

**Overview**



The 3-way valve manifold DN 8 (7MF9416-1../-2..) is for pressure transmitters for differential pressure. It is used to shut off and blow out differential pressure lines and to test the pressure transmitter zero.

In the designs with a test connection, a test device can be connected to test the pressure transmitter characteristic.

**Benefits**

- For aggressive and non-aggressive liquids and gases
- The maximum working pressure is 420 bar (6092 psi).

**Application**

The 3-way valve manifold is 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**

For the process connection on the version for non-aggressive media it is possible to choose between a pipe union with ferrule and welding pins.

The version for aggressive media always has a pipe union with ferrule.

Both versions are available optionally with a test connection M20x1.5.

The valves have an internal spindle thread.

**Materials used**

Component	For non-aggressive liquids and gases		For aggressive liquids and gases	
	Material	Mat. No.	Material	Mat. No.
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**

The 3-way valve manifold DN 8 performs two functions as standard:

- Shutting off the differential pressure lines
- Checking the pressure transmitter zero

All versions are also available with a test connection, to which a test device for checking the pressure transmitter characteristic can be connected.

**Selection and Ordering data**

Article No.

**3-way valve manifold DN 8**

➤ **7MF9416 - A**

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

For flanging to pressure transmitters for differential pressure, max. working pressure 420 bar (6092 psi), (order accessory set and mounting plate with Order code), without certificate

For non-aggressive liquids and gases process connection: Pipe union with ferrule Ø 12 mm

- without test connection
- with test connection

1 B

1 C

For non-aggressive liquids and gases process connection: Welding pin Ø 14 x 2.5

- without test connection
- with test connection

2 C

2 D

For aggressive liquids and gases process connection: Pipe union with ferrule Ø 12 mm

- without test connection
- with test connection

1 D

1 E

**Accessories**

Factory test certificate EN 10204-2.2

**7MF9000-8AB**

Material acceptance test certificate EN 10204-3.1

**7MF9000-8AD**

# Pressure Measurement

## Fittings

### Shut-off valves for differential pressure transmitters

#### 3-way valve manifold DN 8

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Selection and Ordering data	Order code	Article No.
<i>Further designs<sup>1)</sup></i>		
Please add "-Z" to Article No. and specify Order code.		
<b>Accessory set to EN</b> (required for flanging, weight 0.2 kg)  4x screws $7/16$ -20 UNF x $2\frac{1}{8}$ inch to ASME B18.2; chromized steel 2x flat gaskets made of PTFE, max. permissible 420 bar (6092 psi), 80 °C (176 °F)	<b>B31</b>	<b>7MF9010-5CC</b>
4x screws $7/16$ -20 UNF x $2\frac{1}{8}$ 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)	<b>B34</b>	<b>7MF9410-5CA</b>
<b>Accessory set to DIN<sup>2)</sup></b> (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)	<b>B11</b>	<b>7MF9010-6AD</b>
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)	<b>B16</b>	<b>7MF9010-6CC</b>
<b>Mounting plate</b> For valve manifold, made of electrogalvanized sheet-steel  <b>for wall mounting</b> 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	<b>M11</b>	<b>7MF9006-6EA</b>
<b>for pipe mounting</b> , 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)	<b>M12</b>	<b>7MF9006-6GA</b>
<b>NACE MR-0175-certified</b> incl. acceptance test certificate 3.1 to EN 10204 (only available for version 7MF9416-1DA and -1EA)	<b>D07</b>	

- 1) When ordering accessory set or mounting together with the valve manifold, please use Order code; otherwise use Article No.  
 2) Flange connections to DIN 19213 only permissible up to PN 160 (2321 psi)!

#### Accessories

##### Accessory set for 3-way valve manifold DN 8 for flanging

- B31: 4 screws  $7/16$ -20 UNF x  $2\frac{1}{8}$  inch to ASME B18.2.1, 2 flat gaskets
- B34: 4 screws  $7/16$ -20 UNF x  $2\frac{1}{8}$  inch to ASME B18.2.1, 2 O-rings (FPM 90)
- B11: 4 screws M10x55 to DIN EN 24014, 4 washers, 2 flat gaskets
- 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)

O-ring to DIN 3771, 20 x 2.65 - S - FPM90, max. 420 bar (6092 psi), 120 °C (248 °F)

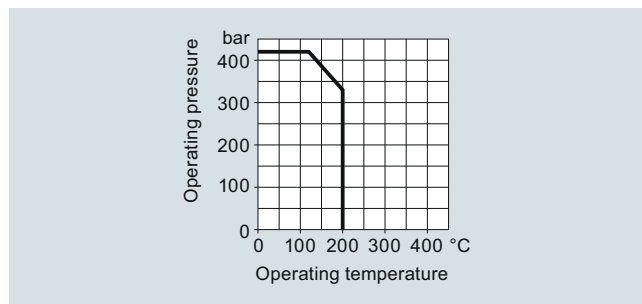
**Note:** M10 screws only permissible up to PN 160 (2320 psi)!

