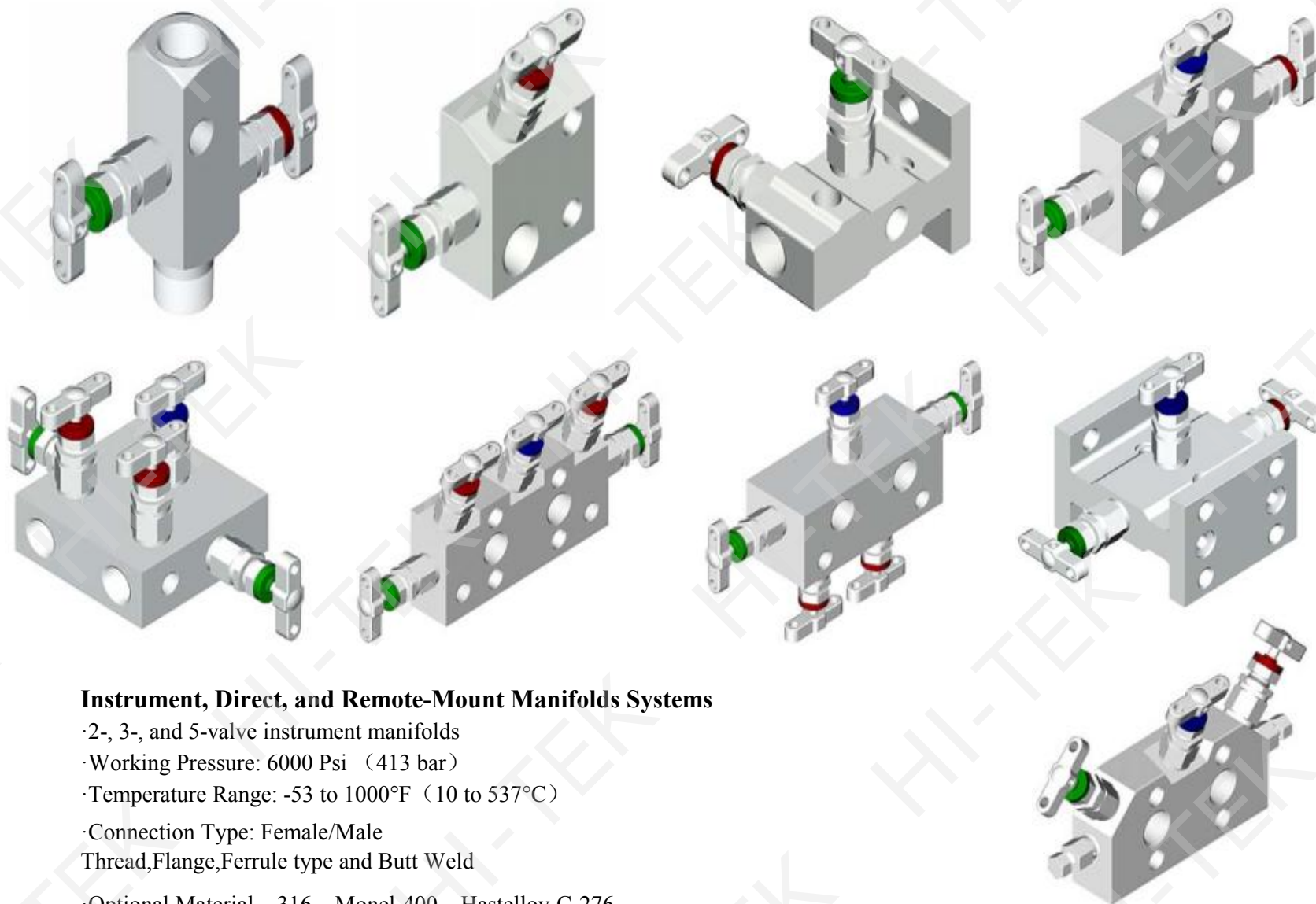


# Instrument Manifold Systems



## Instrument, Direct, and Remote-Mount Manifolds Systems

- 2-, 3-, and 5-valve instrument manifolds
- Working Pressure: 6000 Psi (413 bar)
- Temperature Range: -53 to 1000°F (10 to 537°C)
- Connection Type: Female/Male Thread, Flange, Ferrule type and Butt Weld
- Optional Material: 316, Monel-400, Hastelloy-C-276

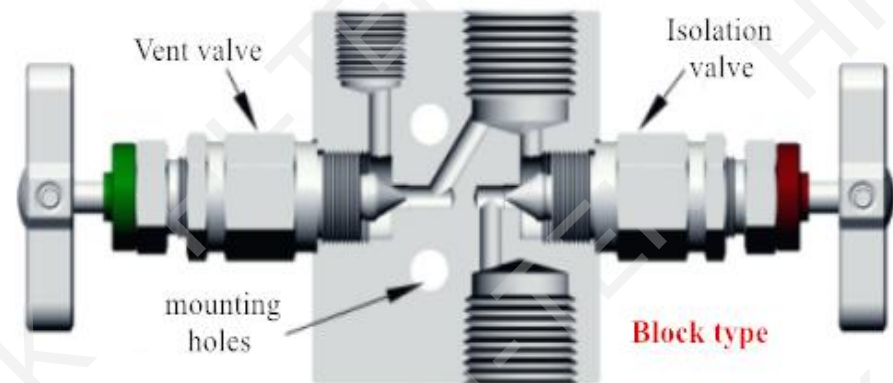
## Construction and Using of 2-, 3-, and 5-valve instrument manifolds

### Sectional view and Using of 2-valve instrument manifolds

Designed for static pressure and liquid level applications

Allows for block and bleed (or calibration) of a gauge- or absolute-pressure transmitter or gauge.

- 1.Direct instrument mount and remote mount
- 2.Consists of one isolation valve and one vent valve
- 3.End connections: Female/Male Thread, Flange, Ferrule type and Butt Weld
- 4.Default end connections: 1/2NPT.M-Butt weld 14MM
- 5.Default plug: 1/4NPT.M
- 6.End connections and plug must be ordered separately.

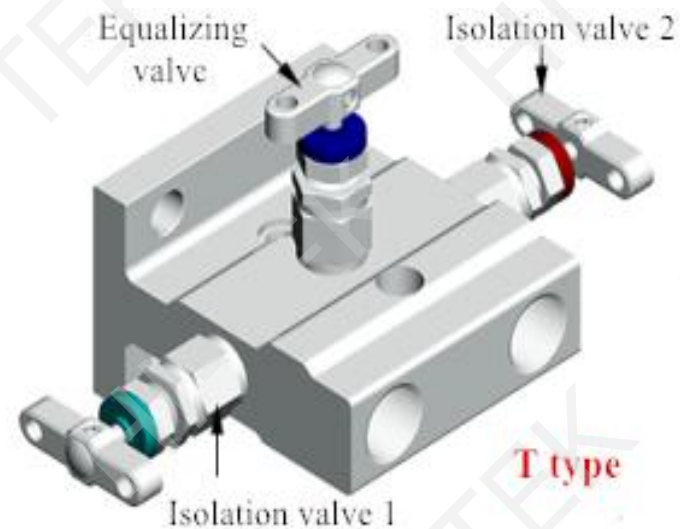


### Sectional view and Using of 3-valve instrument manifolds

Designed for differential pressure applications

Designed for mounting on differential pressure transmitters with center-to-center connections

- 1.Direct instrument mount and remote mount
- 2.Consists of two isolation valves and one equalizing valve
- 3.End connections: Female/Male Thread, Flange, Ferrule type and Butt Weld
- 4.Default end connections: 1/2NPT.M-Butt weld 14MM
- 5.Default plug: 1/4NPT.M
- 6.End connections and plug must be ordered separately.

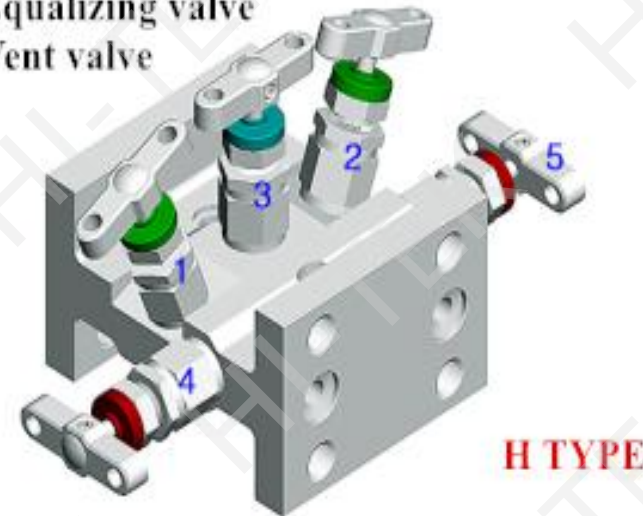


## Sectional view and Using of 5-valve instrument manifolds

Designed for mounting on differential pressure transmitters where a double-equalize function is required

1. Direct instrument mount and remote mount
2. Consists of two isolation valves, two equalizing valves, and one vent valve
3. End connections: Female/Male Thread, Flange, Ferrule type and Butt Weld
4. Default end connections: 1/2NPT.M-Butt weld 14MM
5. Default plug: 1/4NPT.M
6. End connections and plug must be ordered separately.

- 1-2 Isolation valve  
3 Equalizing valve  
4-5 Vent valve



## Feature of 2-, 3-, and 5-valve instrument manifolds

The flow through a manifold is controlled by a series of stainless steel needle valves. Each valve has a specific function—to block pressure, to bleed off pressure, or to equalize pressure—depending on its location on the manifold.

## Testing

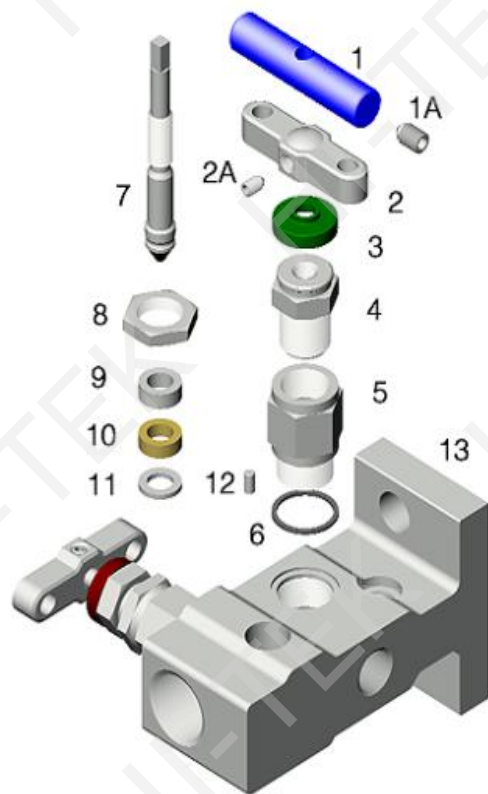
Every HI-TEK V, VB, and VL series instrument manifold is factory tested with nitrogen at 1000 psig (69 bar). Seats have a maximum allowable leak rate of 0.1 std cm<sup>3</sup>/min. Shell testing is performed with a liquid leak detector to a requirement of no detectable leakage.

## One-piece construction provides strength

pin prevents detachment of the bonnet from the body due to vibration.

