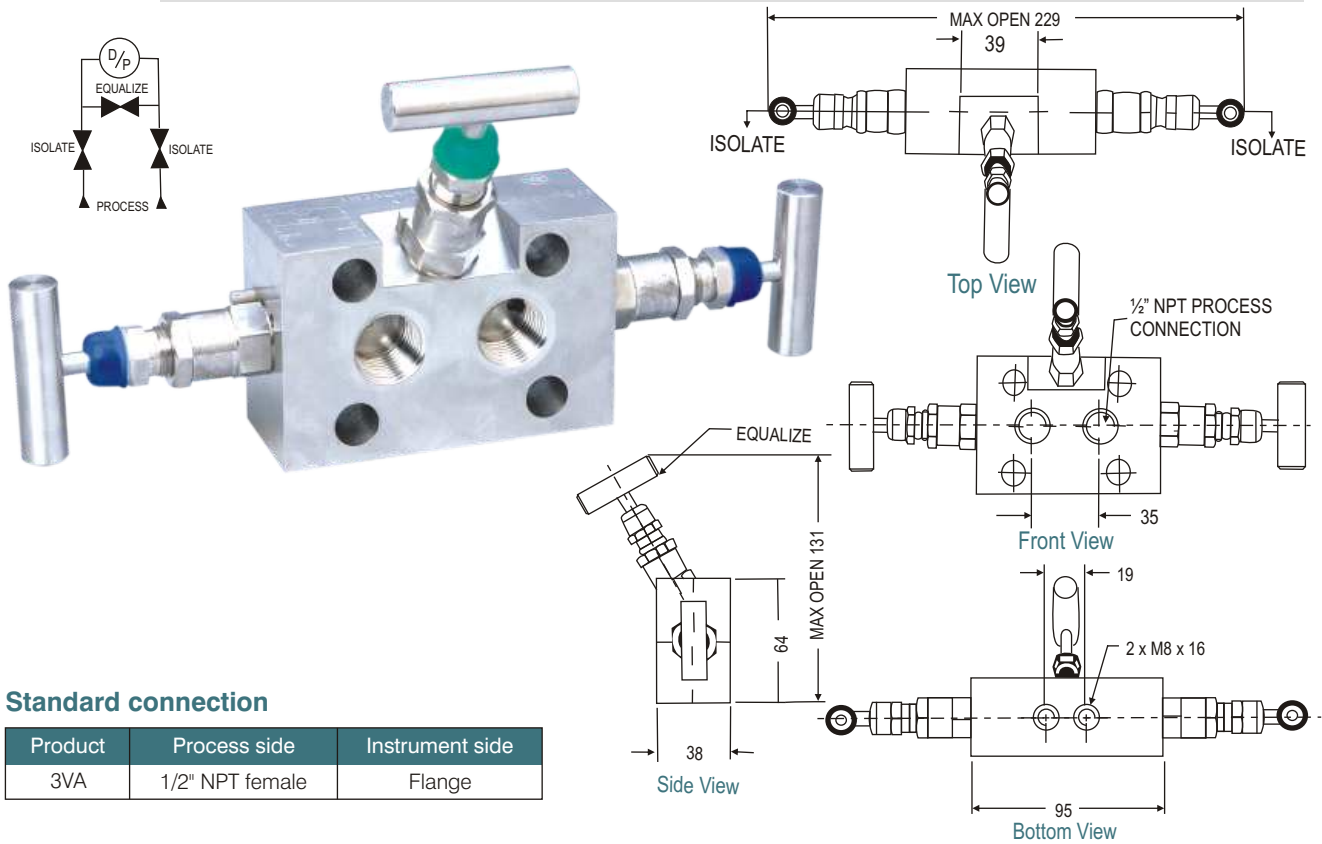
Valve Type	:	Body Material	+	Stem Type	+	Stem Packing	+	Size	+	Connections	+	Threads	+	Options
3VS		C		CT		P		44		FF		N		= 3VS-C-CT-P-44-FF-N-Options

NOTE:

- The weld prepared types are available with female plain end - suitable for socket weld.
- Anti-tamper bonnet - special design on request with locking arrangement if desired.

3VA

With two threaded horizontal port inlets on the front side and two Flange outlets on the back side. The two isolating bonnets are positioned on the left and right hand side, the equalizing bonnet is of angular design positioned on the top for easy operation.

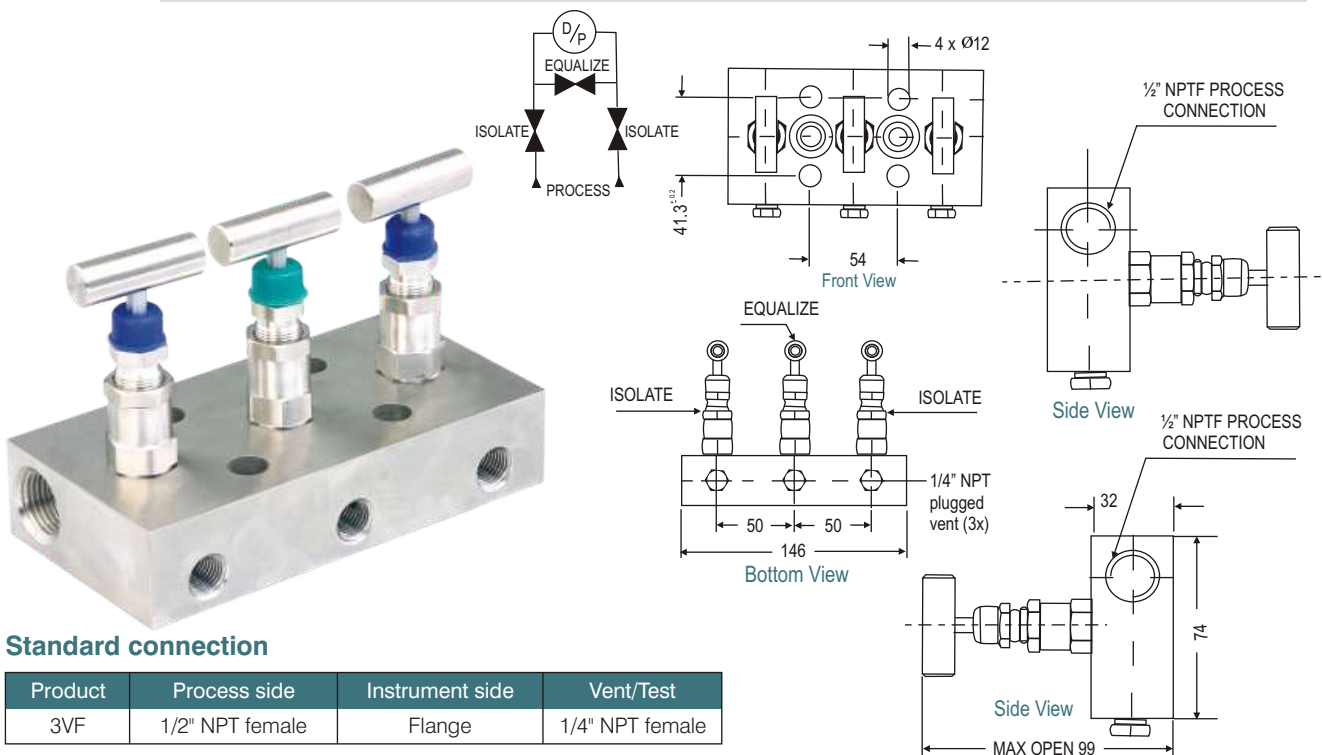


Standard connection

Product	Process side	Instrument side
3VA	1/2" NPT female	Flange

3VF

With two threaded horizontal port inlets positioned on the left and right hand side and two Flange outlets on the back side. The two isolating bonnets and the equalizing bonnet are positioned on the front. Standard with three downstream test connections.



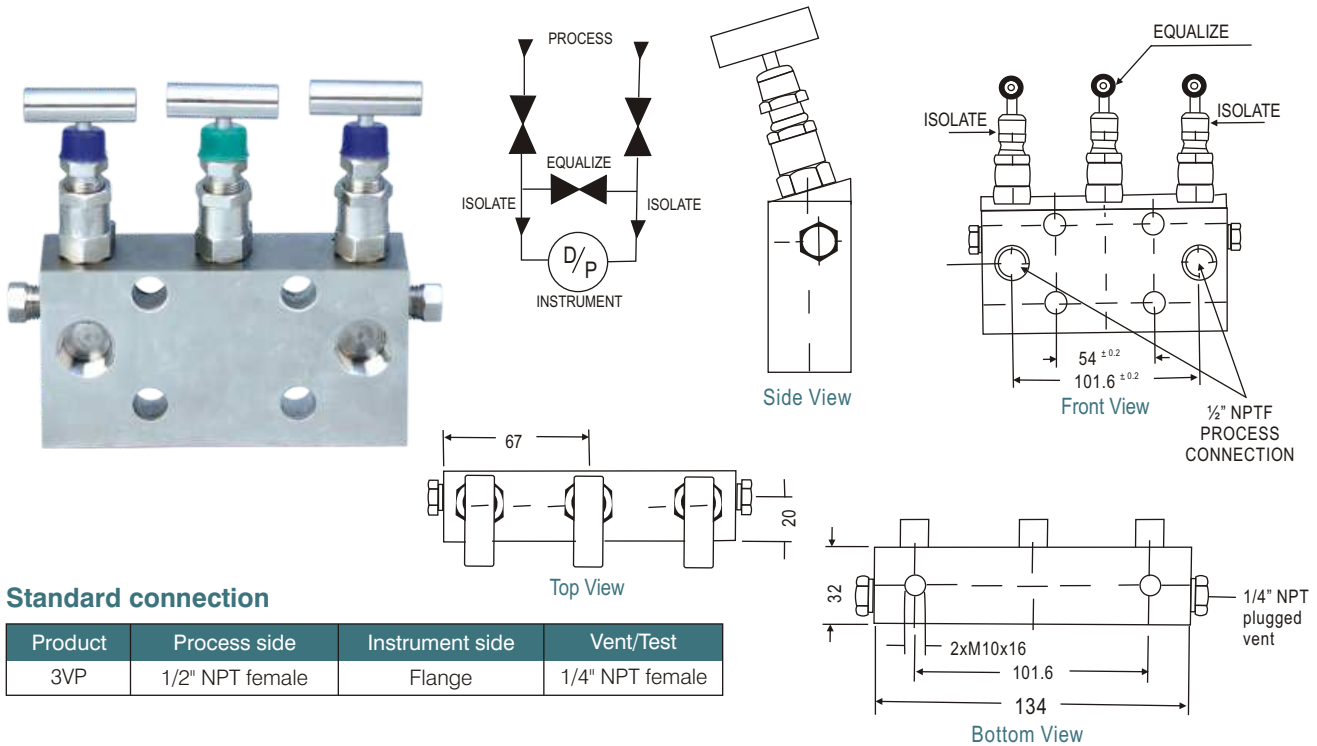
Standard connection

Product	Process side	Instrument side	Vent/Test
3VF	1/2" NPT female	Flange	1/4" NPT female



3VP

With threaded horizontal port inlets positioned on the front and Flange outlets on the back side. The test connections are positioned on the left and right hand side. The isolating bonnets and the equalizing bonnet are positioned angular on the top of the body.

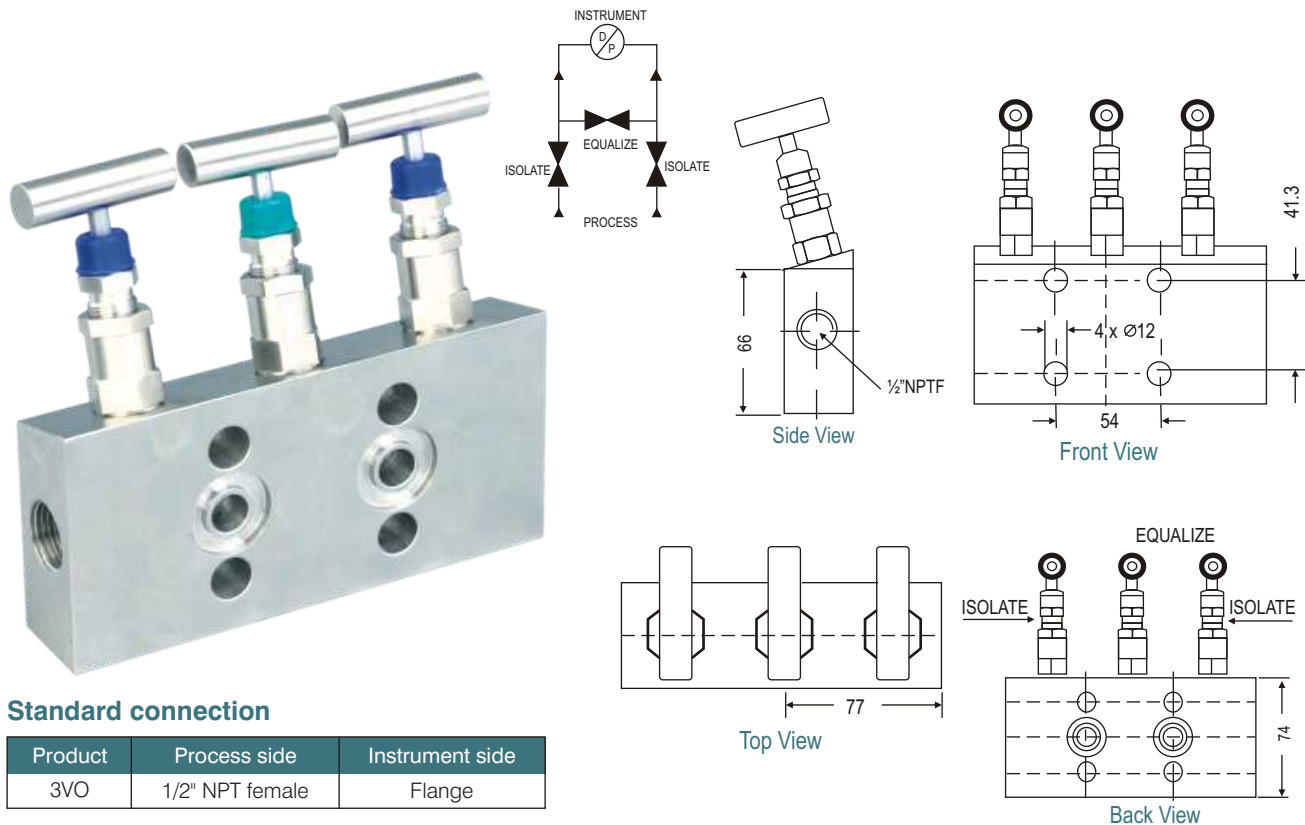


Standard connection

Product	Process side	Instrument side	Vent/Test
3VP	1/2" NPT female	Flange	1/4" NPT female

3VO

With threaded horizontal port inlets on the left and right hand side and Flange outlets on the back side. The isolating bonnets and the equalizing bonnets are positioned angular on the top of the body.



