**DC10-40 Pilot Operated Check Valve**

**DESCRIPTION**
A dual pilot operated check valve for use in blocking or load-holding circuits. This valve has an optional thermal relief from port 4 to port 3.

**OPERATION**
The DC10-40 will block flow from 1 to 2, and from 4 to 3. Flow is allowed in the opposite direction when pressure is applied to port 2 and/or port 3.

The valve has a 3:1 pilot ratio, so at least 1/3 of the load pressure at port 1 or 4 is required at the pilot lines (ports 2 or 3) to open the flow passage to allow flow from ports 1 or 4.

The check is spring-biased at 25 psi to assure holding in a static or no load condition.

**Note:** Orifice disc cannot be used with this product.

**FEATURES**
- Hardened seat for long life and low leakage.
- Low pressure drop.
- Optional thermal relief.

**RATINGS**
- **Operating Pressure:** Inlet: 240 bar (3500 psi)
- **Flow:** Rated Inlet Flow: 30.3 lpm (8 gpm); See performance chart.
- **Pilot Ratio:** 3:1
- **Check Spring Bias:** 1.7 bar (25 psi)
- **Thermal Relief Crack Pressure Range:** 310 to 386 bar (4500 to 5600 psi)
- **Thermal Relief Valve Leakage:** 5 drops per minute (0.25 ml per minute) at up to 85% of crack pressure.
- **Maximum Check Valve Leakage:** 5 drops per minute (0.25 ml per minute) at 240 bar (3500 psi).
- **Temperature:** –40 to 120°C with Buna N seals
- **Filtration:** See page 9.010.1
- **Fluids:** Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 sus); See Temperature and Oil Viscosity, page 9.060.1
- **Installation:** No restrictions; See page 9.020.1
- **Cavity:** VC10-4; See page 9.110.1
- **Cavity Tool:** CT10-4XX-X-X; See page 8.600.1
- **Seal Kit:** SK10-4X-MMM; See page 8.650.1

**PERFORMANCE**

<table>
<thead>
<tr>
<th>FLOW lpm/gpm</th>
<th>PRESSURE DROP bar/psi</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 to 1</td>
<td>6.9/100</td>
</tr>
<tr>
<td>1 to 2</td>
<td>6.2/90</td>
</tr>
<tr>
<td>3 to 4</td>
<td>5.5/80</td>
</tr>
<tr>
<td>4 to 3</td>
<td>4.8/70</td>
</tr>
<tr>
<td>2 to 1</td>
<td>4.1/60</td>
</tr>
<tr>
<td>1 to 2</td>
<td>3.5/50</td>
</tr>
<tr>
<td>3 to 4</td>
<td>2.8/40</td>
</tr>
<tr>
<td>4 to 3</td>
<td>2.1/30</td>
</tr>
<tr>
<td>1.4/20</td>
<td>1.3/10</td>
</tr>
<tr>
<td>0.7/10</td>
<td>0.7/10</td>
</tr>
</tbody>
</table>

| 2 to 1       | 15.1                  |
| 1 to 2       | 7.6                   |
| 3 to 4       | 4.7/80                |
| 4 to 3       | 4.1/60                |
| 2 to 1       | 3.5/50                |
| 1 to 2       | 2.8/40                |
| 3 to 4       | 2.1/30                |
| 4 to 3       | 1.4/20                |
| 1.4/20       | 0.7/10               |

**USASI:**
- 1
- 2
- 4
- 3

**ISO:**
- 1
- 2
- 4
- 3
**MATERIALS**

**Cartridge:** Weight: 0.13 kg. (0.28 lbs.)
Steel with hardened work surfaces.
Zinc-plated exposed surfaces.
Buna N O-rings and polyester elastomer back-ups standard.

**Standard Ported Body:** Weight: 0.34 kg. (0.75 lbs.) Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.010.1

**DIMENSIONS**

**TO ORDER**

**Option**
- None (Blank)
- Thermal Relief T

**Porting**
- Cartridge Only 0
- SAE 6 6T
- SAE 8 8T
- 1/4 in. BSP* 2B
- 3/8 in. BSP* 3B

*BSP Body; U.K. Mfr. Only

**Bias Spring**
- 25 1.7 bar (25 psi) Standard

**Seals**
- N Buna N (Std.)
- V Fluorocarbon

ORIFICE DISC CANNOT BE USED WITH THIS PRODUCT