## Technical Parameters of valve instrument manifolds

### Part material



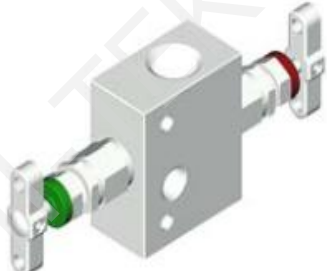
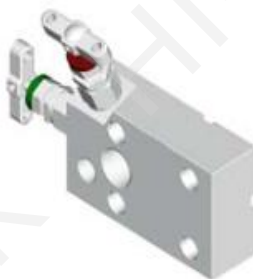
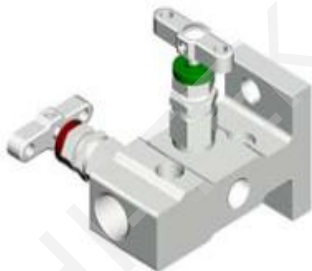
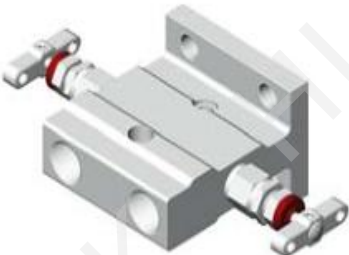
| Part NO. | Part name          | Material                          |           |        |
|----------|--------------------|-----------------------------------|-----------|--------|
|          |                    | 316 SS                            | Alloy 400 | C-276  |
| 1        | Handle             | Alunimium W/anodize               |           |        |
| 1A       | Set screw          | High-strength alloy steel-CL 13.9 |           |        |
| 2        | Rectangular handle | Powder metallurgy- 316 SS         |           |        |
| 2A       | Set screws         | High-strength alloy steel-CL 13.9 |           |        |
| 3        | Dust cover         | Plastic                           |           |        |
| 4        | Packing bolt       | 316 SS                            |           |        |
| 5        | Bonnet             | 316 SS                            | Alloy 400 | C-276  |
| 6        | Metal pad          | 316 SS                            |           |        |
| 7        | Stem               | 316 SS                            | Alloy 400 | C-276  |
| 7A       | Ball tip           | 316 SS                            | Alloy400  | C-276  |
| 8        | Jam nut            | 316 SS                            |           |        |
| 9        | Packing gland      | 316 SS                            |           |        |
| 10       | Packing bolt       | PTFE/Flexible graphite            |           |        |
| 11       | Packing pad        | 316 SS                            | Alloy 400 | C-276  |
| 12       | Stop pin           | 316 SS                            |           |        |
| 13       | Body               | 316 SS                            | 316 SS    | 316 SS |

△ A packing adjustment may be required periodically to increase service life and to prevent leakage.

△ Valves that have not been cycled for a period of time may have a higher initial actuation torque.

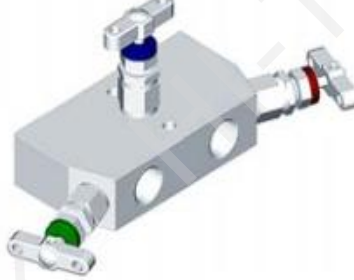
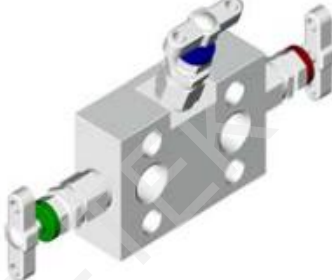
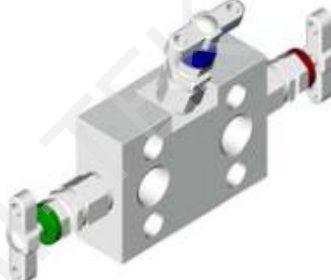
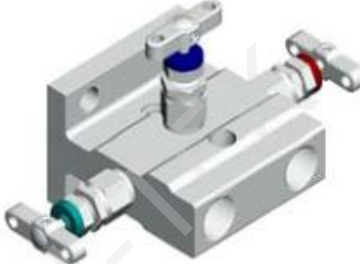
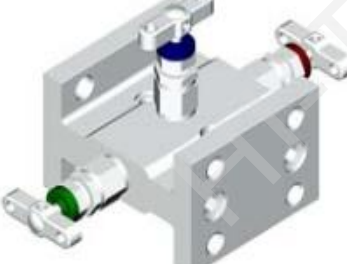
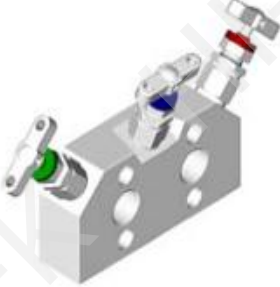
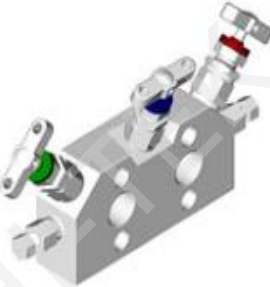
# Image catalog of valve instrument manifolds

## 2 valve instrument manifolds

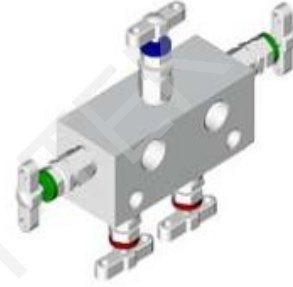
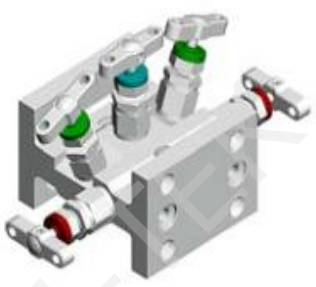
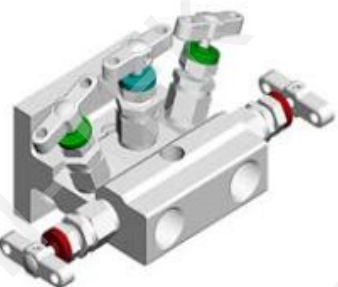
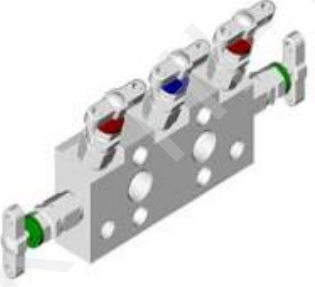
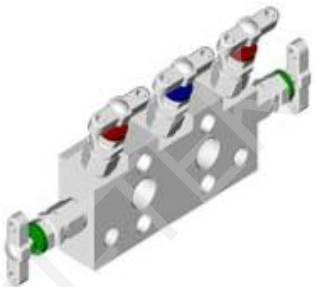
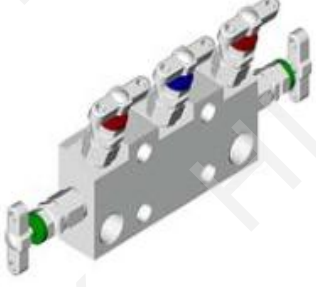
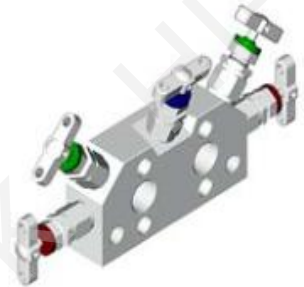
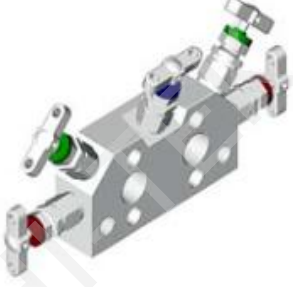
|                                                                                                                          |                                                                                                                       |                                                                                                                           |                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <p>-GV-8M 8F<br/>-GV-8F8M</p>           | <p>-2BZ-4F4F<br/>-2BZ-8F8F</p>      | <p>-2B I-4F4F<br/>-2B I-8F8F</p>       | <p>-2BL I-4F4F<br/>-2BL I-8F8F</p>       |
| <p>-2BL II-4F4F<br/>-2BL II-8F8F</p>    | <p>-2BV I-4FFL<br/>-2BV I-8FFL</p>  | <p>-2BV II-4F4F<br/>-2BV II-8F8F</p>  | <p>-2BV III-4FFL<br/>-2BV III-8FFL</p>  |
| <p>-2BV IV-4FFL<br/>-2BV IV-8FFL</p>  | <p>-2TL-6FFL<br/>-2TL-8FFL</p>     | <p>-2T I-6FFL<br/>-2T I-8FFL</p>     |                                                                                                                             |



### 3 valve instrument manifolds

|                                                                                                                          |                                                                                                                             |                                                                                                                        |                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <p>-3B T-4F4F<br/>-3B T-8F8F</p>        | <p>-3B T I-4F4F<br/>-3B T I-8F8F</p>      | <p>-3B TV-4F4F<br/>-3B TV-8F8F</p>  | <p>-3B TV.33-4FFL<br/>-3B TV.33-8FFL</p>  |
| <p>-3B TV-4FFL<br/>-3B TV-8FFL</p>      | <p>-3B IV-4FFL<br/>-3B IV-8FFL</p>        | <p>-3 TI-4FFL<br/>-3 TI-8FFL</p>    | <p>-3H I-FL<br/>-3H I-FL</p>              |
| <p>-3B V33-4FFL<br/>-3B V33-8FFL</p>  | <p>-3B VB33-4FFL<br/>-3B VB33-8FFL</p>  |                                                                                                                        |                                                                                                                              |

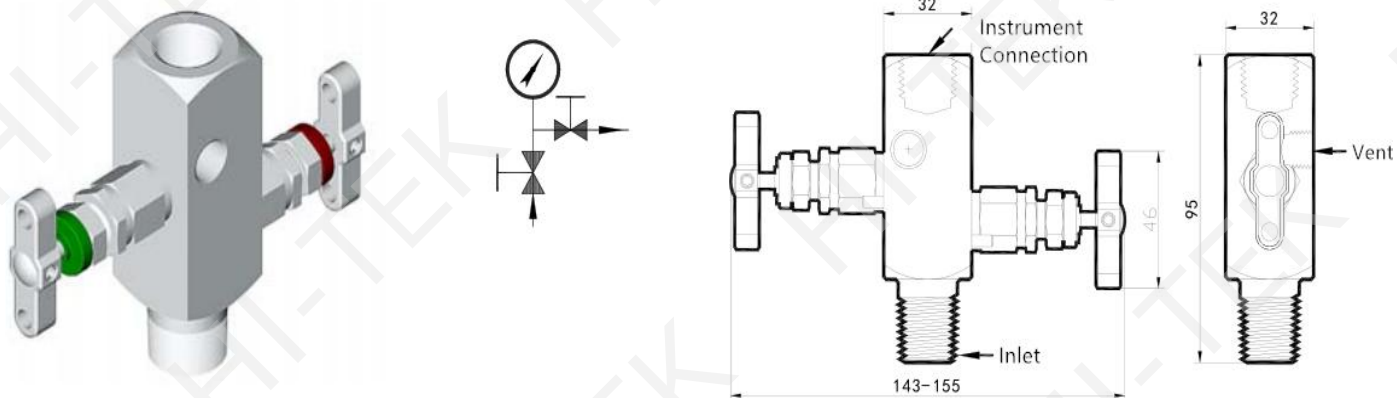
## 5 valve instrument manifolds

|                                                                                                                        |                                                                                                                     |                                                                                                                          |                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <p>-5SI-4F4F<br/>-5SI-8F8F</p>        | <p>-5SII-4F4F<br/>-5SII-8F8F</p>  | <p>-5BT-4F4F<br/>-5BT-8F8F</p>        | <p>-5HT-FL</p>                        |
| <p>-5TT-4FFL<br/>-5TT-8FFL</p>        | <p>-5BIV-4FFL<br/>-5BIV-8FFL</p>  | <p>-5BIV33-4FFL<br/>-5BIV33-8FFL</p>  | <p>-5BIV I-4FFL<br/>-5BIV I-8FFL</p>  |
| <p>-5BV33-4FFL<br/>-5BV33-8FFL</p>  | <p>-5BV-4FFL<br/>-5BV-8FFL</p>  |                                                                                                                          |                                                                                                                          |

