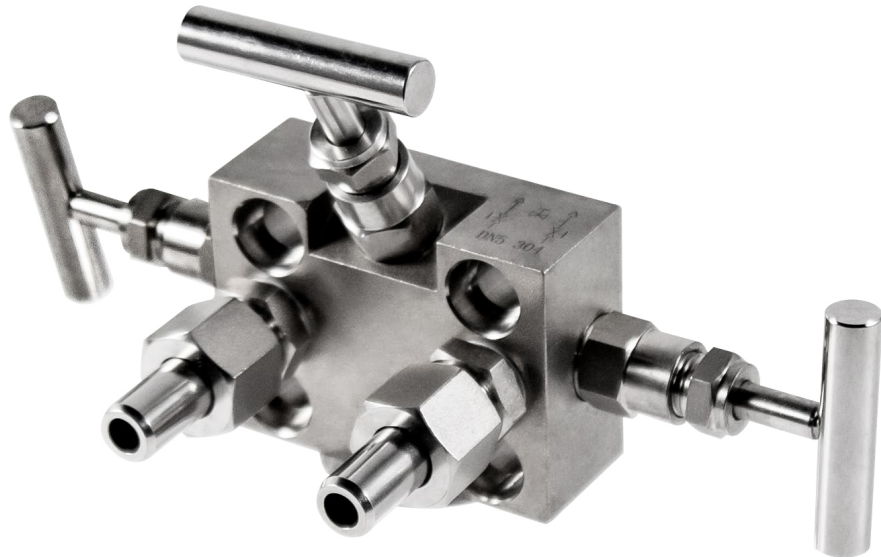
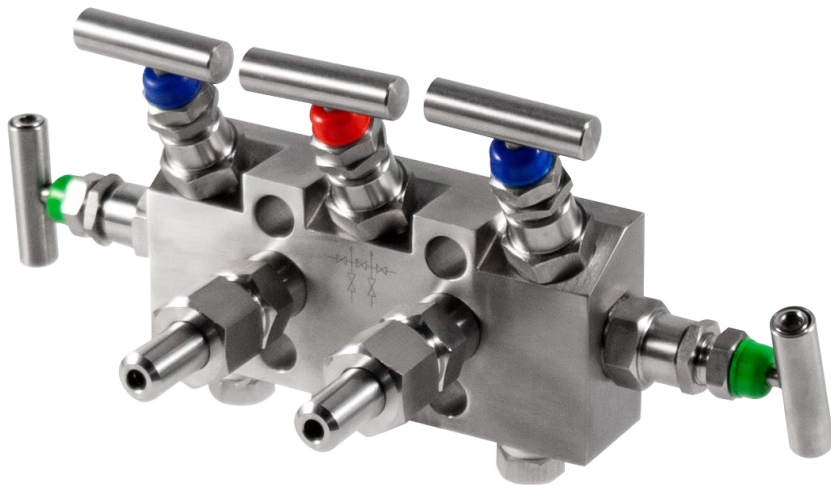


Valve Manifolds



|| Introduction ||

Valve manifolds are devices utilized for the actuation of opening, closing, balancing, and venting operations of differential pressure transmitters and pressure transmitters, controlling specifications such as fluid pressure, flow, and temperature. Valve manifolds consists of shut-off valve, two-valve manifold (column), two-valve manifold, three-valve manifold, and five-valve manifold configurations.

|| Functions ||

Shut-off valve (Code: N)

- The function of the shut-off valve is to open or shut off the pipeline flow. During installation, it is crucial to ensure that the flow direction of the applicable medium aligns with the arrow direction marked on the valve body.

Column two-valve manifold (Code: M)

- The column two-valve manifold consists of a shut-off valve (for opening, closing or purging) and a vent valve (typically for debris, water, or air). It is crucial to ensure that the flow direction of the applicable medium aligns with the arrow direction marked on the valve body. The shut-off valve and the vent valve are distributed at 180°.

Two-valve manifold (Code: 2)

- The column two-valve manifold consists of a shut-off valve (for opening, closing or purging) and a vent valve (typically for debris, water, or air). It is crucial to ensure that the flow direction of the applicable medium aligns with the arrow direction marked on the valve body. The shut-off valve and the vent valve are distributed at 90°.

Three-valve manifold (Code: 3)

- The three-valve manifold consists of a valve body, two shut-off valves, and a balance valve. Based on the function of each valve in the system, it can be categorized as follows: the positive (upstream) globe valve, the negative (downstream) shut-off valve, and the balance valve located in between. The three-valve manifold is used in conjunction with a differential pressure transmitter to establish or isolate communication between the positive and negative pressure measuring chambers and the impulse point, or to isolate or establish communication between the positive and negative pressure measuring chambers.

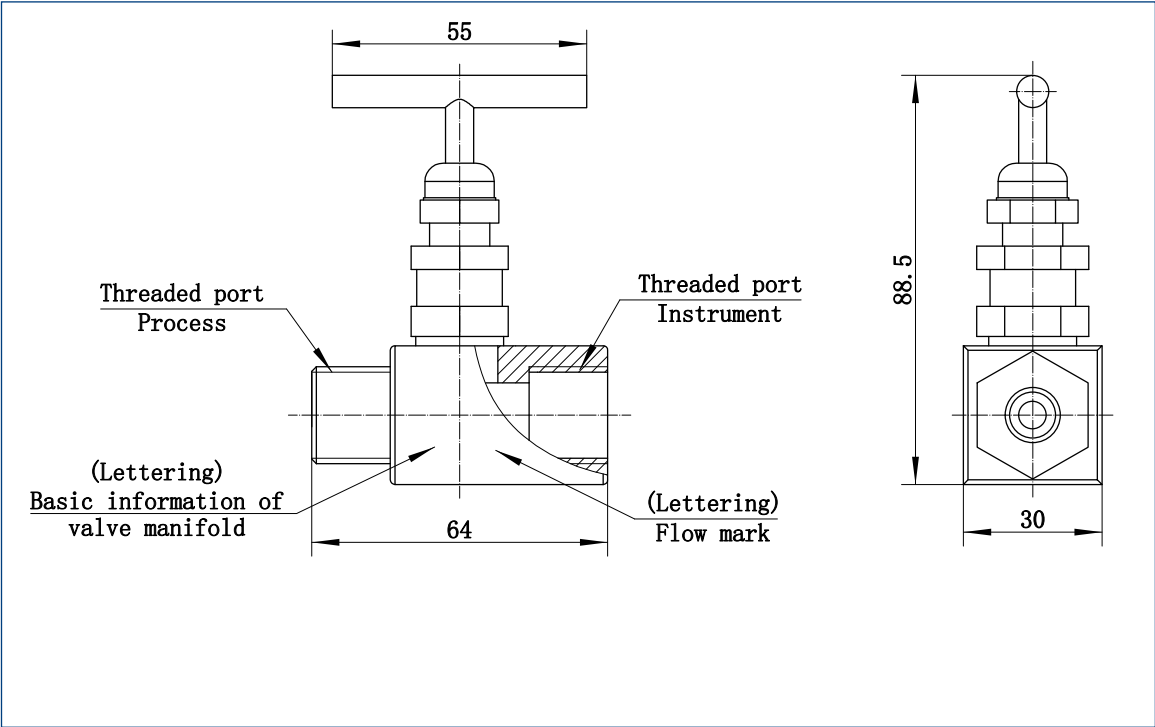
Five-valve manifold (Code: 5)

