Series 6 directly operated solenoid valves

2/2-way - Normally Closed (NC)
3/2-way - Normally Closed (NC), Normally Open (NO)

Series 6 solenoid valves are available as 2/2 and 3/2-way, either NC or NO. These directly operated solenoid valves can be used either with or without lubrication.

**TECHNICAL FEATURES**

- **Function**: 2/2 NC - 3/2 NC - 3/2 NO
- **Operation**: direct acting poppet type
- **Pneumatic connections**: G1/8, G3/8 threads - φ4 fitting - CNOMO interface
- **Nominal diameter**: 2 … 4 mm
- **Nominal flow**: 80 … 350 Nl/min (air @ 6 bar ΔP 1 bar)
- **Flow coefficient kv (l/min)**: 1.2 … 5.4
- **Operating pressure**: 0 ÷ 4 … 15 bar
- **Operating temperature**: 0°C ÷ 60°C (seals in FKM) / -50°C ÷ +50°C (seals in NBR)
- **Media**: filtered air, class 5.4.4 (5.1.4 for versions -50°C) according to ISO 8573-1 (max oil viscosity 32 cSt), inert gas
- **Response time**: ON <15 msec - OFF <15 msec
- **Manual override**: see tables
- **Installation**: in any position

**MATERIALS IN CONTACT WITH THE MEDIUM**

- **Body**: nickel-plated brass - anodized aluminium
- **Seals**: FKM (NBR for versions -50°C)
- **Internal parts**: stainless steel

**ELECTRICAL FEATURES**

- **Voltage**: 12 … 110 V DC - 24 … 230 V AC 50/60 Hz
- **Voltage tolerance**: ±10% (DC) - +10% - 15% (AC)
- **Power consumption**: 10 W (DC) - 19 VA (Inrush AC), 12 VA (holding AC)
- **Duty cycle**: ED 100%
- **Electrical connection**: H (180°C) with connector DIN EN 175 301-803-A
- **Protection class**: IP65 with connector

Special versions available on demand
### CODING EXAMPLE

<table>
<thead>
<tr>
<th>6</th>
<th>3</th>
<th>8</th>
<th>M</th>
<th>105</th>
<th>-</th>
<th>A</th>
<th>6</th>
<th>B</th>
</tr>
</thead>
</table>

**Serie:**

**Number of ports and functions:**
- 0 = interface
- 2 = 2-way NC
- 3 = 3-way NC
- 4 = 3-way NO

**Connection:**
- 0 = interface
- 3 = G3/8
- 8 = G1/8
- C = cartridge Ø 4

**M = manifold**

**Type of body:**
- 150 = threaded body G1/8 - orifice Ø 2 mm
- 15E = threaded body G3/8 - orifice Ø 2.5 mm
- 15F = threaded body G3/8 - orifice Ø 3 mm
- 15G = threaded body G3/8 - orifice Ø 4 mm
- 450 = base with rotatable interface
- 457 = base with fixed interface
- 101 = single manifold
- 102 = manifold - 2 pieces
- 103 = manifold - 3 pieces
- 104 = manifold - 4 pieces
- 105 = manifold - 5 pieces
- 106 = manifold - 6 pieces
- 107 = manifold - 7 pieces
- 108 = manifold - 8 pieces
- 109 = manifold - 9 pieces
- 110 = manifold - 10 pieces
- 111 = manifold - 11 pieces
- 112 = manifold - 12 pieces
- 113 = manifold - 13 pieces
- 114 = manifold - 14 pieces
- 115 = manifold - 15 pieces

**A = coil material:**
- A = PPS

**6 = solenoid dimensions:**

**B = solenoid voltage:**
- B = 24V 50/60Hz
- C = 48V 50/60Hz
- D = 110V 50/60Hz
- E = 230V 50/60Hz
- 2 = 12V DC
- 3 = 24V DC
- 4 = 48V DC
- 6 = 110V DC

**Versions:**
- = standard
- LT = for low temperatures
3/2-way NC and NO solenoid valve, G1/8 - Mod. 638 and Mod. 648

These valves are particularly suitable for operating single-acting cylinders or for use as signal valves.

<table>
<thead>
<tr>
<th>Mod.</th>
<th>Ports</th>
<th>Function</th>
<th>Orifice Ø (mm)</th>
<th>kv (l/min)</th>
<th>Qn (Nl/min)</th>
<th>Pressure min-max (bar)</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>638-150-A6*</td>
<td>G1/8</td>
<td>NC</td>
<td>2</td>
<td>2.0</td>
<td>130</td>
<td>0 ÷ 10 [DC]</td>
<td>EV03</td>
</tr>
<tr>
<td>648-150-A6*</td>
<td>G1/8</td>
<td>NO</td>
<td>2</td>
<td>1.2</td>
<td>80</td>
<td>0 ÷ 8 [DC] - 0 ÷ 6 [AC]</td>
<td>EV05</td>
</tr>
</tbody>
</table>

In the mod. 648-150-A6* (NO) connections 1 and 3 are inverted, while the max operating pressure is 6 bar in case a solenoid A6B, A6C, A6D, A6E is chosen.