## Ordering Information

| 1<br>SS                                                                                                     | 2<br>GV                                                                         | 3<br>B                                                 | 4<br>I                                                                        | 5<br>8M                                                                                                                                              | 6<br>8F | 7<br>4F | 8<br>PE |
|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|
| 1-Material                                                                                                  | 2-Series                                                                        | 3-Body type                                            | 4-Handle position                                                             | 5-Inlet type and size                                                                                                                                |         |         |         |
| S=304<br>SS=316<br>C 40=Alloy 400<br>HC=Alloy C-276<br>M=Monel-R400                                         | GV=Instrument<br>(Compact Body)<br>2=Two valve<br>3=Three valve<br>5=Five valve | B=Block body<br>T=T body<br>H=H body<br>S=Compact Body | I=On the same centerline<br>Z=In the same plane<br>L=90°<br>V=25°<br>T=T type | 4M=1/4 male NPT 4F=1/4 female NPT<br>6M=3/8 male NPT 6F=1/4 female NPT<br>8M=1/2 male NPT 8F=1/2 female NPT<br>FL=Flange                             |         |         |         |
| 6-Instrument connection type and size                                                                       |                                                                                 | 7-Vent thread size                                     |                                                                               | 8-Packing                                                                                                                                            |         |         |         |
| 4M=1/4 male NPT 4F=1/4 female NPT<br>6M=3/8 male NPT 4F=3/8 female NPT<br>8M=1/2 male NPT 8F=1/2 female NPT |                                                                                 | 4F=1/4 female NPT                                      |                                                                               | The default packing is PTFE, which can be omitted from the ordering numbers. G rafoil with high temperature conditions to add GL in the order number |         |         |         |

### 2 valve instrument manifolds

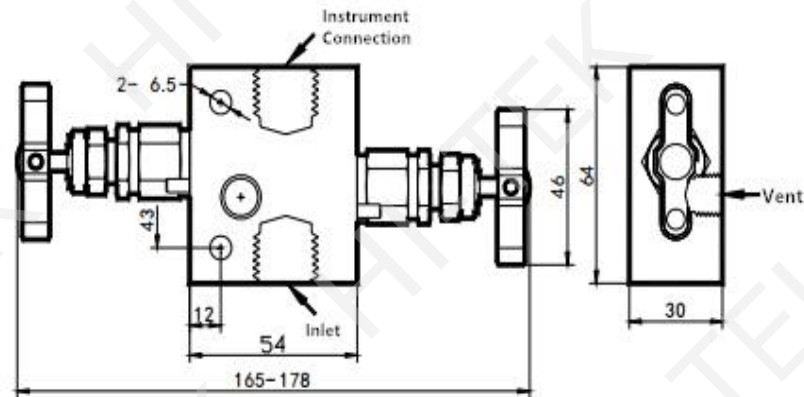
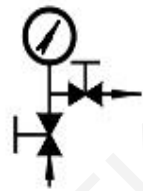
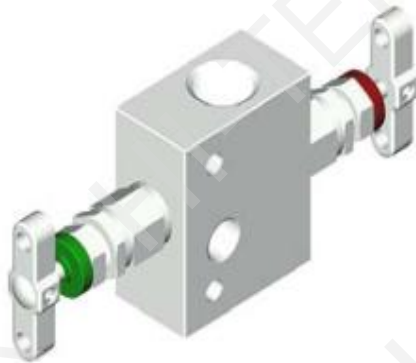


- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- MM Dimensions are for reference only and may change.
- All parts that come in contact with the media are the same as the body
- 1 / 4NPT · M plug can be supplied, but must be ordered separately

#### Instrument valve (GV Compact Body-2 Valve manifold)

| End connection size |                       |          | Ordering Number |
|---------------------|-----------------------|----------|-----------------|
| Inlet               | Instrument connection | Vent     |                 |
| 1/2NPT·M            | 1/2NPT·F              | 1/4NPT·F | -GV-8M8F        |
| 1/2NPT·F            | 1/2NPT·M              | 1/4NPT·F | -GV-8F8M        |

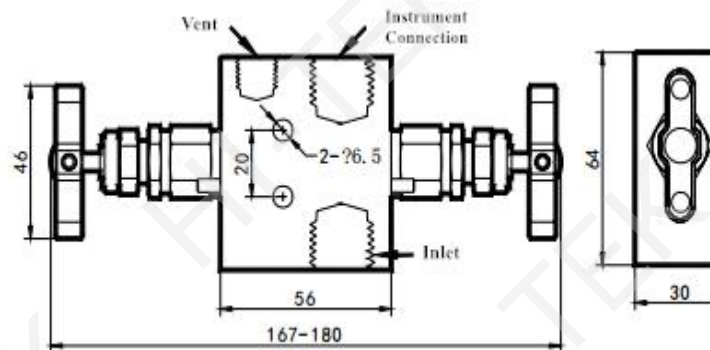
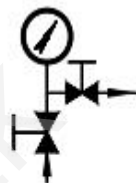




- Direct instrument mount and remote mount
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- MM Dimensions are for reference only and may change.
- All parts that come in contact with the media are the same as the body

#### 2 Valve Monifold (2BZ Type)

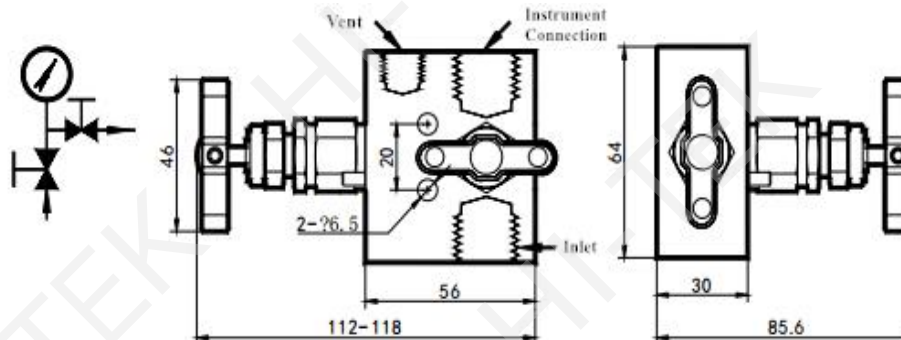
| End connection size |                       |          | Ordering Number |
|---------------------|-----------------------|----------|-----------------|
| Inlet               | Instrument connection | Vent     |                 |
| 1/4NPT·M            | 1/4NPT·F              | 1/4NPT·F | -2BZ-4F4F       |
| 1/2NPT·F            | 1/2NPT·M              | 1/4NPT·F | -2BZ-8F8F       |



- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- MM Dimensions are for reference only and may change.
- All parts that come in contact with the media are the same as the body
- 1 / 4NPT · M plug can be supplied, but must be ordered separately

#### 2 Valve Monifold (2BI Type)

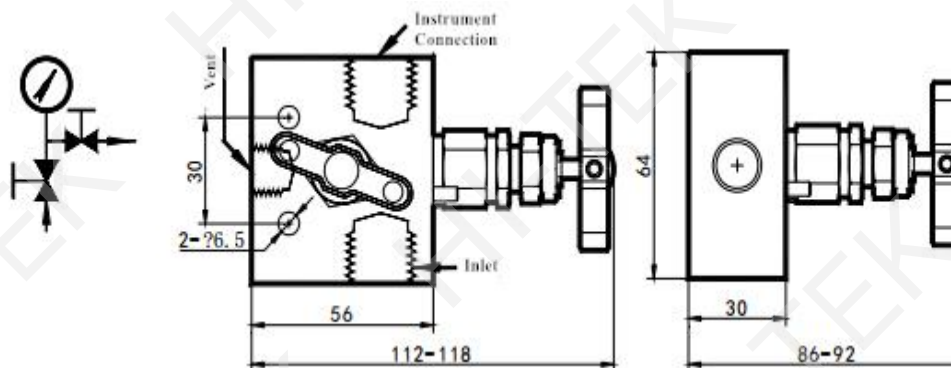
| End connection size |                       |          | Ordering Number |
|---------------------|-----------------------|----------|-----------------|
| Inlet               | Instrument connection | Vent     |                 |
| 1/4NPT·M            | 1/4NPT·F              | 1/4NPT·F | -2BI-4F4F       |
| 1/2NPT·F            | 1/2NPT·M              | 1/4NPT·F | -2BI-8F8F       |



- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- MM Dimensions are for reference only and may change.
- All parts that come in contact with the media are the same as the body
- 1 / 4NPT · M plug can be supplied, but must be ordered separately

## 2 Valve Monifold (2BL I Type)

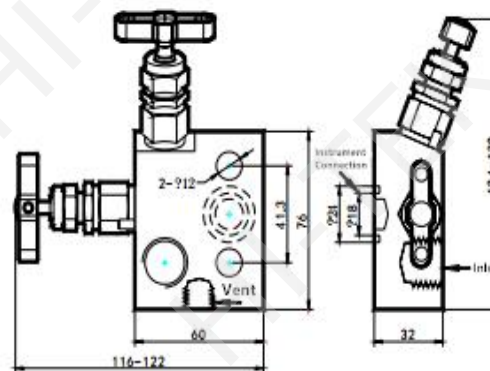
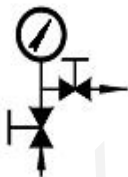
| End connection size |                       |          | Ordering Number |
|---------------------|-----------------------|----------|-----------------|
| Inlet               | Instrument connection | Vent     |                 |
| 1/4NPT·M            | 1/4NPT·F              | 1/4NPT·F | -2BL I -4F4F    |
| 1/2NPT·F            | 1/2NPT·M              | 1/4NPT·F | -2BL I -8F8F    |



- Direct instrument mount and remote mount
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- MM Dimensions are for reference only and may change.
- All parts that come in contact with the media are the same as the body
- 1 / 4NPT · M plug can be supplied, but must be ordered separately

## 2 Valve Monifold (2BL II Type)

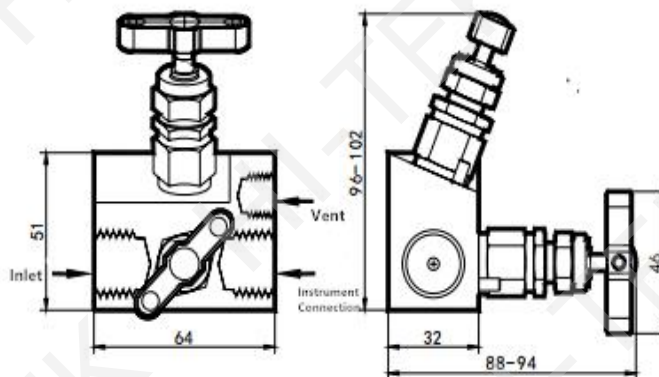
| End connection size |                       |          | Ordering Number |
|---------------------|-----------------------|----------|-----------------|
| Inlet               | Instrument connection | Vent     |                 |
| 1/4NPT·M            | 1/4NPT·F              | 1/4NPT·F | -2BL II -4F4F   |
| 1/2NPT·F            | 1/2NPT·M              | 1/4NPT·F | -2BL II -8F8F   |



