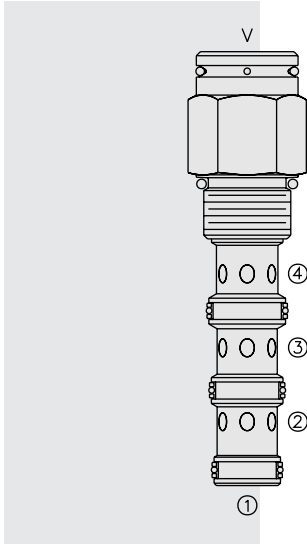


DIRECTIONAL VALVES

PD12-40 Piloted 3-Way Spool, External 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 **PD12-40** allows flow from ③ to ② bidirectionally, while flow is blocked at ④. 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 from ③ to ④, while blocking flow at ②.

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

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

To Spool Crossover: 7.6 bar (110 psi)

To Full Spool 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: VC12-4; See page 9.112.2

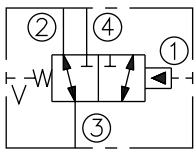
Cavity Tool: CT12-4XX; See page 8.600.1

Seal Kit: SK12-4X-MMM; See page 8.650.1

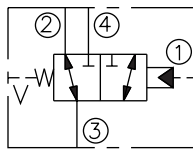
Cap Vent Seal: Part Number 6003121

SYMBOLS

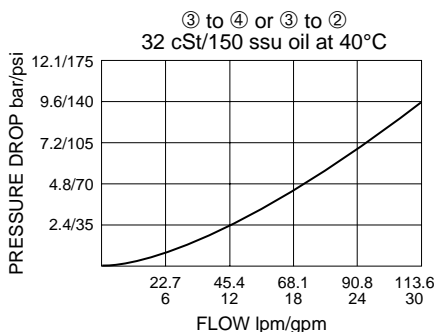
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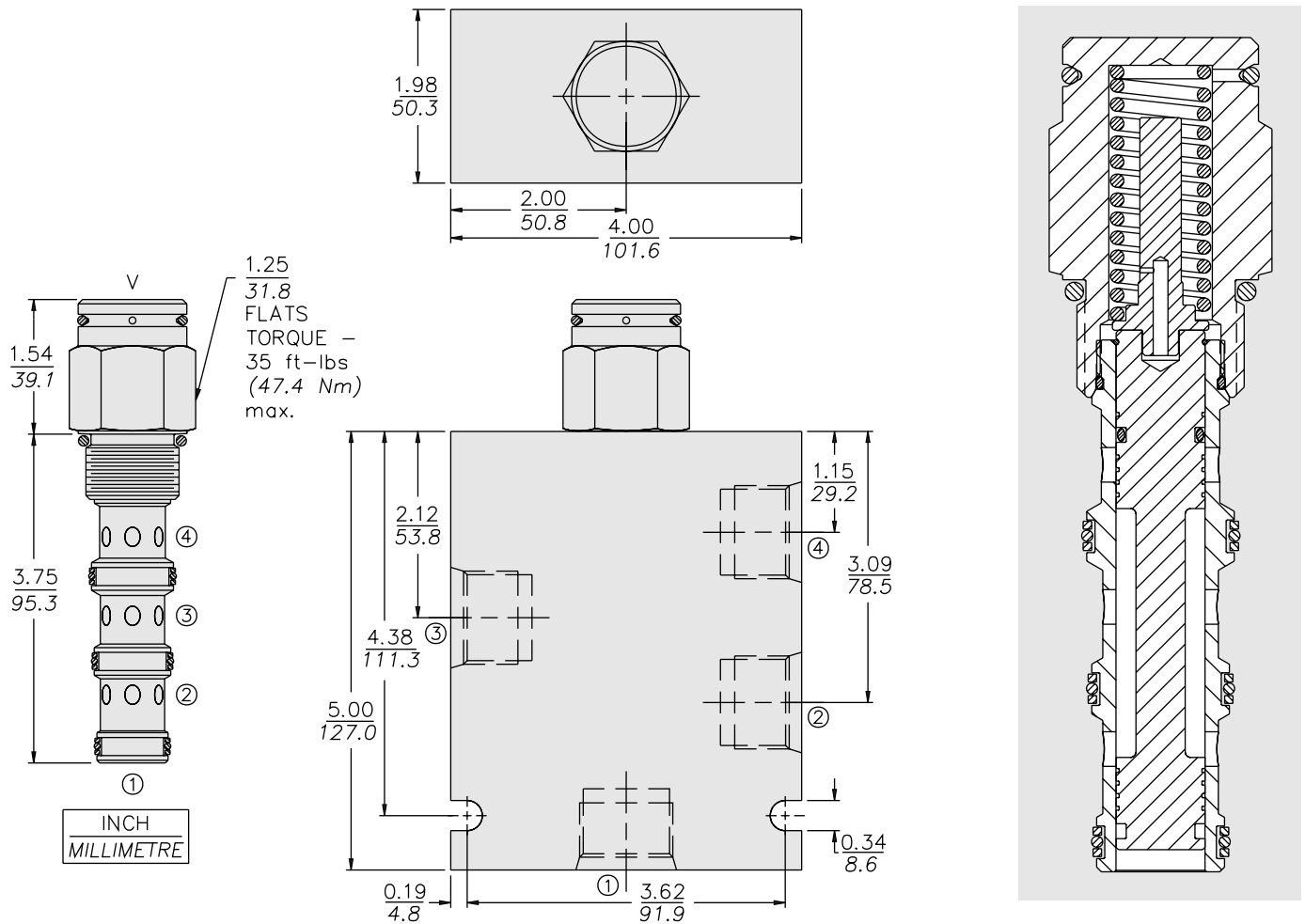


PERFORMANCE (Cartridge Only)



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. Consult factory for assistance.

DIMENSIONS



MATERIALS

Cartridge: Weight: 0.28 kg. (0.61 lbs.)
Steel with hardened work surfaces;
Zinc-plated exposed surfaces.
Buna N O-rings and polyester
elastomer back-ups standard.

Standard Ported Body: Weight:
1.50 kg. (3.30 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

