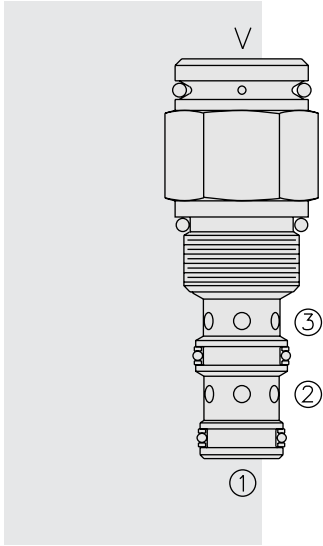


# DIRECTIONAL VALVES

## PD10-34 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 **PD10-34** 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.
- Industry common cavity.

### RATINGS

**Operating Pressure:** 240 bar (3500 psi)

**Proof Pressure:** 390 bar (5700 psi)

**Flow:** See Performance Chart

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

**Pilot Pressure Required:** To Full Spool Shift:

for 4.1 bar (60 psi) spring: 4.7 bar (68.2 psi)

for 7.6 bar (110 psi) spring: 8.6 bar (125 psi)

**Oil Volume Required to Full Shift:** 0.65 cc (0.04 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:** VC10-3; See page 9.110.1

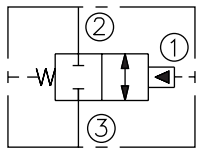
**Cavity Tool:** CT10-3XX; See page 8.600.1

**Seal Kit:** SK10-3X-MM; See page 8.650.1

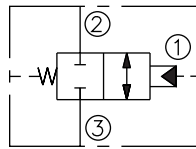
**Cap Vent Seal:** 6003117

### SYMBOLS

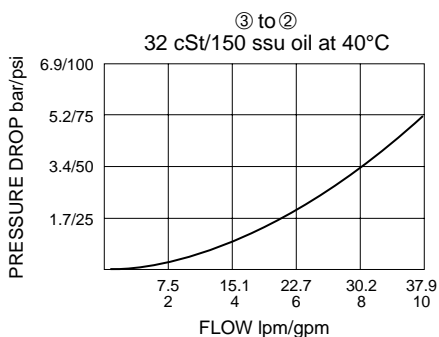
#### USASI:



#### ISO:



### PERFORMANCE (Cartridge Only)

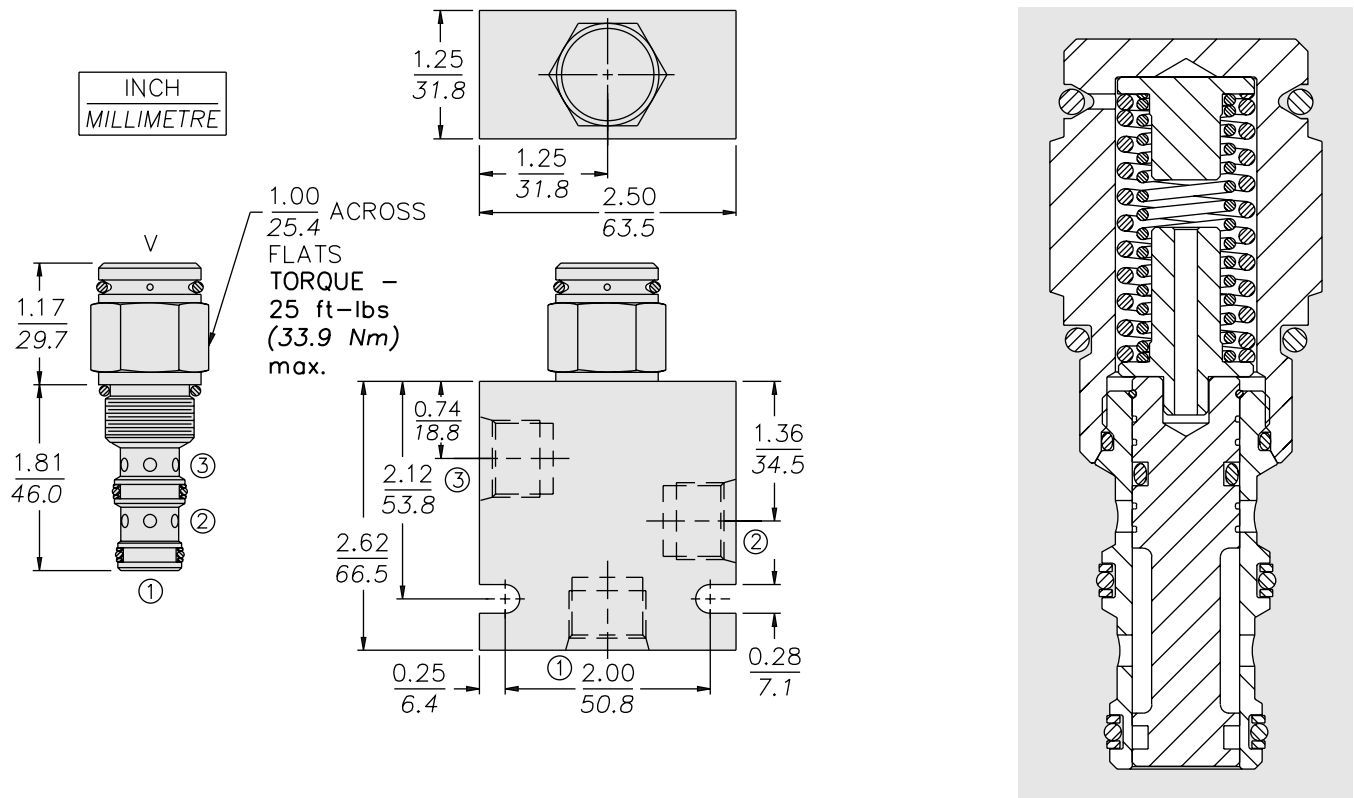


**Note:** This valve is designed with a dynamic oil-to-atmosphere seal in the vent section. Ambient conditions will cause this vent seal to degrade which will reduce the valve's cycle life. If this could cause a problem, we suggest that a non-vented model be selected, or special seal be used. Consult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

# External Vent

PD10-34

## DIMENSIONS



## MATERIALS

**Cartridge:** Weight: 0.15 kg. (0.34 lbs.)  
Steel with hardened work surfaces;  
Zinc-plated exposed surfaces.  
Buna N O-rings and polyester  
elastomer back-ups standard.

**Standard Ported Body:** Weight:  
0.36 kg. (0.80 lbs.) Anodized high-  
strength 6061 T6 aluminum alloy,  
rated to 207 bar (3000 psi).  
Ductile iron and steel bodies  
available; dimensions may differ.  
See page 8.010.1.

## TO ORDER

PD10-34 - - -

**Porting**

Cartridge Only	<b>0</b>
SAE 6	<b>6T</b>
SAE 8	<b>8T</b>
1/4 in. BSP*	<b>2B</b>
3/8 in. BSP*	<b>3B</b>

\*BSP Body  
U.K. Mfr. Only

**Bias Spring†**

<b>40</b>	2.8 bar (40 psi)
<b>60</b>	4.1 bar (60 psi)
<b>110</b>	7.6 bar (110 psi)
<b>170</b>	11.7 bar (170 psi)

†Note: 110 psi bias spring is the  
minimum required for use with  
sealed spool.

**Seals**

<b>N</b>	Buna N (Std.)
<b>NS</b>	Buna N with Sealed Spool
<b>V</b>	Fluorocarbon
<b>VS</b>	Fluorocarbon with Sealed Spool