

Pressure Measurement

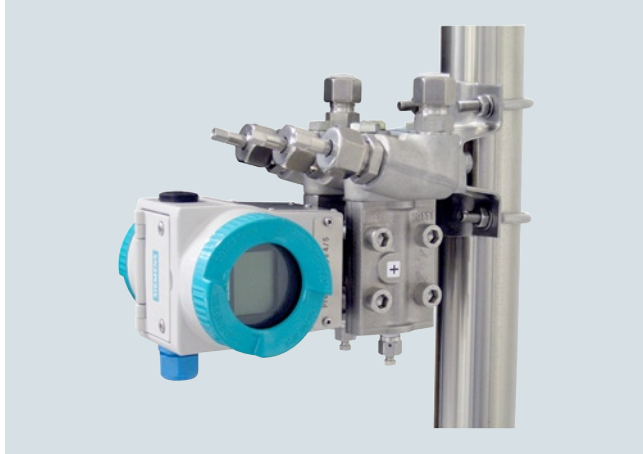
Fittings

Shut-off valves for differential pressure transmitters

1

3-way and 5-way valve manifolds DN 5

Overview



The three-spindle and five-spindle valve manifolds DN 5 (7MF9410-1../-3..) are used to shut off the differential pressure lines and to check the transmitter zero.

In addition, the five-way valve manifold permits blowing out of the differential pressure lines.

Benefits

- Available for aggressive and non-aggressive liquids and gases
- Max. working pressure 420 bar (6092 psi), with version for oxygen max. 100 bar (1450 psi)

Application

The 3-way and 5-way valve manifolds are available in versions for aggressive and non-aggressive liquids and gases.

Mounting plates are available for wall mounting, for securing to mounting racks or for pipe mounting.

Design

The process connection of the 3-way and 5-way valve manifolds is a pipe union with ferrule.

Both valve manifolds have 2 flange connections for connecting a pressure transmitter.

In addition, the five-way valve manifold has 2 blow-out connections.

Depending on the version the valve manifold has either 3 or 5 valves, each with an internal spindle thread.

Materials used

Component	Material	For non-aggressive liquids and gases		For aggressive liquids and gases	
		Mat. No.	Material	Mat. No.	Material
Housing	P250GH	1.0460	X 6 CrNiMoTi17 12 2	1.4571/316Ti	
Head parts	C 35	1.0501			
Spindles	X 12 CrMoS 17	1.4104			
Cones	X 35 CrMo 17 hardened and tempered	1.4122			
Valve seats	X 6 CrNiMoTi 17 12 2	1.4571/316Ti			
Packings	PTFE	-	PTFE	-	

Function

- Shutting off the differential pressure lines
- Checking the pressure transmitter zero
- In addition, the five-way valve manifold permits blowing out of the differential pressure lines.

Selection and Ordering data

Article No.

3-way valve manifold DN 5

7MF9410 - A

Click on the Article No. for the online configuration in the PIA Life Cycle Portal.

For flanging to pressure transmitters for differential pressure, process connection: Pipe union with ferrule, max. working pressure 420 bar (6092 psi), weight 2.9 kg (order accessory set and mounting plate with Order code), without certificate

- for non-aggressive liquids and gases
- for aggressive liquids and gases

1 E

1 F

5-way valve manifold DN 5

Click on the Article No. for the online configuration in the PIA Life Cycle Portal.

For flanging to pressure transmitters for differential pressure, process connection: Pipe union with ferrule, max. working pressure 420 bar (6092 psi), weight 4.4 kg (order accessory set and mounting plate with Order code), without certificate

