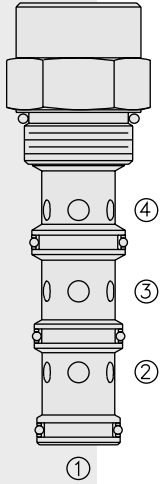


DIRECTIONAL VALVES

PD16-41 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 **PD16-41** allows flow from ③ to ④. ② is blocked.

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

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

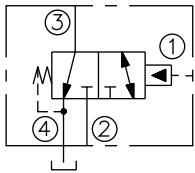
Cavity: VC16-4; See page 9.116.1

Cavity Tool: CT16-4XX; See page 8.600.1

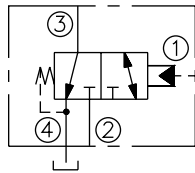
Seal Kit: SK16-4X-MMM; See page 8.650.1

SYMBOLS

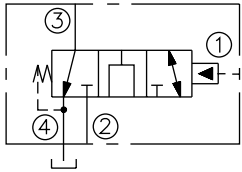
USASI:



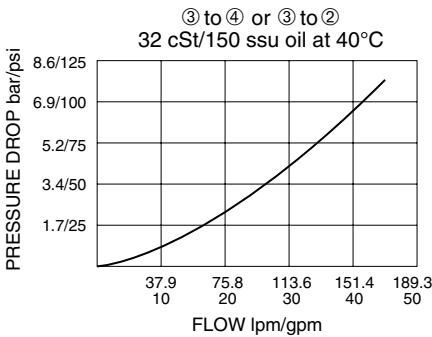
ISO:



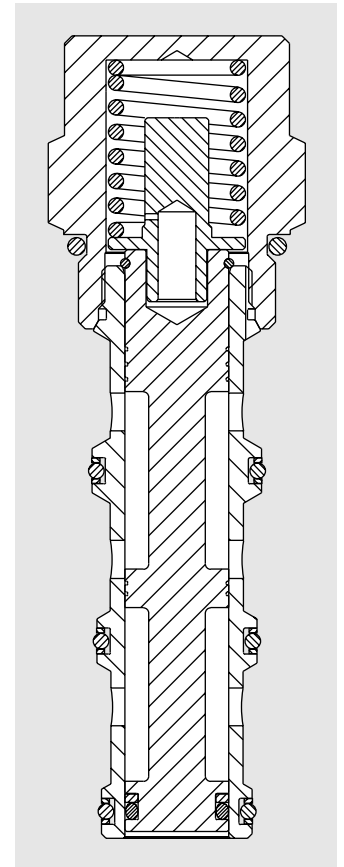
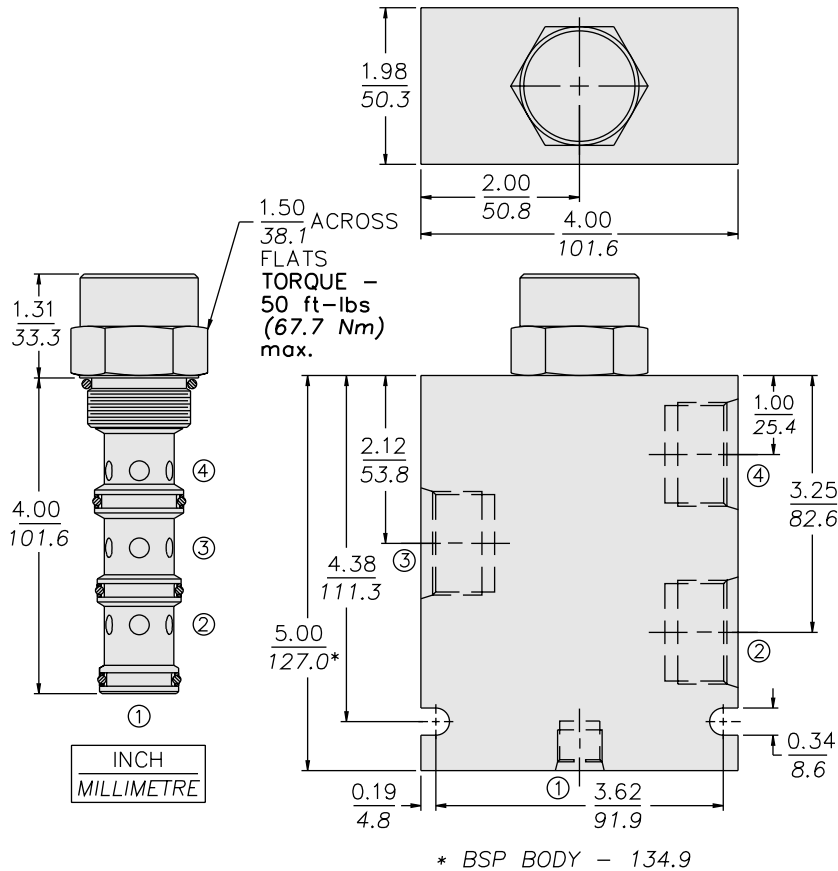
OPEN TRANSITION:



PERFORMANCE (Cartridge Only)



DIMENSIONS



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

PD16-41 - - -

Option			
None (Blank)			
Open Transition	N		
Porting			
Cartridge Only	0		
SAE 12, SAE 6 Pilot	12T		
SAE 16, SAE 6 Pilot	16T		
Bias Springs[†]			
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		