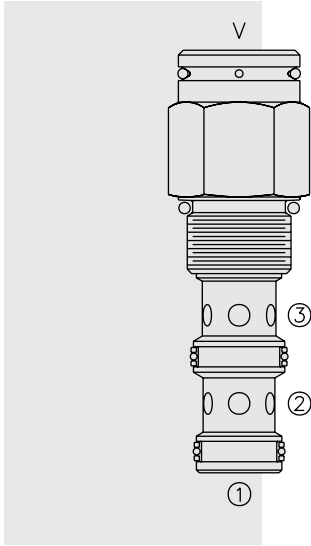


DIRECTIONAL VALVES

PD12-34 Piloted 2-Way Spool, Normally Closed,



DESCRIPTION

A screw-in, cartridge-style, pilot-operated, spool-type, normally closed, hydraulic directional valve for two-way circuits requiring remote pilot actuation.

OPERATION

In neutral (unpiloted), the **PD12-34** blocks flow from ③ to ② bidirectionally.

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 ② to ③ bidirectionally.

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.
- Cost-effective cavity.

RATINGS

Operating Pressure: 240 bar (3500 psi)

Proof Pressure: 420 bar (6090 psi)

Flow: See Performance Chart

Internal Leakage: 82 cc/minute (5 cu. in./minute) max. at 207 bar (3000 psi)

Pilot Pressure Required for 7.6 bar (110 psi) Spring:

to Cross-Over: 7.6 bar (110 psi)

to Full Shift: 9.1 bar (132 psi)

Oil Volume Required to Full Shift: 1.32 cc (0.08 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 sus); See Temperature and Oil Viscosity, page 9.060.1

Installation: No restrictions; See page 9.020.1

Cavity: VC12-3; See page 9.112.1

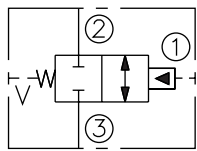
Cavity Tool: CT12-3XX; See page 8.600.1

Seal Kit: SK12-3X-MM; See page 8.650.1

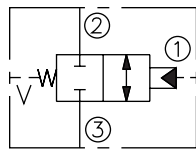
Cap Vent Seal: 6003121

SYMBOLS

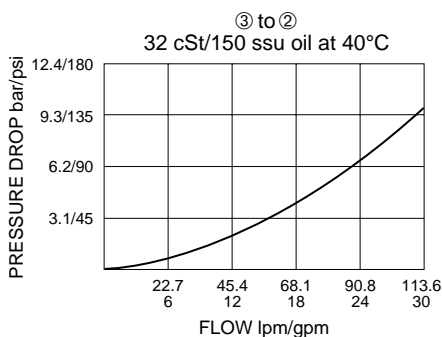
USASI:



ISO:



PERFORMANCE (Cartridge Only)

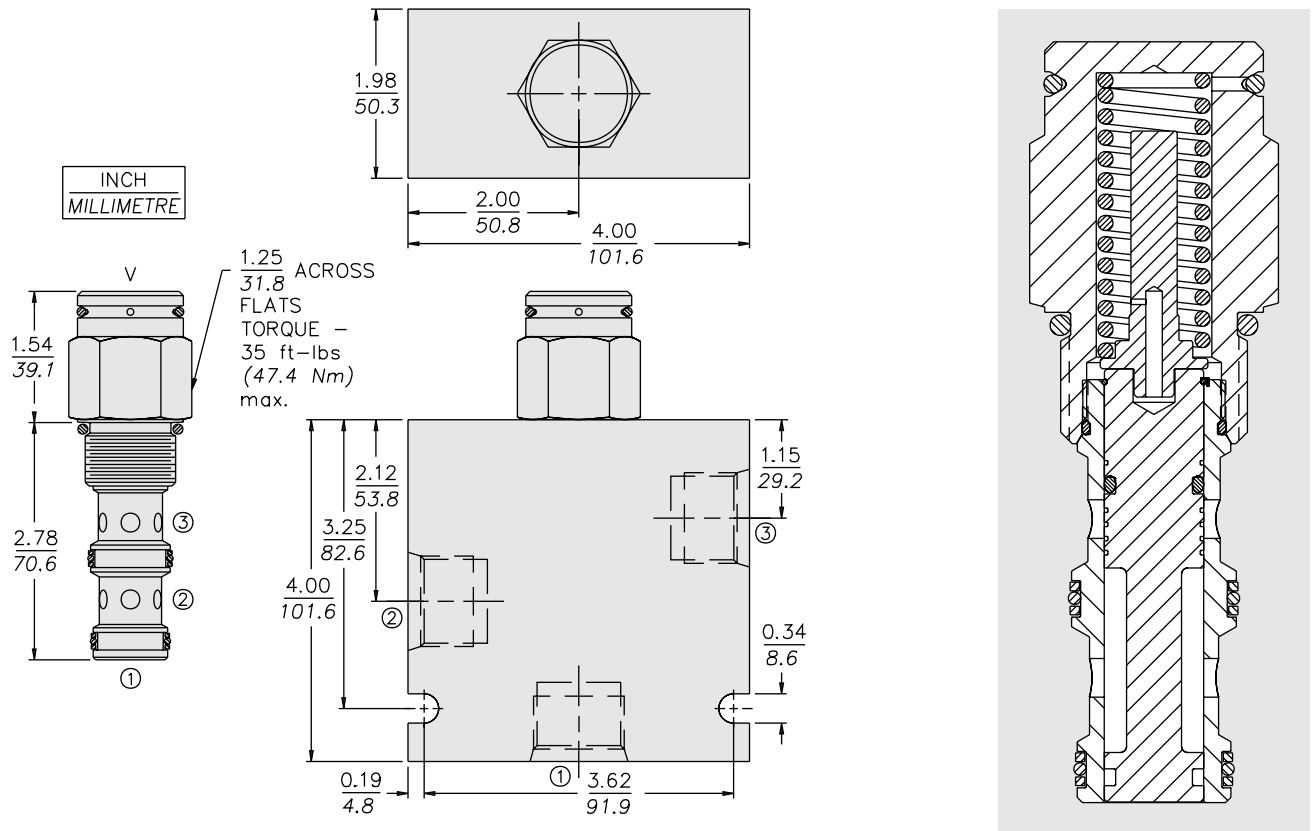


Note: This valve is designed with a dynamic oil-to-atmosphere seal in the vent section. Ambient conditions will cause this vent seal to degrade which will reduce the valve's cycle life. If this could cause a problem, we suggest that a non-vented model be selected, or special seal be used. Consult factory for assistance.

External Vent

PD12-34

DIMENSIONS



MATERIALS

Cartridge: Weight: 0.23 kg. (0.50 lbs.)
Steel with hardened work surfaces;
Zinc-plated exposed surfaces.
Buna N O-rings and polyester
elastomer back-ups standard.

Standard Ported Body: Weight:
1.13 kg. (2.50 lbs.) Anodized high-
strength 6061 T6 aluminum alloy,
rated to 207 bar (3000 psi); Ductile
iron bodies available; dimensions
may differ. See page 8.012.1.

TO ORDER

PD12-34 -

Porting
Cartridge Only **0**
SAE 8 **8T**
SAE 10 **10T**
SAE 12 **12T**
1/2 in. BSP* **4B**
3/4 in. BSP* **6B**

*BSP Body
U.K. Mfr. Only

Bias Spring

110 7.6 bar (110 psi)
170 11.7 bar (170 psi)

Seals

N Buna N (Std.)
NS Buna N with Sealed Spool
V Fluorocarbon
VS Fluorocarbon with Sealed Spool