- Direct instrument mount and remote mount
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- MM Dimensions are for reference only and may change.
- All parts that come in contact with the media are the same as the body
- 1 / 4NPT · M plug can be supplied, but must be ordered separately

### 2 Valve Monifold (2BV I Type)

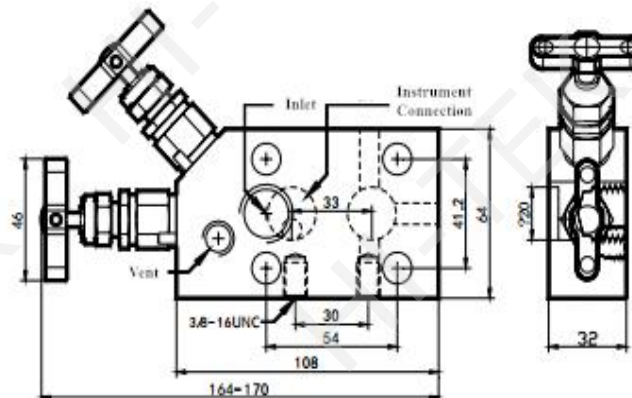
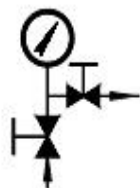
| End connection size |                       |          | Ordering Number |
|---------------------|-----------------------|----------|-----------------|
| Inlet               | Instrument connection | Vent     |                 |
| 1/4NPT·M            | Flange (MSS)          | 1/4NPT·F | -2BV I -4FFL    |
| 1/2NPT·F            | Flange (MSS)          | 1/4NPT·F | -2BV I -8FFL    |



- Direct instrument mount and remote mount
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- MM Dimensions are for reference only and may change.
- All parts that come in contact with the media are the same as the body

### 2 Valve Monifold (2BV II Type)

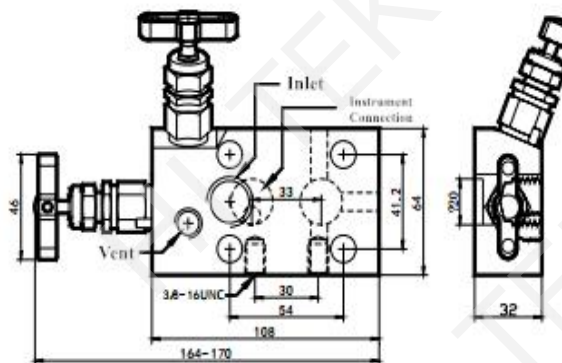
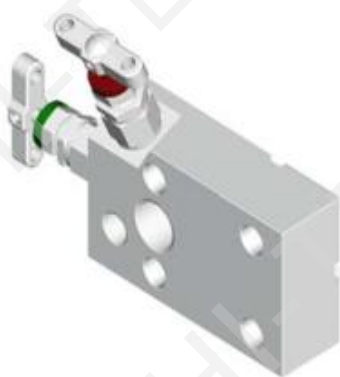
| End connection size |                       |          | Ordering Number |
|---------------------|-----------------------|----------|-----------------|
| Inlet               | Instrument connection | Vent     |                 |
| 1/4NPT·M            | 1/4NPT·F              | 1/4NPT·F | -2BV II -4F4F   |
| 1/2NPT·F            | 1/2NPT·M              | 1/4NPT·F | -2BV II -8F8F   |



- Direct mounting to instrument on 33 mm centers
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- MM Dimensions are for reference only and may change.
- All parts that come in contact with the media are the same as the body
- MSS SP-99 and DIN EN 61518 flange connections are available

### 2 Valve Monifold (2BV III Type)

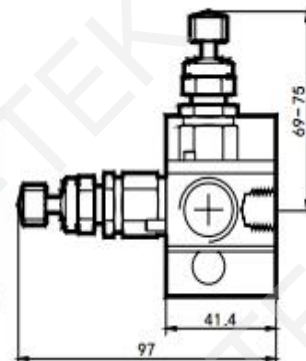
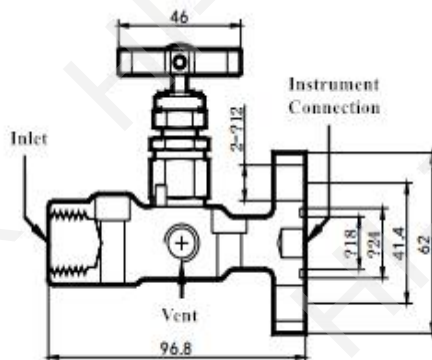
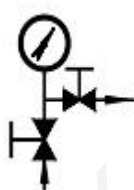
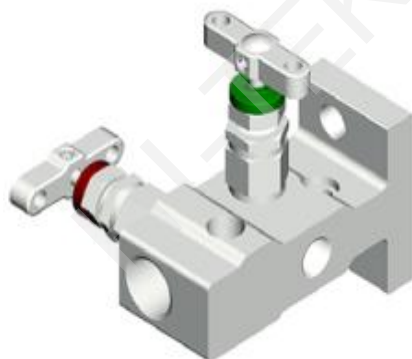
| End connection size |                       |          | Ordering Number |
|---------------------|-----------------------|----------|-----------------|
| Inlet               | Instrument connection | Vent     |                 |
| 3/8NPT·M            | Flange (MSS)          | 1/4NPT·F | -2BV III-4FFL   |
| 1/2NPT·F            | Flange (MSS)          | 1/4NPT·F | -2BV III-8FFL   |



- Direct mounting to instrument on 33 mm centers
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- MM Dimensions are for reference only and may change.
- All parts that come in contact with the media are the same as the body
- MSS SP-99 and DIN EN 61518 flange connections are available

### 2 Valve Monifold (2BV IV Type)

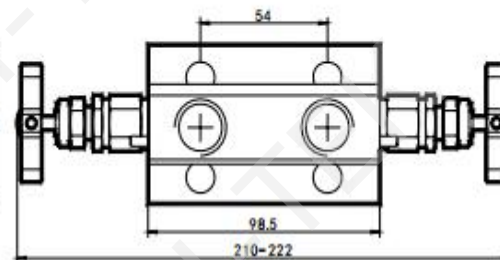
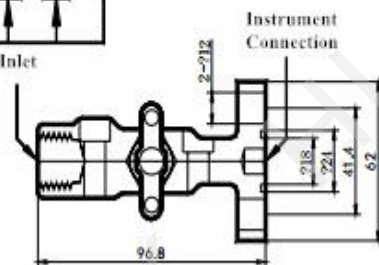
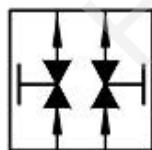
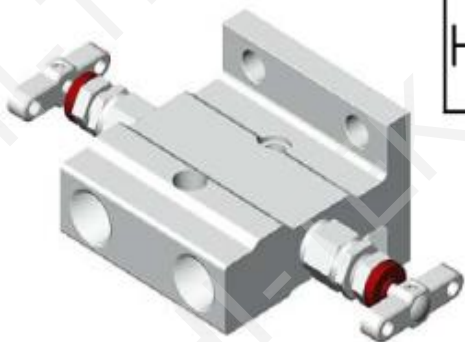
| End connection size |                       |          | Ordering Number |
|---------------------|-----------------------|----------|-----------------|
| Inlet               | Instrument connection | Vent     |                 |
| 3/8NPT·M            | Flange (MSS)          | 1/4NPT·F | -2BV IV-4FFL    |
| 1/2NPT·F            | Flange (MSS)          | 1/4NPT·F | -2BV IV-8FFL    |



- Instrument Manifolds with Flange Connections
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- MM Dimensions are for reference only and may change.
- All parts that come in contact with the media are the same as the body
- MSS SP-99 and DIN EN 61518 flange connections are available

#### 2 Valve Monifold (2TL Type)

| End connection size |                       |          | Ordering Number |
|---------------------|-----------------------|----------|-----------------|
| Inlet               | Instrument connection | Vent     |                 |
| 3/8NPT·M            | Flange (MSS)          | 1/4NPT·F | -2TL-6FFL       |
| 1/2NPT·F            | Flange (MSS)          | 1/4NPT·F | -2TL-8FFL       |



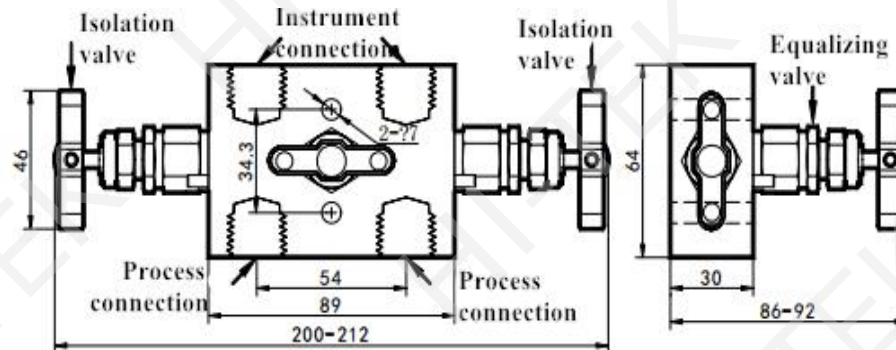
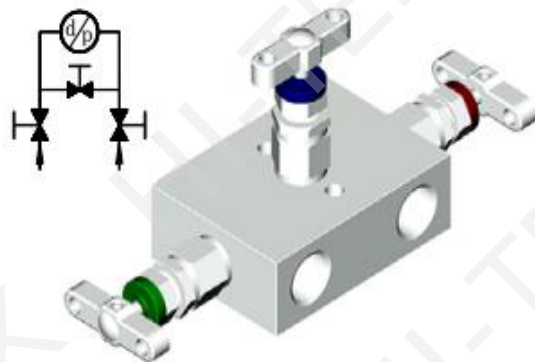
- Instrument Manifolds with Flange Connections
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- MM Dimensions are for reference only and may change.
- All parts that come in contact with the media are the same as the body
- MSS SP-99 and DIN EN 61518 flange connections are available

#### 2 Valve Monifold (2TI Type)

| End connection size |                       |          | Ordering Number |
|---------------------|-----------------------|----------|-----------------|
| Inlet               | Instrument connection | Vent     |                 |
| 3/8NPT·M            | Flange (MSS)          | 1/4NPT·F | -2TI-6FFL       |
| 1/2NPT·F            | Flange (MSS)          | 1/4NPT·F | -2TI-8FFL       |



