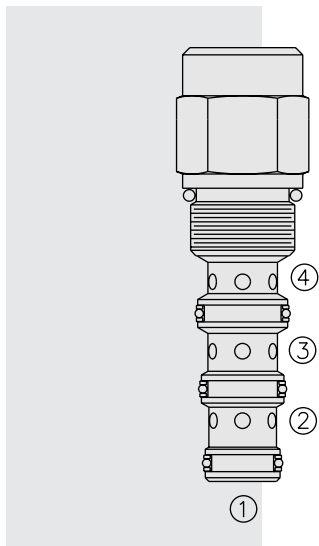


## PD10-41 Piloted 3-Way Spool, Internal Vent



### 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

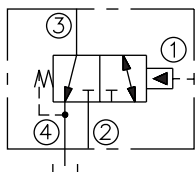
**Cavity:** VC10-4; See page 9.110.1

**Cavity Tool:** CT10-4XX; See page 8.600.1

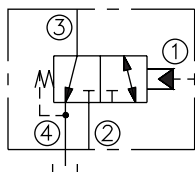
**Seal Kit:** SK10-4X-MMM; See page 8.650.1

### SYMBOLS

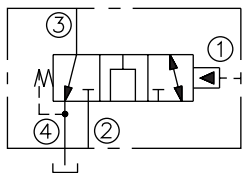
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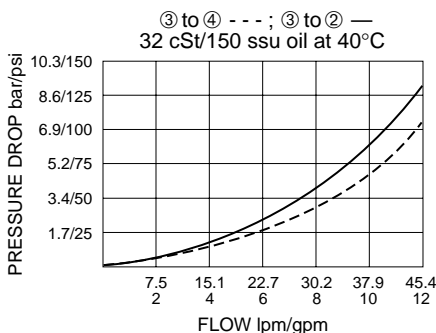
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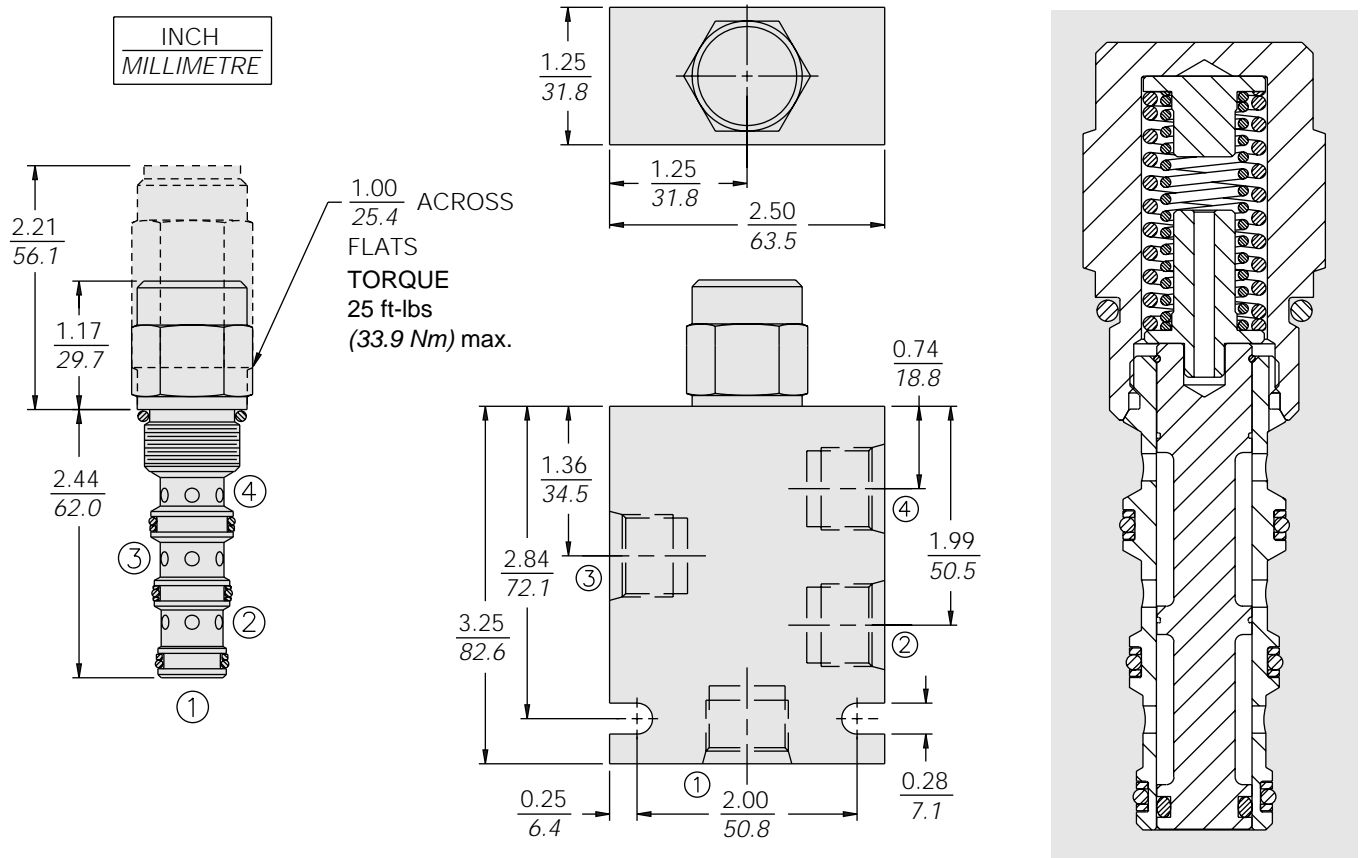
#### OPEN TRANSITION:



### 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