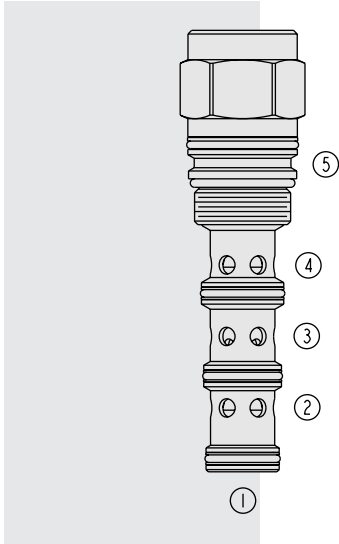


PD16-S51 Piloted 3-Way Spool



DESCRIPTION

A screw-in, cartridge-style, pilot-operated, spool-type, hydraulic directional valve.

OPERATION

When in neutral the **PD16-S51** allows flow between ports ②, ③ and ④. On remote pilot signal at ①, the valve's spool shifts to block all ports. The spring chamber is vented to the tank through port ⑤. The vented spring chamber allows the valve to be fully pressurized at ports ①, ②, ③, and ④ without affecting required pilot pressure. Pressure at port ⑤ will affect required pilot pressure.

FEATURES

- Hardened spool and cage for long life.
- 70, 90 and 140 psi bias springs available.

RATINGS

Operating Pressure: 240 bar (3500 psi)

Flow: 0–151 lpm (0–40 gpm); See Performance Chart

Internal Leakage at 207 bar (3000 psi): 410 ml/minute (25 cu. in./minute) between ports ③ and ②. 820 ml/minute (50 cu. in./minute) between ports ③ and ④.

Pilot Pressure Required: 4.1 bar (60 psi) minimum

Oil Volume Required to Full Shift: 1.83 cc (0.11 cu. in.)

Temperature: -40 to 120°C

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

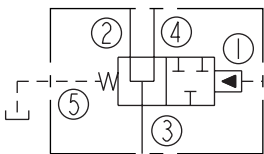
Cavity: VC16-S5; See page 9.116.1

Cavity Tool: CT16-S5XX; See page 8.600.1

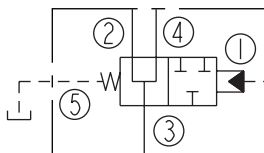
Seal Kit: SK16-S5X-BMMM; See page 8.650.1

SYMBOLS

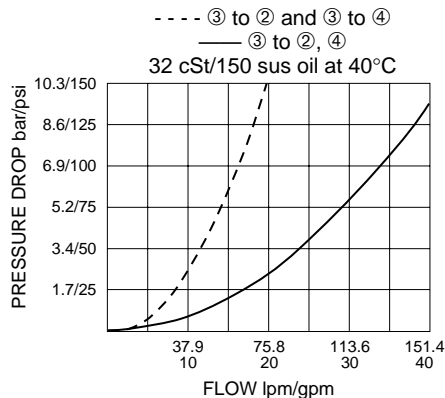
USASI:



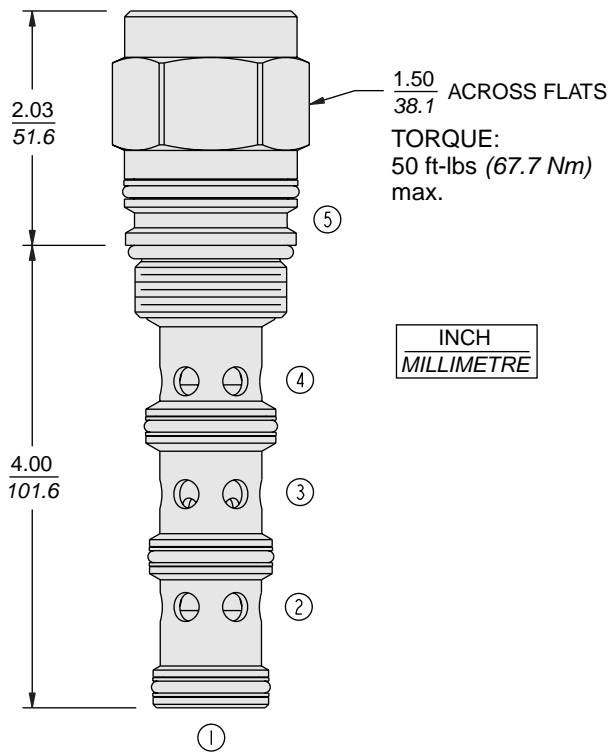
ISO:



PERFORMANCE (Cartridge Only)



DIMENSIONS



MATERIALS

Cartridge: Weight: 0.25 kg. (0.55 lbs.)
Steel with hardened work surfaces.
Zinc-plated exposed surfaces.
Buna N O-rings and polyester elastomer back-ups standard.

Ported Body: Consult factory.

TO ORDER

PD16-S51 -

Porting
Cartridge Only 0

Bias Spring[†]
70 4.8 bar (70 psi)
90 6.2 bar (90 psi)
140 9.7 bar (140 psi)
Optional bias springs considered on OEM request.

[†]Note: 90 psi bias spring is the minimum required for use with sealed spool.

Seals
N Buna N (Std.)
V Fluorocarbon
NS Buna N w/Sealed Spool ① to ② only
VS Fluorocarbon w/Sealed Spool ① to ② only