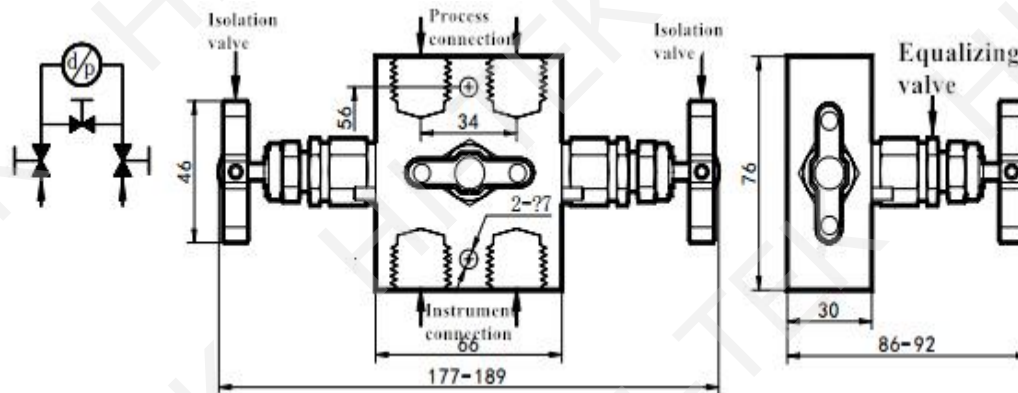
### 3 valve instrument manifolds



- Designed for mounting on differential pressure transmitters
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

#### 3 Valve Monifold (3BT Type)

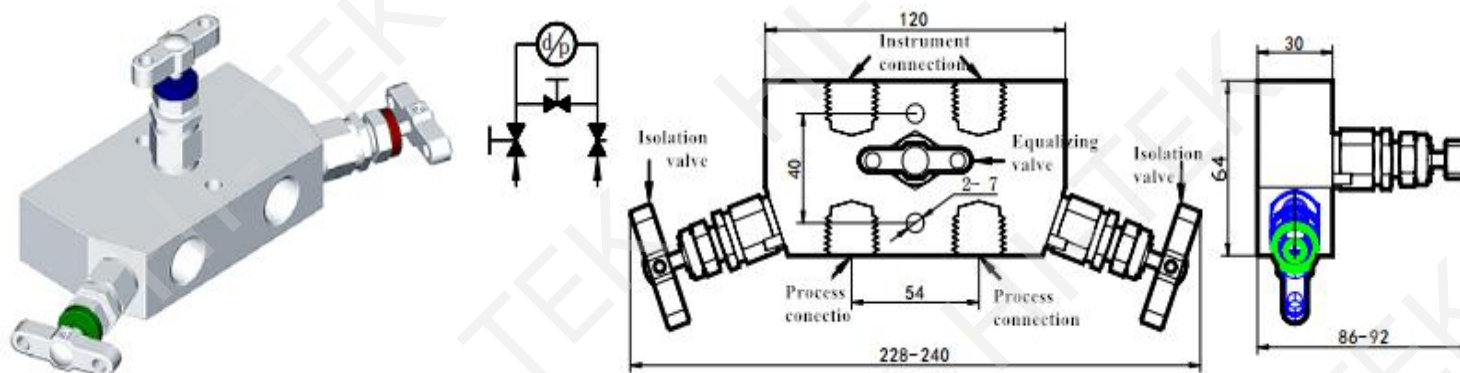
| End connection size |            |      | Ordering Number |
|---------------------|------------|------|-----------------|
| Process             | Instrument | Vent |                 |
| 1/4NPT·F            | 1/4NPT·F   | □    | -3BT-4F4F       |
| 1/2NPT·F            | 1/2NPT·F   | □    | -3BT-8F8F       |



- Designed for mounting on differential pressure transmitters
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

#### 3 Valve Monifold (3BT I Type)

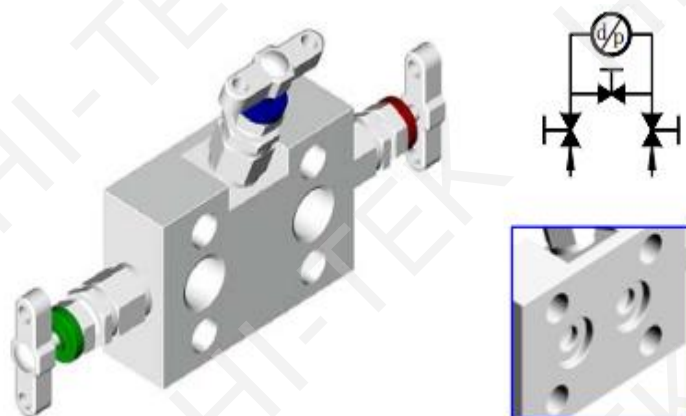
| End connection size |            |      | Ordering Number |
|---------------------|------------|------|-----------------|
| Process             | Instrument | Vent |                 |
| 1/4NPT·F            | 1/4NPT·F   | □    | -3BT I-4F4F     |
| 1/2NPT·F            | 1/2NPT·F   | □    | -3BT I-8F8F     |



- Designed for mounting on differential pressure transmitters
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

### 3 Valve Monifold (3BTV Type)

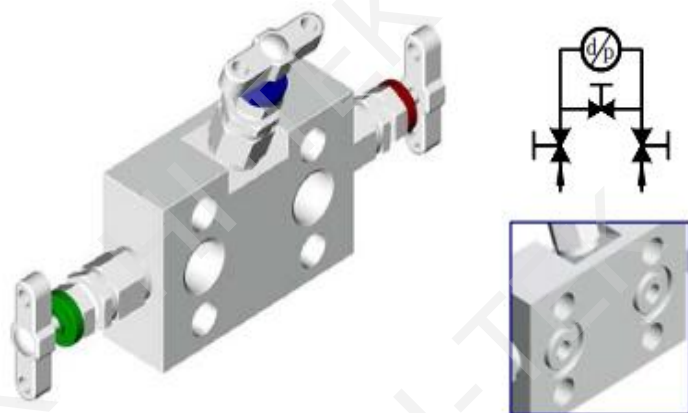
| End connection size |            |      | Ordering Number |
|---------------------|------------|------|-----------------|
| Process             | Instrument | Vent |                 |
| 1/4NPT·F            | 1/4NPT·F   | □    | -3BTV-4F4F      |
| 1/2NPT·F            | 1/2NPT·F   | □    | -3BTV-8F8F      |



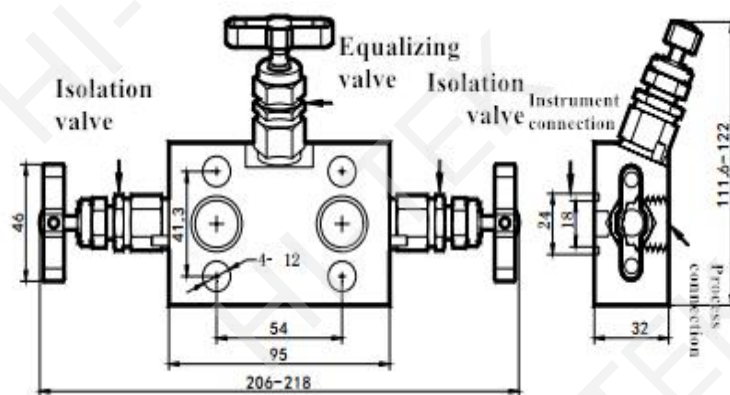
- Designed for mounting on 3051 differential pressure transmitters-33mm center distance
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

### 3 Valve Monifold (3BTV.33 Type)

| End connection size |              |      | Ordering Number |
|---------------------|--------------|------|-----------------|
| Process             | Instrument   | Vent |                 |
| 1/4NPT·F            | Flange (MSS) | □    | -3BTV.33-4FFL   |
| 1/2NPT·F            | Flange (MSS) | □    | -3BTV.33-8FFL   |

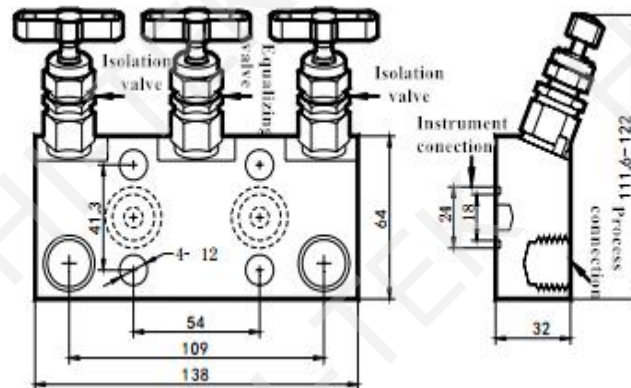
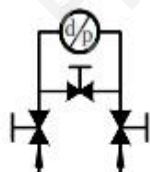
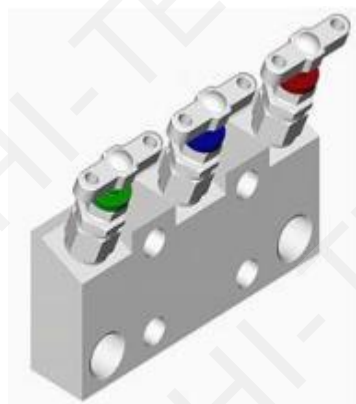


- Designed for mounting on differential pressure transmitters
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.



### 3 Valve Monifold (3BTV Type)

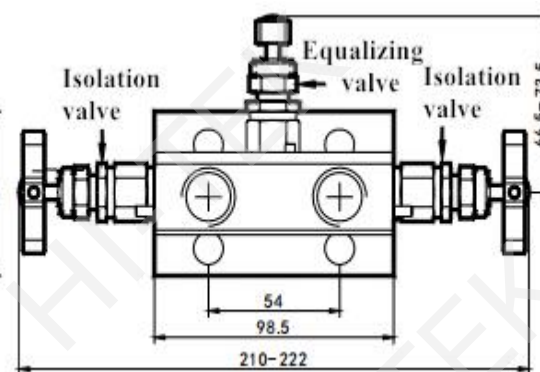
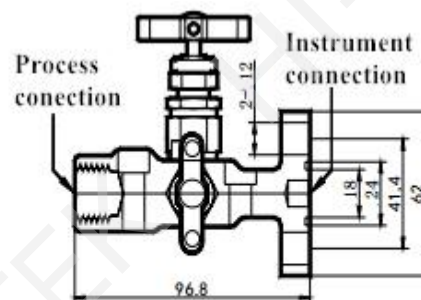
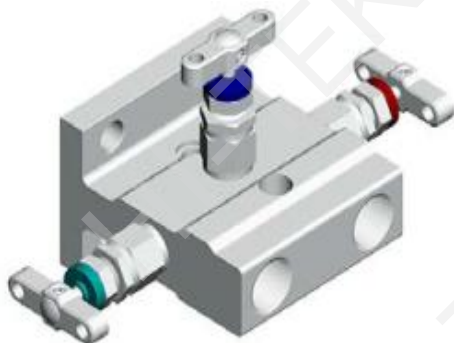
| End connection size |              |                          | Ordering Number |
|---------------------|--------------|--------------------------|-----------------|
| Process             | Instrument   | Vent                     |                 |
| 1/4NPT·F            | Flange (MSS) | <input type="checkbox"/> | -3BTV-4FFL      |
| 1/2NPT·F            | Flange (MSS) | <input type="checkbox"/> | -3BTV-8FFL      |



### 3 Valve Monifold (3BIV Type)

| End connection size |              |                          | Ordering Number |
|---------------------|--------------|--------------------------|-----------------|
| Process             | Instrument   | Vent                     |                 |
| 1/4NPT·F            | Flange (MSS) | <input type="checkbox"/> | -3BIV-4FFL      |
| 1/2NPT·F            | Flange (MSS) | <input type="checkbox"/> | -3BIV-8FFL      |

