### Overview

The 2-spindle, 3-spindle and 5-spindle valve manifolds 7MF9411-5.. are for pressure transmitters for absolute pressure or differential pressure. The valve manifolds are used to shut off the differential pressure lines and to check the pressure transmitter zero. The 2-spindle and the 5-spindle valve manifold enable in addition venting on the transmitter side and checking of the pressure transmitter characteristic.

#### Benefits
- Max. working pressure 420 bar
- Each available in version for oxygen

#### Application
- The spindle valve manifolds DN 5 are designed for liquids and gases.
- Each is available in a version for oxygen on request.

#### Design
- All versions of the valve manifolds have a process connection ½-14 NPT. The connection for the pressure transmitter is always designed as a flange connection to EN 61518, form B. The 2-spindle and the 5-spindle valve manifold have in addition a vent and test connection ¼-18 NPT.
- The valves have an external spindle thread.

#### Materials used

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
<th>Mat. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>X 2 CrNiMo 17 13 2</td>
<td>1.4404/316L</td>
</tr>
<tr>
<td>Cones</td>
<td>X 6 CrNiMoTi 17 12 2</td>
<td>1.4571/316Ti</td>
</tr>
<tr>
<td>Spindles</td>
<td>X 2 CrNiMo 18 10</td>
<td>1.4404/316L</td>
</tr>
<tr>
<td>Head parts</td>
<td>X 5 CrNiMo 18 10</td>
<td>1.4401/316</td>
</tr>
<tr>
<td>Packings</td>
<td>PTFE</td>
<td>-</td>
</tr>
</tbody>
</table>

#### Function
- Functions of all valve manifolds:
  - Shutting off the differential pressure lines
  - Checking the pressure transmitter zero
- Additional functions of the 2-spindle and 5-spindle valve manifolds through the vent and test connection:
  - Venting on the transmitter side
  - Checking the pressure transmitter characteristic

### Selection and Ordering data

#### Valve manifolds DN 5
- Order No.: 7MF9411-5
- for liquids and gases, for flanging to pressure transmitters for absolute and differential pressure, max. working pressure 420 bar (order accessory set with Order code), without certificate
  - 2-spindle valve manifold: 5A
  - 3-spindle valve manifold: 5B
  - 5-spindle valve manifold: 5C

#### Accessories
- Factory test certificate EN 10204-2.2: 7MF9000-8AB
- Material acceptance test certificate EN 10204-3.1: 7MF9000-8AD

### Further designs

#### Accessory set to EN
- (connection between valve manifold and pressure transmitter)
- for valve manifold 7MF9411-5A:
  - 2x screws 7/16-20 UNF x 1¾ inch to ASME B18.2.1; chromized steel
  - 1x gasket made of PTFE, max. permissible 420 bar, 80 °C
- for valve manifold 7MF9411-5B and -5C:
  - 4x screws 7/16-20 UNF x 1¾ inch to ASME B18.2.1; stainless steel
  - 2x flat gaskets made of PTFE, max. permissible 420 bar, 80 °C

#### Accessory set to DIN
- (connection between valve manifold and pressure transmitter)
- for valve manifold 7MF9411-5A:
  - 2x screws M10x45 to DIN EN 24014; chromized steel
  - 2x washers Ø 10.5 mm to DIN 125; 1x gasket made of PTFE, max. permissible 420 bar, 80 °C
- for valve manifold 7MF9411-5B and -5C:
  - 4x screws M10x45 to DIN EN 24014; stainless steel
  - 2x flat gaskets made of PTFE, max. permissible 420 bar, 80 °C

### Selection and Ordering data

#### Order code Order No.
- Further designs:
  - Please add "-Z" to Order No. and specify Order code.
  - Accessory set to EN
    - for valve manifold 7MF9411-5A:
      - 2x screws 7/16-20 UNF x 1¾ inch to ASME B18.2.1; chromized steel
      - 1x gasket made of PTFE, max. permissible 420 bar, 80 °C
    - Accessory set to DIN
      - for valve manifold 7MF9411-5A:
        - 2x screws M10x45 to DIN EN 24014; chromized steel
        - 2x washers Ø 10.5 mm to DIN 125; 1x gasket made of PTFE, max. permissible 420 bar, 80 °C
SITRANS P measuring instruments for pressure
Fittings - Shut-off valves for differential pressure transmitters