- for non-aggressive liquids and gases
- for aggressive liquids and gases

3 E

3 F

Accessories

Factory test certificate EN 10204-2.2

7MF9000-8AB

Material acceptance test certificate EN 10204-3.1

7MF9000-8AD

Selection and Ordering data	Order code	Article No.	Accessories
Further designs¹⁾ Please add "-Z" to Article No. and specify Order code.			
Accessory set to EN (required for flanging, weight 0.2 kg) 4x screws 7/16-20 UNF x 2 1/8 inch to ASME B18.2; chromized steel 2x flat gaskets made of PTFE, max. permissible 420 bar (6092 psi), 80 °C (176 °F)	B31	7MF9010-5CC	Accessory set for 3-way and 5-way valve manifold DN 5 for flanging <ul style="list-style-type: none"> B31: 4 screws 7/16-20 UNF x 2 1/8 inch to ASME B18.2.1, 2 flat gaskets B34: 4 screws 7/16-20 UNF x 2 1/8 inch to ASME B18.2.1, 2 O-rings (FPM 90) B11: 4 screws M10x55 to DIN EN 24014, 4 washers, 2 flat gaskets B15 (suitable for oxygen): 4 screws M10x55 to DIN EN 24014, 4 washers, 2 flat gaskets B16: 4 screws M10x55 to DIN EN 24014, 4 washers, 2 O-rings (FPM 90) Washers Ø 10.5 to DIN 125 Flat gaskets made of PTFE, max. 420 bar (6092 psi), 80 °C (176 °F)
4x screws 7/16-20 UNF x 2 1/8 inch to ASME B18.2; chromized steel 2x O-rings to DIN 3771, 20 x 2.65 - S - FPM90, max. permissible 420 bar (6092 psi), 120 °C (248 °F)	B34	7MF9410-5CA	
Accessory set to DIN²⁾ (required for flanging, weight 0.2 kg) 4x screws M10x55 to DIN EN 24014; chromized steel 4x washers Ø 10.5 mm to DIN 125; 2x flat gaskets made of PTFE, max. permissible 420 bar (6092 psi), 80 °C (176 °F)			O-ring to DIN 3771, 20 x 2.65 - S - FPM90, max. 420 bar (6092 psi), 120 °C (248 °F) Note: M10 screws only permissible up to PN 160 (2320 psi)! Mounting plate Made of electrogalvanized sheet-steel <ul style="list-style-type: none"> M11: For wall mounting or for securing on rack (72 mm grid) Scope of delivery: - 1 mounting plate 7MF9006-6EA with bolts for mounting on valve manifold M12: For pipe mounting Scope of delivery: - 1 mounting plate M11 - 2 pipe brackets with nuts and washers for pipes with max. Ø 60.3 mm Valve manifold 100 bar, suitable for oxygen S12: Only in combination with versions for aggressive liquids and gases
<ul style="list-style-type: none"> Standard design Version for oxygen 	B11	7MF9010-6AD	
4x screws M10x55 to DIN EN 24014; chromized steel 4x washers Ø 10.5 mm to DIN 125; 2x O-rings to DIN 3771, 20 x 2.65 - S - FPM90, max. permissible 420 bar (6092 psi), 120 °C (248 °F)	B15 B16	7MF9010-6AE 7MF9010-6CC	
Mounting plate for valve manifold, made of electrogalvanized sheet-steel for wall mounting or for securing on rack (72 mm grid), weight 0.5 kg Scope of delivery: 1 mounting plate with bolts for mounting on valve manifold	M11	7MF9006-6EA	
for pipe mounting , weight 0.7 kg Scope of delivery: 1x mounting plate M11, 2x pipe brackets with nuts and washers (for pipe with max. Ø 60.3 mm)	M12	7MF9006-6GA	
valve manifold 100 bar suitable for oxygen for 7MF9410-1F	S13		
for 7MF9410-3F	S14		
NACE MR-0175-certified incl. acceptance test certificate 3.1 to EN 10204 (only available for version 7MF9410-1FA and -3FA)	D07		

1) When ordering accessory set or mounting together with the valve manifolds, please use Order code; otherwise use Article No.

2) Flange connections to DIN 19213 only permissible up to PN 160 (2321 psi)