- The five-valve manifold is essentially a three-valve manifold with the addition of vent valves on both the high and low-pressure sides.

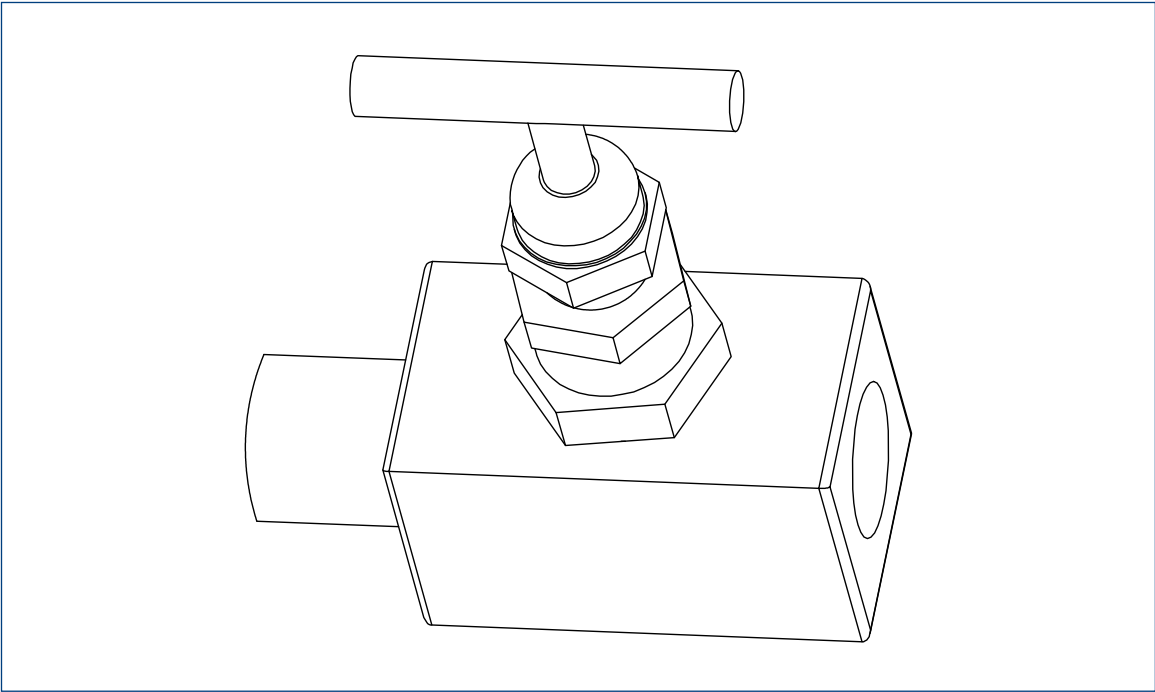
|| Illustration ||

Unit:mm

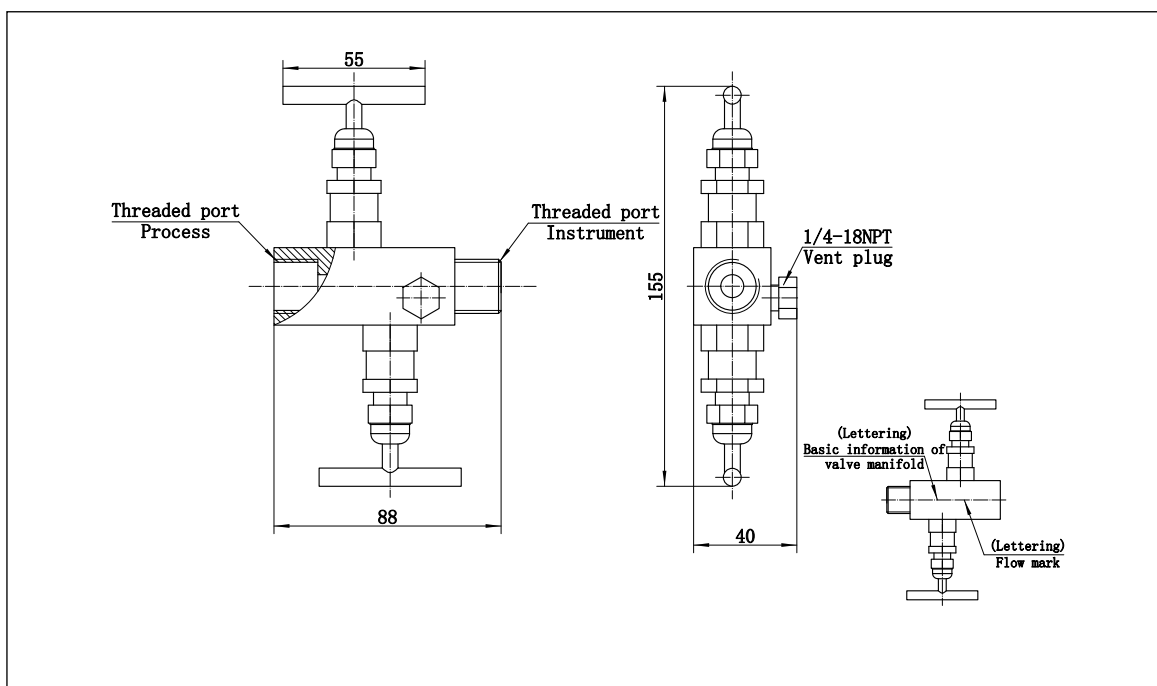
Shut-Off Valve Dimensions



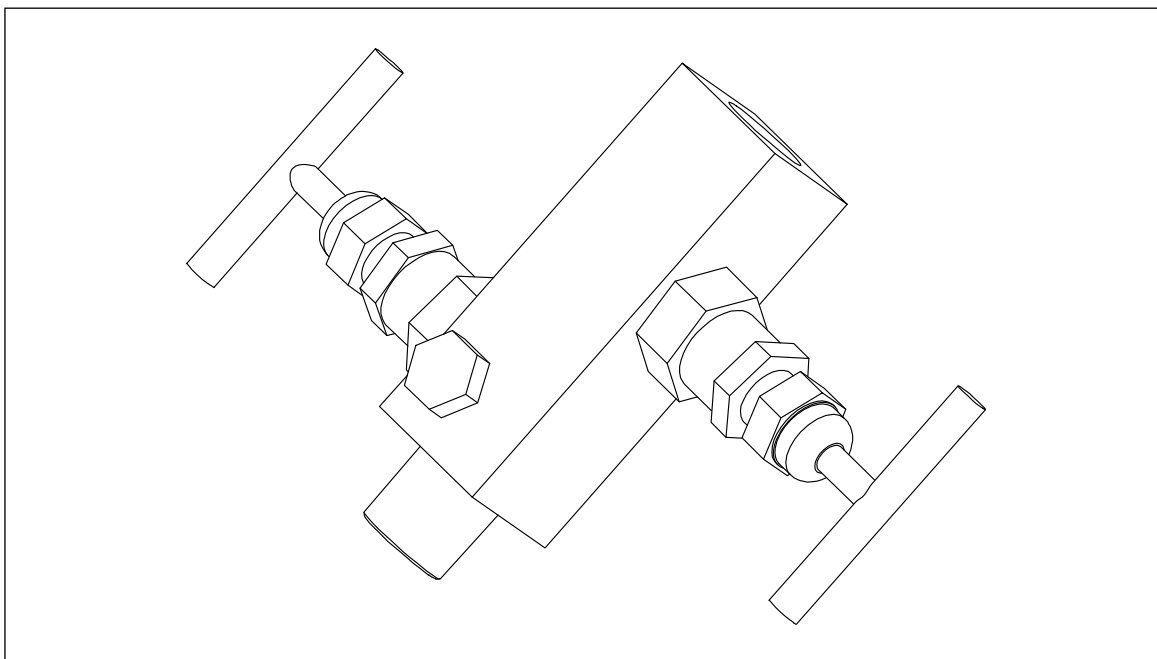
