LOAD SHUTTLE VALVE

Overview

Description
A load shuttle, screw-in, cartridge style, hydraulic check valve, for use in blocking circuits where a priority of flow/direction is given to a higher pressure circuit over a lower one.

Operation
The HLS06-30 will allow flow from the higher pressure port 1 or 3 to port 2.

Features
- Rapid response to load direction changes.
- Compact size.
- Lower pressure drop.
- Reduced space claim and smaller hydraulic "footprint".
- All HyPerformance products are tested to the rigorous standards of the NFPA specification T2.6.1.
- All HyPerformance valves are tested at a verification level of 90% and an assurance of 99%.

Symbol

Ratings

Pressure Ratings

<table>
<thead>
<tr>
<th>Pressure rating</th>
<th>350 bar (5075 psi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proof pressure</td>
<td>690 bar (10000 psi)</td>
</tr>
<tr>
<td>Burst pressure</td>
<td>1380 bar (20000 psi)</td>
</tr>
<tr>
<td>Note: 10% cycle life</td>
<td></td>
</tr>
</tbody>
</table>

Flow Ratings

<table>
<thead>
<tr>
<th>Flow rating</th>
<th>7.6 lpm (2 gpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum internal leakage</td>
<td>0.10 ml/min (2 drops/min) - Note: At 350 bar (5075 psi)</td>
</tr>
</tbody>
</table>

Other Ratings

<table>
<thead>
<tr>
<th>Cycle life</th>
<th>One million cycles</th>
</tr>
</thead>
</table>

Temperature Ratings

<table>
<thead>
<tr>
<th>Maximum operating fluid</th>
<th>-40 to 100 °C (-40 to 212 °F) - Note: Buna N</th>
</tr>
</thead>
</table>
 LOAD SHUTTLE VALVE

| Temperature         | -26 to 204 °C (-15 to 400 °F) - Note: Viton  
|                    | -54 to 107 °C (-65 to 225 °F) - Note: Urethane
| Storage temperature| -40 to 70 °C (-40 to 160 °F)
| Ambient temperature | -40 to 90 °C (-40 to 194 °F)

**Operating Parameters**

- **Fluids**: Mineral based or synthetic hydraulic fluid with lubricating properties
- **Fluid viscosity range**: 7.4 to 420 cSt
- **Maximum operating contamination level**: 18/16/13 per ISO 4406

**Properties**

- **Cartridge weight**: 0.04 kg (0.08 lb)
- **Internal wetted surface area**: 35.5 cm² (5.5 in²)

**Performance**

![Pressure Drop vs. Flow (Cartridge Only)](image)

- Port 1 to 2 — Port 3 to 2
- 32 cSt/150 sus oil at 40°C

**Dimensions**
**Materials**

**Cartridge:** Weight: 0.04 kg. (0.08 lbs.); Steel with Zinc-plated exposed surfaces; Buna N O-rings and back-ups standard.

**Installation Specifications**

- **Cavity:** Hvc06-3
- **Cartridge installation torque:** 25.7 to 28.5 N-m (19 to 21 ft-lb)
- **Orientation restriction:** None

**Accessories**
Seal kit

- SK06-3N-MM - Note: Buna N
- SK06-3V-MM - Note: Viton
- SK06-3HV-MM - Note: Viton
- SK06-3U-00 - Note: Urethane

Housings

### Order code

<table>
<thead>
<tr>
<th>POSITION</th>
<th>CODE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>0</td>
<td>No Body</td>
</tr>
<tr>
<td>H</td>
<td></td>
<td>Line Body</td>
</tr>
<tr>
<td>J</td>
<td></td>
<td>Seal</td>
</tr>
<tr>
<td>J</td>
<td>N</td>
<td>Buna-N</td>
</tr>
<tr>
<td>J</td>
<td>V</td>
<td>Fluorocarbon</td>
</tr>
<tr>
<td>J</td>
<td>U</td>
<td>PPDI Urethane</td>
</tr>
</tbody>
</table>

HLS06-30-H-J

*PPDI Urethane seals recommended for operating pressures above 241 bar/3500 psi.*

Consult factory for other available options.