Direct Type Relief Valves

This valve is used in a hydraulic circuit to prevent damage due to over pressure and to adjust the maximum circuit pressure of small capacity.

Specifications

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DT-02-8-22#</td>
<td>21 (3050)</td>
<td>Note</td>
<td>16 (4.23)</td>
<td>1.5 (3.3)</td>
</tr>
<tr>
<td>DG-02-8-22#</td>
<td></td>
<td></td>
<td></td>
<td>1.5 (3.3)</td>
</tr>
</tbody>
</table>

Note: Refer to the Model Number Designation.

Model Number Designation

<table>
<thead>
<tr>
<th>F-</th>
<th>D-</th>
<th>T-</th>
<th>-02-</th>
<th>-B-</th>
<th>-22-</th>
<th>*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Seals</td>
<td>Series Number</td>
<td>Type of Mounting</td>
<td>Valve Size</td>
<td>Pres. Adj. Range MPa (PSI)</td>
<td>Design Number</td>
<td>Design Standards</td>
</tr>
<tr>
<td>F:</td>
<td>D:</td>
<td>T:</td>
<td>G:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Seals for Phosphate Ester Type Fluids (Omit if not required)</td>
<td>Direct Type Relief Valves</td>
<td>Threaded Connection</td>
<td>Sub-plate Mounting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: 7</td>
<td>C: 3.5-14</td>
<td>H: 7-21</td>
<td>22</td>
<td>None: Japanese Std. “JIS”</td>
<td>80: European Design Std.</td>
<td>90: N. American Design Std.</td>
</tr>
<tr>
<td>(1020)</td>
<td>(510-2030)</td>
<td>(1020-3050)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Refer to the Minimum Adjustment Pressure Characteristics.

Instructions

- To adjust the pressure, loosen the lock nut and turn the handle slowly clockwise for higher pressures or anti-clockwise for lower pressures. After adjustments, do not forget to tighten the lock nut.
- Piping of the tank line should not be connected to any tank line of the other valves, but connected directly to the reservoir.

Attachment

Mounting bolts

<table>
<thead>
<tr>
<th>Valve Model Numbers</th>
<th>Socket Head Cap Screw</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DG-02</td>
<td>M5 × 45 Lg.</td>
<td>4</td>
</tr>
</tbody>
</table>

Sub-plate

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DG-02</td>
<td>DGM-02-20</td>
<td>Rec 1/4</td>
<td>DGM-02-2080</td>
<td>1/4 BSP F</td>
<td>DGM-02-2090</td>
<td>1/4 NPT</td>
<td>0.7 (1.5)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sub-plates are available. Specify the sub-plate model number from the table above. When sub-plates are not used, the mounting surface should have a good machined finish.

The sub-plates are those for remote control relief valves. For dimensions, see page 204.
**Min. Adjustment Pressure**

![Graph showing Min. Adjustment Pressure vs Flow Rate and U.S. GPM]

- **Pressure Port**:
  - "A" Thd.
  - Fully Extended 163(6.42)

- **Tank Port**:
  - "A" Thd.
  - Pressure Adjustment Handle INC.

- **Lock Nut**:
  - 14(.55) Hex.

**Nominal Override Characteristics**

- **Hydraulic fluid**
  - **Viscosity**: 35 mm²/s (164 SSU)
  - **Specific Gravity**: 0.850

- **Model Numbers**:
  - DT-02-*22/2280/2290
  - DG-02-*22/2280/2290

- **Min. Adjustment Pressure**:
  - 25 PSI (1.75 MPa)

- **Flow Rate**:
  - 0.2 L/min (0.03 US GPM)
  - 48 L/min (6.0 US GPM)

- **Pressure**:
  - 175 PSI (1.2 MPa)
  - 3000 PSI (21.0 MPa)

**Dimensions of the Panel Mounting Hole**

- **Max.**: 10(3.9)
- **Min.**: 2(0.08)

**Dimensions in MILLIMETRES (INCHES)**

- **Pressure Port**:
  - 47(1.85)

- **Tank Port**:
  - 50(1.97)

- **Fully Extended**:
  - 112(4.41)

- **Diaphragm**:
  - 74(2.91)

- **Pressure Adjustment Handle**:
  - INC.

- **Lock Nut**:
  - 14(.55) Hex.

**Note**: For dimensions of the valve mounting surface, see the dimensional drawing (page 204) of the sub-plate used together.
Spare Parts List

DT-02-※-22/2280/2290
DG-02-※-22/2290

- List of Seals

<table>
<thead>
<tr>
<th>Item</th>
<th>Name of Parts</th>
<th>Part Numbers</th>
<th>Qty.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>O-Ring</td>
<td>SO-NB-P9</td>
<td>2</td>
<td>Use only for DG-02</td>
</tr>
<tr>
<td>13</td>
<td>O-Ring</td>
<td>SO-NA-P12</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>O-Ring</td>
<td>SO-NB-P22.4</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Note: When ordering the seals, please specify the seal kit number from the table below.

- List of Seal Kits

<table>
<thead>
<tr>
<th>Valve Model Numbers</th>
<th>Seal Kit Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>DT-02</td>
<td>KS-DT-01-22</td>
</tr>
<tr>
<td>DG-02</td>
<td>KS-DG-02-22</td>
</tr>
</tbody>
</table>