Shut-Off Valve Diagram



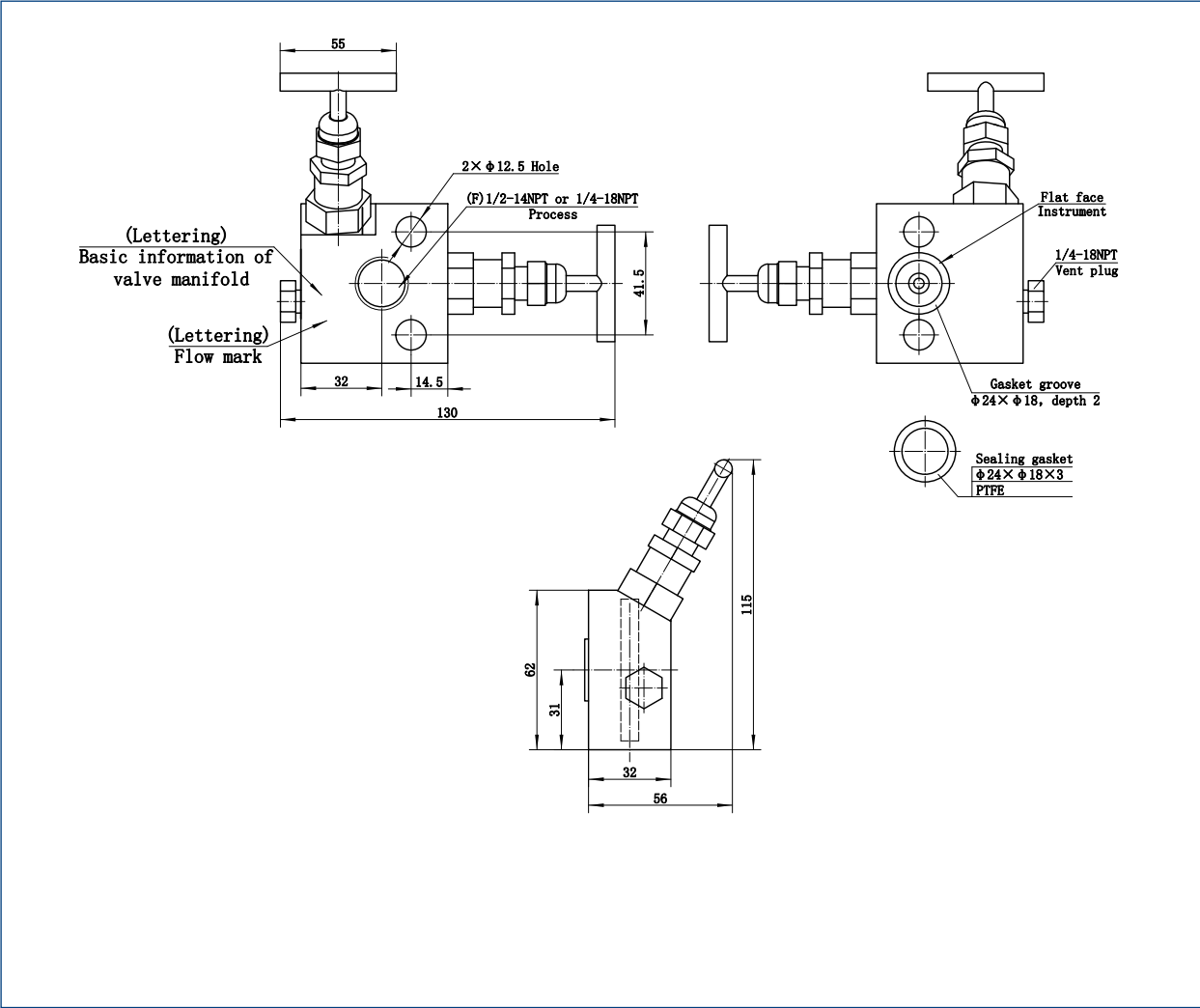
Column Two-Valve Manifold Dimensions



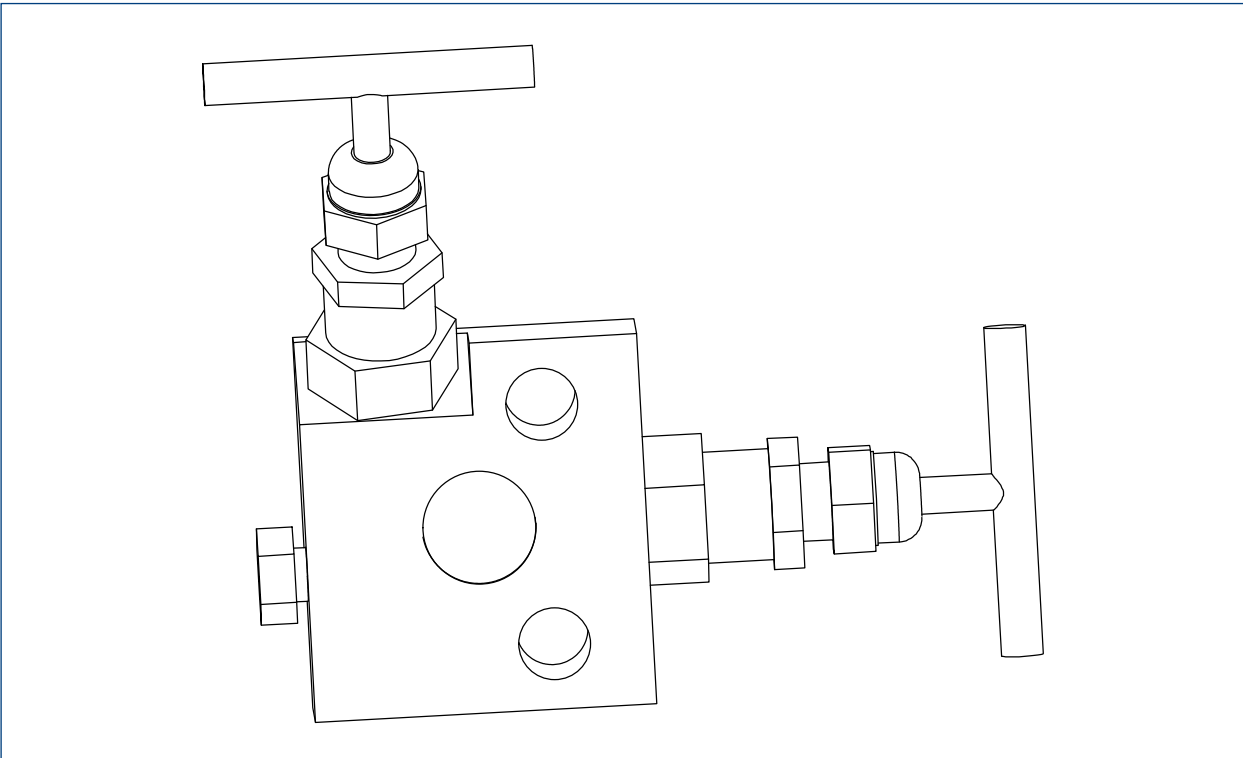
