General Description

Series RPJL accessory valves are relief valves used for limiting the maximum pressure which can be applied to the portion of the hydraulic circuit where it is connected.

Series RPJL relief valves are pilot operated, poppet-type relief valves. Their best application is a main system relief where smooth consistent performance is required.

Operation

The pilot section opens when inlet pressure on the RPJL relief valve exceeds the valve setting. This pilot flow creates a pressure imbalance across the main section causing the valve to open. The pilot section closes once the inlet pressure drops below the valve setting. This then re-seats the poppet in the main valve and closes it.

Features

- Compact, low profile design
- Hardened and ground poppet
- High tensile, compacted graphite body

Ordering Information

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Port Size</th>
<th>Adjustment Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>SAE-10 (7/8&quot; - 14 UNF) Inlet and Outlet</td>
<td></td>
<td>Adjustable</td>
</tr>
<tr>
<td>12</td>
<td>SAE 12 (1 1/16&quot; - 12 UNF) Inlet and Outlet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>1/2&quot; - 14 NPT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75</td>
<td>3/4&quot; - 14 NPT Pressure Ports 1/2&quot; - 14 NPT Tank Port</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: NPT pipe ports are not recommended for pressures above 138 Bar (2000 PSI)

A right angle flow (former T option) is created by plugging one of the P ports.

Service Parts

<table>
<thead>
<tr>
<th>Part Description</th>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relief Valve</td>
<td>RP51-A-5000</td>
<td></td>
</tr>
<tr>
<td>O-Ring Seal Kit</td>
<td>00712223</td>
<td></td>
</tr>
<tr>
<td>Body Kit</td>
<td>RPJL-10</td>
<td>K-WJL-10</td>
</tr>
<tr>
<td></td>
<td>RPJL-50</td>
<td>K-WJL-50</td>
</tr>
<tr>
<td></td>
<td>RPJL-75</td>
<td>K-WJL-75</td>
</tr>
<tr>
<td>Relief Adjustment</td>
<td>ental Spring</td>
<td>Non-service items</td>
</tr>
</tbody>
</table>

1/4 turn = 200 PSI ±10%

Note: The internal parts of the relief valve (including the spring) are non-service items.

Specifications

- **Input Flow**: 93.75 LPM (25 GPM)
- **Operating Pressure**
  - SAE Ports: 350 Bar (5000 PSI)
  - NPTF Ports: 138 Bar (2000 PSI)
- **Operating Temperature Range (Ambient)**: Nitrile Seals: -40°C to +93°C (-40°F to +200°F)
- **Material**
  - Body – High strength cast iron
  - Spool – Hardened and ground steel
- **Filtration**: ISO Code 16/13
- **Mounting Position**: In-line; no restrictions

Performance Curve

Crack – 34 to 345 Bar (500 to 5000 PSI)
Dimensions

Inch equivalents for millimeter dimensions are shown in (**)

28.4 (1.12) 28.4 (1.12) 108.2 (4.26)

54.3 (2.14)

22.6 (0.89)