Solenoid Valve - 2/2 - High Pressure - Normally Open

Benefits & Features
- High pressure liquids, gases & light oil <20CST
- Media temperature: -5°C to +130°C
- Two way normally open
- Ideal for high pressure with high flow applications
- 304 Stainless Steel bodies
- IP65 protection
- Nass magnet solenoid coil to DIN 43650-A, IP65

Specification
Configuration: Lift assisted piston design
Port Sizes: 1/4", 3/8", 1/2", 3/4" & 1" BSP or NPT
Orifice: see table below
Cv: see table below
Body: 304 Stainless Steel
Media: Air, water, liquids etc. Subject to material compatibility
Pressure ranges: See individual data tables below
Seals: PTFE -5 to +130°C
Voltage: 24, 110, 220, 230VAC. 24VDC. Other voltages upon request

Technical Data

<table>
<thead>
<tr>
<th>Model</th>
<th>Type</th>
<th>Orifice mm</th>
<th>Min. Cv</th>
<th>Max. Cv</th>
<th>AC (24, 220)</th>
<th>DC (24V)</th>
<th>CV Flow Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>BX320</td>
<td>H 1</td>
<td>3 P</td>
<td>1</td>
<td>0</td>
<td>150</td>
<td>150</td>
<td>0.04</td>
</tr>
<tr>
<td>BX320</td>
<td>H 1.5</td>
<td>3 P</td>
<td>1.5</td>
<td>0</td>
<td>65</td>
<td>65</td>
<td>0.08</td>
</tr>
<tr>
<td>BX320</td>
<td>H 2</td>
<td>3 P</td>
<td>2</td>
<td>0</td>
<td>35</td>
<td>35</td>
<td>0.15</td>
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<tr>
<td>BX320</td>
<td>H 2.5</td>
<td>3 P</td>
<td>2.5</td>
<td>0</td>
<td>20</td>
<td>20</td>
<td>0.2</td>
</tr>
<tr>
<td>BX320</td>
<td>H 3</td>
<td>3 P</td>
<td>3</td>
<td>0</td>
<td>15</td>
<td>15</td>
<td>0.25</td>
</tr>
<tr>
<td>BX320</td>
<td>H 10</td>
<td>3 P ¼&quot; or ½&quot;</td>
<td>10</td>
<td>6</td>
<td>65</td>
<td>65</td>
<td>3.5</td>
</tr>
<tr>
<td>BX320</td>
<td>H 15</td>
<td>3 P ½&quot;</td>
<td>15</td>
<td>6</td>
<td>65</td>
<td>65</td>
<td>4.7</td>
</tr>
<tr>
<td>BX320</td>
<td>H 20</td>
<td>3 P ¾&quot;</td>
<td>20</td>
<td>6</td>
<td>65</td>
<td>65</td>
<td>7</td>
</tr>
<tr>
<td>BX320</td>
<td>H 25</td>
<td>3 P 1&quot;</td>
<td>25</td>
<td>6</td>
<td>65</td>
<td>65</td>
<td>11</td>
</tr>
</tbody>
</table>

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## Solenoid Valve - 2/2 - High Pressure - Normally Closed

### Dimensions

<table>
<thead>
<tr>
<th>Port Size</th>
<th>Dimensions mm</th>
<th>Weight Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>⅛”</td>
<td>A: 44</td>
<td>B: 97.5</td>
</tr>
<tr>
<td>½”</td>
<td>A: 50</td>
<td>B: 125</td>
</tr>
<tr>
<td>¾”</td>
<td>A: 70</td>
<td>B: 138</td>
</tr>
<tr>
<td>1”</td>
<td>A: 90</td>
<td>B: 144</td>
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</tbody>
</table>

### Order Codes

<table>
<thead>
<tr>
<th>A</th>
<th>Body</th>
<th>B</th>
<th>Port</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>L</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>304 Stainless Steel</td>
<td>C</td>
<td>1/4” BSP</td>
<td>D</td>
<td>1/4” NPT</td>
<td>3</td>
<td>PTFE (-5°C to + 130°C)</td>
<td>P</td>
<td>IP65</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>3/8” BSP</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>1/2” BSP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td>3/4” BSP</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>L</td>
<td>1” BSP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

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DIN electrical socket connectors to protect solenoid coil terminals and wiring.

**Section 1: DIN Connector Assembly**

- Insert the electrical power cable through the gland assembly (1,2,3)
- Push the cable through cable housing (4)
- Connect power and earth cables to terminal block 5
- Push terminal block (5) backwards, inside cable housing (4)
- Place rubber gasket (6) on terminal block (5) front face
- Push terminal block onto solenoid coil terminals
- Push fixing screw through complete assembly
- Tighten fixing screw with small screwdriver
- Do not over tighten
- Tighten cable gland (1,2,3) by hand

**Section 2: How to install Solenoid Valves**

Solenoid Valves can normally be installed and operate in any orientation. However, certain models are designed to operate in horizontal installations. Please contact Red Dragon for further information.

**Installation Procedure:**

Check that the Solenoid Valve is the correct product ordered for the application:

- Isolate the site electrical power supply
- Isolate the site media supply (dependant on the application)...air, water, steam etc. Leave until cool/safe.
- Insert the valve onto the pipe, ensuring that the flow direction is observed.....IN for incoming media, or an arrow stamped on the valve body.
- Ensure that the pipe connections are free from burrs or loose pipe thread tape
- Tighten all pipe joints
- Connect electrical power supply via DIN electrical socket connector, as detailed in section 1
- Ensure that DIN connector is properly connected to solenoid coil and the gasket is installed correctly
- Apply media pressure and check for leaks

**Section 3: Maintenance Procedure for Solenoid Valves**

In the unlikely event of a valve malfunction, or routine maintenance, follow these instructions:

- Isolate the site electrical power supply
- Isolate the site media supply (dependant on the application)...air, water, steam etc.
- Remove the solenoid coil by unscrewing the coil retention nut anti-clockwise
- Remove the coil tube stem by unscrewing anti-clockwise
- Carefully remove the plunger assembly (inside the coil stem)
- Check the plunger assembly for damage or worn seals
- Check the face inside the coil stem for foreign particles that could prevent correct operation
- For Pilot Diaphragm Solenoid Valves: remove the top cover housing and check the diaphragm for damage and blocked transfer port.
- Re-assemble the valve in reverse order, ensuring that all parts are cleaned and assembled correctly