Column Two-Valve Manifold Diagram



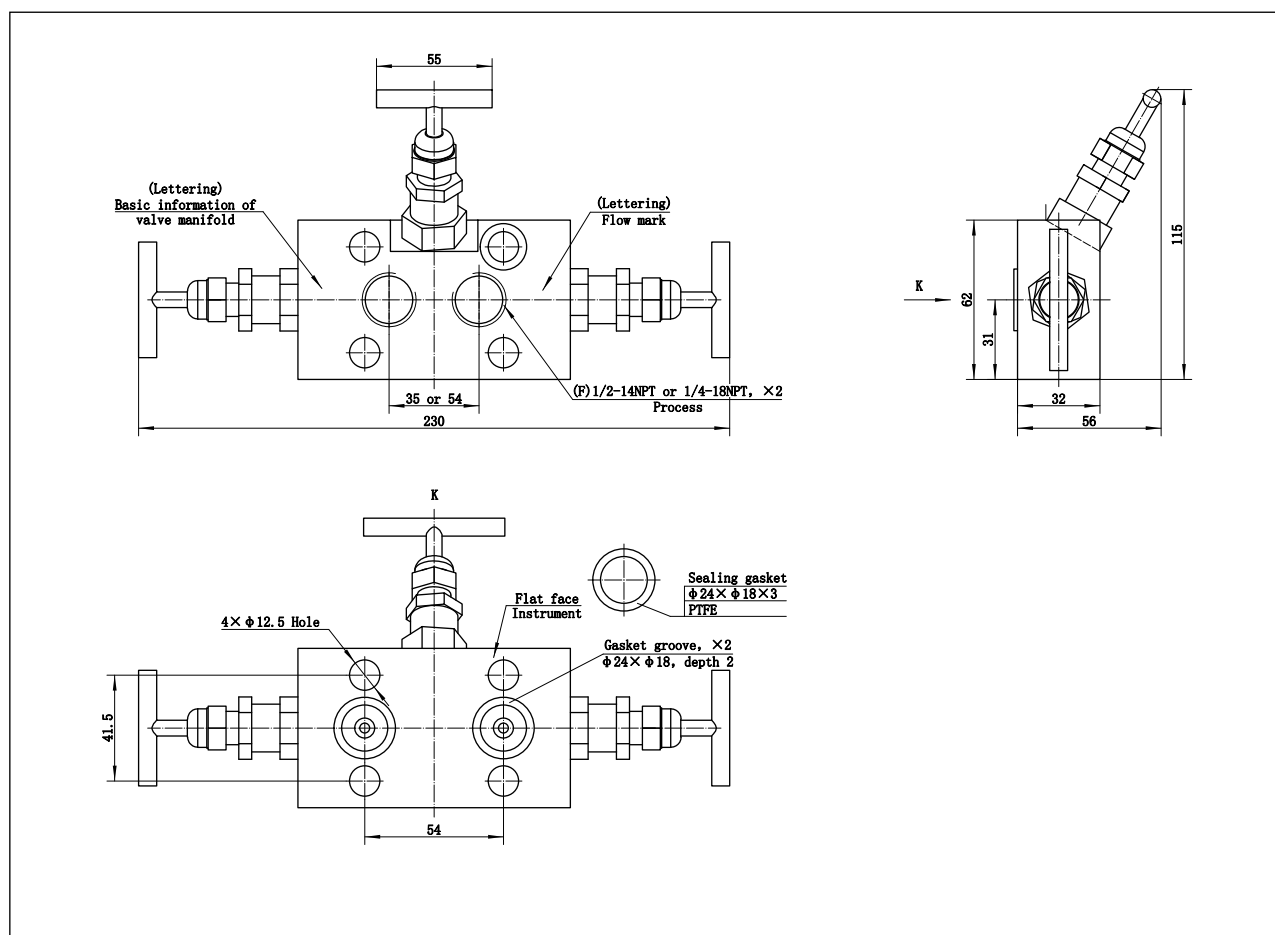
Two-Valve Manifold Dimensions



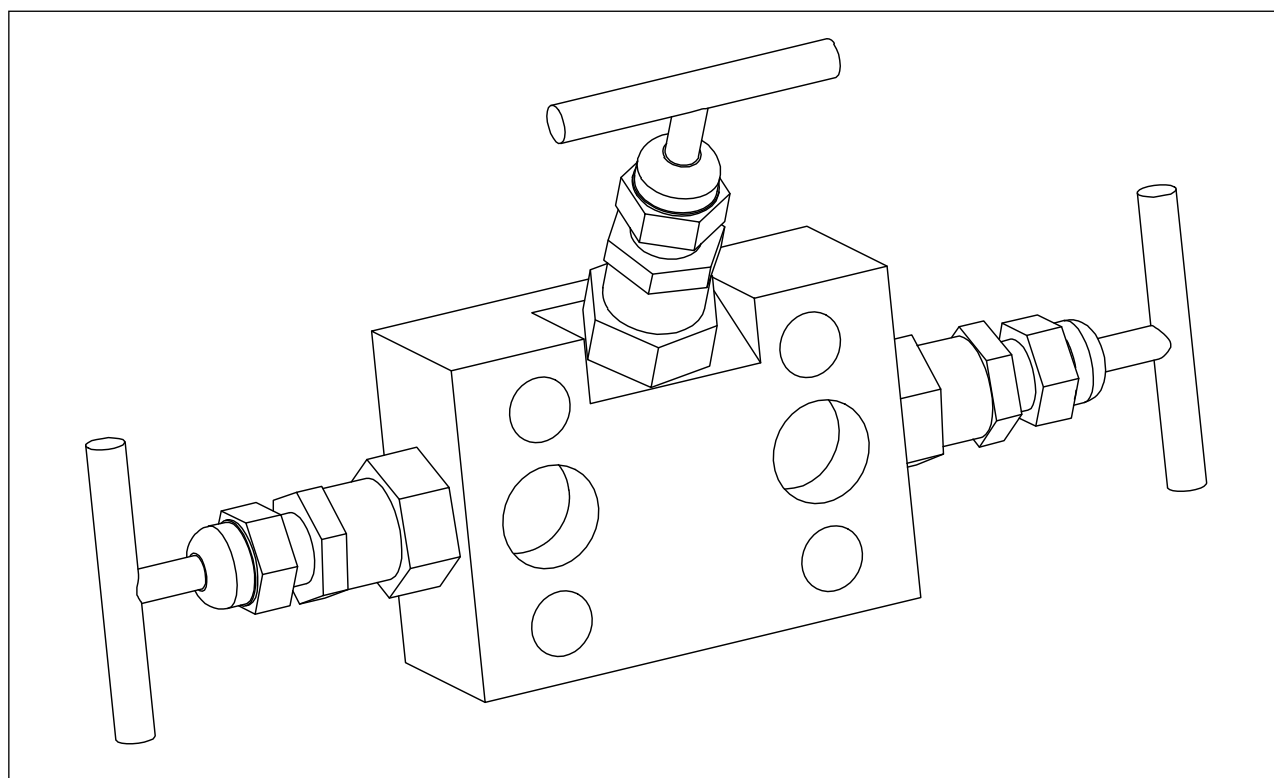