Standard connection

Product	Process side	Instrument side
3VO	1/2" NPT female	Flange

Standard version specifications of Series 3VA, 3VF, 3VP , 3VO

Body	: SS 316
Stem	: SS 316
Valve assembly	: SS 316
T' bar handle	: SS 304
Maximum working pressure	: 6000 psi
Maximum working temperature	: 240°C
Packing	: PTFE (Grafoil for temperature above 240°C to 550°C)
Type of stem	: Type CT; Stem with conical metal tip
Drain port	: 1/4" NPT [F]; provided with SS 316 plug [not available in Series 3VA]
Hard Chrome plating	: Provided on stem tip.

How to order : Valve Type - 3VA, 3VF, 3VP, 3VO

Body Material	Stem Type	Stem Packing	Size = Inlet x Outlet	Connections	Threads
C = Carbon Steel	CT (std)	P = PTFE (std)	4F = 1/2"x Flange	FD = Female x Flange (54mm)	N = NPT (ANSI B1.20.1)
S = SS 316 (std)	DS	G = Grafoil	2F = 1/4"x Flange	FR = Female X Female	P = BSPP (BS2779)
S4 = SS 304				Rotating	B = BSPT (BS21)
SL = SS 316L				SW = Socket Weld	
M = Monel 400					
H = Hastelloy C					

Options

- GH : Material test certificate
- GO : Hydro test certificate
- MBC : Mounting bolts [7/16" UNF] in carbon steel
- MBS : Mounting bolts [7/16" UNF] in SS
- IE : Circular plastic.
- TF : Sour gas service to NACE standard MR-01-75.
- SG : Oxygen service. (manifolds are supplied cleaned and degreased)
- DS : Valves with stem having soft conical and delrin tip rolled into the needle for gas service.
- MB : Mounting bracket

Example

To place an order simply refer to the codes in the table.

Valve Type	:	Body Material	+	Stem Type	+	Stem Packing	+	Size	+	Connections	+	Threads	+	Options
3VA		S		CT		P		4F		FD		N		= 3VA-S-CT-P-4F-FD-N-Options

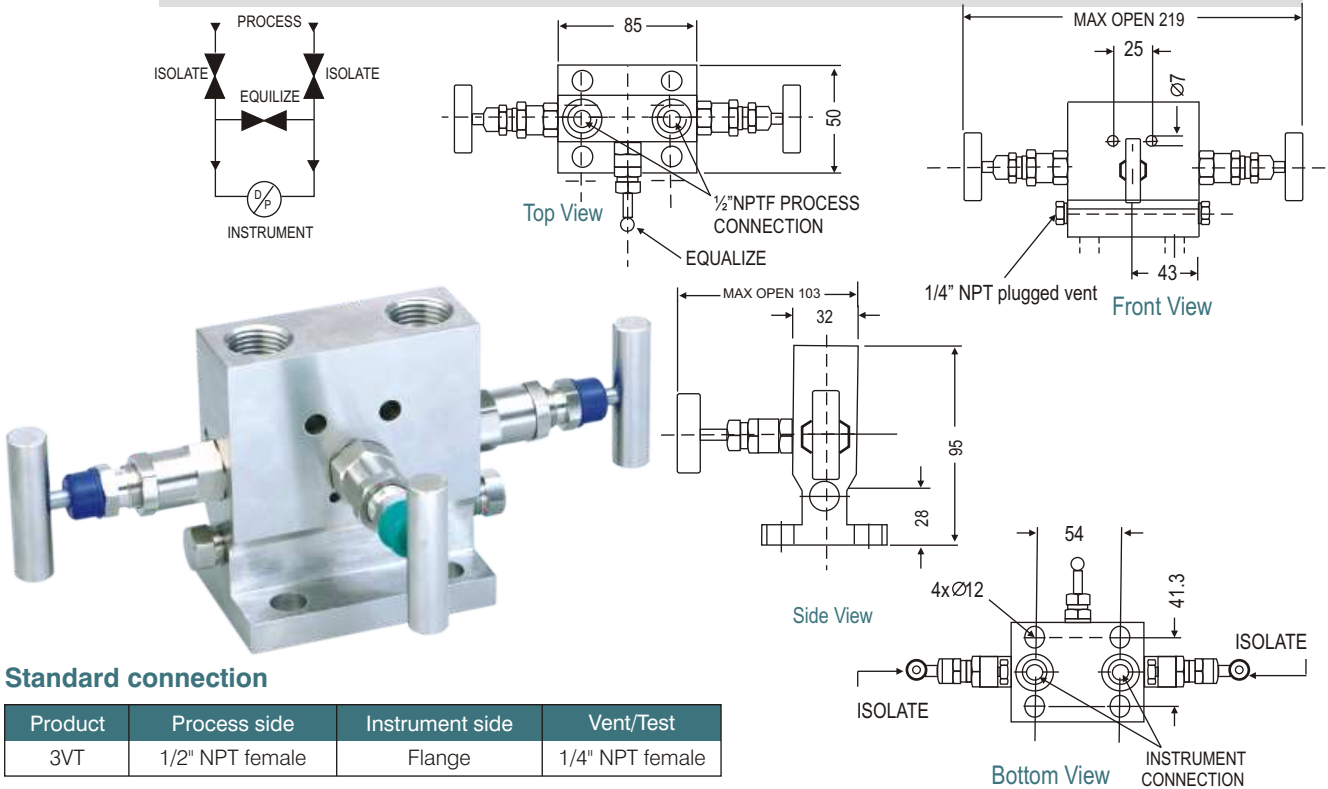
NOTE:

- The weld prepared types are available with female plain end - suitable for socket weld.
- Anti-tamper bonnet - special design on request with locking arrangement if desired.



3VT

With threaded horizontal port inlets on the front side and Flange outlets on the back side. Two test connections positioned on the left and right hand side of the body. The isolating bonnets are positioned on the left and right hand side and the equalizing bonnet is positioned on the top.

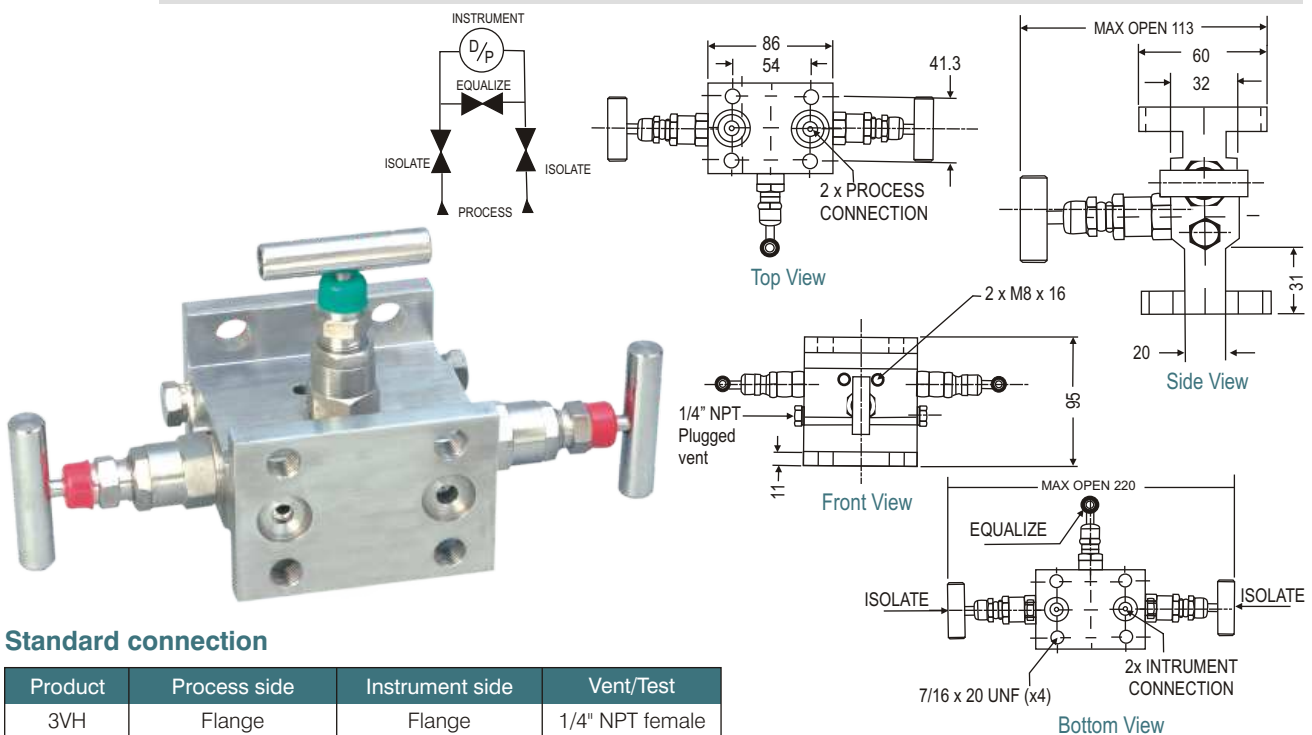


Standard connection

Product	Process side	Instrument side	Vent/Test
3VT	1/2" NPT female	Flange	1/4" NPT female

3VH

With Flange horizontal port inlets on the front side and Flange outlets on the back side. Two test connections positioned on the left and right hand side of the body. The isolating bonnets are positioned on the left and right hand side and the equalizing bonnet is positioned on the top.

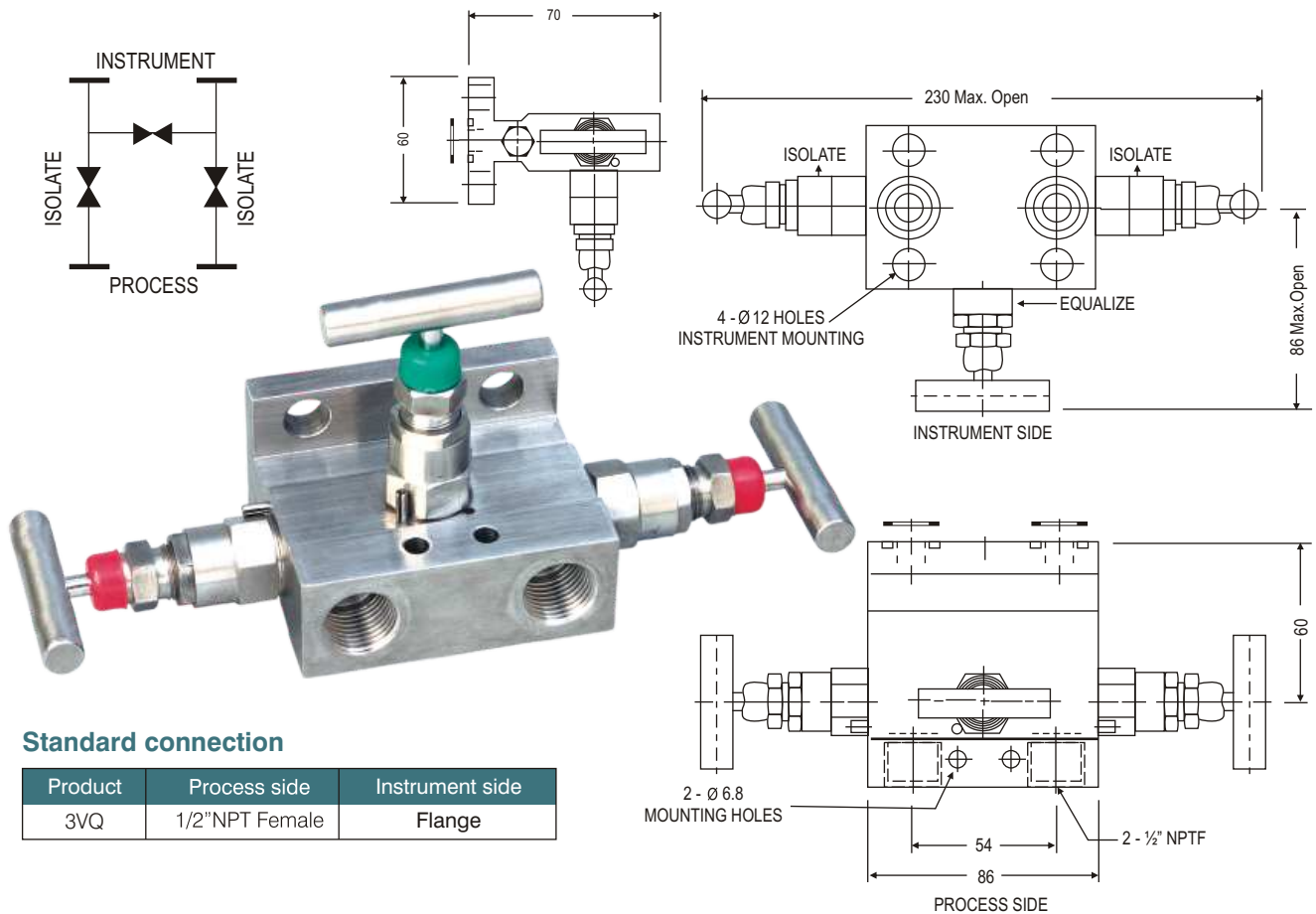


Standard connection

Product	Process side	Instrument side	Vent/Test
3VH	Flange	Flange	1/4" NPT female

3VQ

With threaded horizontal port inlet on the front side and Flange outlet on the back side without test/vent connection. The isolating bonnets are positioned on the left and right hand side and Equalizing bonnet is positioned on the top.



