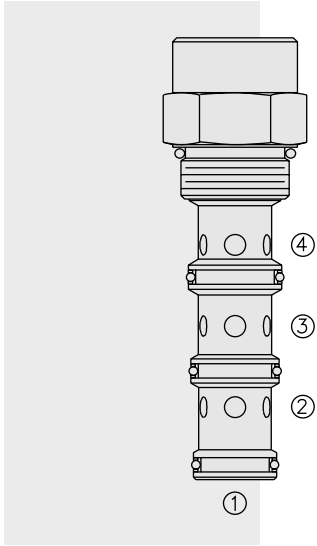


DIRECTIONAL VALVES

PD16-42 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 PD16-42 allows flow passage between ③ and ②. ④ is blocked.

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

Note that ④ is common to the spring chamber. Pressure on ④ will directly (1:1) affect required pilot pressure 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.
- Optional sealed pilot.
- Industry common cavity.

RATINGS

Operating Pressure: 240 bar (3500 psi)

Proof Pressure: 420 bar (6090 psi)

Flow: See Performance Chart

Internal Leakage: 164 cc/minute (10 cu. in./minute) max. at 207 bar (3000 psi)

Pilot Pressure Required:

To Spool Crossover: 7.6 bar (110 psi)

To Full Spool Shift: 9.0 bar (130 psi)

Oil Volume Required to Full Shift: 2.5 cc (0.15 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

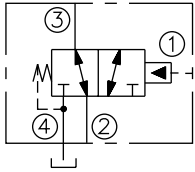
Cavity: VC16-4; See page 9.116.1

Cavity Tool: CT16-4XX; See page 8.600.1

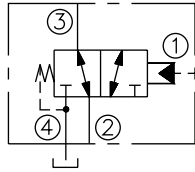
Seal Kit: SK16-4X-MMM; See page 8.650.1

SYMBOLS

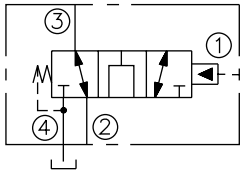
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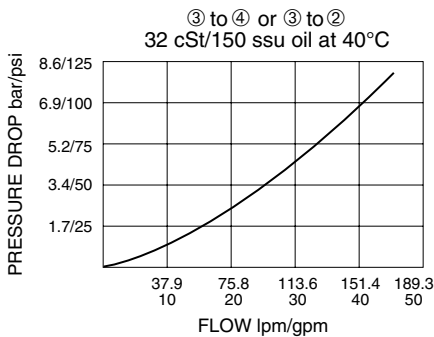
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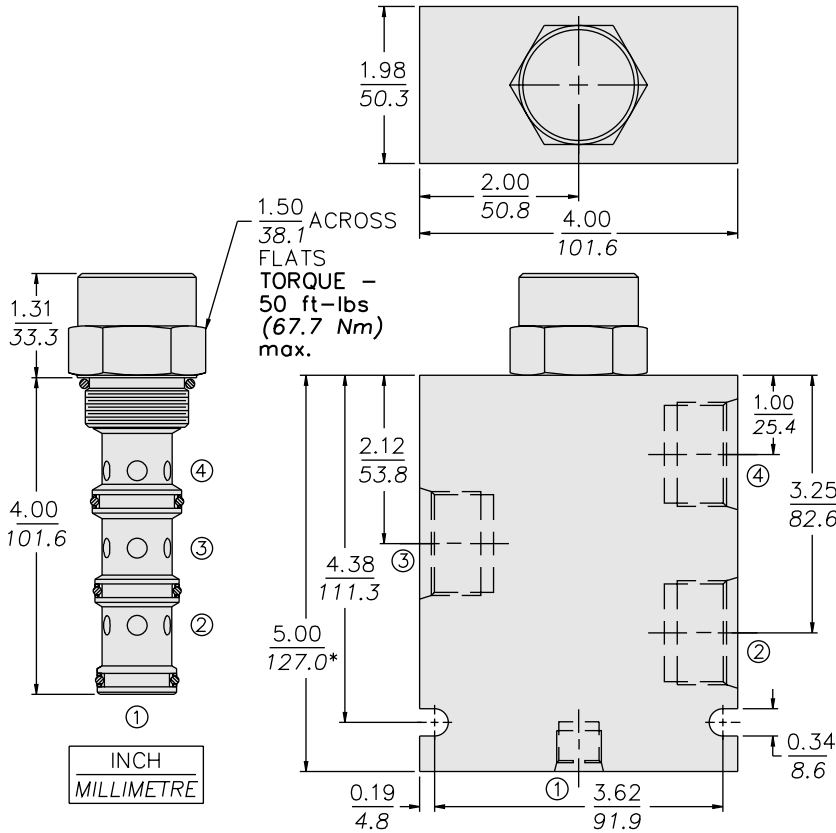
OPEN TRANSITION:



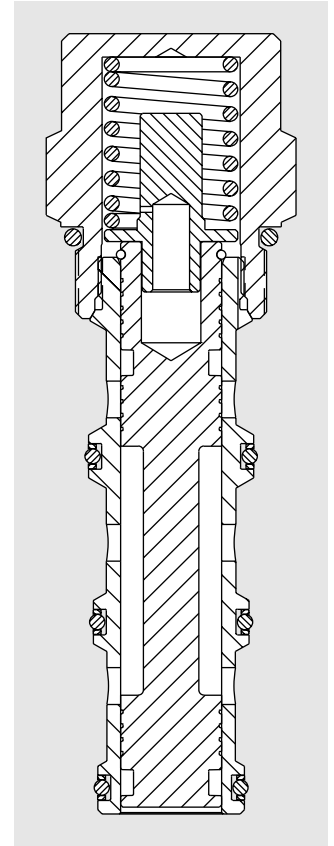
PERFORMANCE (Cartridge Only)



DIMENSIONS



* BSP BODY - 134.9



MATERIALS

Cartridge: Weight: 0.52 kg. (1.15 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-ups standard.

Standard Ported Body: Weight: 1.5 kg. (3.3 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 240 bar (3500 psi); see page 8.016.1. Ductile iron and steel bodies available; dimensions may differ; consult factory.

TO ORDER

PD16-42		-	-	-
Option	None (Blank)			
Open Transition	N			
Porting	Cartridge Only	0		
	SAE 12, SAE 6 Pilot	12T		
	SAE 16, SAE 6 Pilot	16T		
			Bias Spring†	
			60	4.1 bar (60 psi)
			110	7.6 bar (110 psi)
			170	11.7 bar (170 psi)
				Optional bias springs considered on OEM request.
				†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