Two-Valve Manifold Diagram



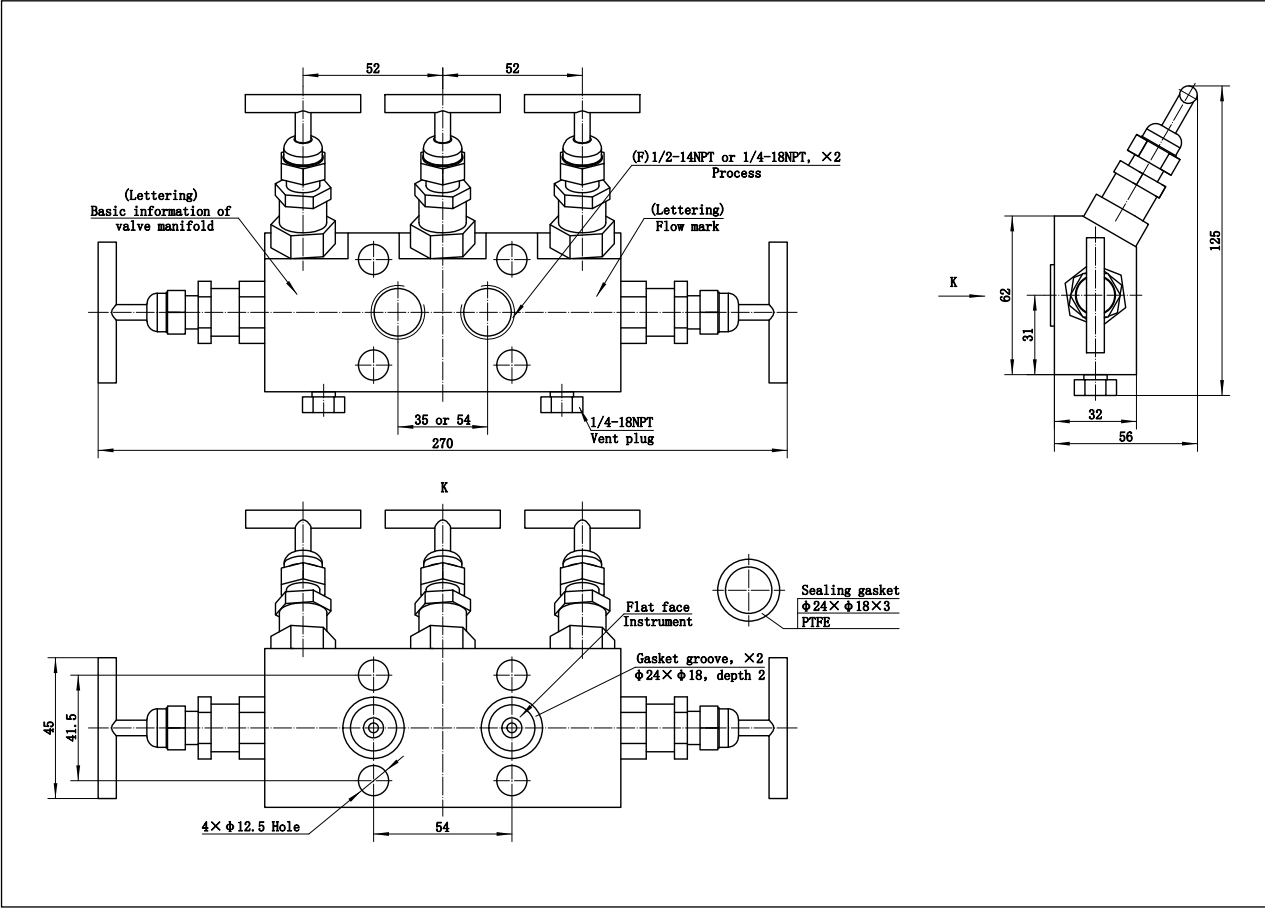
Three-Valve Manifold Dimensions



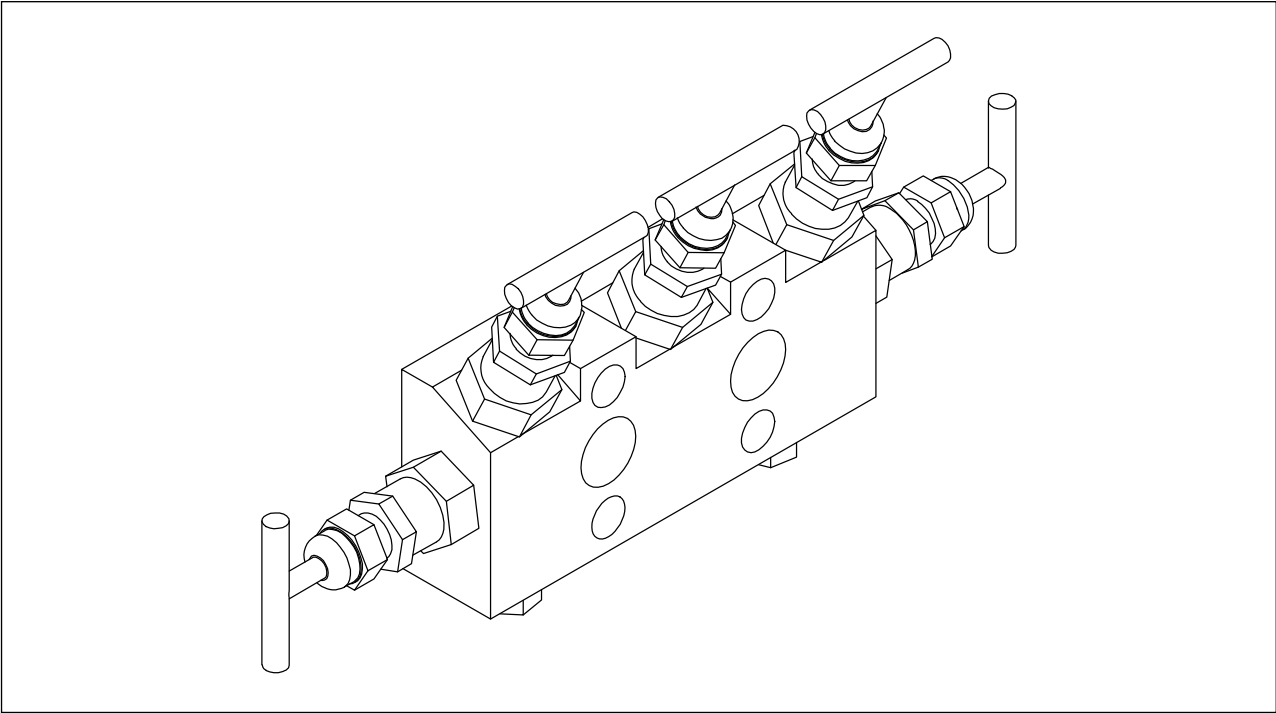
