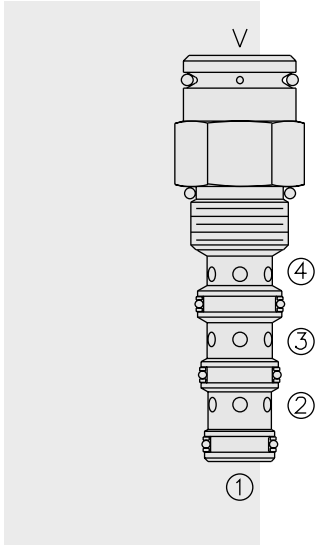


DIRECTIONAL VALVES

PD10-40 Piloted 3-Way Spool, External 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 **PD10-40** allows flow from ③ to ② bidirectionally, while flow is blocked at ④. V is a spring chamber vent-to-atmosphere, which is internally O-ring sealed from the cartridge flow paths.

On remote pilot signal at ①, the valve shifts to open from ③ to ④, while blocking flow at ②.

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.
- 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: 7.6 bar (110 psi)

To Full Spool Shift: 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 ssu)

Installation: No restrictions; See page 9.020.1

Cavity: VC10-4; See page 9.110.1

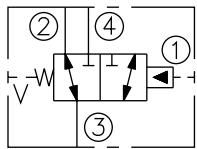
Cavity Tool: CT10-4XX; See page 8.600.1

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

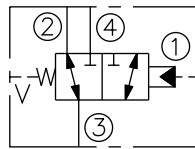
Cap Vent Seal: 6003117

SYMBOLS

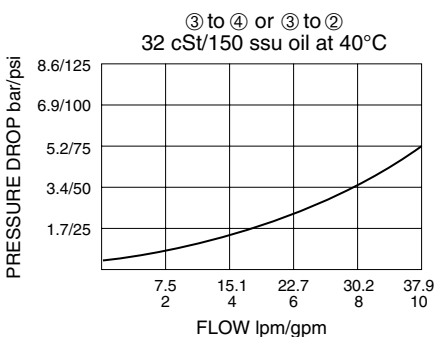
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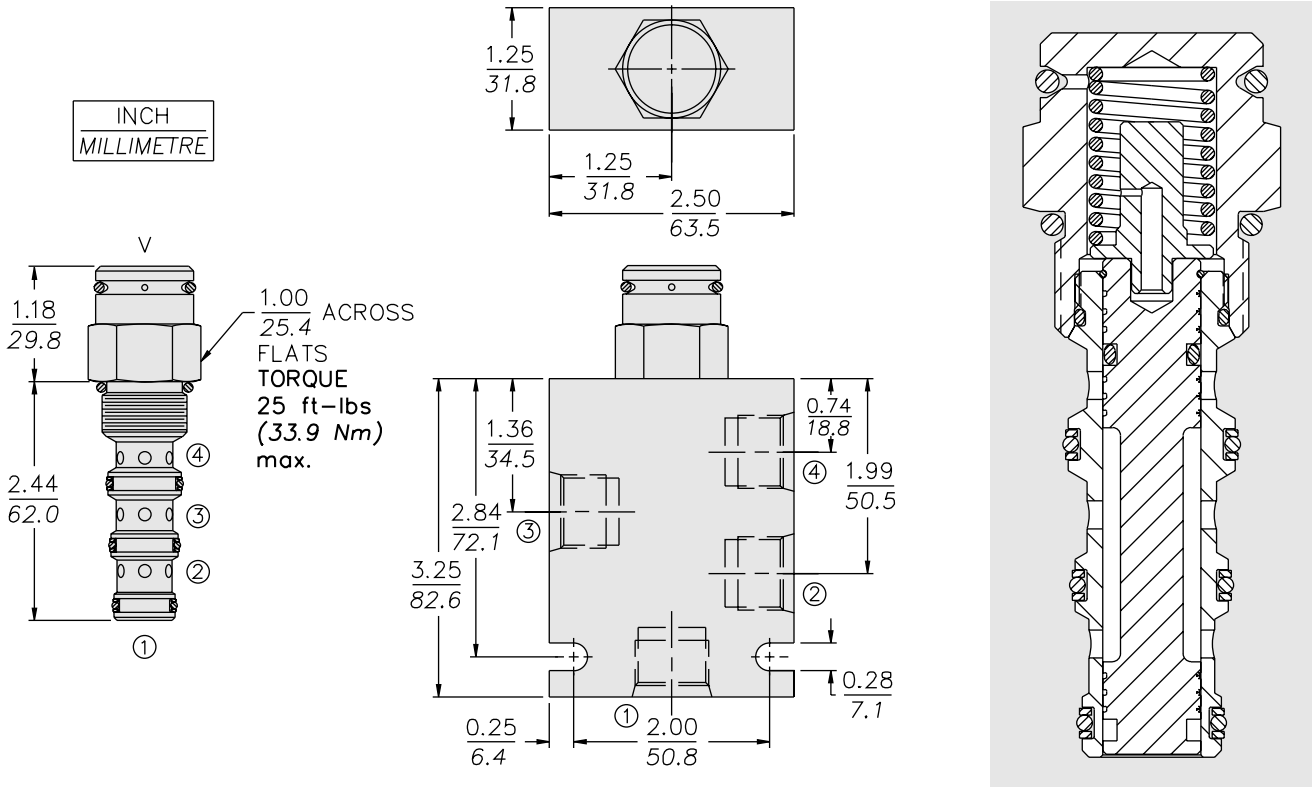
PERFORMANCE (Cartridge Only)



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.

PD10-40

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 240 bar (3500 psi); See page 8.010.1. Ductile iron and steel bodies available; dimensions may differ; consult factory.

TO ORDER

PD10-40				
Options				Bias Spring†
None (Blank)				40 2.8 bar (40 psi)
Open Transition	N			60 4.1 bar (60 psi)
Tall Cap	T			110 7.6 bar (110 psi)
				130 9.1 bar (130 psi)
				170 11.7 bar (170 psi)
				M5.0 5.0 bar (73 psi)
				*M14.0 14 bar (203 psi)
				*M15.0 15 bar (217 psi)
				† T option required. Cap Height: 2.21" (56.1 mm)
				*Note: 110 psi bias spring is the minimum required for use with sealed spool.
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				
				Seals
				N Buna N (Std.)
				NS Buna N with Sealed Spool (110 psi spring minimum required)
				V Fluorocarbon
				VS Fluorocarbon with Sealed Spool (110 psi spring minimum required)