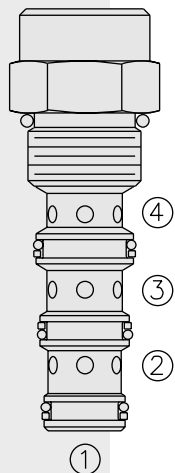


# DIRECTIONAL VALVES

## BV10-40 Brake Release Valve



### DESCRIPTION

A screw-in, cartridge-style, spool-type, hydraulic directional valve which operates by pressure-to-shift spring return. It is normally used to release a spring-applied brake whenever hydraulic power is directed to move a load.

### OPERATION

In neutral, the **BV10-40** allows flow from ② to ③. When the pressure differential between the ① and ④ ports exceeds approximately 5.5 bar (80 psi), the spool has moved far enough to close ② to ③ flow, while opening the higher pressure of ① or ④ to ②.

### 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:** 164 cc/minute (10 cu. in./minute) max. at 207 bar (3000 psi)  
② to ③ (shifted)

**Differential Pressure Required (① > ④, ④ > ①) to Shift to Close ② to ③/Open ① or ④ to ②:** 5.5 bar (80 psi)

**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 ssu)

**Installation:** No restrictions; See page 9.020.1

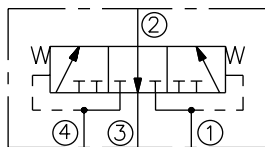
**Cavity:** VC10-4; See page 9.110.1

**Cavity Tool:** CT10-4XX; See page 8.600.1

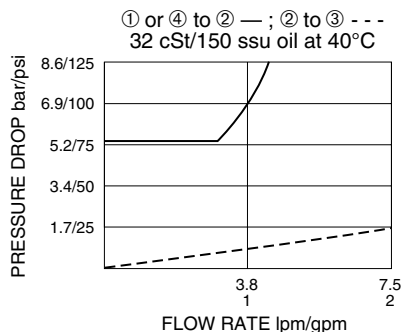
**Seal Kit:** SK10-4X-TBT; See page 8.650.1

### SYMBOLS

#### USASI/ISO:

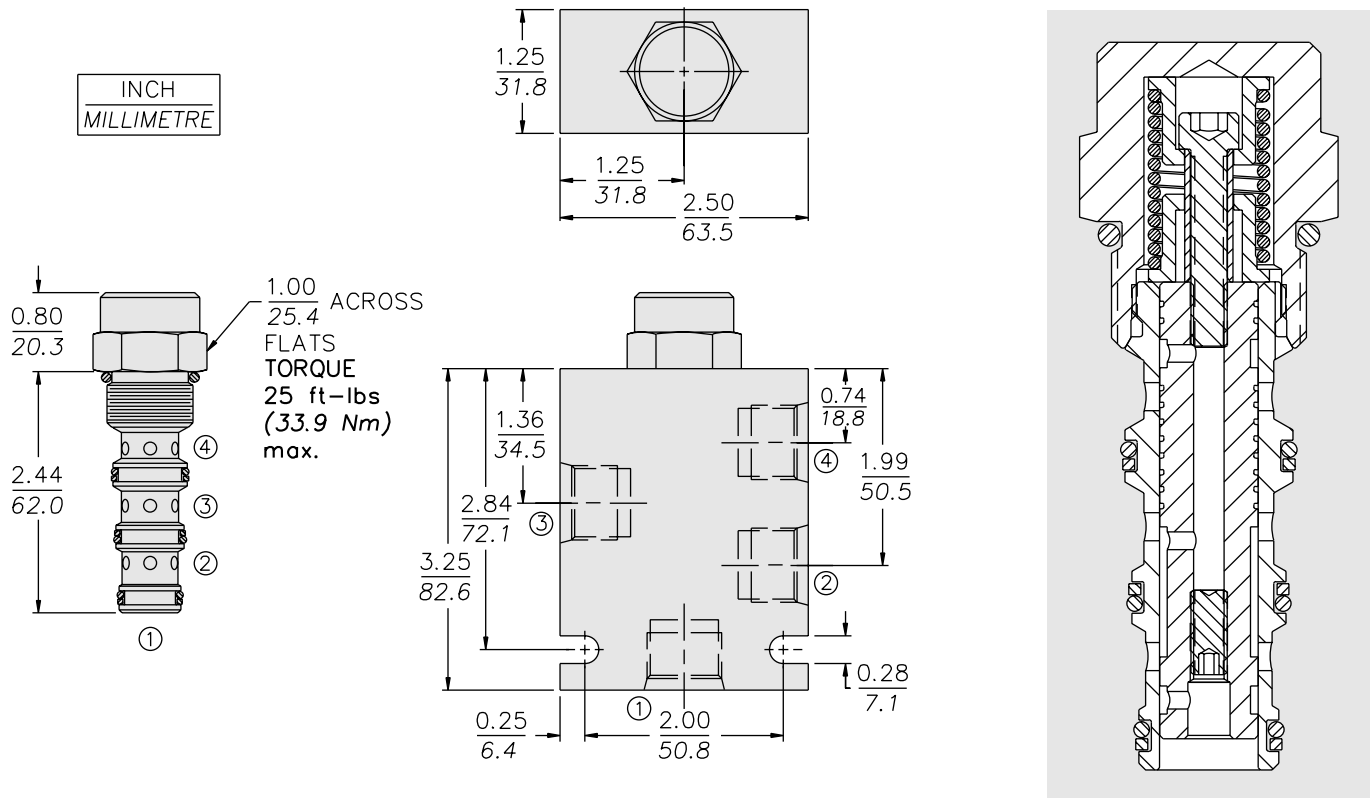


### PERFORMANCE (Cartridge Only)



**BV10-40**

**DIMENSIONS**



**MATERIALS**

**Cartridge:** Weight: 0.16 kg. (0.35 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-ups standard.

**Standard Ported Body:** Weight: 0.34 kg. (0.75 lbs.); Anodized high-strength 6061 T6 aluminum alloy, rated to 240 bar (3500 psi); see page 8.010.1. Ductile iron and steel bodies available; dimensions may differ; consult factory.

**TO ORDER**

**BV10-40 - -**

<b>Porting</b>		<b>Seals</b>
Cartridge Only	<b>0</b>	<b>N</b> Buna N (Std.)
SAE 6	<b>6T</b>	<b>V</b> Fluorocarbon
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