Three-Valve Manifold Diagram

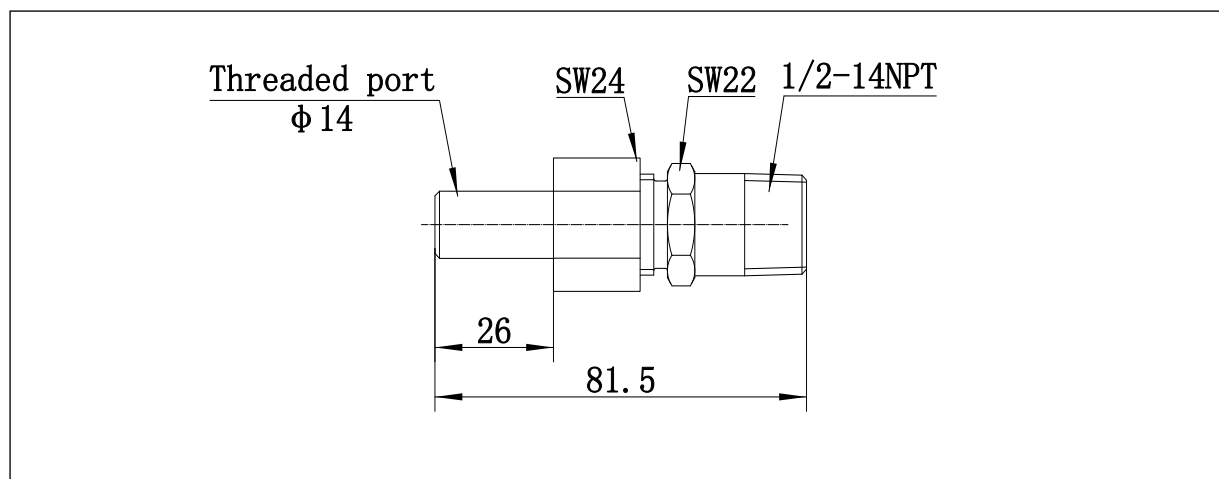
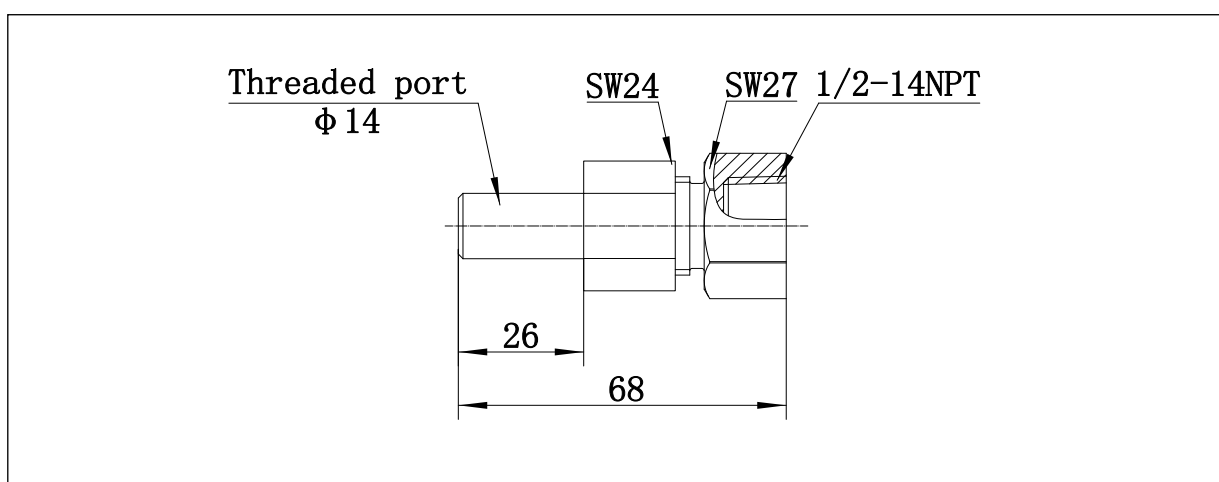
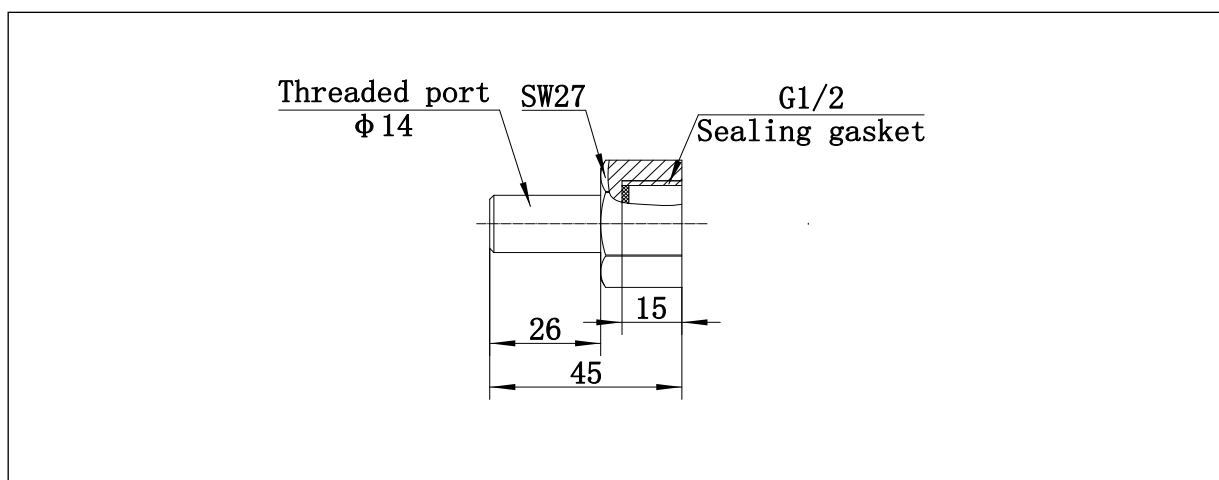


