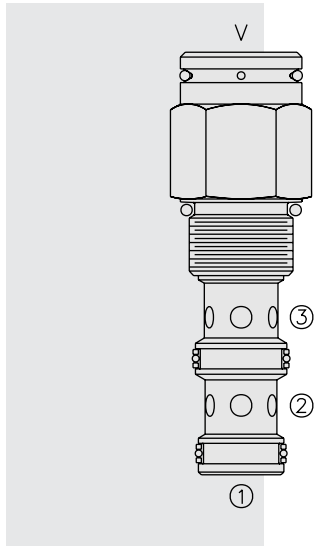


# PD12-34 Piloted 2-Way Spool, Normally Closed,



## 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.

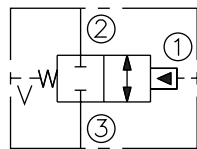
## RATINGS

- 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)

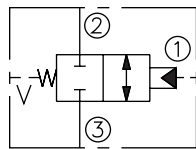
- Oil Volume Required to Full Shift:** 1.32 cc (0.08 cu. in.)
- Temperature:** -40 to 120°C with standard Buna seals
- Filtration:** See page 9.010.1
- Fluids:** Mineral-based or synthetics with lubricating properties at viscosities of 7.4 to 420 cSt (50 to 2000 sus); See Temperature and Oil Viscosity, 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

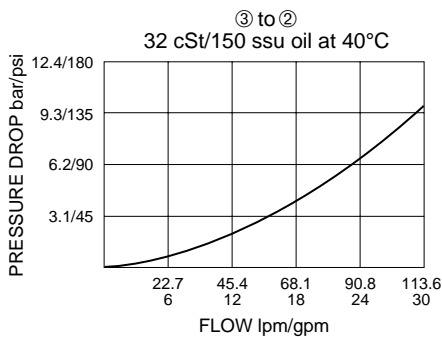
### USASI:



### ISO:



## PERFORMANCE (Cartridge Only)

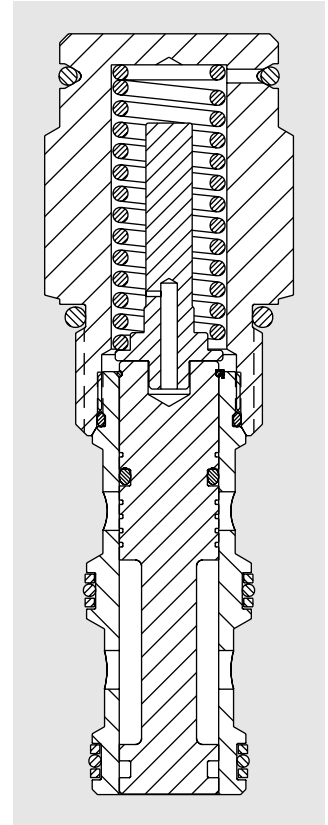
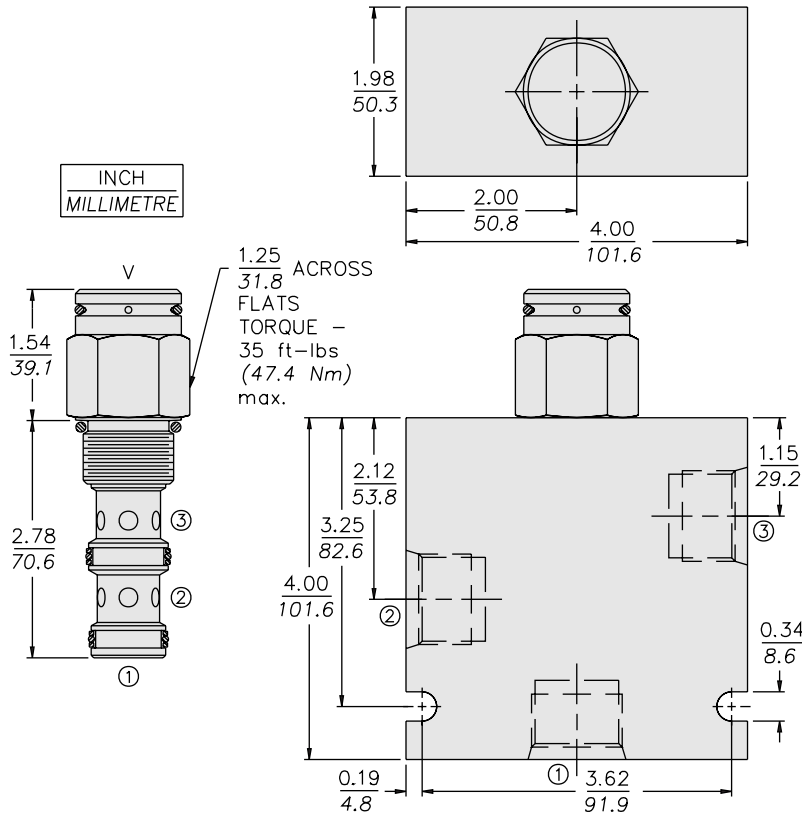


**Note:** This valve is designed with a dynamic oil-to-atmosphere seal in the vent section. Ambient conditions will cause this vent seal to degrade which will reduce the valve's cycle life. If this could cause a problem, we suggest that a non-vented model be selected, or special seal be used. Consult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