Standard connection

Product	Process side	Instrument side
3VQ	1/2" NPT Female	Flange

Standard technical specifications of series 3VT, 3VH, 3VQ

Body	: SS 316
Stem	: SS 316
Valve assembly	: SS 316
'T' bar handle	: SS 304
Maximum working pressure	: 6000 psi
Maximum working temperature	: 240°C
Packing	: PTFE (Grafoil for temperature above 240°C to 550°C)
Type of stem	: Type CT; Stem with conical metal tip
Drain port	: 1/4" NPT [F]; provided with SS 316 plug
Hard Chrome plating	: Provided on stem tip.

How to order : Valve Type - 3VT, 3VH, 3VQ

Body Material	Stem Type	Stem Packing	Size = Inlet x Outlet	Connections	Threads
C = Carbon Steel	CT (std)	P = PTFE (std)	4F= 1/2" x Flange	FD = Female x Flange (54mm)	N = NPT (ANSI B1.20.1)
S = SS 316 (std)	DS	G = Grafoil	2F = 1/4" x Flange	SW = Socket Weld	P = BSPP (BS2779)
S4 = SS 304				DD = Flange x Flange (54mm)	B = BSPT (BS21)
SL = SS 316L					
M = Monel 400					
H = Hastelloy C					

Options

- GH : Material test certificate
- GO : Hydro test certificate
- MBC : Mounting bolts [7/16" UNF] in carbon steel
- MBS : Mounting bolts [7/16" UNF] in SS
- IE : Circular plastic.
- TF : Sour gas service to NACE standard MR-01-75.
- SG : Oxygen service. (manifolds are supplied cleaned and degreased)
- DS : Valves with stem having soft conical and delrin tip rolled into the needle for gas service.
- MB : Mounting bracket

Example

To place an order simply refer to the codes in the table.

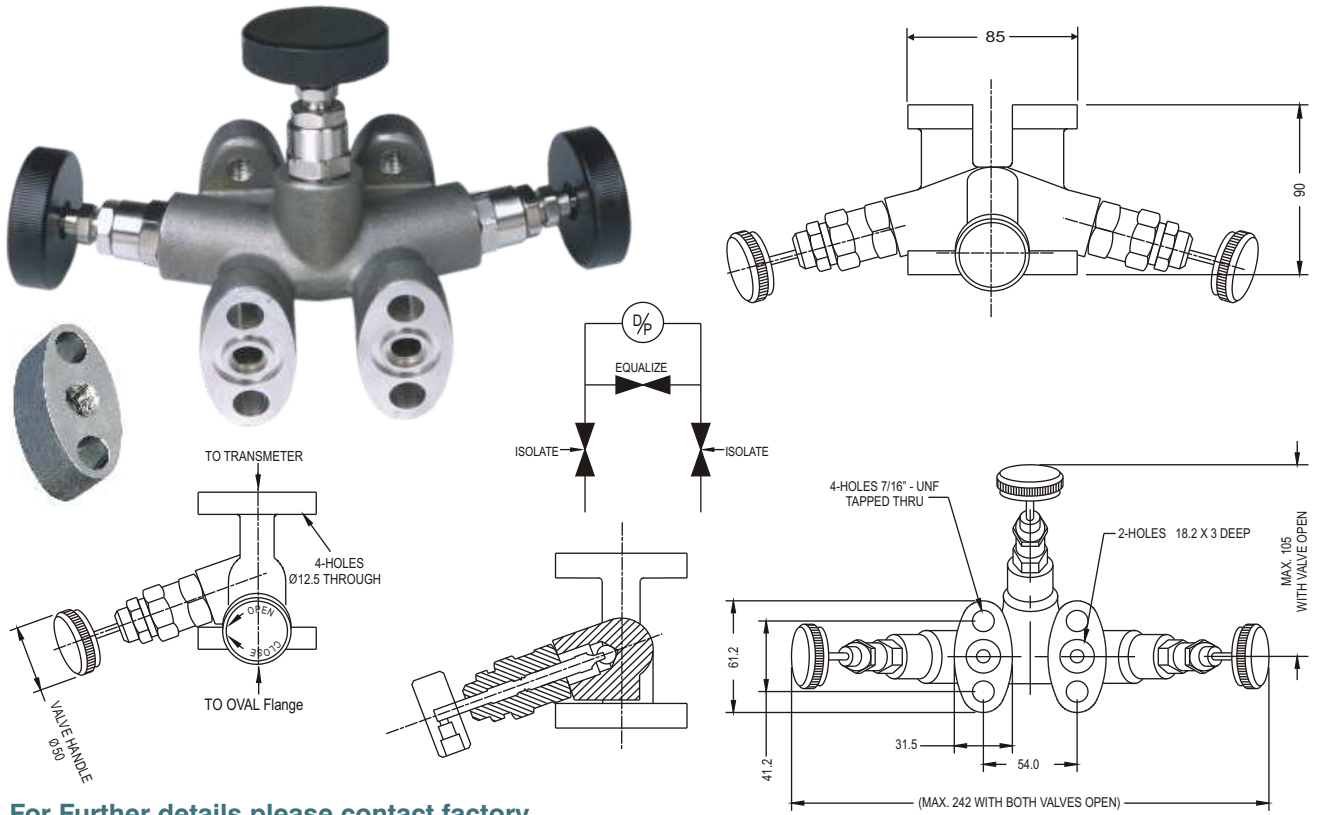
Valve Type + **Body Material** + **Stem Type** + **Stem Packing** + **Size** + **Connections** + **Threads** + **Options**
 3VT + S + CT + P + 4F + FD + N = 3VT-S-CT-P-4F-FD-N-Options

NOTE:

- The weld prepared types are available with female plain end - suitable for socket weld.
- Anti-tamper bonnet - special design on request with locking arrangement if desired.

3VCN

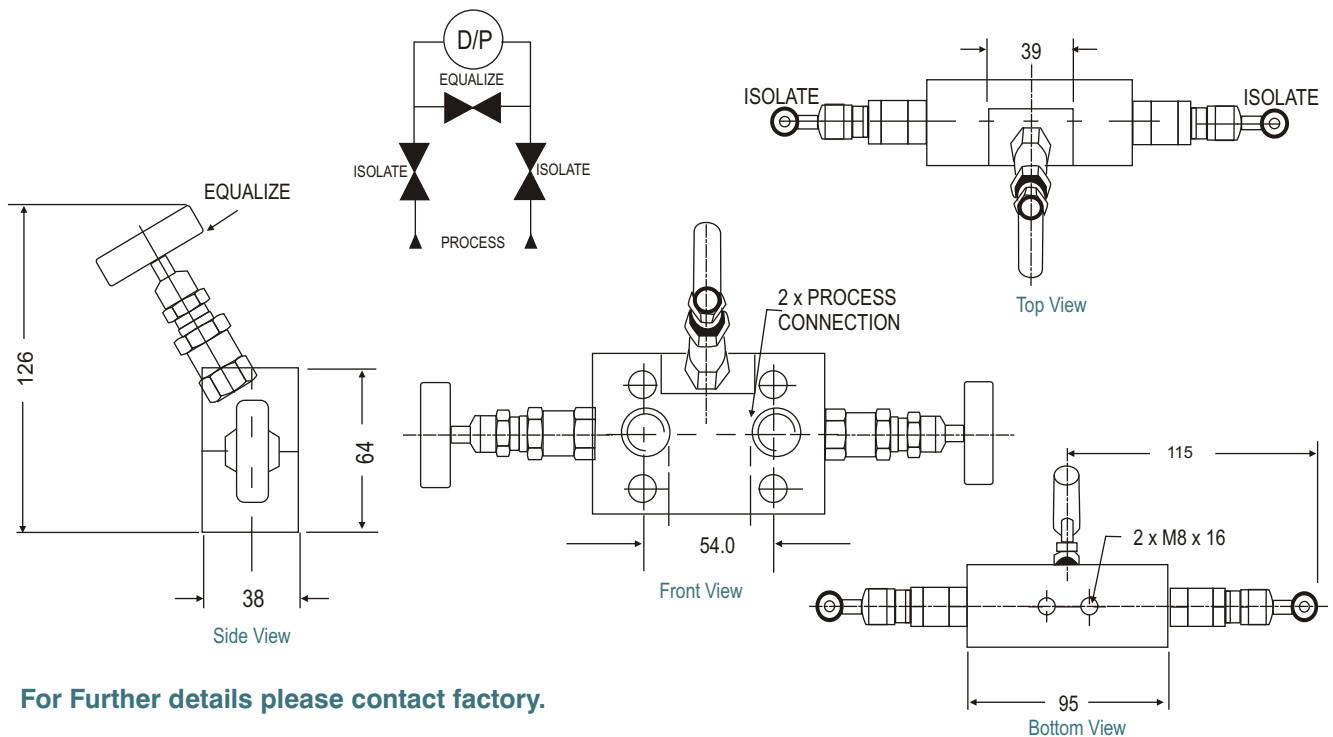
Special Three valve manifold with body made of casting. The standard Series of SS 316 material withstands a pressure of 6000 psi and is used for isolation and equalizing. Connection : Special [oval Flange] Accessory provided : Kidney Flange for mounting



For Further details please contact factory.

3VB

Special design three valve manifold similar to our Series 3VA except provided with two horizontal port process inlets Flange to fit DIN 19213 and two instrument Flange outlets on the back side. Isolating bonnets at the left and right side, equalizing bonnet angular on top. No vent/test connection and no venting bonnet.

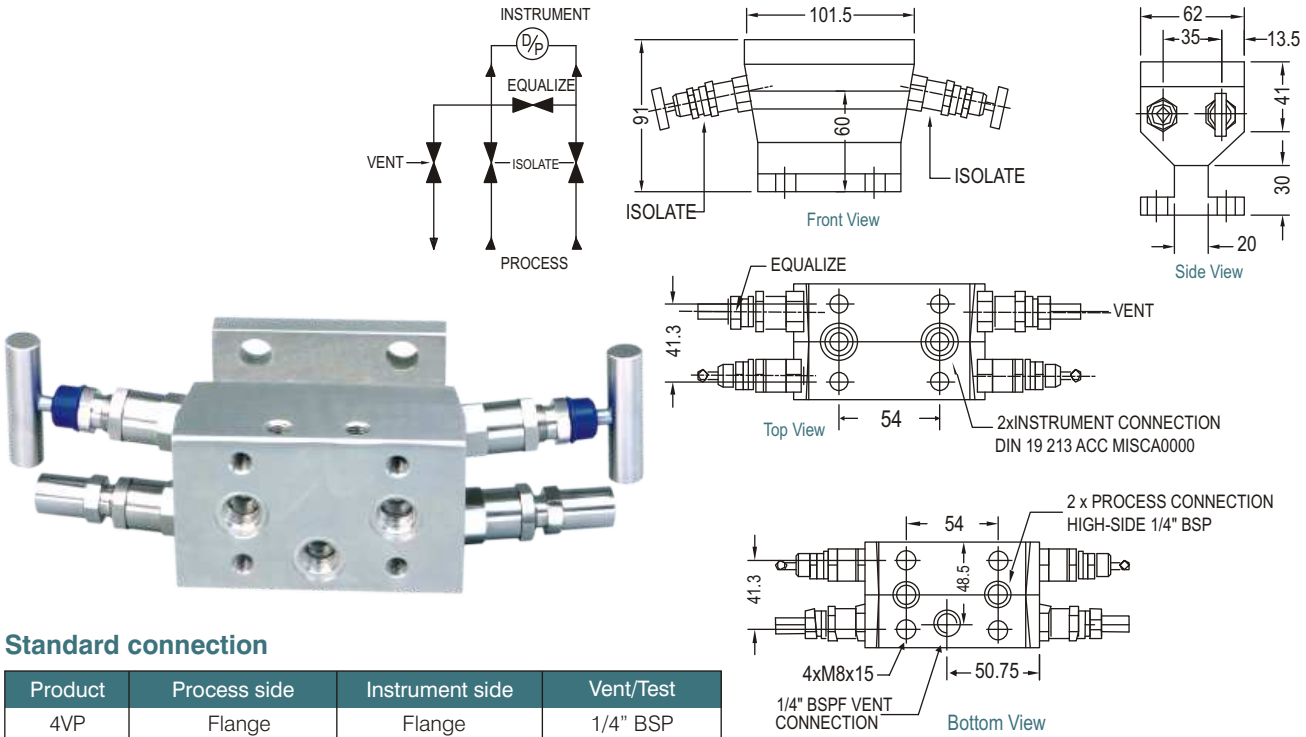


For Further details please contact factory.



