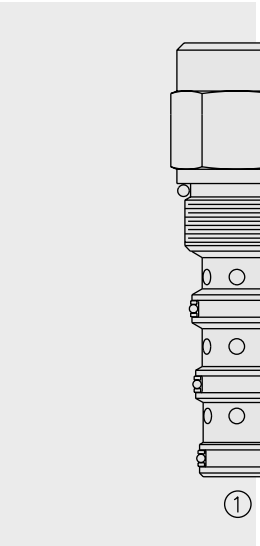
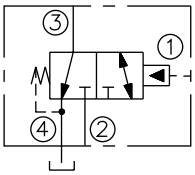
PD10-41 Piloted 3-Way Spool, Internal Vent



SYMBOLS

USASI:



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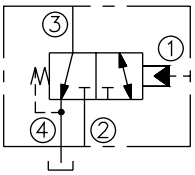
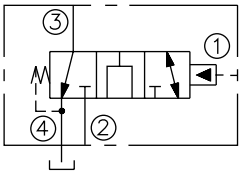
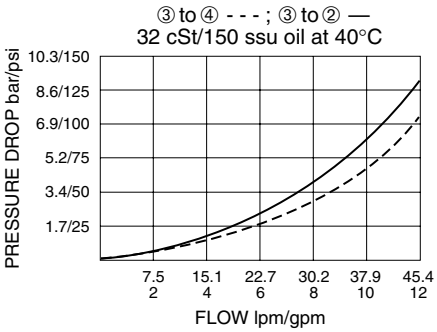


OPEN TRANSITION:



PERFORMANCE (Cartridge Only)



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 ssu)

Installation: No restrictions; See page 9.020.1

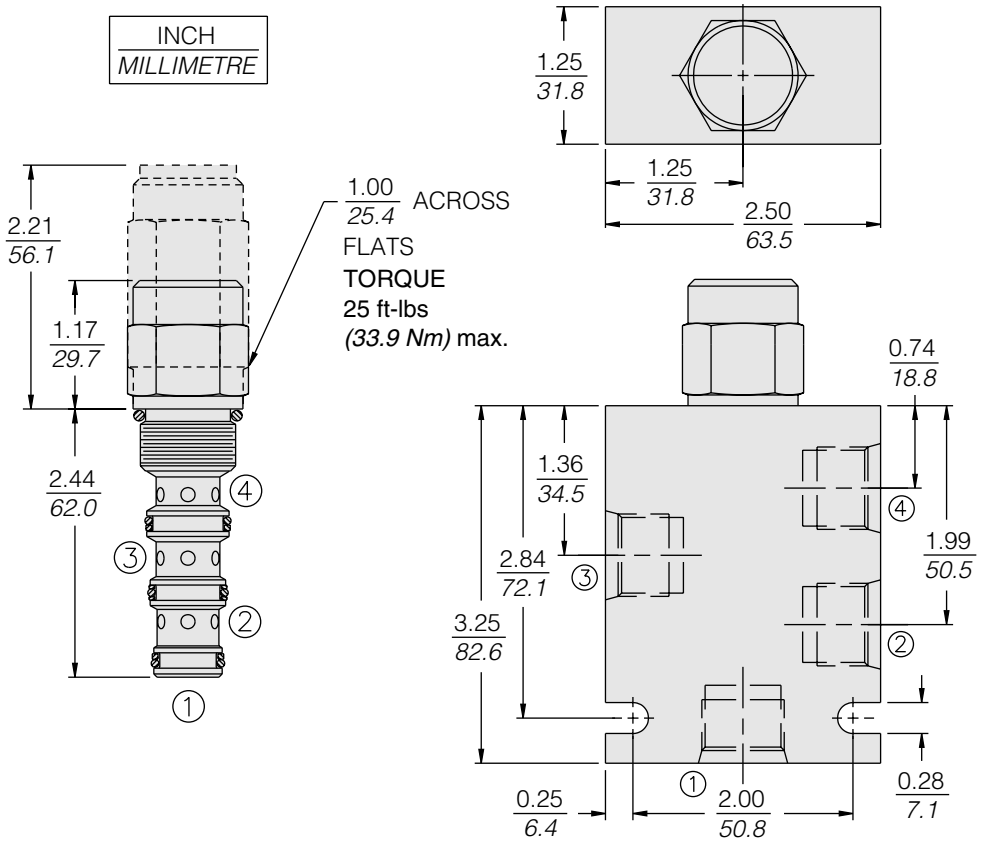
Cavity: VC10-4; See page 9.110.1

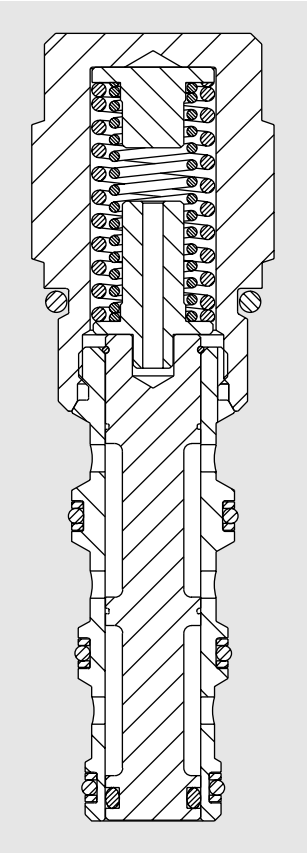
Cavity Tool: CT10-4XX; See page 8.600.1

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

PD10-41

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

PD10-41__ - ____ - __ - ___

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	Fuorocarbon with Sealed Spool