Five-Valve Manifold Dimensions

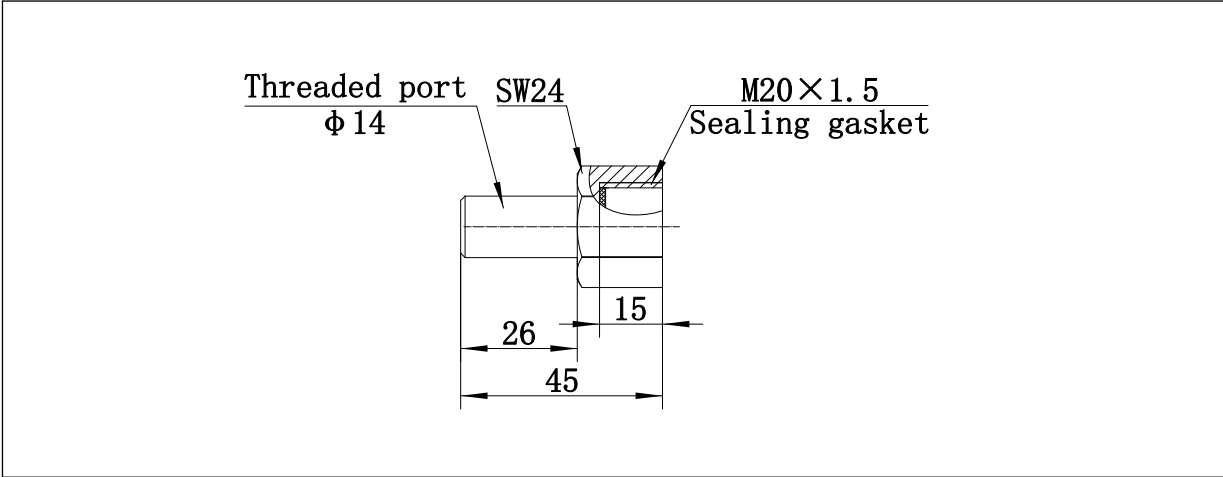


Five-Valve Manifold Illustration

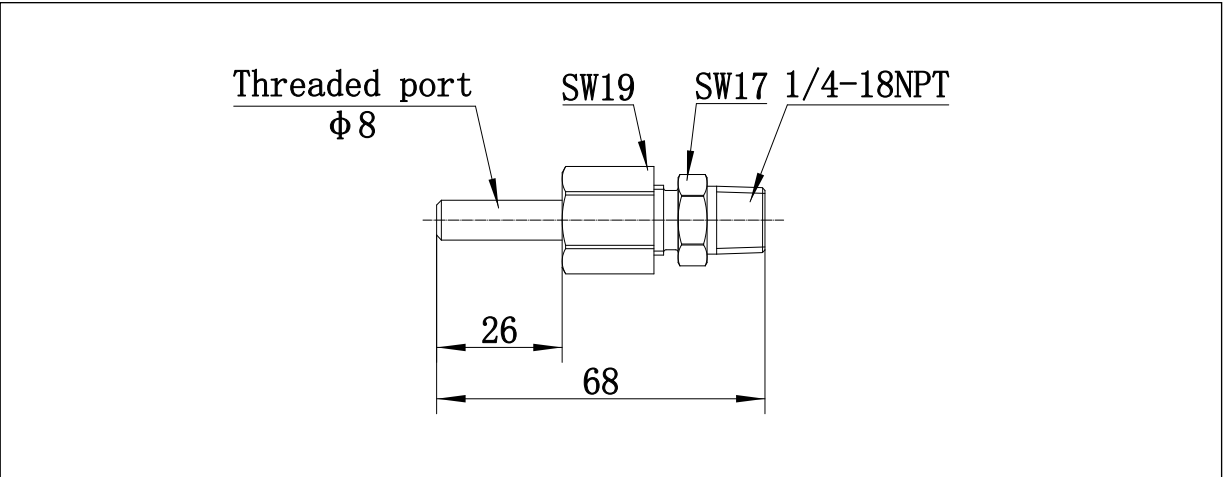


Options - Welding Adapter Dimensions(Code: /D5, /D9)**Options - Welding Adapter Dimensions(Code: /D6)****Options - Welding Adapter Dimensions(Code: /D7)**

Options - Welding Adapter Dimensions(Code: /D8)



Options - Welding Adapter Dimensions(Code: /DA)



Valve Manifolds

Items	Code	Description
Type	N	Shut-off valve (Medium temperature: -30°C ~150°C , no drain outlet)
	M	Column two-valve manifold (Medium temperature: -30°C ~150°C ,drain outlet with plug)
Max. pressure	3	320bar
	4	420bar
Valve body	4	SUS304
	6	SUS316
Instrument connection	M	M20×1.5 (F) , GB/T193-2003
	G	G1/2(F) , GB/T 7307-2001
	N	1/2-14NPT(M) ,GB/T 12716-2011
	P	1/2-14NPT(F) ,GB/T 12716-2011
Process connection	1	M20×1.5(M) ,GB/T 193-2003
	2	G1/2(M) ,GB/T 7307-2001
	3	1/2-14NPT(F) ,GB/T 12716-2011
	4	1/2-14NPT(M) ,GB/T 12716-2011
Options	Description (Detailed specifications as following, multiple options or null)	
Welding adapters	/D5	1/2-14NPT (M) and vent tube Φ14mm, thickness≥3mm, 316 SS, ×1 (Adaptable 1/2- 14NPT Female)
	/D6	1/2-14NPT (F) and vent tube Φ14mm, thickness≥3mm, 316 SS, ×1 (Adaptable 1/2- 14NPT Male)
	/D7	G1/2 (F) and vent tube Φ14mm, thickness≥3mm, 316 SS, ×1 (Adaptable G1/2 Female)
	/D8	M20×1.5 (F) and vent tube Φ14mm, thickness≥3mm, 316 SS, ×1 (Adaptable M20×1.5 Male)
High temperature condition	/T	150°C ≤ Medium temperature ≤ 540°C (Note the actual medium temperature in the order)
Oil-free treatment	/CL1	Degreasing and cleaning treatment of the wetted parts

Note: Valve manifolds specify temperature range. Gasket material: PTFE (≤320 bar); Cu(above defined temperature range). Please feel free to contact the MICROSENSOR for other requirements.

Items	Code	Description
Type	2	Two-valve manifold (Medium temperature: -30°C ~150°C ,drain outlet with plug)
	3	Three-valve manifold (Medium temperature: -30°C ~150°C , no drain outlet)
	5	Five-valve manifold (Medium temperature: -30°C ~150°C ,drain outlet with plug)
Max. pressure	3	320bar
	4	420bar
Valve body	4	Valve body: SUS304, installing bolts: SUS304
	6	Valve body: SUS316, installing bolts: SUS304
Process connection with transmitter	S	Square flange
Square flange mounting bolts	M	M10×1.5 (Applicable to MDM6000)
	1	UNF 7/16-20(M)
Process connection of valve	N	1/2-14NPT(F), GB/T 12716-2011
	P	1/4-18NPT(F), GB/T 12716-2011
Hole distance of valve manifolds	A	Instrument: 54mm, process: 54mm (applicable to 3-valve and 5-valve manifold)
	B	Instrument: 54mm, process: 35mm (applicable to 3-valve and 5-valve manifold)
Options	Description (Detailed specifications as following, multiple options or null)	
Welding adapters	/D5	1/2-14NPT(M) and vent tube Φ14mm, thickness≥3mm, 316 SS, ×1 (Adaptable two-valve manifold)
	/D9	1/2-14NPT(M) and vent tube Φ14mm, thickness≥3mm, 316 SS, ×2 (Adaptable three-valve manifold and five-valve manifold)
	/DA	1/4-18NPT(M) and vent tube Φ8mm, thickness≥3mm, 316 SS, ×2 (Adaptable three-valve manifold and five-valve manifold)
High temperature condition	/T	150°C ≤ Medium temperature ≤ 540°C (Note the actual medium temperature in the order)
Oil-free treatment	/CL	Degreasing and cleaning treatment of the wetted parts
Note: Valve manifolds specify temperature range. Gasket material: PTFE (≤320 bar); Cu(above defined temperature range). Please feel free to contact the MICROSENSOR for other requirements.		