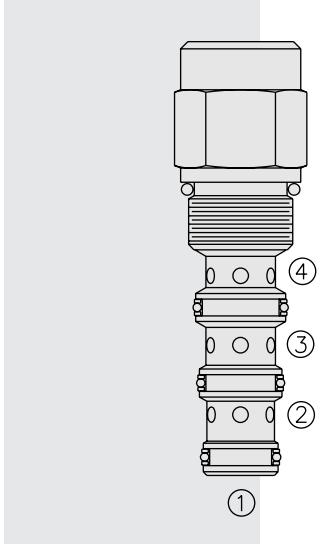


DIRECTIONAL VALVES

PD10-41 Piloted 3-Way Spool, Internal Vent



DESCRIPTION

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

OPERATION

In neutral (unpiloted), the **PD10-41** allows flow from ③ to ④. 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.

Note: Consult factory for applications where bi-directional flow is required when the valve is in the normal or spring-offset position.

FEATURES

- Hardened spool and cage for long life.
- Industry common cavity.

RATINGS

Operating Pressure: 240 bar (3500 psi)

Proof Pressure: 350 bar (5075 psi)

Flow: See Performance Chart

Internal Leakage: 82 cc/minute (5 cu. in./minute) max. at 207 bar (3000 psi)

Pilot Pressure Required:

To Spool Crossover – 4.1 bar (60 psi) Spring: 4.7 bar (68.2 psi)
7.6 bar (110 psi) Spring: 7.6 bar (110 psi)

To Full Spool Shift – 4.1 bar (60 psi) Spring: 5.2 bar (75 psi)
7.6 bar (110 psi) Spring: 8.6 bar (125 psi)

Oil Volume Required to Full Shift: 0.65 cc (0.04 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

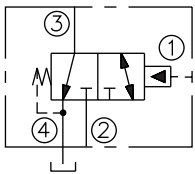
Cavity: VC10-4; See page 9.110.1

Cavity Tool: CT10-4XX; See page 8.600.1

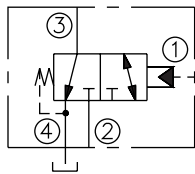
Seal Kit: SK10-4X-MMM; See page 8.650.1

SYMBOLS

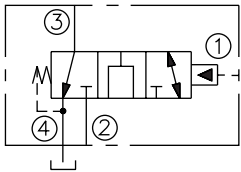
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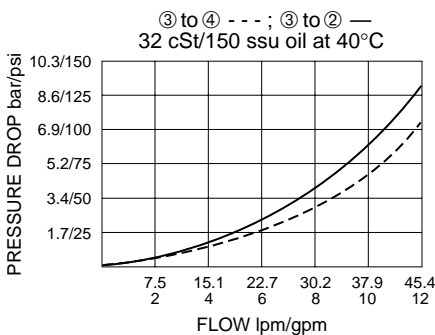
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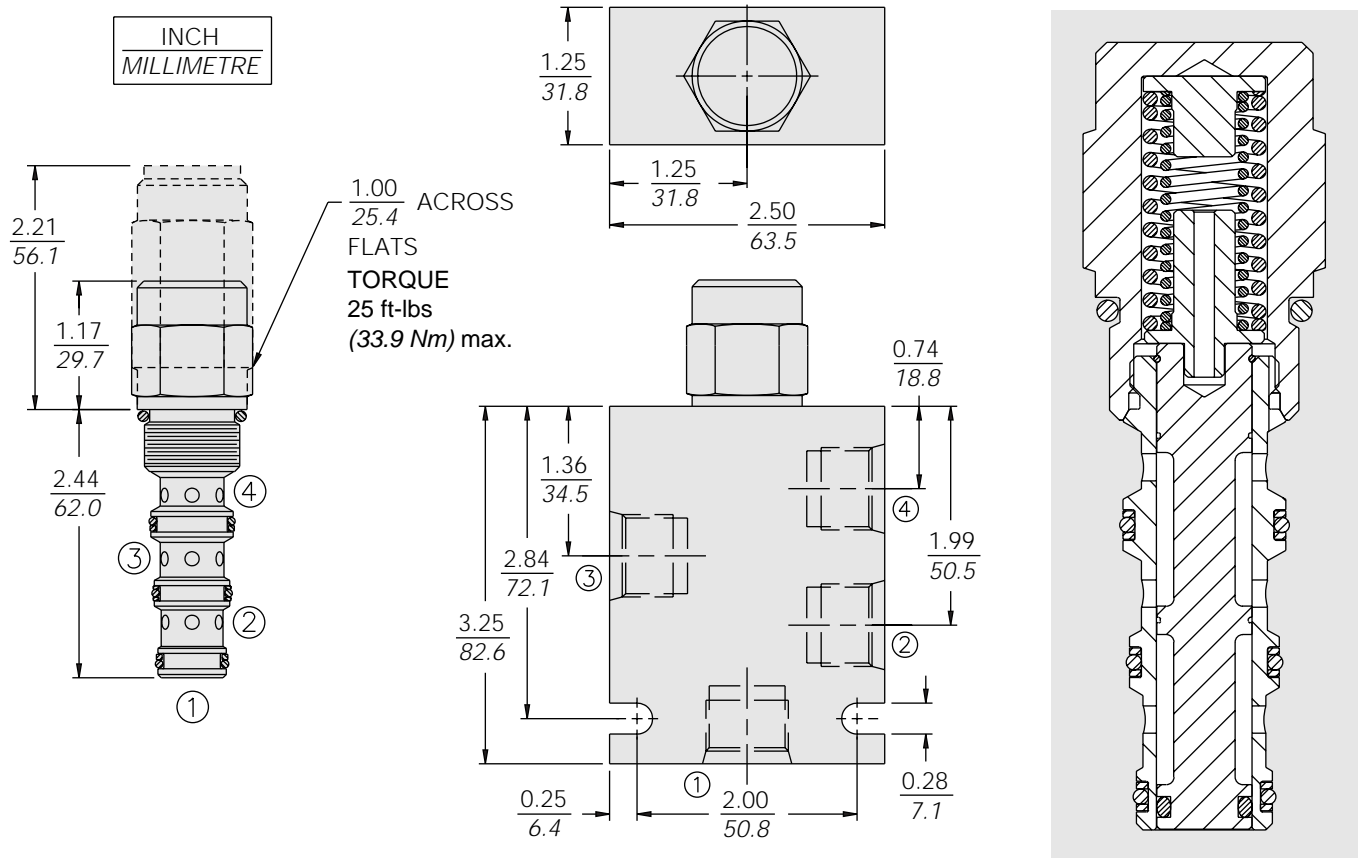
OPEN TRANSITION:



PERFORMANCE (Cartridge Only)



DIMENSIONS



MATERIALS

Cartridge: Weight: 0.16 kg. (0.35 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

TO ORDER

PD10-41

Option
None blank
Open Transition **N**
Tall Cap **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†

60 4.1 bar (60 psi)
110 7.6 bar (110 psi)
170 11.7 bar (170 psi)
***200** 14 bar (203 psi)

†Note: "T" option required for 203 psi bias spring

†Note: 110 psi bias spring is the minimum required for use with sealed spool.

Seals

N Buna N (Std.)
NS Buna N with Sealed Spool
V Fluorocarbon
VS Fluorocarbon with Sealed Spool