Direct Operated Relief Valve

Features

- As the override pressure is small, this valve has almost equivalent performance to a pilot operated type.
- The vibration proof structure prevents chattering even in the high pressure range.
- Broad range of adjusting is possible and pressure adjusting in low pressure area is easy to do.

Nomenclature

1 Model No. (Applicable fluids: petroleum-based hydraulic oil)
SR: S series direct operated relief valve
2 Connections
G: Gasket mount type
T: Screw connection type
3 Nominal diameter
03: ⅜

Specifications

<table>
<thead>
<tr>
<th>Model code</th>
<th>Nominal diameter</th>
<th>Pressure adjustment range MPa (kgf/cm²)</th>
<th>Maximum flow rate L/min</th>
<th>Mass kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR-G03-1-13</td>
<td>⅜</td>
<td>0.3 to 7 {3 to 70}</td>
<td>30</td>
<td>2.5</td>
</tr>
<tr>
<td>SR-T03-1-12</td>
<td>⅜</td>
<td>0.3 to 7 {3 to 70}</td>
<td>30</td>
<td>2</td>
</tr>
</tbody>
</table>

Pressure adjustment range
1: 0.3 to 7 MPa {3 to 70 kgf/cm²}

Design No.
(The design No. is subject to change)
12: Screw connection type (T)
13: Gasket mount type (G)

Sub-plate model code

- The sub-plate is not provided with the valve. Order it separately as required by specifying the model code given in the table below.

<table>
<thead>
<tr>
<th>Model code</th>
<th>Nominal diameter</th>
<th>Connection port diameter</th>
<th>Mass kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR-03M</td>
<td>⅜</td>
<td>Rc⅜</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Refer to Page S-5 for the dimensions of the sub-plate.

Accessories (gasket mount type)

<table>
<thead>
<tr>
<th>Hexagon socket head cap bolt</th>
<th>Quantity</th>
<th>Tightening torque N·m (kgf-cm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M6 × 65</td>
<td>4</td>
<td>10 to 12.5 {100 to 125}</td>
</tr>
</tbody>
</table>

Handling

- Directly connect the tank piping of the valve to the tank without merging it with other tank piping.
- To achieve stable pressure adjustment, completely remove air by loosening the air bleeding screw and fill the inside of the valve with fluid.
- Remove air with the pressure adjusting handle fully open.
- When using the valve as a safety valve, set the pressure 1 to 1.5 MPa {10 to 15 kgf/cm²} higher than the pressure set for the hydraulic circuit.
- Use the valve with a flow rate of 1 L/min minimum since the pressure setting may be unstable if the flow rate is too low.

Performance curves (viscosity: 32 mm²/s {cSt})

Flow rate - Pressure characteristics

Pressure drop characteristics (with the handle fully open)
External dimension diagram

SR-G03

Air bleeding screw (socket for hex key; 3)
Maximum 189.3
Pressure port P
Tank port T
17.5 (Stroke)

SR-T03

Pressure port P
Tank port T
Rc⅜

Pressure adjusting handle
(clockwise: pressure increase)
Hexagonal flat lock nut: 19

* The P ports at both sides connect with each other internally. One can be used as a port for mounting a pressure gauge, for example.

Sectional structural diagram

SR-G03

Sealing part table

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Name</th>
<th>Quantity</th>
<th>Part specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>O-ring</td>
<td>1</td>
<td>JIS B 2401 1AP22</td>
</tr>
<tr>
<td>18</td>
<td>O-ring</td>
<td>2</td>
<td>JIS B 2401 1AP15</td>
</tr>
</tbody>
</table>