4VP

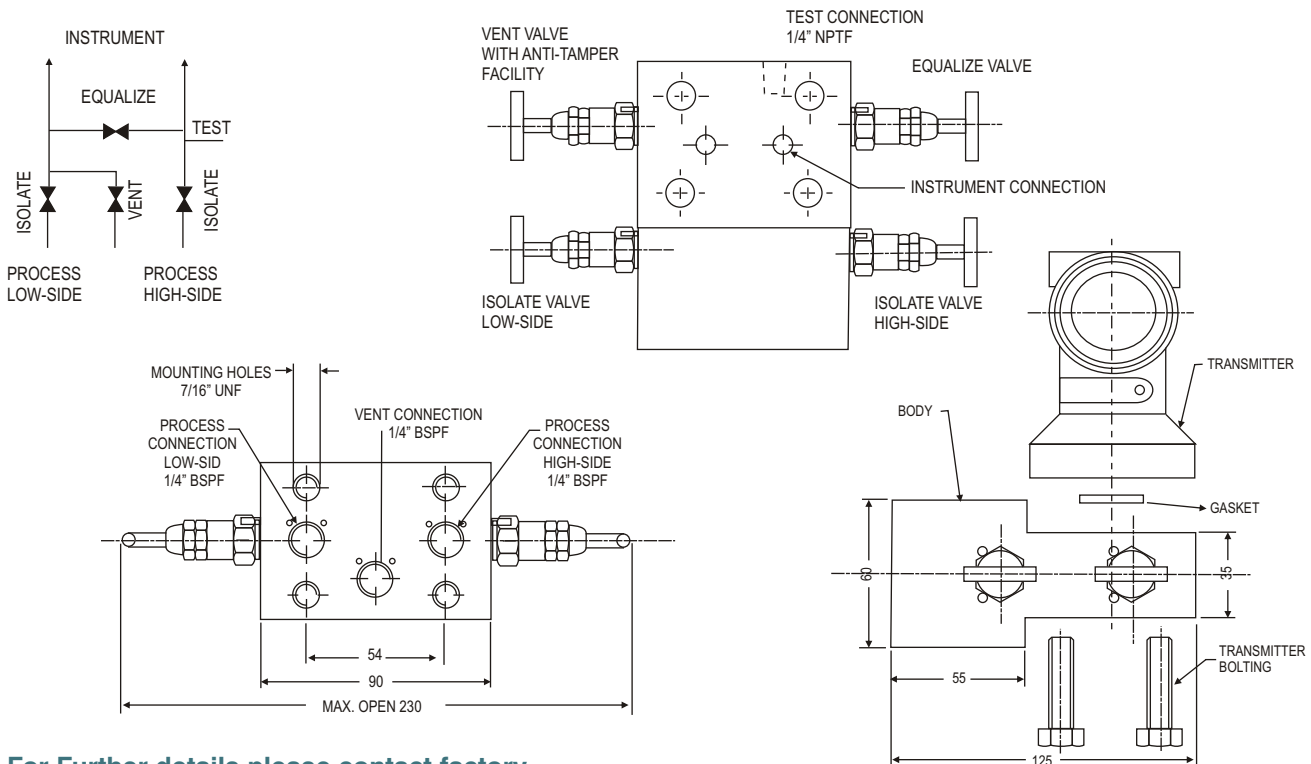
A compact four valve manifold to accommodate any full DIN 19213 interface compliant pressure transmitter-two inlets BSP/NPT female and 2 outlets Flange to fit DIN 19213; vent/test on front side, equalizing bonnet at right side; isolating bonnets at left and right side and venting bonnet at left side.



For Further details please contact factory.

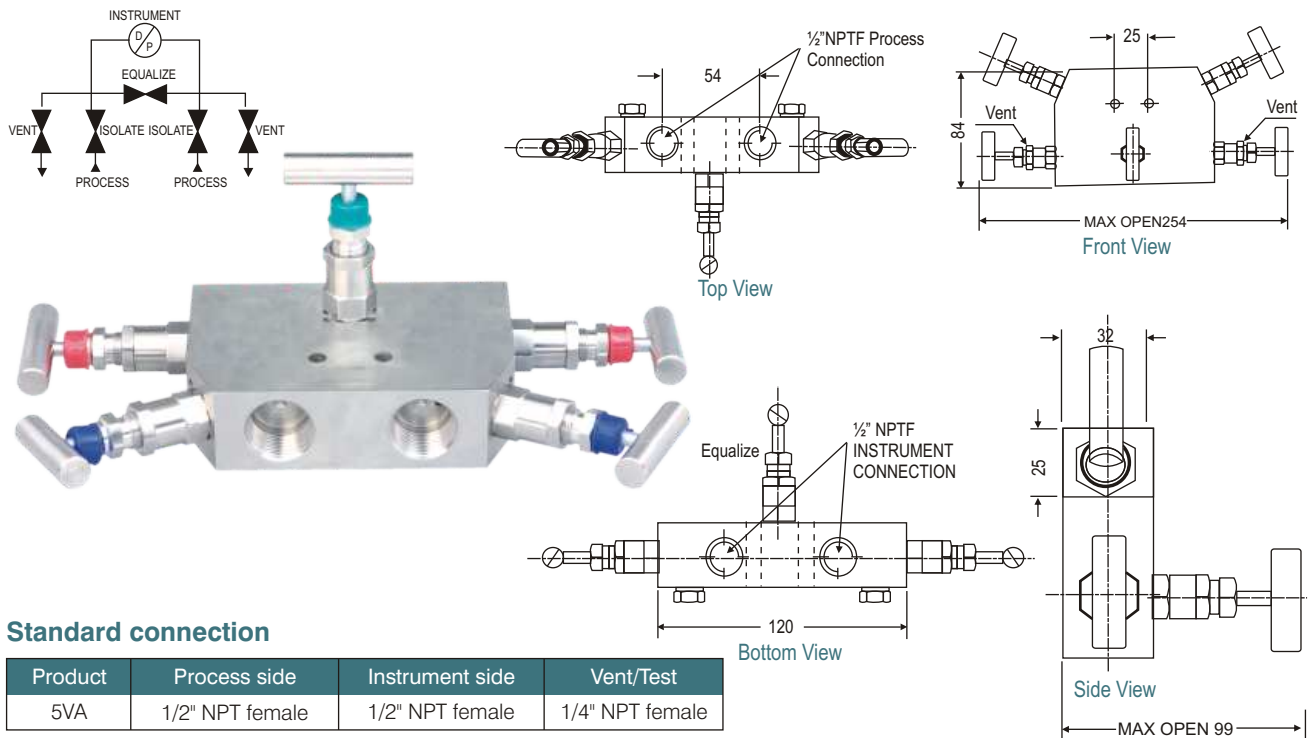
4VRR

Four valve compact manifold especially designed to suit FR 3051 CD differential transmitters mounted integral on the manifold-2 inlets BSP/NPT female and 2 outlets Flange to fit FR 3051 CD- vent/test connection on front-equalizing bonnet at right side. 2 isolating bonnets at left and right-venting bonnet at left.



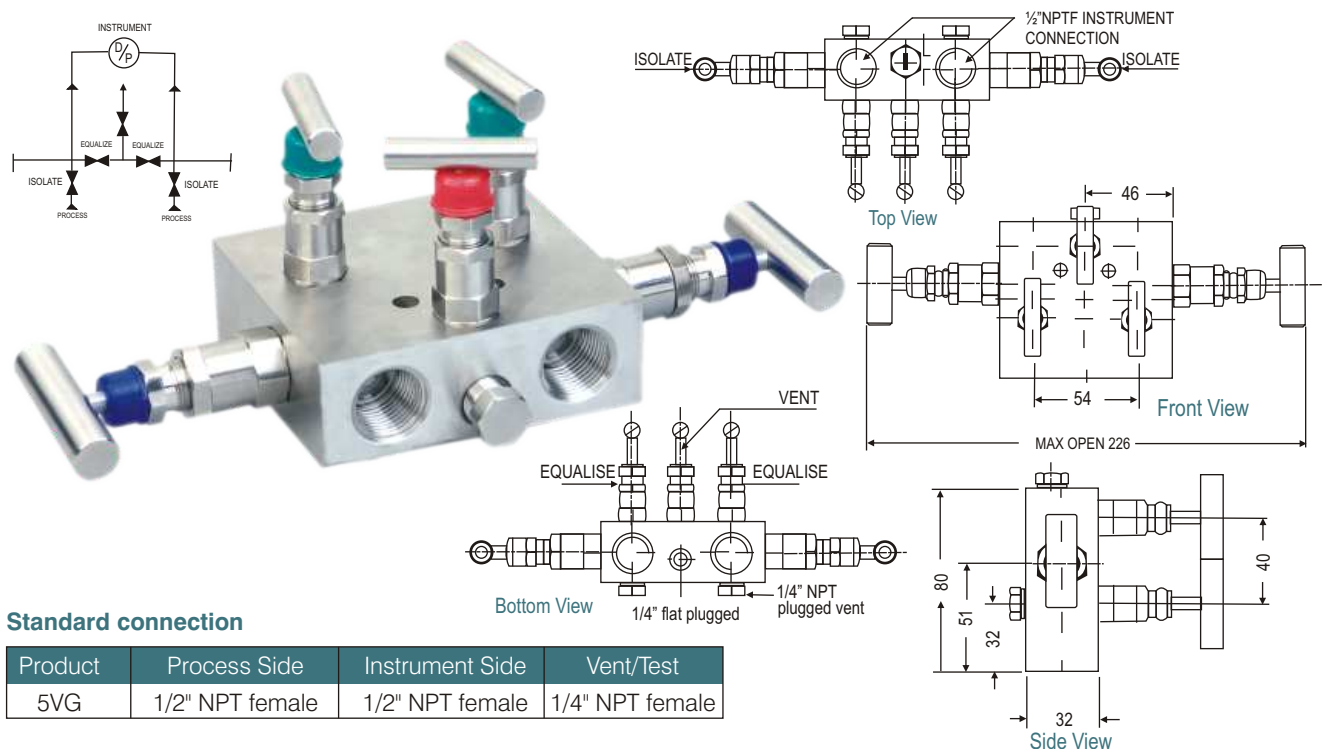
5VA

With threaded vertical port inlets and outlets. The isolating and venting bonnets are positioned on the left and right hand side and the equalizing bonnet is positioned on the front side. Designed for remote mounting.



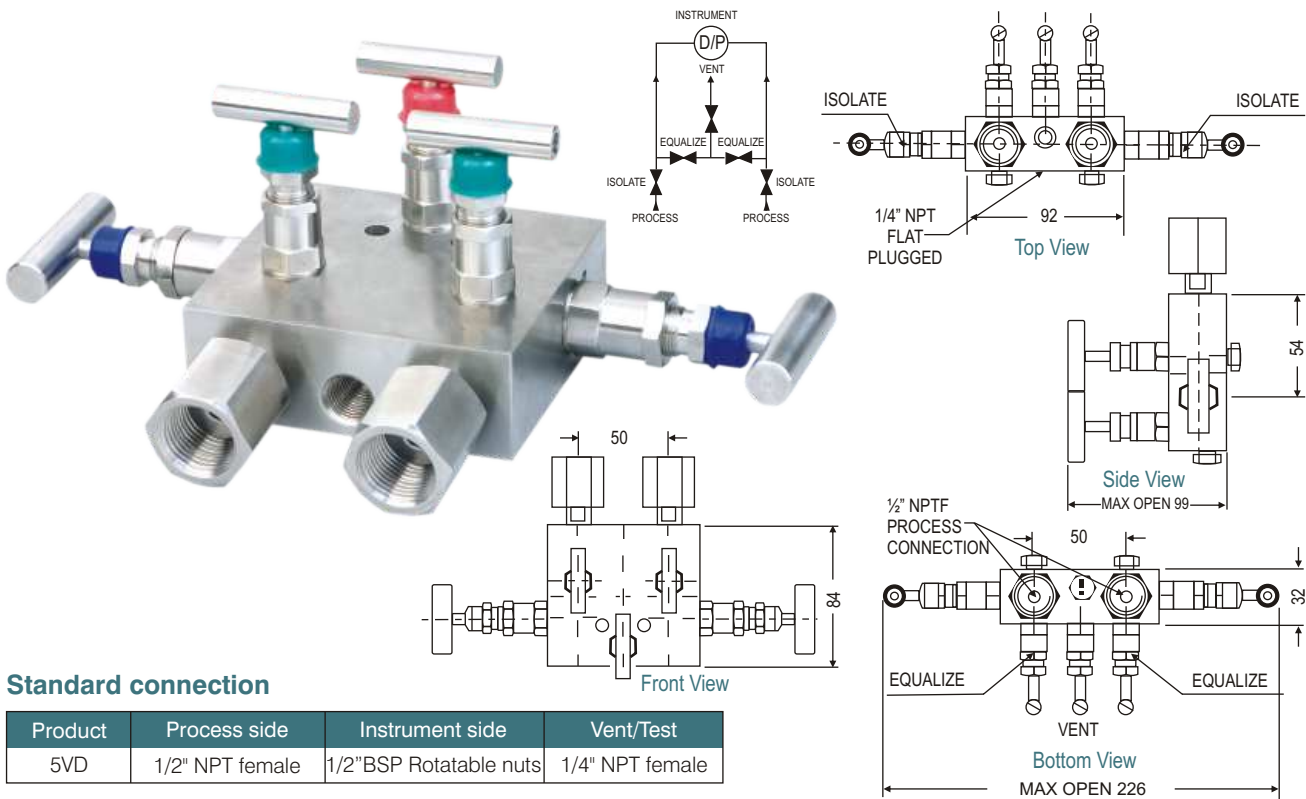
5VG

With threaded 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 field meters, differential transmitters and chart recorders on gas service allowing fail safe configuration preventing pressure loss from the high to low pressure impulse lines.



