PD12-30  Piloted 2-Way Spool, Normally Open,

DESCRIPTION
A screw-in, cartridge-style, pilot-operated, spool-type, normally open, hydraulic directional valve for two-way circuits requiring remote pilot actuation.

OPERATION
In neutral (unpiloted), the PD12-30 allows flow from ➂ to ➁ bidirectionally. V is a spring chamber vent-to-atmosphere, which is internally O-ring sealed from the cartridge flow paths.

On remote pilot signal at ➀, the valve shifts to block ➁ to ➂ bidirectionally. Because of the vented spring chamber, the cartridge may be fully pressurized at any port without affecting required pilot pressure.

FEATURES
• Hardened spool and cage for long life.
• Cost-effective cavity.

RATINGS
Operating Pressure: 240 bar (3500 psi)
Flow: See Performance Chart
Internal Leakage: 82 cc/minute (5 cu. in./minute) max. at 207 bar (3000 psi)
Pilot Pressure Required for 7.6 bar (110 psi) Spring:
  to Cross-Over: 7.6 bar (110 psi)
  to Full Shift: 9.1 bar (132 psi)
Oil Volume Required to Full Shift: 1.32 cc (0.08 cu. in.)
Temperature: -40 to 120°C with standard Buna 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: VC12-3; See page 9.112.1
Cavity Tool: CT12-3XX; See page 8.600.1
Seal Kit: SK12-3X-MM; See page 8.650.1
Cap Vent Seal: 6003121

Note: This valve is designed with a dynamic oil-to-atmosphere seal in the vent section. Ambient conditions will cause this vent seal to degrade which will reduce the valve's cycle life. If this could cause a problem, we suggest that a non-vented model be selected, or special seal be used. Consult factory for assistance.
External Vent

PD12-30

DIMENSIONS

MATERIALS

**Cartridge:** Weight: 0.23 kg. (0.50 lbs.)
Steel with hardened work surfaces; Zinc-plated exposed surfaces.
Buna N O-rings and polyester elastomer back-ups standard.

**Standard Ported Body:** Weight: 1.13 kg. (2.50 lbs.)
Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi).
Ductile iron bodies available; dimensions may differ. See page 8.012.1

TO ORDER

**PD12-30 -**

<table>
<thead>
<tr>
<th>Porting</th>
<th>Bias Spring</th>
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<tbody>
<tr>
<td>Cartridge Only</td>
<td>110 7.6 bar (110 psi)</td>
</tr>
<tr>
<td>SAE 8</td>
<td>170 11.7 bar (170 psi)</td>
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<tr>
<td>SAE 10</td>
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<tr>
<td>SAE 12</td>
<td></td>
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<tr>
<td>1/2 in. BSP*</td>
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</tr>
<tr>
<td>3/4 in. BSP*</td>
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<tr>
<td>*BSP Body U.K. Mfr. Only</td>
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**Seals**

N  Buna N (Std.)

NS Buna N with Sealed Spool

V  Fluorocarbon

VS Fluorocarbon with Sealed Spool