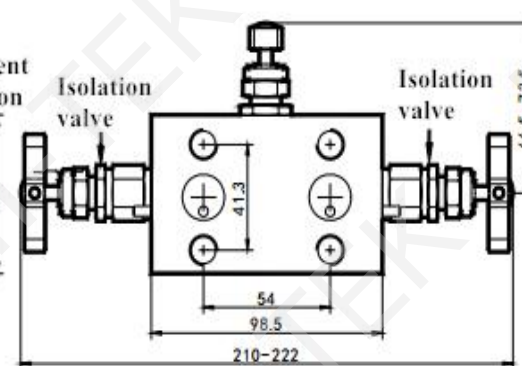
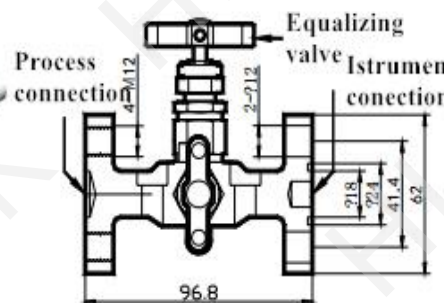
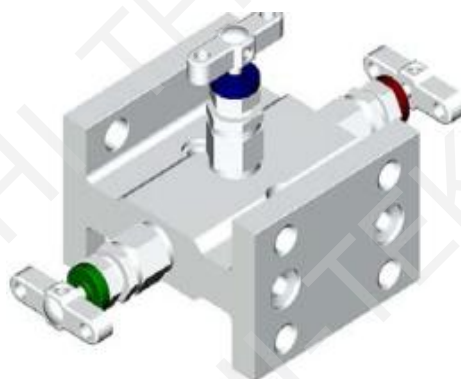
- Designed for mounting on differential pressure transmitters
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.



- Designed for mounting on 1151 differential pressure transmitters-33mm center distance
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

### 3 Valve Monifold (3TI Type)

| End connection size |              |      | Ordering Number |
|---------------------|--------------|------|-----------------|
| Process             | Instrument   | Vent |                 |
| 1/4NPT·F            | Flange (MSS) | □    | -3TI-4FFL       |
| 1/2NPT·F            | Flange (MSS) | □    | -3TI-8FFL       |

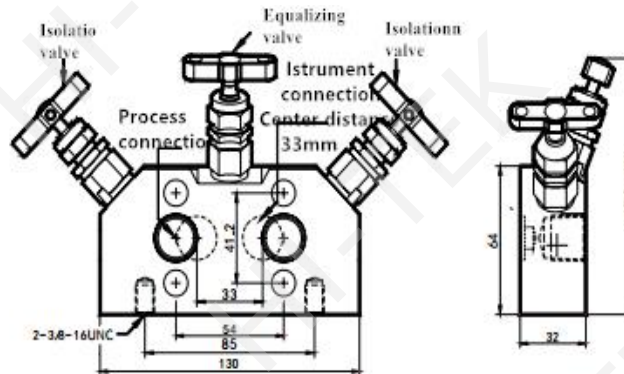
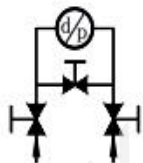
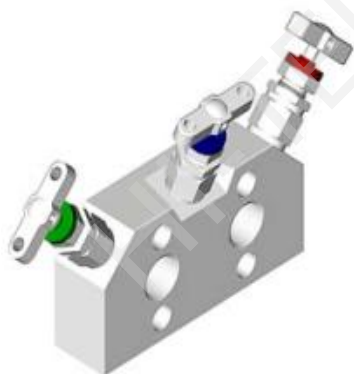


- Designed for mounting on 1151 differential pressure transmitters-33mm center distance
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

### 3 Valve Monifold (3HI Type)

| End connection size |              |      | Ordering Number |
|---------------------|--------------|------|-----------------|
| Process             | Instrument   | Vent |                 |
| Flange (MSS)        | Flange (MSS) | □    | -3HI-4FFL       |
| Flange (MSS)        | Flange (MSS) | □    | -3HI-8FFL       |

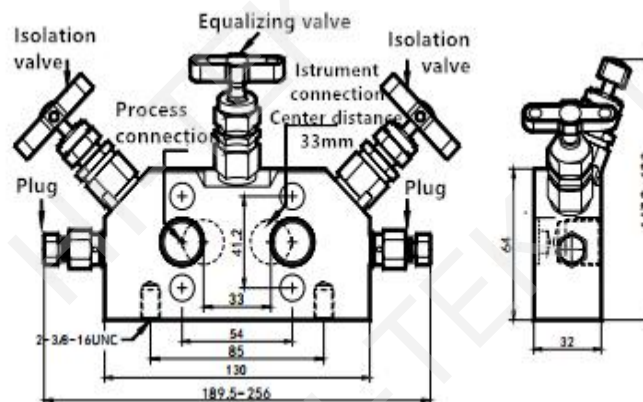
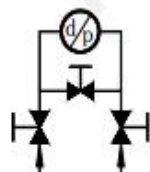
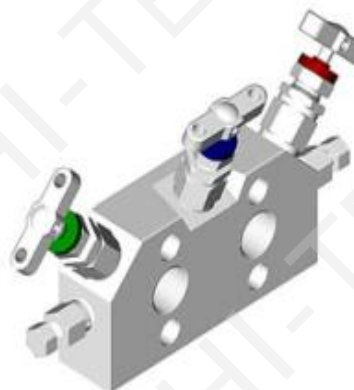




- Designed for mounting on 3051 differential pressure transmitters-33mm center distance
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

### 3 Valve Monifold (3BV33 Type)

| End connection size |              |                          | Ordering Number |
|---------------------|--------------|--------------------------|-----------------|
| Process             | Instrument   | Vent                     |                 |
| 1/4NPT·F            | Flange (MSS) | <input type="checkbox"/> | -3BV33-4FFL     |
| 1/2NPT·F            | Flange (MSS) | <input type="checkbox"/> | -3BV33-8FFL     |



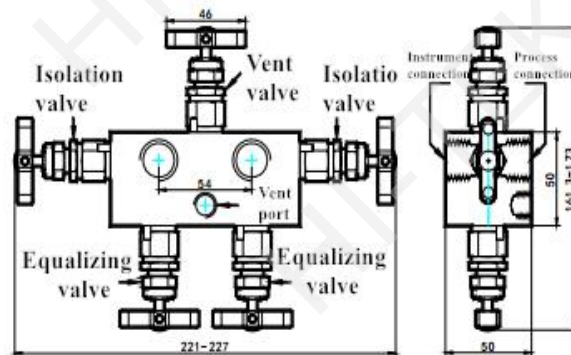
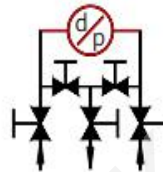
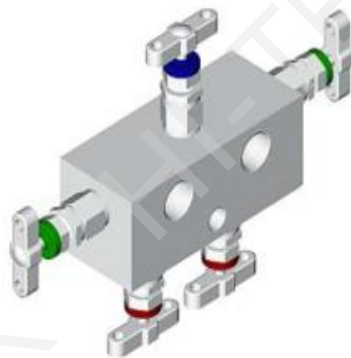
- Designed for mounting on 3051 differential pressure transmitters-33mm center distance
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

### 3 Valve Monifold (3BVB33 Type)

| End connection size |              |                          | Ordering Number |
|---------------------|--------------|--------------------------|-----------------|
| Process             | Instrument   | Vent                     |                 |
| 1/4NPT·F            | Flange (MSS) | <input type="checkbox"/> | -3BVB33-4FFL    |
| 1/2NPT·F            | Flange (MSS) | <input type="checkbox"/> | -3BVB33-8FFL    |



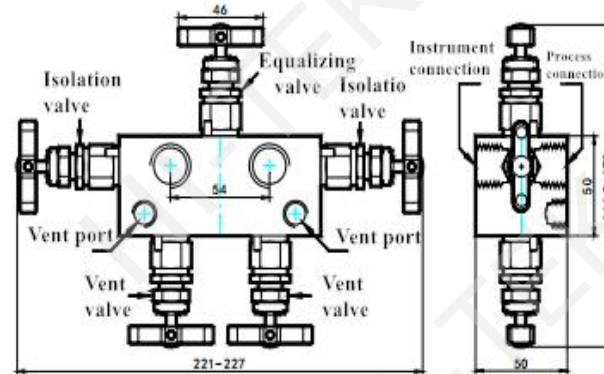
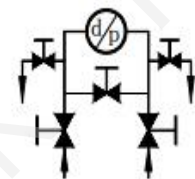
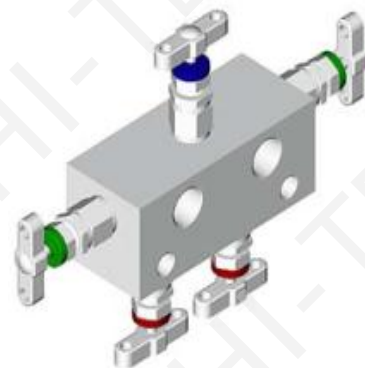
## 5 valve instrument manifolds



- Designed for mounting on differential pressure transmitters
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

### 5 Valve Monifold (5SI Type)

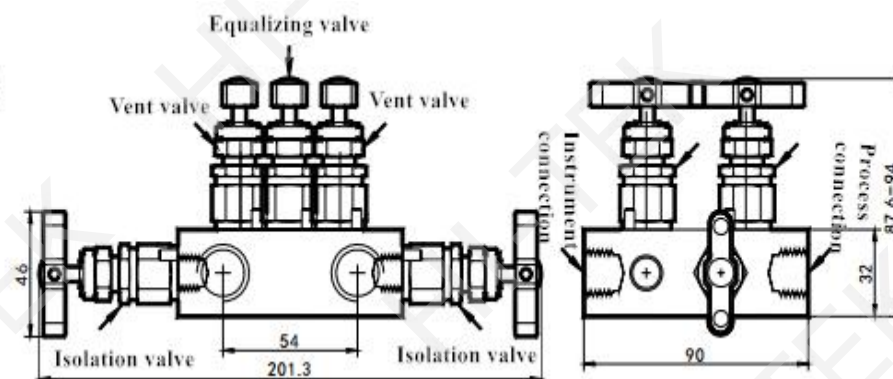
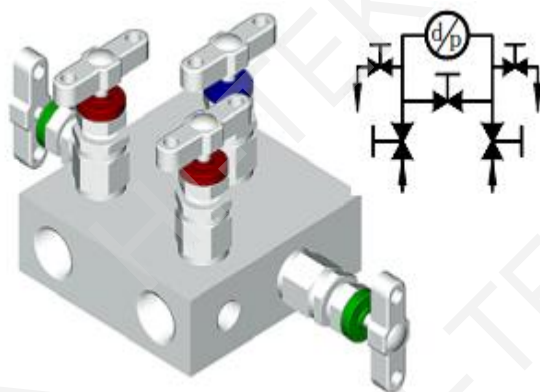
| End connection size |            |          | Ordering Number |
|---------------------|------------|----------|-----------------|
| Process             | Instrument | Vent     |                 |
| 1/4NPT·F            | 1/4NPT·F   | 1/4NPT·F | -5SI-4F4F       |
| 1/2NPT·F            | 1/2NPT·F   | 1/4NPT·F | -5SI-8F8F       |