5VD

Series for differential pressure gauges with 2 inlets NPT female at bottom and 2 outlets with rotating nuts on top side. **Also available in 54mm tap spacings Series - 5VD54.**

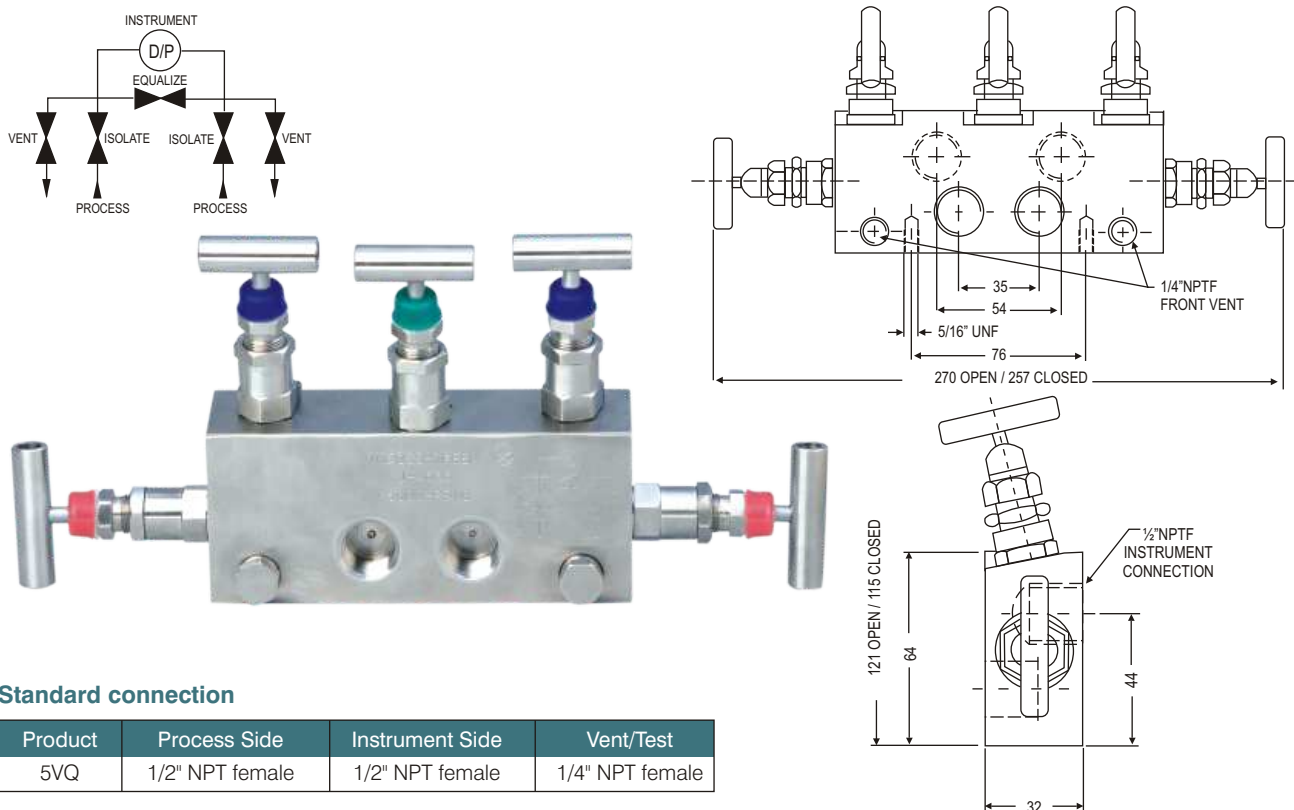


Standard connection

Product	Process side	Instrument side	Vent/Test
5VD	1/2" NPT female	1/2" BSP Rotatable nuts	1/4" NPT female

5VQ

Series designed for complete isolation of instruments-2 inlets NPT female at front, 2 outlets NPT female at back side. Vent/test connection at front, equalizing bonnets (2) angular top, isolating bonnets at left and right side, venting bonnet angular on top.

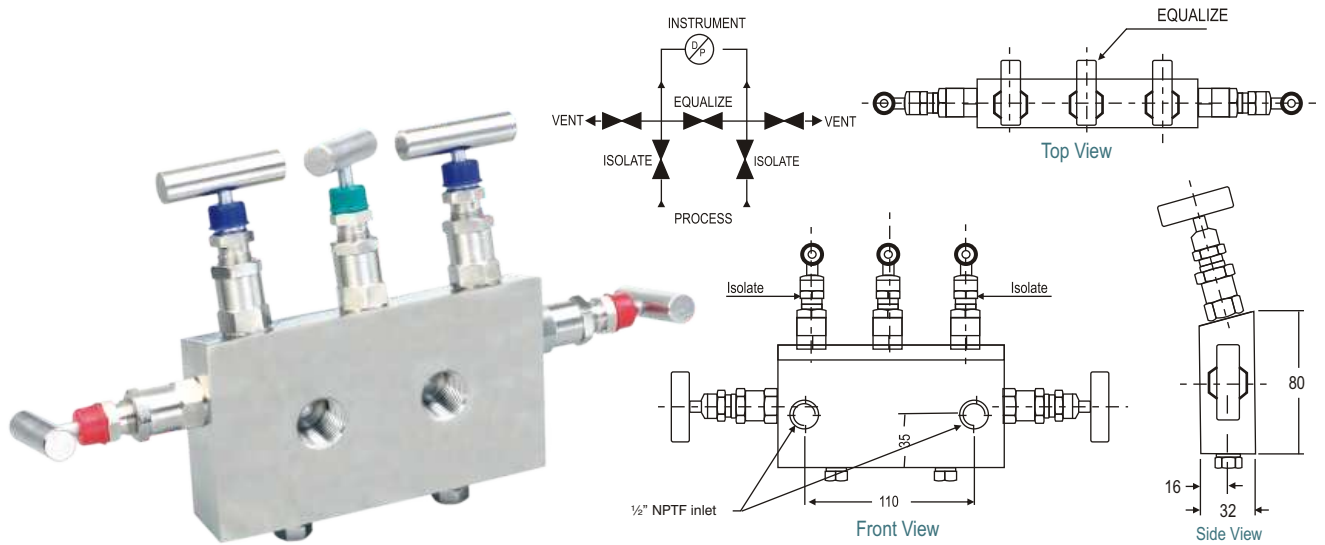


Standard connection

Product	Process Side	Instrument Side	Vent/Test
5VQ	1/2" NPT female	1/2" NPT female	1/4" NPT female

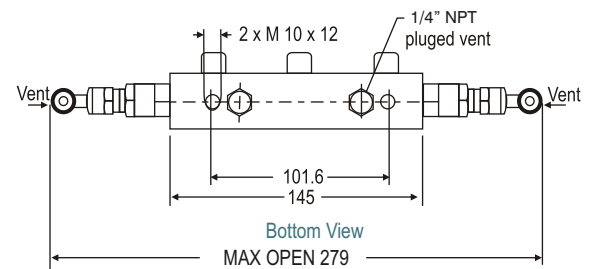
5VV

Model designed for complete isolation of instruments with NPT female inlets /outlets. Vent/test connection at bottom; equalizing bonnet angular on top-isolating bonnets angular on top venting bonnets at left and right side.



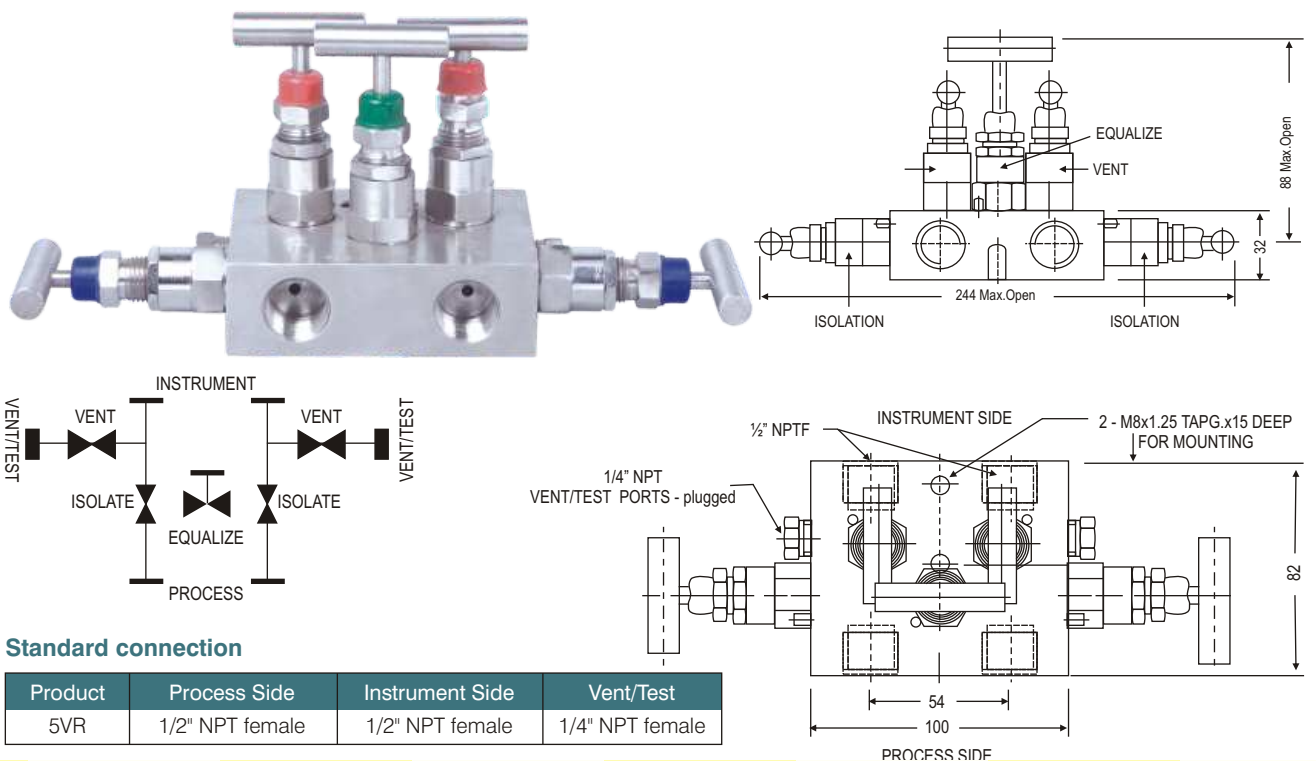
Standard connection

Product	Process Side	Instrument Side	Vent/Test
5VV	1/2" NPT female	1/2" NPT female	1/4" NPT female



5VR

With threaded female ports on front side and back side for instrument and process connections. The two vent bonnets along with equalizing bonnet are positioned on the top side. The two isolation bonnets are positioned on left and right hand sides.



Standard connection

Product	Process Side	Instrument Side	Vent/Test
5VR	1/2" NPT female	1/2" NPT female	1/4" NPT female



Standard version specifications of Series 5VA, 5VG, 5VD, 5VQ, 5VV, 5VR

Body	: SS 316
Stem	: SS 316
Valve assembly	: SS 316
'T' bar handle	: SS 304
Maximum working pressure	: 6000 psi
Maximum working temperature	: 240°C
Packing	: PTFE (Grafoil for temperature above 240°C to 550°C)
Type of stem	: Type CT; Stem with conical metal tip
Drain port	: 1/4" NPT [F]; provided with SS 316 plug
Bracket mounting holes	: 2 Nos.
Hard Chrome plating	: Provided on stem tip.

How to order : Valve Type - 5VA, 5VG, 5VD, 5VQ, 5VV, 5VR

Body Material	Stem Type	Stem Packing	Size = Inlet x Outlet	Connections	Threads
C = Carbon Steel	CT	P = PTFE	44 = 1/2" x 1/2" (std)	FF = Female x Female	N = NPT (ANSI B1.20.1)
S = SS 316	DS	G = Grafoil	24 = 1/4" x 1/4"	FR = Female x Female	P = BSPF (BS2779)
S4 = SS 304				Rotating	B = BSPT (BS21)
SL = SS 316L				SW = Socket weld	
M = Monel 400					
H = Hastelloy C					

Options

- GH : Material test certificate
- GO : Hydro test certificate
- IE : Circular plastic.
- TF : Sour gas service to NACE standard MR-01-75.
- SG : Oxygen service. (manifolds are supplied cleaned and degreased)
- DS : Valves with stem having soft conical and delrin tip rolled into the needle for gas service.
- MB : Mounting bracket
- MBC : Mounting bolts [7/16" UNF] in carbon steel
- MBS : Mounting bolts [7/16" UNF] in SS

Example

To place an order simply refer to the codes in the table.