##### Mounting plate

Made of electrogalvanized sheet-steel

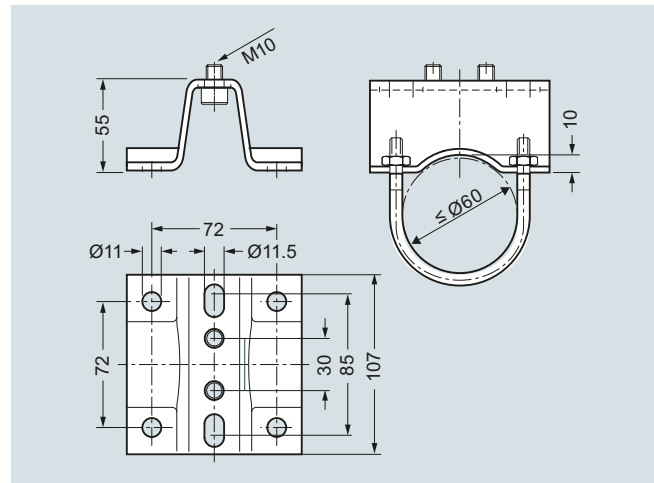
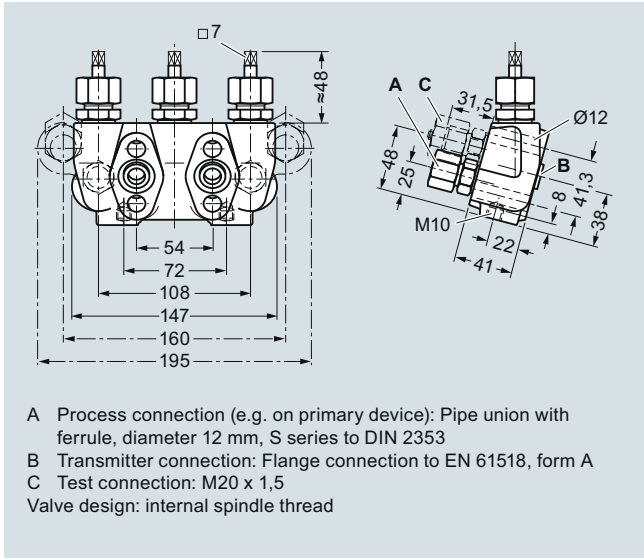
- M11: For wall mounting or for securing on rack (72 mm grid)  
Scope of delivery:  
- 1 mounting plate with bolts for mounting on valve manifold
- M12: For pipe mounting  
Scope of delivery:  
- 1 mounting plate M11  
- 2 pipe brackets with nuts and washers for pipes with max. Ø 60.3 mm

#### Characteristic curves



3-way valve manifold DN 8, permissible working pressure as a function of the permissible working temperature

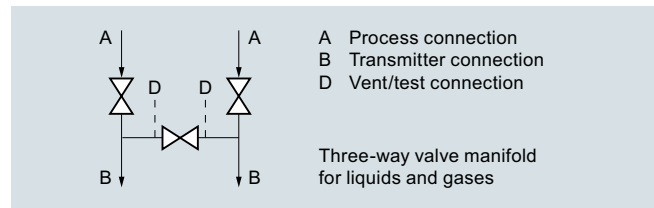
Dimensional drawings



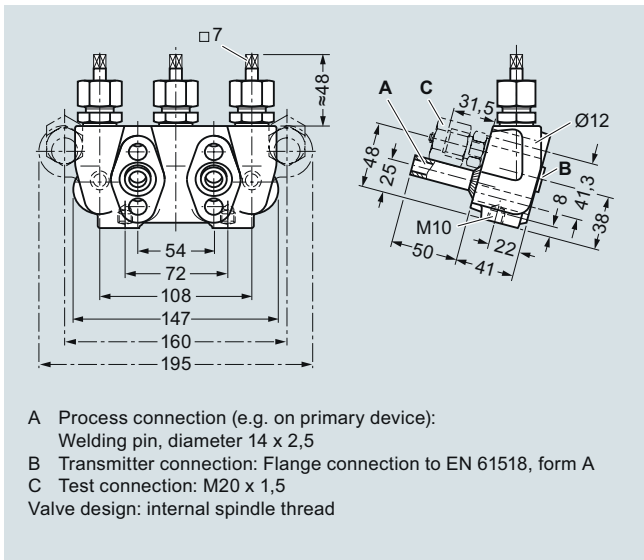
Mounting plate 7MF9006-6.. (M11, M12) for valve manifold, dimensions in mm

3-way valve manifold DN 8 (7MF9416-1..) with pipe union, dimensions in mm

Schematics



3-way valve manifold DN 8, connections



3-way valve manifold DN 8 (7MF9416-2..) with welding pin, dimensions in mm