- Designed for mounting on differential pressure transmitters
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

### 5 Valve Monifold (5SI I Type)

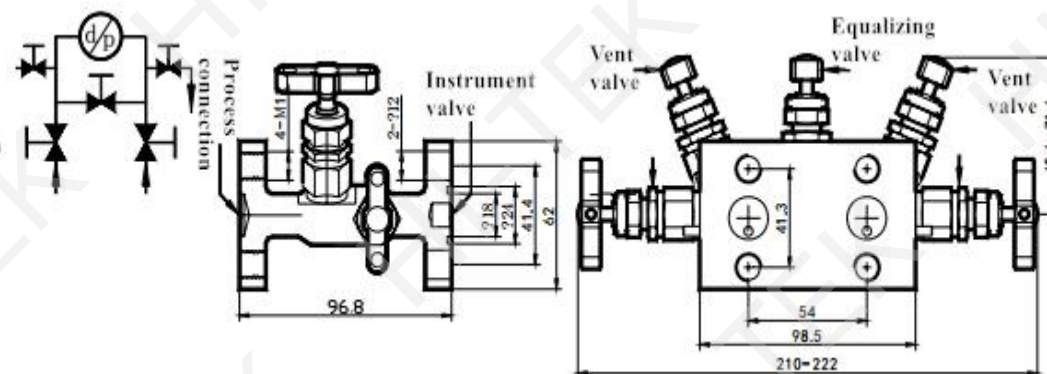
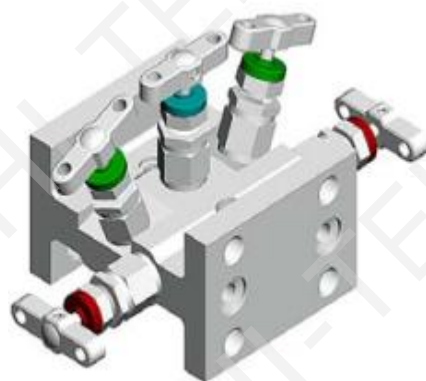
| End connection size |            |          | Ordering Number |
|---------------------|------------|----------|-----------------|
| Process             | Instrument | Vent     |                 |
| 1/4NPT·F            | 1/4NPT·F   | 1/4NPT·F | -5SI I -4F4F    |
| 1/2NPT·F            | 1/2NPT·F   | 1/4NPT·F | -5SI I -8F8F    |



- Designed for mounting on differential pressure transmitters
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

#### 5 Valve Monifold (5BT Type)

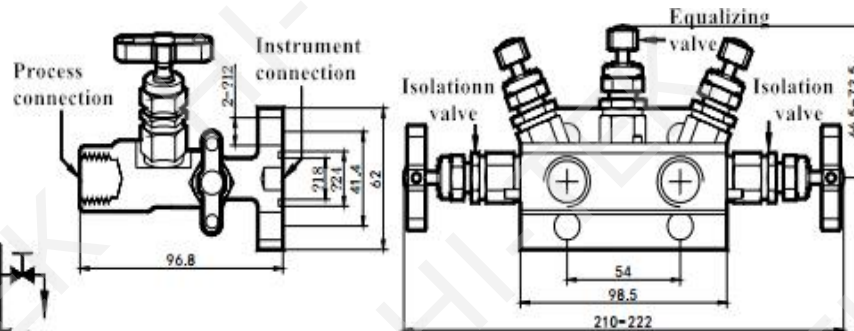
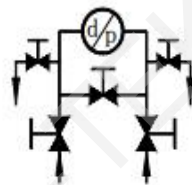
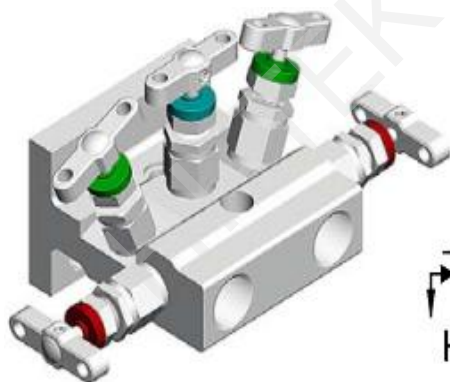
| End connection size |            |          | Ordering Number |
|---------------------|------------|----------|-----------------|
| Process             | Instrument | Vent     |                 |
| 1/4NPT·F            | 1/4NPT·F   | 1/4NPT·F | -5BT-4F4F       |
| 1/2NPT·F            | 1/2NPT·F   | 1/4NPT·F | -5BT-8F8F       |



- Designed for mounting on differential pressure transmitters
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

#### 5 Valve Monifold (5HT Type)

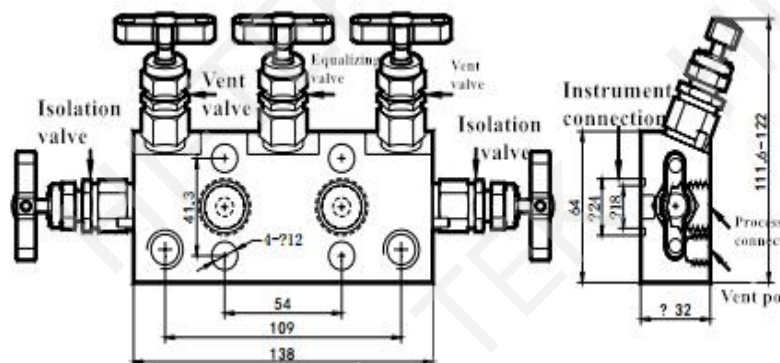
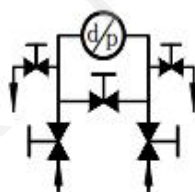
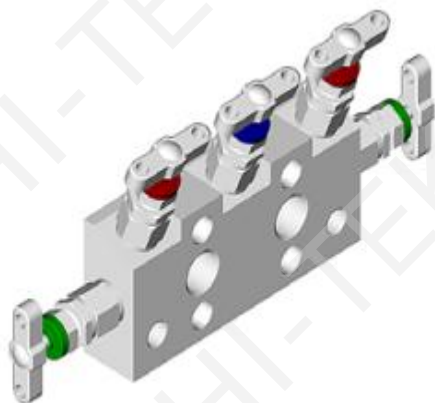
| End connection size |              |          | Ordering Number |
|---------------------|--------------|----------|-----------------|
| Process             | Instrument   | Vent     |                 |
| 1/2NPT·F            | Flange (MSS) | 1/4NPT·F | -5HT-FL         |



- Designed for mounting on differential pressure transmitters
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

#### 5 Valve Monifold (5TT Type)

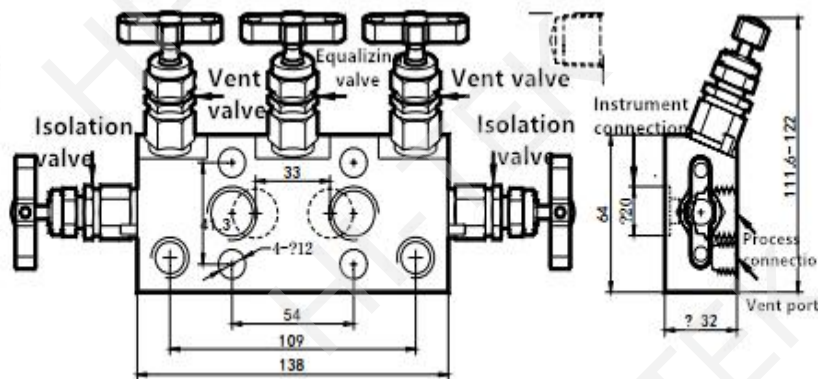
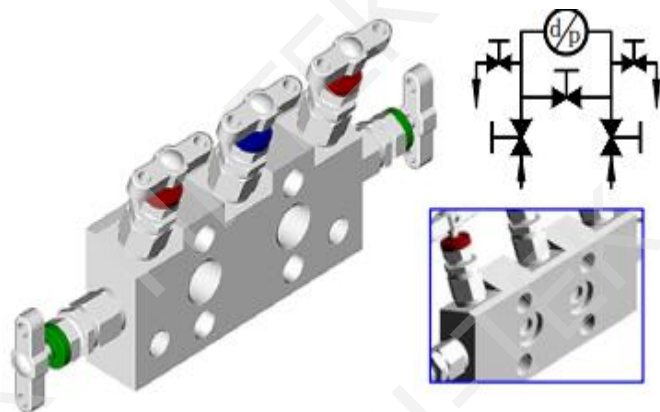
| End connection size |              |          | Ordering Number |
|---------------------|--------------|----------|-----------------|
| Process             | Instrument   | Vent     |                 |
| 1/4NPT·F            | Flange (MSS) | 1/4NPT·F | -5TT-4FFL       |
| 1/2NPT·F            | Flange (MSS) | 1/4NPT·F | -5TT-8FFL       |



- Designed for mounting on differential pressure transmitters
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

#### 5 Valve Monifold (5BIV Type)

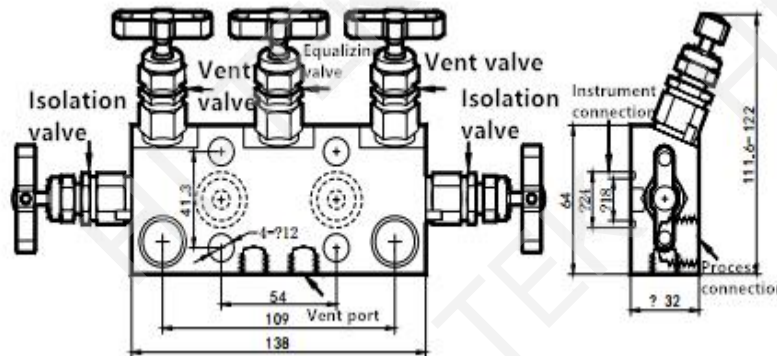
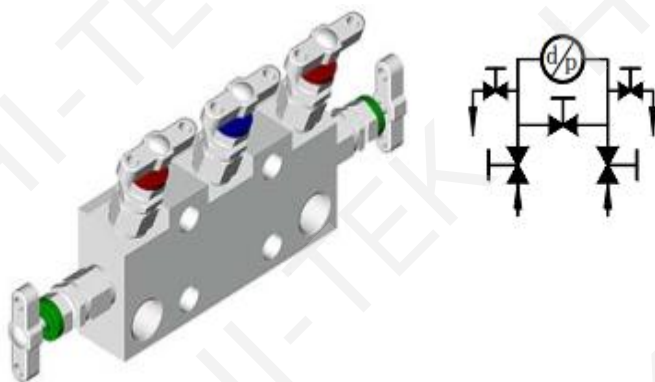
| End connection size |              |          | Ordering Number |
|---------------------|--------------|----------|-----------------|
| Process             | Instrument   | Vent     |                 |
| 1/4NPT·F            | Flange (MSS) | 1/4NPT·F | -5BIV-4FFL      |
| 1/2NPT·F            | Flange (MSS) | 1/4NPT·F | -5BIV-8FFL      |