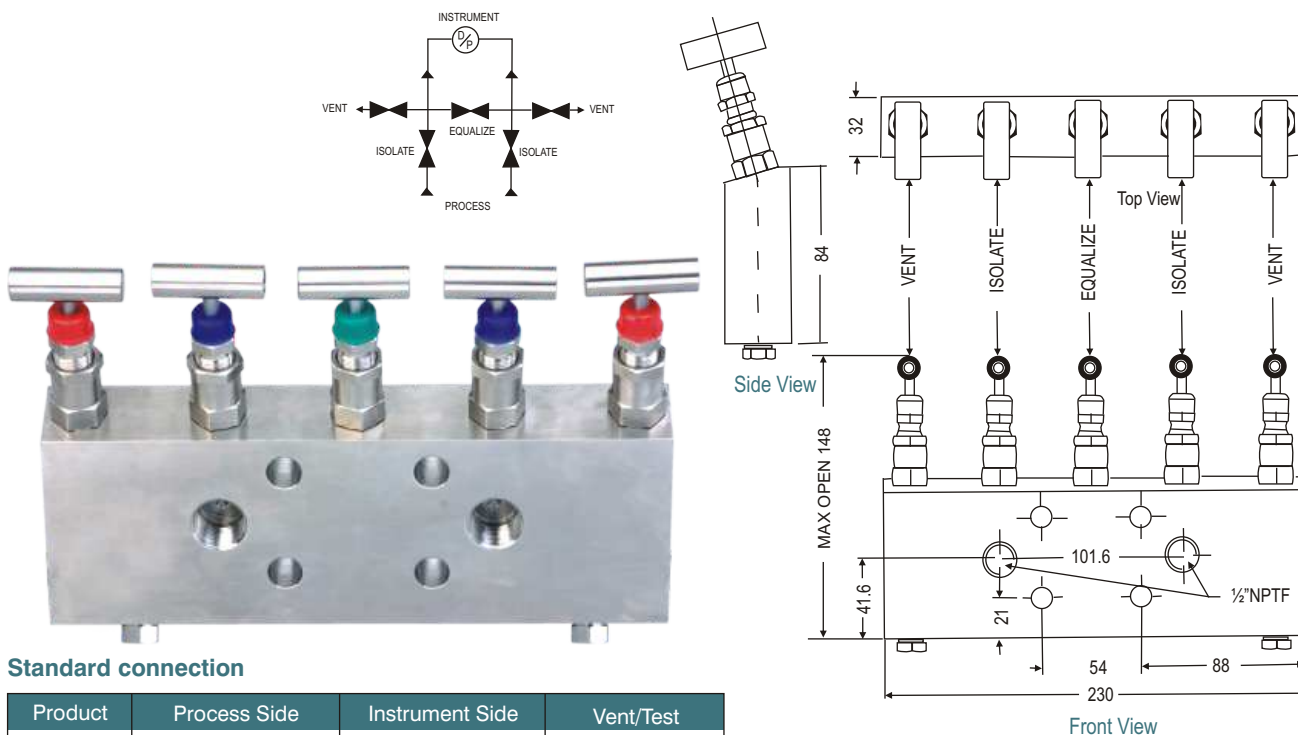
Valve Type	+	Body Material	+	Stem Type	+	Stem Packing	+	Size	+	Connections	+	Threads	+	Options
5VA	+	S	+	CT	+	P	+	44	+	FF	+	N	=	5VA-S-CT-P-44-FF-N-Options

NOTE:

- The weld prepared types are available with female plain end - suitable for socket weld.
- Anti-tamper bonnet - special design on request with locking arrangement if desired.

5VP

With threaded horizontal port inlets and Flange port outlets. Three vent/test connections are positioned on the bottom of the body. The isolating, venting and equalizing bonnets are angular positioned on the top designed direct mounting.

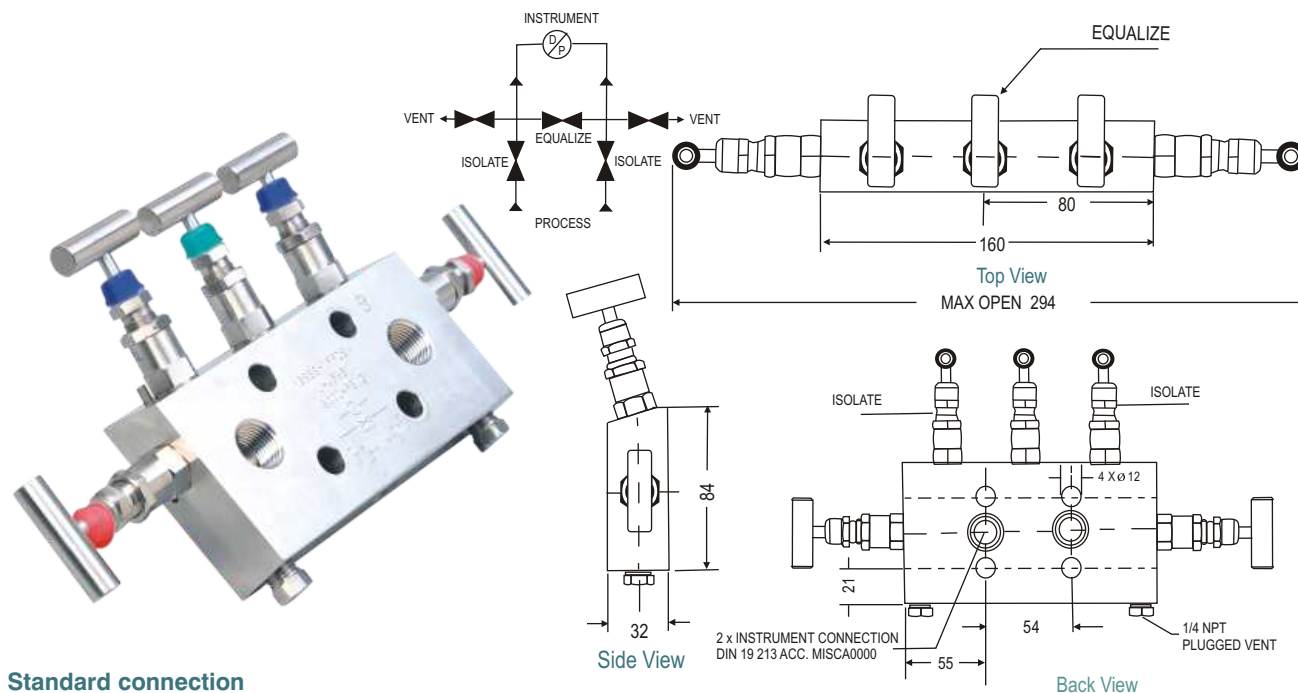


Standard connection

Product	Process Side	Instrument Side	Vent/Test
5VP	1/2" NPT female	flange	1/4" NPT female

5VS

With threaded horizontal port inlets and Flange outlets. Two vent/test connections are positioned on the bottom of the body. The isolating and equalizing bonnets are angular positioned on the top side. The venting bonnets are positioned on the left & right hand side. Designed for direct mounting.



Standard connection

Product	Process side	Instrument side	Vent/Test
5VS	1/2" NPT female	flange	1/4" NPT female



Standard version specifications of Series 5VP, 5VS

Body	: SS 316
Stem	: SS 316
Valve assembly	: SS 316
'T' bar handle	: SS 304
Maximum working pressure	: 6000 psi
Maximum working temperature	: 240°C
Packing	: PTFE (Grafoil for temperature above 240°C to 550°C)
Type of stem	: Type CT; Stem with conical metal tip
Drain port	: 1/4" NPT [F]; provided with SS 316 plug
Hard Chrome plating	: Provided on stem tip.

How to order : Valve Type - 5VP, 5VS

Body Material	Stem Type	Stem Packing	Size = Inlet x Outlet	Connections	Threads
C = Carbon Steel	CT (std)	P = PTFE (std)	2F = 1/4" x Flange	FD = Female x Flange (54mm)	N = NPT (ANSI B1.20.1)
S = SS 316 (std)	DS	G = Grafoil	4F = 1/2" x Flange	SW = Socket Weld	P = BSPP (BS2779)
S4 = SS 304					B = BSPT (BS21)
SL = SS 316L					
M = Monel 400					
H = Hastelloy C					

Options

- GH : Material test certificate
- GO : Hydro test certificate
- MBC : Mounting bolts available [7/16" UNF] in carbon steel
- MBS : Mounting bolts available [7/16" UNF] in SS
- IE : Circular plastic.
- TF : Sour gas service to NACE standard MR-01-75.
- SG : Oxygen service. (manifolds are supplied cleaned and degreased)
- DS : Valves with stem having soft conical and delrin tip rolled into the needle for gas service.
- MB : Mounting bracket

Example

To place an order simply refer to the codes in the table.

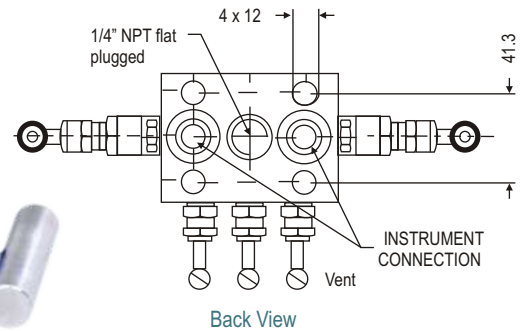
Valve Type	+	Body Material	+	Stem Type	+	Stem Packing	+	Size	+	Connections	+	Threads	+	Options
5VP	+	S	+	CT	+	P	+	4F	+	FD	+	N	=	5VP-S-CT-P-4F-FD-N-Options

NOTE:

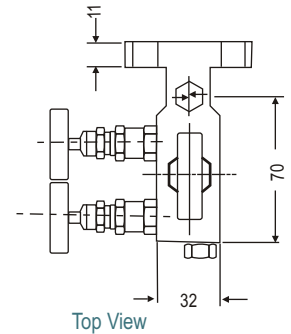
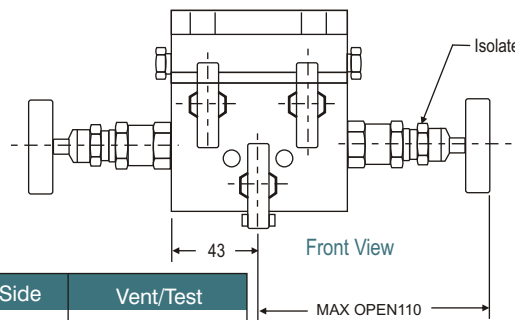
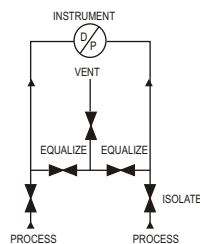
- The weld prepared types are available with female plain end - suitable for socket weld.
- Anti-tamper bonnet - special design on request with locking arrangement if desired.

5VN

Five Valve Manifold Special Series to accommodate any half DIN 19213 interface complaint pressure transmitter. 2 inlets NPT female at front and 2 outlets Flange at back side DIN 19213. Vent/test connection at front, equalizing bonnets at top side, isolating bonnets at left and right side-venting bonnet at top.



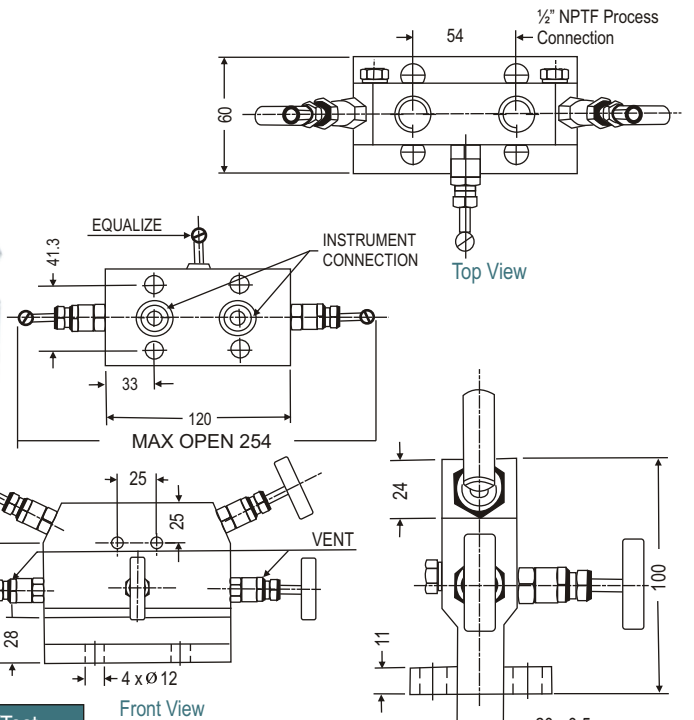
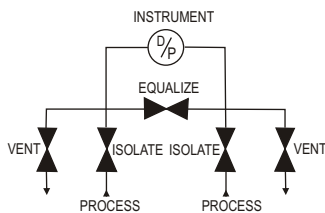
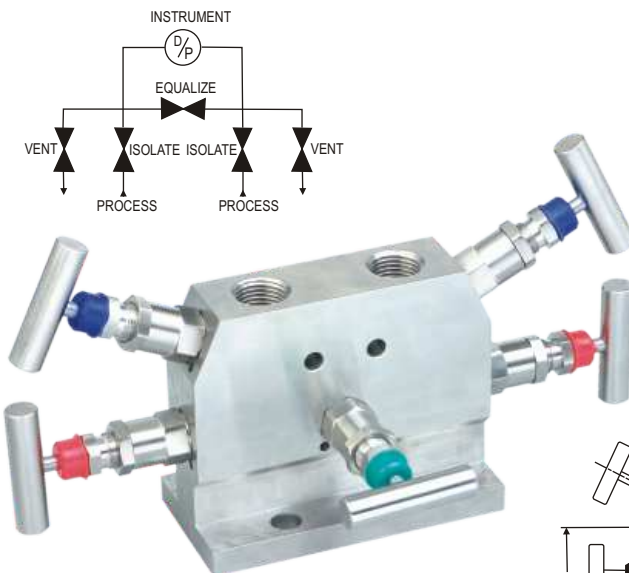
Standard connection



Product	Process Side	Instrument Side	Vent/Test
5VN	1/2" NPT female	flanged	1/4" NPT female

5VT

With threaded horizontal port inlets and Flange port outlets. The vent/test ports are positioned on the bottom side. The isolating and venting bonnets are positioned on the left and right hand side and the equalizing bonnet is positioned on the top side. Designed for direct mounting.



