2/2-WAY PRESSURE-CONTROLLED VALVE, DIRECT OPERATED

Description:
- 2/2-way pneumatic controlled valve seat
- with plastics cylinder
- seat valve with poppet design
- direct operated
- body in red brass or stainless steel design
- female thread acc. to ISO228
- any installation position
- with positioning indicator

Range of application:
- viscosity 600mm²/s
- medium temperature -20°C up to +180°C
- ambient temperature: -10°C up to +60°C
- working pressure 0 up to 20bar (see table)
- pilot pressure 2 up to 10 bar
- for hot and cold water, oil and air,
in stainless steel for aggressive media
- Control medium air, Inert gases and neutral liquids
- actuator rotatable 360°

Comments:
Please note the flow direction. Any flow direction with double acting piston-drive.

Other operating pressures on request. Valves also available as "normally open" (NO) with design closing against the medium. Flange design on request.

Threads according to EN 228: It describes the threaded connection of a parallel male thread with a parallel female thread and is marked with "G".

<table>
<thead>
<tr>
<th>pos.</th>
<th>part</th>
<th>red brass</th>
<th>stainless steel</th>
<th>optional material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>body</td>
<td>red brass</td>
<td>B</td>
<td>AISI 316L</td>
</tr>
<tr>
<td>2</td>
<td>cover</td>
<td>Polyamide PA6</td>
<td>AISI 316L</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>cylinder</td>
<td>Polyamide PA6</td>
<td>Polyamide PA6</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>seat sealing</td>
<td>PTFE (TFM1600)</td>
<td>T</td>
<td>PTFE</td>
</tr>
<tr>
<td>5</td>
<td>sealing for spindle</td>
<td>PTFE-Graphit (25%)</td>
<td>T</td>
<td>PTFE</td>
</tr>
<tr>
<td>6</td>
<td>lip seals</td>
<td>FKM</td>
<td>T</td>
<td>FKM</td>
</tr>
<tr>
<td>7</td>
<td>Position indicator</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Wear parts can vary depending on the valve design.

Service-set: lip seals, o-ring, seat sealing, body seal
spindle seal set: V-collar

Options:
- HA: manual override
- GM: basic quantity setting
- VU: vacuum design up to 10⁻² mbar
- NPT: pipe thread ANSI B 1.20.1
- PS: position switch
- AS: welding ends
- TH: high temperature design up to +200°C
- EX: explosion protection acc. to ATEX II 2 GD cTX
- ZG: certificate / approval
- DW: double acting actuator
- NC: opened in rest position
- UN: universal design - bidirectional flow-through

For details about the order code see "Order information". An overview of the complete material code you can find at the beginning of each product section of the product catalogue.
2/2-WAY PRESSURE-CONTROLLED VALVE, DIRECT OPERATED

DSB2050

** Type:**

<table>
<thead>
<tr>
<th>match code</th>
<th>size</th>
<th>working pressure***</th>
<th>dimension</th>
<th>weight</th>
<th>CV value**</th>
<th>manipulating time</th>
<th>NC****</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NO closed with the medium</td>
<td>NC closed against the medium</td>
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<td></td>
<td>open</td>
<td>close</td>
</tr>
<tr>
<td></td>
<td>connection [inch]</td>
<td>no-minimal size [mm]</td>
<td>control pressure intensifier [mm]</td>
<td>type</td>
<td>pressure [bar]</td>
<td>type</td>
<td>pressure [bar]</td>
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<tr>
<td>design „compact“</td>
<td>1/2</td>
<td>15</td>
<td>45</td>
<td>12Q</td>
<td>0-16</td>
<td>42Q</td>
<td>0-16</td>
</tr>
<tr>
<td></td>
<td>3/4</td>
<td>20</td>
<td>45</td>
<td>12Q</td>
<td>0-16</td>
<td>42Q</td>
<td>0-15</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>25</td>
<td>45</td>
<td>12Q</td>
<td>0-14</td>
<td>42Q</td>
<td>0-9.5</td>
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<tr>
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<td>15</td>
<td>63</td>
<td>13Q</td>
<td>0-20</td>
<td>43Q</td>
<td>0-16</td>
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<tr>
<td></td>
<td>3/4</td>
<td>20</td>
<td>63</td>
<td>13Q</td>
<td>0-20</td>
<td>43Q</td>
<td>0-16</td>
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<tr>
<td></td>
<td>1</td>
<td>25</td>
<td>63</td>
<td>13Q</td>
<td>0-20</td>
<td>43Q</td>
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</tr>
<tr>
<td></td>
<td>1 1/4</td>
<td>32</td>
<td>63</td>
<td>13Q</td>
<td>0-16</td>
<td>43Q</td>
<td>0-13</td>
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<td>32</td>
<td>90</td>
<td>14Q</td>
<td>0-16</td>
<td>44Q</td>
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<td>90</td>
<td>14Q</td>
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<td>0-16</td>
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<td>50</td>
<td>63</td>
<td>13Q</td>
<td>0-6,5</td>
<td>43Q</td>
<td>0-7</td>
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<td>2 1/4</td>
<td>50</td>
<td>90</td>
<td>14Q</td>
<td>0-12,5</td>
<td>44Q</td>
<td>0-13</td>
</tr>
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</table>

the working pressure for the options "any flow direction (UN)" and "actuator double acting (DW)":

<table>
<thead>
<tr>
<th>match code</th>
<th>UN design</th>
<th>DW design</th>
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<tbody>
<tr>
<td></td>
<td>type</td>
<td>Pressure [bar] with medium</td>
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<tr>
<td></td>
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<td>type</td>
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<tr>
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<td>DSB2050-04BT250-xxx</td>
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</tbody>
</table>

* The design "compact" is only available in G1" and red brass.

** CV-value: The nominal flow rate CV according to VDI / VDE 2173 is the water quantity in m³/h for the flow direction with the pressure difference ∆p = 1 bar and a medium temperature between +5°C and 30°C.

*** indicated is the maximum pressure range at a pilot pressure of 6 bar, specifications on other pilot pressures on request

**** Manipulating time determined under the following conditions: pressureless, 6bar pilot pressure, control medium air.

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* The operating pressures for the type "double-acting" are valid for both flow directions (closing with and against media)
DSB2050

2/2-WAY PRESSURE-CONTROLLED VALVE, DIRECT OPERATED

Order information:
1: type: DSB2050
2: connection size: 04-09 (see table)
3: materials:
   • 1. digit: body material
     B = red brass
     O = stainless steel
   • 2. digit: sealing for spindle and
   • 3. digit: seat sealing
     T = PTFE
4. nominal size in 1/10mm (see table)

5: Type of the pressure cylinder (other types on request)
   • 1. digit: specification of the function
     1 = closed with medium, NC, single acting
     4 = closed with medium, NO, single acting
     7 = any flow direction, NC, single acting
     9 = any flow direction, double acting
   • 2. digit: specification of the cylinder diameter:
     2: Ø50
     3: Ø70
     4: Ø80
   • 3. digit: cylinder material
     Q = plastics
6: options (see "options")

Please ask for field specifications that are not listed in this data sheet.

Before installation please consider the installation and maintenance manual, especially the safety indications!