* = choose the solenoid voltage according to the CODING EXAMPLE

3/2-way NC solenoid valve - Mod. 638M and Mod. 63CM

These solenoid valves are equipped with a manual override and are available with G1/8 inlet ports and with G1/8 outlets or with a diameter 4 cartridge. The body is supplied complete with screws and O-ring.

<table>
<thead>
<tr>
<th>Mod.</th>
<th>Inlet</th>
<th>Outlet</th>
<th>Orifice Ø (mm)</th>
<th>kv (l/min)</th>
<th>Qn (Nl/min)</th>
<th>Pressure min-max (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>638M-101-A6*</td>
<td>G1/8</td>
<td>G1/8</td>
<td>2</td>
<td>1.8</td>
<td>120</td>
<td>0 ÷ 10</td>
</tr>
<tr>
<td>63CM-101-A6*</td>
<td>G1/8</td>
<td>cartridge Ø 4</td>
<td>2</td>
<td>1.6</td>
<td>108</td>
<td>0 ÷ 10</td>
</tr>
</tbody>
</table>

* = choose the solenoid voltage according to the CODING EXAMPLE
3/2-way NC solenoid valve - Mod. 600

These solenoid valves are equipped with an override and are available with two types of interface:
A = fixed interface
B = swivel interface

<table>
<thead>
<tr>
<th>Mod.</th>
<th>Interface</th>
<th>Orifice Ø (mm)</th>
<th>kv (l/min)</th>
<th>Qn (NI/min)</th>
<th>Pressure min-max (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>600-450-A6*</td>
<td>Swivel</td>
<td>2</td>
<td>1.6</td>
<td>106</td>
<td>0 ÷ 10</td>
</tr>
<tr>
<td>600-457-A6*</td>
<td>Fixed</td>
<td>2</td>
<td>1.6</td>
<td>106</td>
<td>0 ÷ 10</td>
</tr>
</tbody>
</table>

* = choose the solenoid voltage according to the CODING EXAMPLE

2/2-way solenoid valves NC, G3/8 - Mod. 623

<table>
<thead>
<tr>
<th>Mod.</th>
<th>Orifice Ø (mm)</th>
<th>kv (l/min)</th>
<th>Qn (NI/min)</th>
<th>Min-max pressure (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>623-15E-A6*</td>
<td>2.5</td>
<td>3.4</td>
<td>220</td>
<td>0 ÷ 12 [ AC 50Hz ]; 0 ÷ 15 [ DC ]</td>
</tr>
<tr>
<td>623-15F-A6*</td>
<td>3</td>
<td>4.5</td>
<td>290</td>
<td>0 ÷ 10 [ AC 50Hz ]; 0 ÷ 14 [ DC ]</td>
</tr>
<tr>
<td>623-15G-A6*</td>
<td>4</td>
<td>5.4</td>
<td>350</td>
<td>0 ÷ 4 [ AC 50Hz ]; 0 ÷ 7 [ DC ]</td>
</tr>
</tbody>
</table>

* = choose the solenoid voltage according to the CODING EXAMPLE

Connector Mod. 124... DIN EN 175 301-803-A
Protection class IP65

<table>
<thead>
<tr>
<th>Mod.</th>
<th>description</th>
<th>colour</th>
<th>working voltage</th>
<th>cable holding</th>
<th>tightening torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>124-800</td>
<td>connector, without electronics</td>
<td>black</td>
<td>-</td>
<td>PG9/PG11</td>
<td>0.5 Nm</td>
</tr>
<tr>
<td>124-702</td>
<td>connector, varistor + Led</td>
<td>black</td>
<td>110 V AC/DC</td>
<td>PG9/PG11</td>
<td>0.5 Nm</td>
</tr>
<tr>
<td>124-701</td>
<td>connector, varistor + Led</td>
<td>black</td>
<td>24 V AC/DC</td>
<td>PG9/PG11</td>
<td>0.5 Nm</td>
</tr>
<tr>
<td>124-703</td>
<td>connector, varistor + Led</td>
<td>black</td>
<td>230 V AC/DC</td>
<td>PG9/PG11</td>
<td>0.5 Nm</td>
</tr>
</tbody>
</table>

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