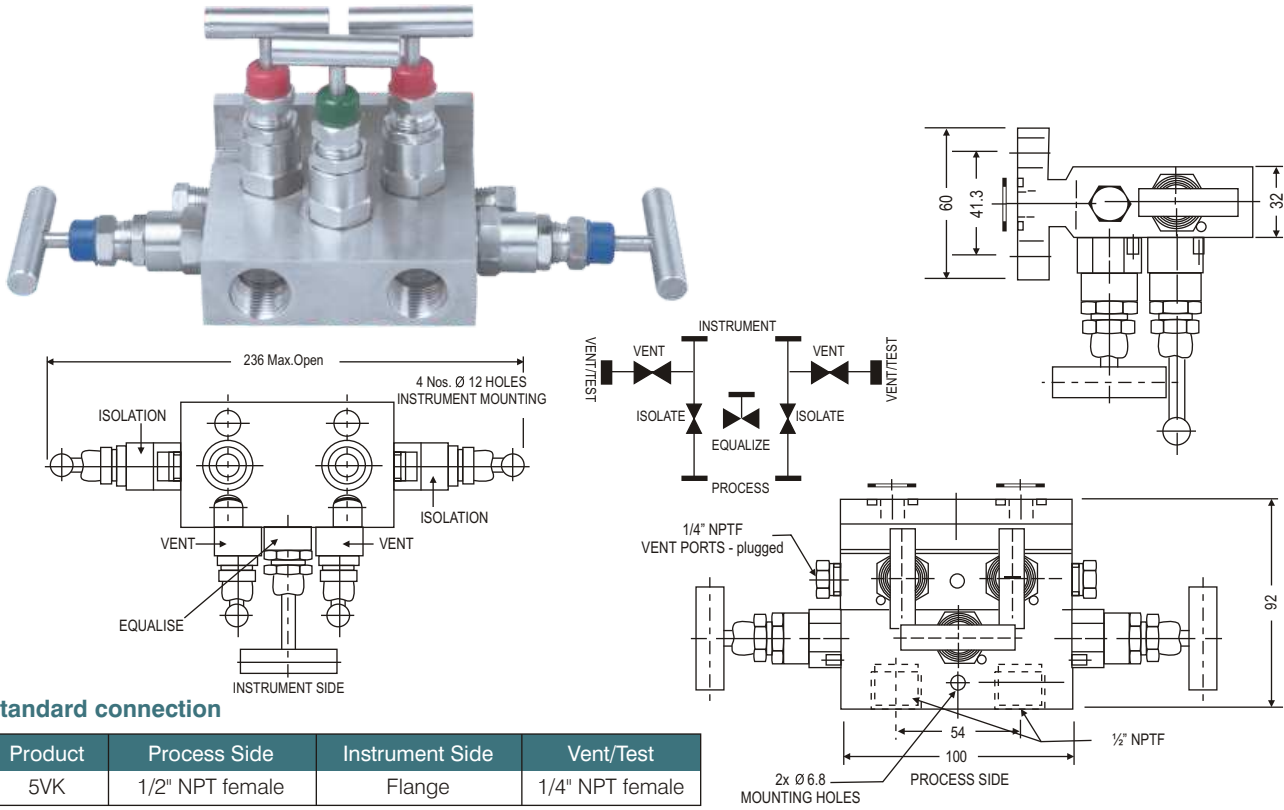
Standard connection

Product	Process Side	Instrument Side	Vent/Test
5VT	1/2" NPT female	flanged	1/4" NPT female



5VK

With threaded female ports on front side for instrument connection along with extended Flange for process connection. The two vent bonnets along with equalizing bonnet is positioned on the top side. The two isolation bonnets are positioned on left and right hand sides.

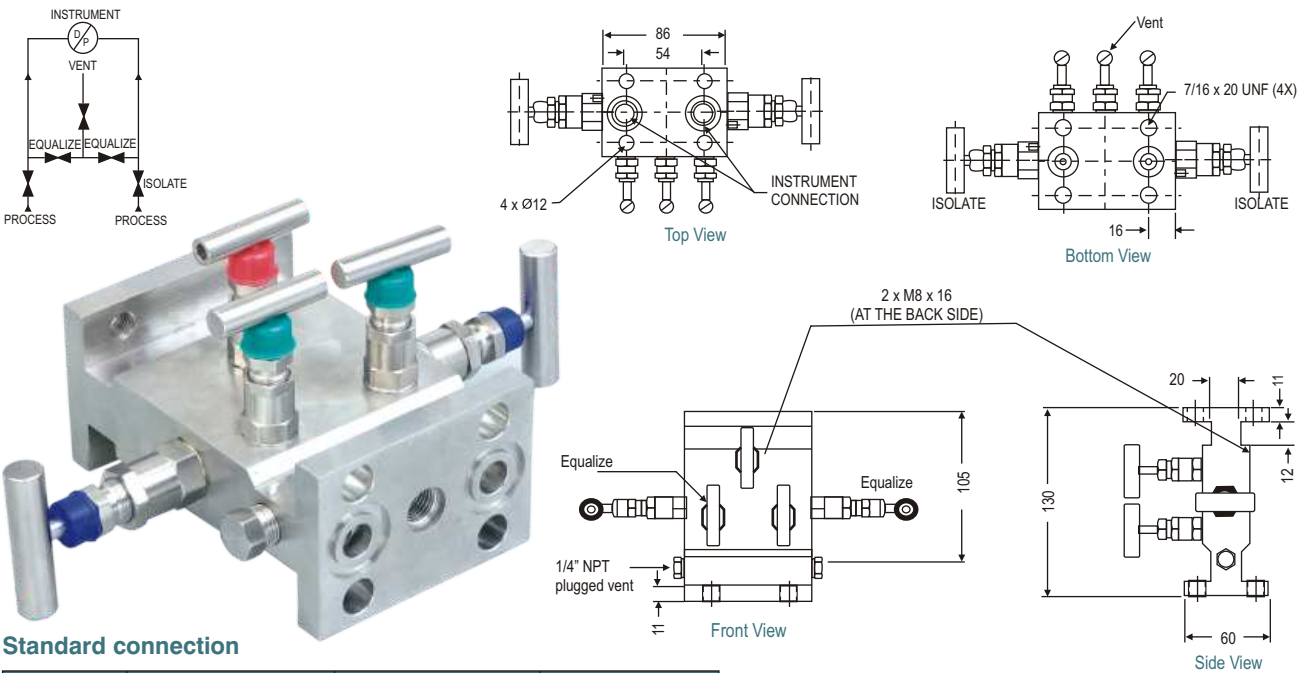


Standard connection

Product	Process Side	Instrument Side	Vent/Test
5VK	1/2" NPT female	Flange	1/4" NPT female

5VH

With Flange horizontal port inlets and Flange port outlets. The vent/test ports are positioned on the bottom side. The isolating and venting bonnets are positioned on the left and right hand side and the equalizing bonnet is positioned on the top side. Designed for direct mounting.



Standard connection

Product	Process Side	Instrument Side	Vent/Test
5VH	Flange	Flange	1/4" NPT female

Standard version specifications of Series 5VN, 5VT, 5VK, 5VH

Body	: SS 316
Stem	: SS 316
Valve assembly	: SS 316
'T' bar handle	: SS 304
Maximum working pressure	: 6000 psi
Maximum working temperature	: 240°C
Packing	: PTFE (Grafoil for temperature above 240°C to 550°C)
Type of stem	: Type CT; Stem with conical metal tip
Drain port	: 1/4" NPT [F]; provided with SS 316 plug
Hard Chrome plating	: Provided on stem tip.

How to order : Valve Type - 5VN, 5VT, 5VK, 5VH

Body Material	Stem Type	Stem Packing	Size = Inlet x Outlet	Connections	Threads
C = Carbon Steel	CT (std)	P = PTFE (std)	4F= 1/2" x Flange	FD = Female x Flange (54mm)	N = NPT (ANSI B1.20.1)
S = SS 316 (std)	DS	G = Grafoil	FF= Flange x Flange	DD = Flange x Flange	P = BSPP (BS2779)
S4 = SS 304			2F = 1/4" x Flange	SW = Socket Weld	B = BSPT (BS21)
SL = SS 316L					
M = Monel 400					
H = Hastelloy C					

Options

- GH : Material test certificate
- GO : Hydro test certificate
- MBC : Mounting bolts available [7/16" UNF] in carbon steel
- MBS : Mounting bolts available [7/16" UNF] in SS
- IE : Circular plastic.
- TF : Sour gas service to NACE standard MR-01-75.
- SG : Oxygen service. (manifolds are supplied cleaned and degreased)
- DS : Valves with stem having soft conical and delrin tip rolled into the needle for gas service.
- MB : Mounting bracket

Example

To place an order simply refer to the codes in the table.

Valve Type	+	Body Material	+	Stem Type	+	Stem Packing	+	Size	+	Connections	+	Threads	+	Options
5VN	+	S	+	CT	+	P	+	4F	+	FD	+	N	=	5VN-S-CT-P-4F-FD-N-Options

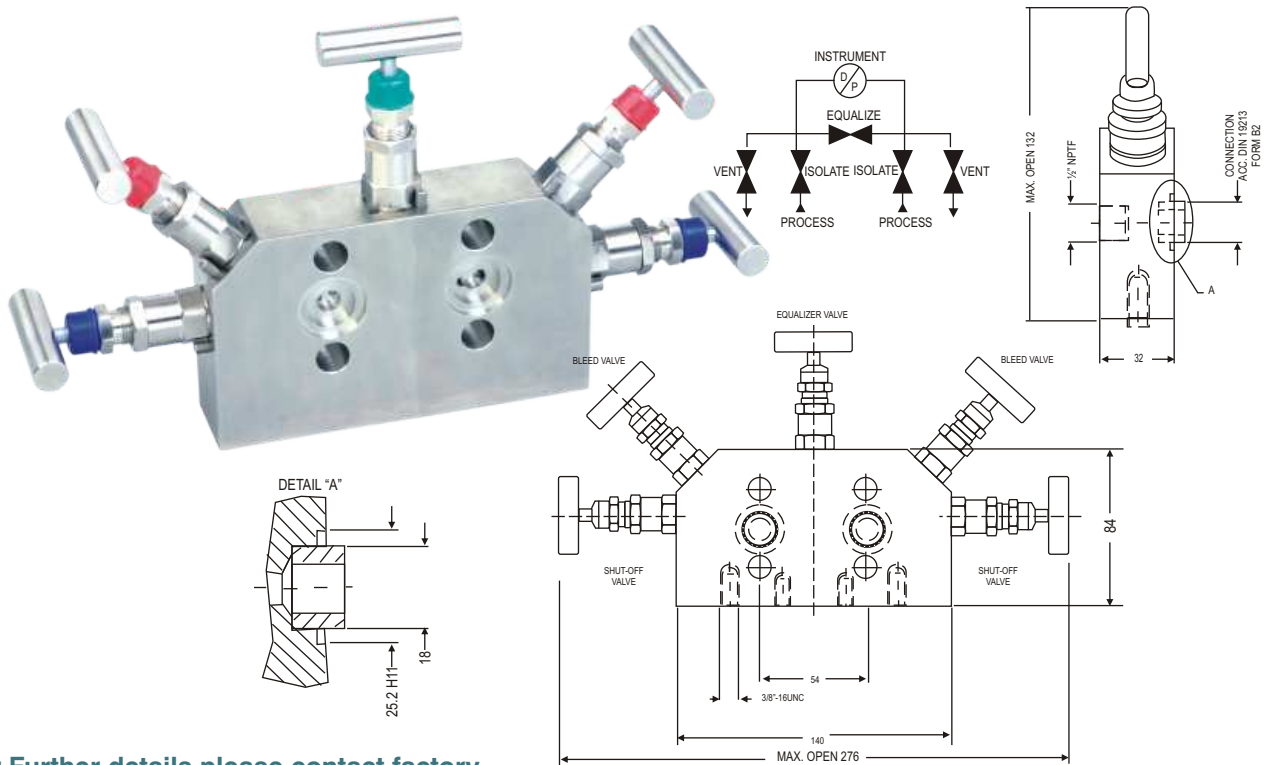
NOTE:

- The weld prepared types are available with female plain end - suitable for socket weld.
- Anti-tamper bonnet - special design on request with locking arrangement if desired.



5V45

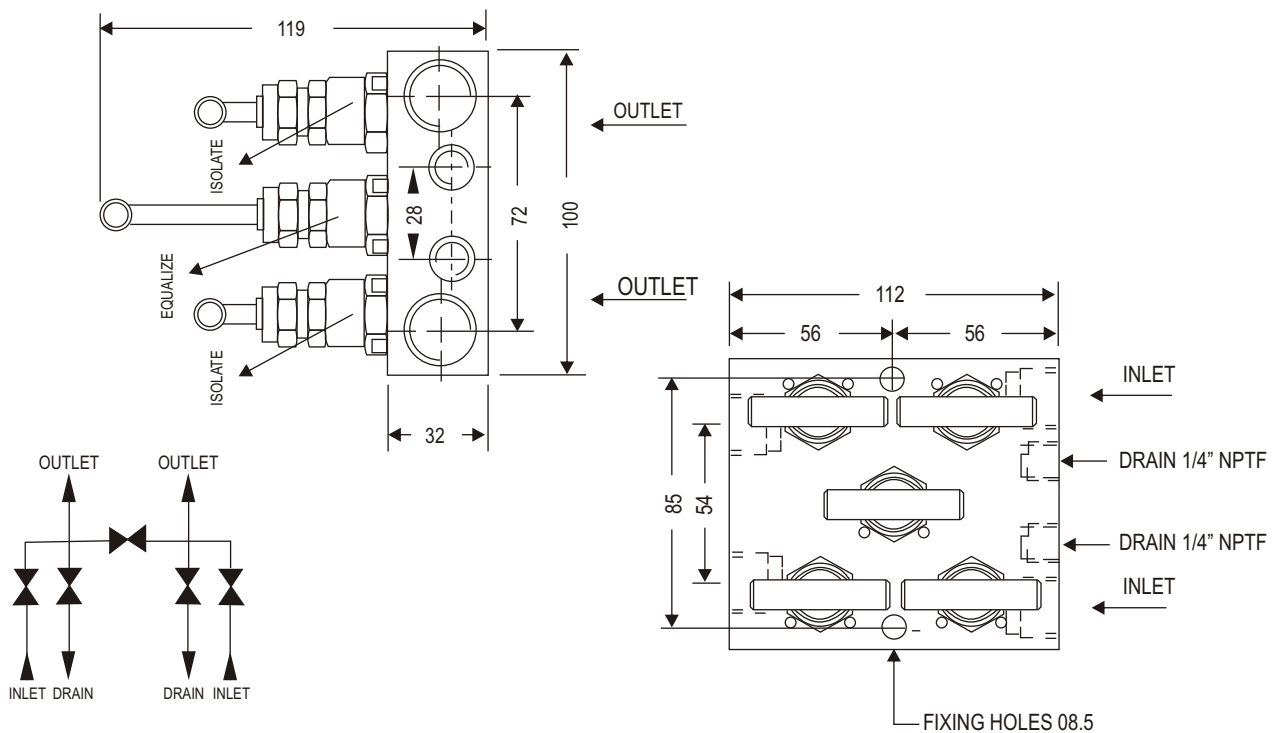
Special Five Valve Manifold designed to suit FR 3051 transmitters - inlet NPT female at front - outlet Flange to DIN 19213 at back side - vent/test connection at back, equalizing bonnet on top; isolating bonnets at left and right hand side; venting bonnets angular at left and right side.