#### 5 Valve Monifold (5BIV33 Type)

- Designed for mounting on 3051 differential pressure transmitters-33mm center distance
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

| End connection size |              |          | Ordering Number |
|---------------------|--------------|----------|-----------------|
| Process             | Instrument   | Vent     |                 |
| 1/4NPT·F            | Flange (MSS) | 1/4NPT·F | -5BIV33-F4FL    |
| 1/2NPT·F            | Flange (MSS) | 1/4NPT·F | -5BIV33-F8FL    |

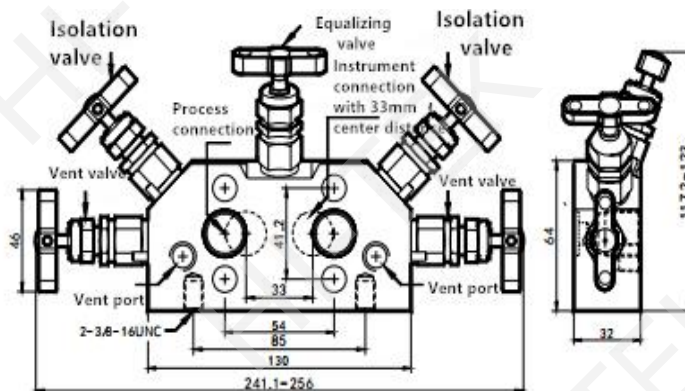
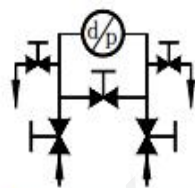
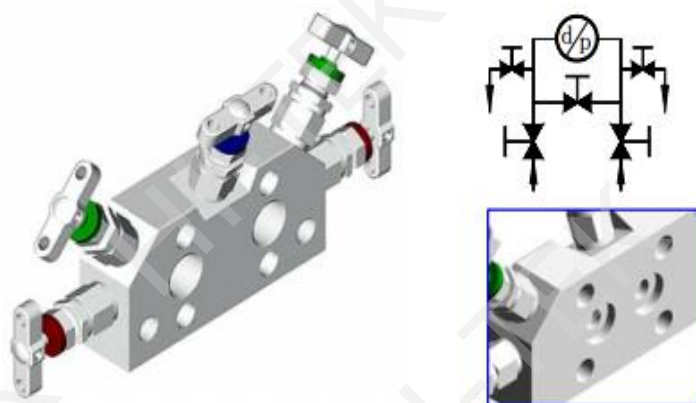


#### 5 Valve Monifold (5BIV I Type)

- Designed for mounting on differential pressure transmitters
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

| End connection size |              |          | Ordering Number |
|---------------------|--------------|----------|-----------------|
| Process             | Instrument   | Vent     |                 |
| 1/4NPT·F            | Flange (MSS) | 1/4NPT·F | -5BIV I -4FFL   |
| 1/2NPT·F            | Flange (MSS) | 1/4NPT·F | -5BIV I -8FFL   |

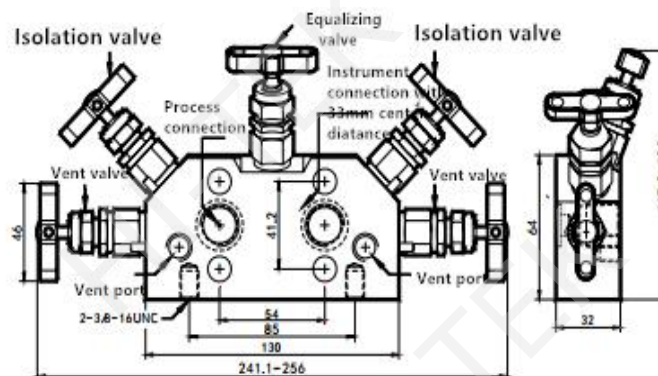
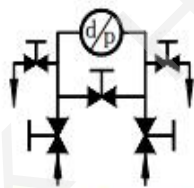
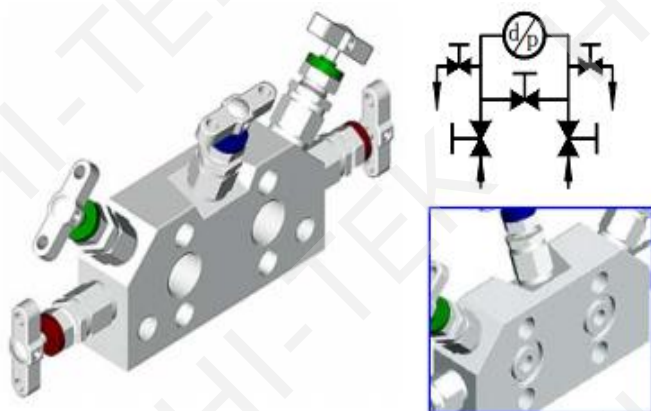




- Designed for mounting on 3051 differential pressure transmitters-33mm center distance
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

#### 5 Valve Monifold (5BV33 Type)

| End connection size |              |          | Ordering Number |
|---------------------|--------------|----------|-----------------|
| Process             | Instrument   | Vent     |                 |
| 1/4NPT·F            | Flange (MSS) | 1/4NPT·F | -5BV33-4FFL     |
| 1/2NPT·F            | Flange (MSS) | 1/4NPT·F | -5BV33-8FFL     |



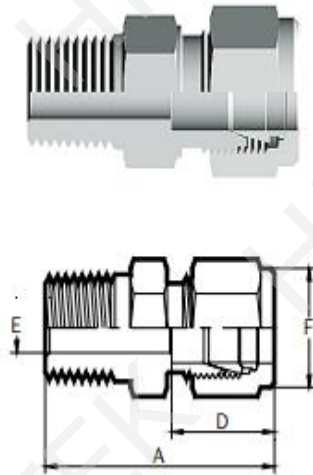
- Designed for mounting on differential pressure transmitters
- Orifice: 4 mm, Pressure: 6000 Psi (413 bar)
- Direct instrument mount and remote mount
- MM Dimensions are for reference only and may change.

#### 5 Valve Monifold (5BV Type)

| End connection size |              |          | Ordering Number |
|---------------------|--------------|----------|-----------------|
| Process             | Instrument   | Vent     |                 |
| 1/4NPT·F            | Flange (MSS) | 1/4NPT·F | -5BV-4FFL       |
| 1/2NPT·F            | Flange (MSS) | 1/4NPT·F | -5BV-8FFL       |

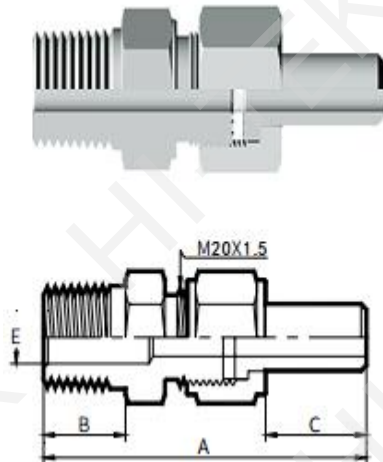
## Instrument Manifold Systems Accessories

### 1.HI-TEK Tube fitting



Tube fitting- Male NPT Adapter

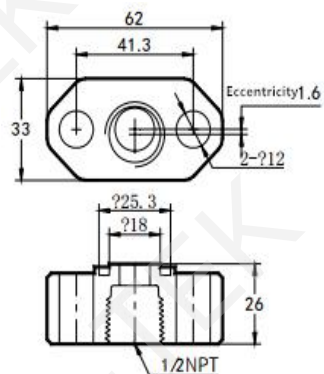
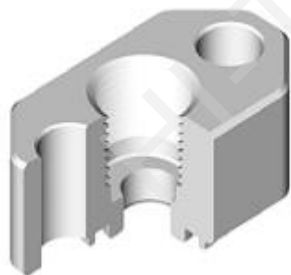
| Tube fitting | NPT  | Ordering Number | Size (mm) |      |      |      |
|--------------|------|-----------------|-----------|------|------|------|
| O.D          | Size |                 | A         | D    | E    | F    |
| 3/8          | 1/4  | -6I-1-4         | 39.8      | 16.7 | 7.1  | 16   |
| 1/3          | 1/4  | -8I-1-4         | 43.4      | 22.8 | 7.1  | 20.6 |
| 12           | 1/4  | -12M-1-4        | 43.4      | 22.8 | 7.1  | 22   |
| 14           | 1/4  | -14M-1-4        | 44.1      | 24.4 | 7.1  | 24   |
| 3/8          | 1/2  | -6I-1-8         | 46.2      | 16.7 | 7.1  | 16   |
| 1/2          | 1/2  | -8I-1-8         | 49        | 22.8 | 10.4 | 22.2 |
| 10           | 1/2  | -10M-1-8        | 46.5      | 17.2 | 7.9  | 22   |
| 14           | 1/2  | -14M-1-8        | 49        | 24.4 | 11.1 | 24   |



Pipe butt weld-NPT

| Pipe butt weld | NPT  | Ordering Number | Size (mm) |    |     |    |
|----------------|------|-----------------|-----------|----|-----|----|
| O.D            | Size |                 | A         | B  | E   | C  |
| 14             | 1/4  | -4N14TMM        | 68        | 14 | 6.8 | 23 |
| 14             | 1/2  | -8N14TMM        | 73        | 19 | 8   | 23 |

## 2.Eccentric Flanges

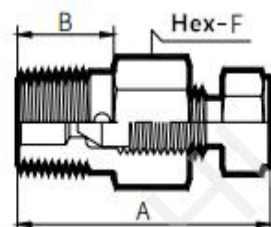


- Used with flange-to-flange manifolds to allow the connection of process flange taps or process root valves.
- Offered with HI-TEK tube fitting, female NPT, or pipe butt weld
- Provide an offset connection of 1/16 in. (1.6 mm) from the bolt hole
- CF3 and CF8 Material

S-304, SS-316

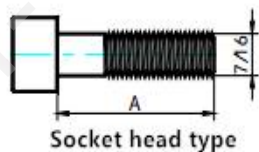
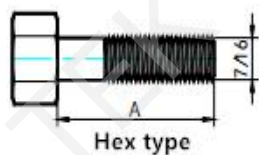
Ordering Number: S-LF8 / SS-LF8

## 3.Vent plug



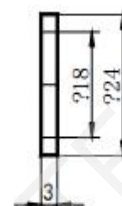
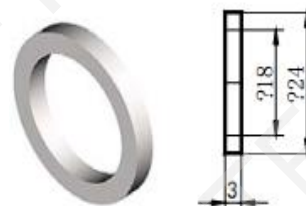
| Connection Size | Ordering Number | Size (mm) |    |    |
|-----------------|-----------------|-----------|----|----|
|                 |                 | A         | B  | F  |
| 1/4NPT          | -BF4F           | 37        | 14 | 15 |
| 3/8NPT          | -BF6F           | 37        | 14 | 17 |

## 4.hex bolts



| Ordering Number | Hex | Ordering Number (Socket head) | A  |
|-----------------|-----|-------------------------------|----|
| -LS 7/16-35     | 35  | -NS 7/16-35                   | 35 |
| -LS 7/16-70     | 70  | -NS 7/16-35                   | 70 |

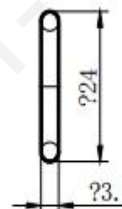
## 5.Flange Seal



### PTFE Ring

Ordering Number: PE-24/18/3

Material: PTFE



### PTFE Ring

Ordering Number: F-24/3.1

Material: FKM