**PD08-41  Piloted, Spool**

**DESCRIPTION**
A screw-in, cartridge-style, pilot-operated, spool-type, hydraulic directional valve.

**OPERATION**
In neutral (unpiloted), the PD08-41 allows flow from 3 to 4 bidirectionally, while port 2 is blocked.
On remote pilot signal at 1, the valve shifts to open from 3 to 2, while blocking flow to 4.
Since 4 is common to the spring chamber, pressure on 4 will directly (1:1) affect the pilot pressure required, and must always be added to the bias spring value.

**FEATURES**
- Bidirectional operation.
- Open transition spool option.
- Sealed spool option for zero leakage.
- Corrosion-resistant, 960-salt spray plating option.
- Hardened spool and cage for long life.
- Industry common cavity.

**RATINGS**
**Operating Pressure:** 241 bar (3500 psi)
**Flow Rating:** See Performance Chart
**Maximum Internal Leakage:** 82 cc/minute (5 cu. in./minute) max. at 207 bar (3000 psi) from port 1 to 2 or port 2 to 3; zero leakage from port 1 to 2 with sealed spool.
**Temperature:** -40 to 100°C (-40 to 212°F) with standard Buna seals; -26 to 204°C (-15 to 400°F) with fluorocarbon seals; -54 to 107°C (-65 to 225°F) with polyurethane 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:** VC08-4; See page 9.108.1
**Cavity Tool:** CT08-4XX; See page 8.600.1
**Seal Kit:** SK08-4X-MMM (X = Seal Option); See page 8.650.1

**PERFORMANCE** (Cartridge Only)

<table>
<thead>
<tr>
<th>FLOW lpm/gpm</th>
<th>PRESSURE DROP bar/psi</th>
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</thead>
<tbody>
<tr>
<td>0.5</td>
<td>0.34/5</td>
</tr>
<tr>
<td>1</td>
<td>0.7/10</td>
</tr>
<tr>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
</tbody>
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3 to 2 and 3 to 4 cSt/150 sus oil at 40°C 104°F
**DIMENSIONS**

**Cartridge:**
- Weight: 0.11 kg (0.24 lb)

**Standard Ported Body:**
- Weight: 0.34 kg (0.75 lb)
- Anodized high-strength aluminum alloy, rated to 207 bar (3000 psi); Ductile iron bodies available; dimensions may differ. See page 8.008.1

**MATERIALS**

**TO ORDER**

**Plating Option**
- Standard 100-hour Plating
- 960-hour Salt Spray Plating

**Option**
- None
- Blank
- Open Transition
- N

**Porting**
- Cartridge Only
- SAE 6
- SAE 6
- 3/8 in. BSP*

**Bias Spring**
- 60 4.1 bar (60 psi) (N, V and P seals)
- 170 11.7 bar (170 psi) (NS, VS and PS seals only)

**Seals**
- N Buna N (Std.)
- NS* Buna N with Sealed Spool
- V Fluorocarbon
- VS* Fluorocarbon with Sealed Spool
- P Polyurethane
- PS* Polyurethane with Sealed Spool

* Sealed spool requires 11.7 bar (170 psi) spring.