For Further details please contact factory.

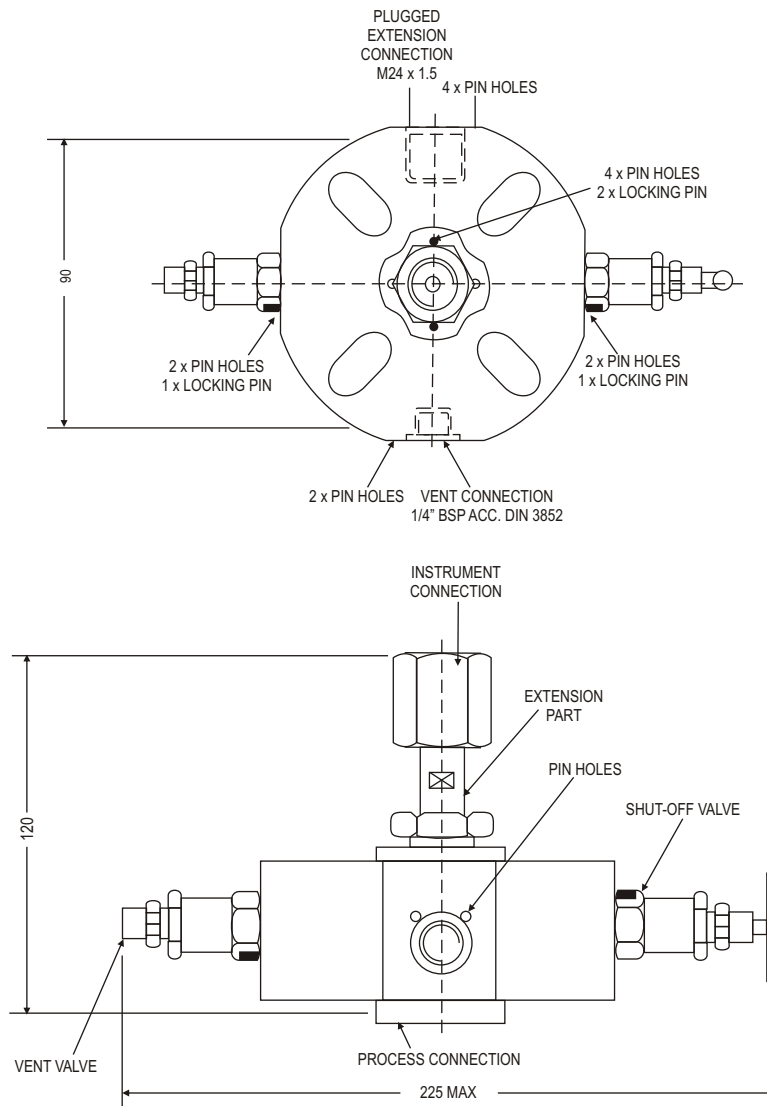
5VZ

Special Five Valve Manifold with threaded inlet and outlet ports. The isolating, equalizing and vent bonnets are all positioned on top.



MF27G

Special Monoflange instrument manifold with needle type pattern valve with non rotating spindle tip for positive bubble tight shut of function. Inlet 150/600# Flange, outlet NPT or BSP rotatable. Vent/test connection NPT female, isolating bonnet on right and venting bonnet at left-instrument connection on top or side (multifunctional)



For Further details please contact factory.



Drain



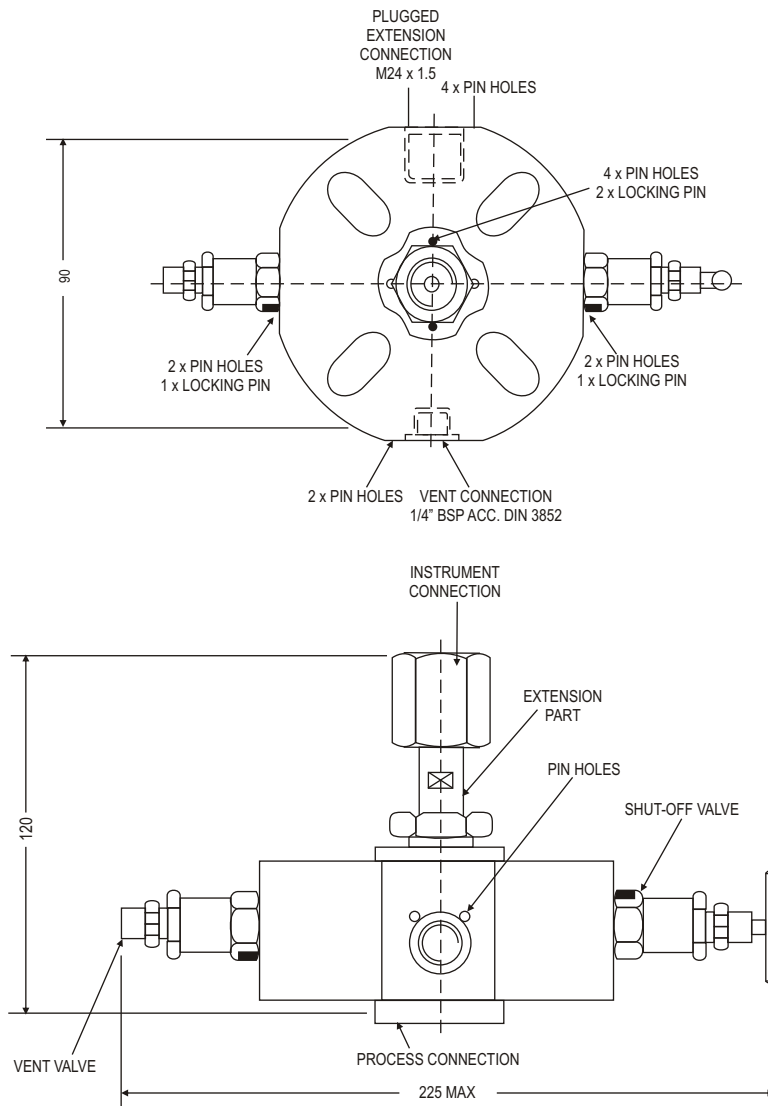
Equalize



Isolate

MF28S

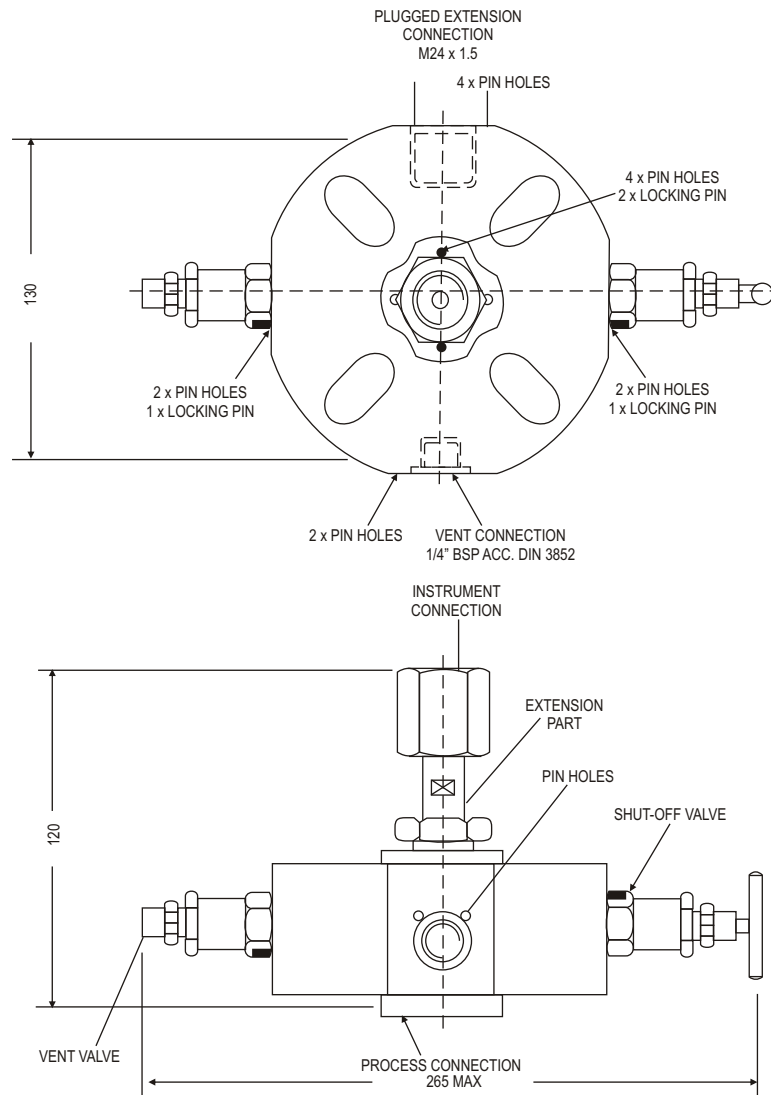
Special Monoflange instrument manifold with needle type pattern valve with non rotating spindle tip for positive bubble tight shut off function. Inlet 150/600# Flange, outlet NPT or BSP rotatable. Vent/test connection NPT female, isolating bonnet on right and venting bonnet at left - instrument connection on top or side (multifunctional). It is supplied with a built in syphon tube system.



For Further details please contact factory.

MF29G

Special Monoflange instrument manifold with needle type pattern valve with non rotating spindle tip for positive bubble tight shut off function. Inlet 150/600# Flange, outlet NPT or BSP rotatable. Vent/test connection NPT female, isolating bonnet on right and venting bonnet at left - instrument connection on top or side (multifunctional). It is supplied with INLET Flange 900/2500#



For Further details please contact factory.



Drain

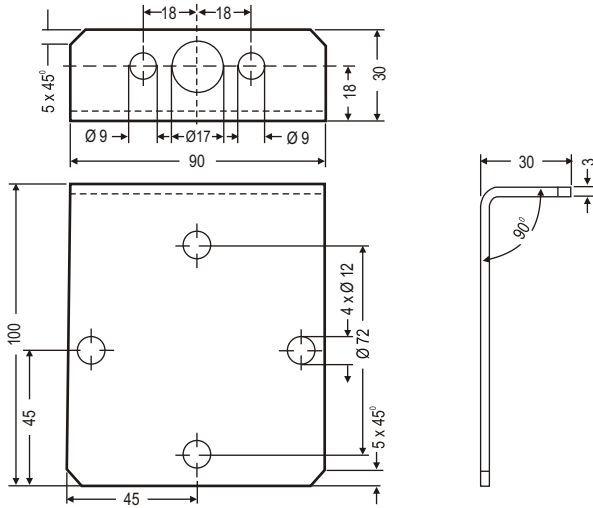


Equalize



Isolate

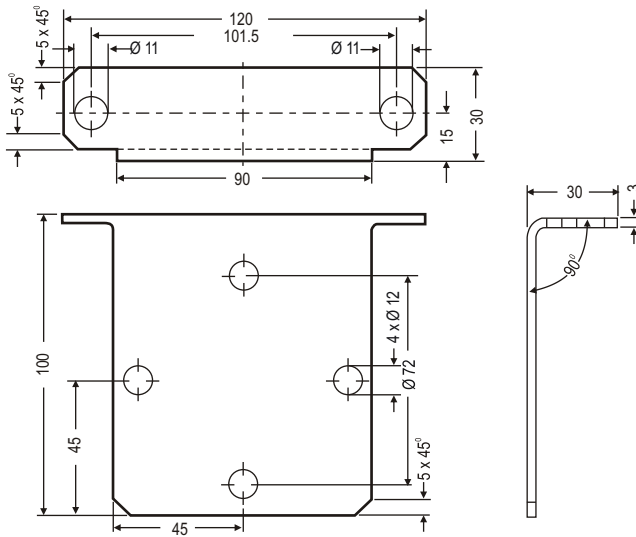
MB 1



Mounting bracket for :

2VF

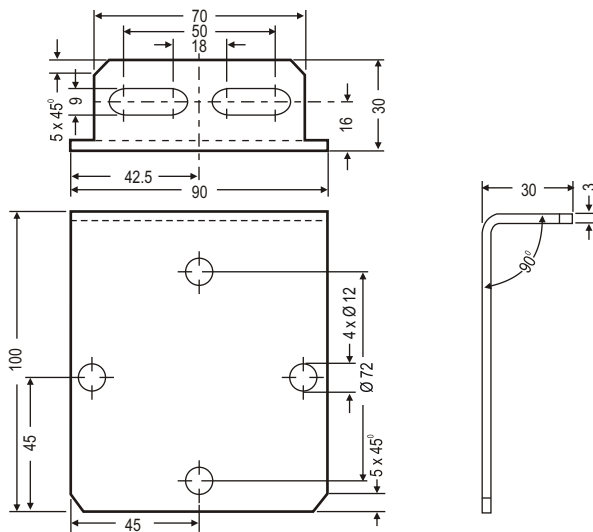
MB 2



Mounting bracket for :

**3VO
3VP
5VP
5VS**

MB 3



Mounting bracket for :

**SVH
SVV
2VA
2VH
3VA
3VB
3VD
3VH
3VT
5VA
5VG
5VH
5VN
5VT**

Mounting bracket set will be delivered with 2" U-bolt and nuts.