2-, 3- and 5-spindle valve manifolds DN 5

<table>
<thead>
<tr>
<th>Selection and Ordering data</th>
<th>Order code</th>
<th>Order No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Further designs</strong>&lt;sup&gt;1)&lt;/sup&gt;</td>
<td></td>
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</tr>
<tr>
<td>Please add &quot;-Z&quot; to Order No. and specify Order code.</td>
<td></td>
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</tr>
<tr>
<td>for valve manifolds 7MF9411-5B, and -5C.</td>
<td>K16</td>
<td>7MF9411-6BB</td>
</tr>
<tr>
<td>4x screws M10x45 to DIN EN 24014; chromized steel</td>
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</tr>
<tr>
<td>4x washers Ø 10.5 mm to DIN 125; 2x flat gaskets made of PTFE, max. permissible 420 bar, 80 °C Flange connection with M10 screws only permissible up to PN 160.</td>
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</tr>
<tr>
<td>4x screws M10x45 to DIN EN 24014; stainless steel, 4x washers Ø 10.5 mm to DIN 125, stainless steel; 2x flat gaskets made of PTFE, max. permissible 420 bar, 80 °C Flange connection with M10 screws only permissible up to PN 160.</td>
<td>K26</td>
<td>7MF9411-6BC</td>
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<tr>
<td><strong>Mounting plate</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• for valve manifold, made of electrogalvanized sheet-steel</td>
<td>M11</td>
<td>7MF9006-6EA</td>
</tr>
<tr>
<td>· 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</td>
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<tr>
<td>· 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)</td>
<td>M12</td>
<td>7MF9006-6GA</td>
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<tr>
<td>• for valve manifold, made of stainless steel</td>
<td>M21</td>
<td>7MF9006-6EC</td>
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<tr>
<td>· 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</td>
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<tr>
<td>· 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)</td>
<td>M22</td>
<td>7MF9006-6GC</td>
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<tr>
<td><strong>Valve manifold 100 bar</strong></td>
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<tr>
<td>Suitable for oxygen</td>
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<tr>
<td>• for 7MF9411-5A.</td>
<td>S12</td>
<td></td>
</tr>
<tr>
<td>• for 7MF9411-5B.</td>
<td>S13</td>
<td></td>
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<tr>
<td>• for 7MF9411-5C.</td>
<td>S14</td>
<td></td>
</tr>
</tbody>
</table>

<sup>1</sup) When ordering accessory set or mounting together with the valve manifolds, please use Order code; otherwise use Order No.
<sup>2)</sup> Flange connections to DIN 19213 only permissible up to 160!

Accessories

**Accessory set for 2-, 3- and 5-spindle valve manifolds**

2-spindle valve manifold DN 5
- K35: 2 screws 7/16-20 UNF x 1¾ inch to ASME B18.2.1, 1 flat gasket
- K15: 2 screws M10x45 to DIN EN 24014, 2 washers, 1 flat gasket

3-spindle and 5-way valve manifold DN 5
- K36: 4 screws 7/16-20 UNF x 1¾ inch to ASME B18.2.1, 2 flat gaskets
- K16: 4 screws M10x45 to DIN EN 24014, 4 washers, 2 flat gaskets

Washers Ø 10.5 to DIN 125
Flat gaskets made of PTFE, max. 420 bar, 80 °C

**Note:** Flange connection with M10 screws only permissible up to PN 160!

**Mounting plate**
Made of electrogalvanized sheet-steel
- M11: 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
- M12: 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)

**Valve manifold 100 bar, suitable for oxygen**
- S12: For 2-way valve manifold
- S13: For 3-way valve manifold
- S14: For 5-way valve manifold

**Characteristic curves**

Valve manifolds PN 5 (7MF9411-5...), permissible working pressure as a function of the permissible working temperature
SITRANS P measuring instruments for pressure
Fittings - Shut-off valves for differential pressure transmitters

2-, 3- and 5-spindle valve manifolds DN 5

Dimensional drawings

2-spindle valve manifold DN 5 (7MF9411-5A.), dimensions in mm

3-spindle valve manifold DN 5 (7MF9411-5B.), dimensions in mm

5-spindle valve manifold DN 5 (7MF9411-5C.), dimensions in mm

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

Schematics

2-spindle, 3-spindle and 5-spindle valve manifold DN 5, connections