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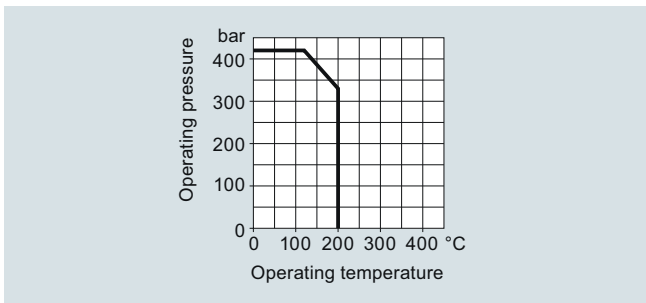
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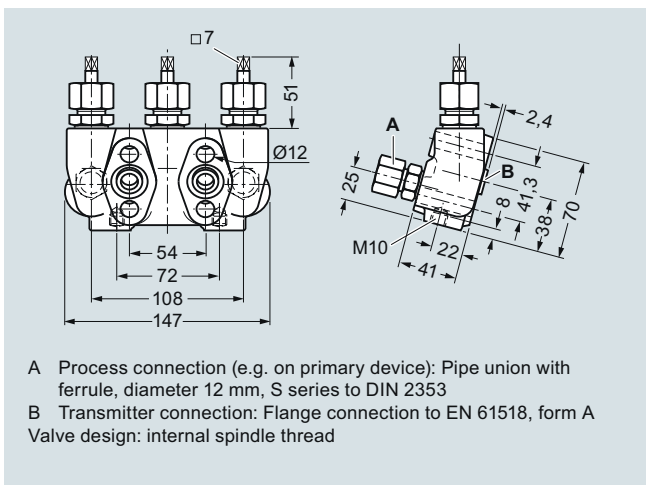
3-way and 5-way valve manifolds DN 5

Characteristic curves

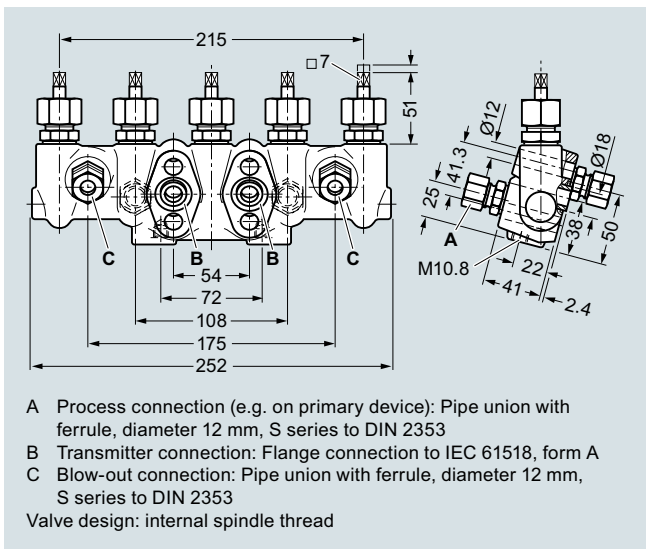


Permissible operating pressure as a function of the permissible operating temperature

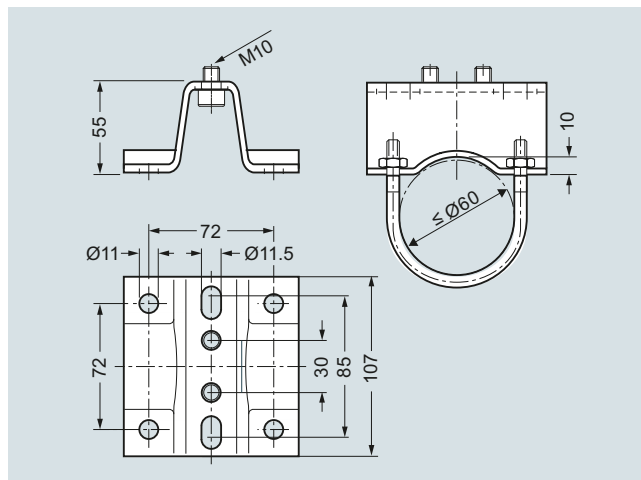
Dimensional drawings



3-way valve manifold DN 5 (7MF9410-1..), dimensions in mm

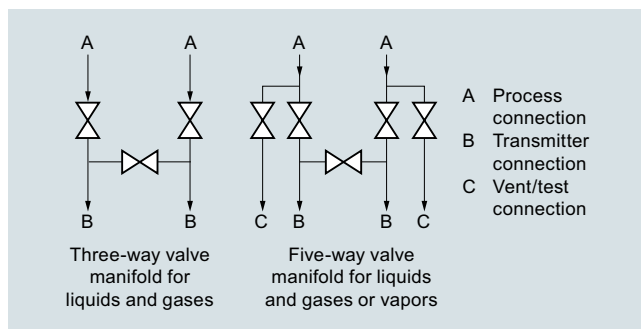


5-way valve manifold DN 5 (7MF9410-3..), dimensions in mm



Mounting plate 7MF9006-6.. (M11, M12) for valve manifold, dimensions in mm

Schematics



3-way and 5-way valve manifolds, connections