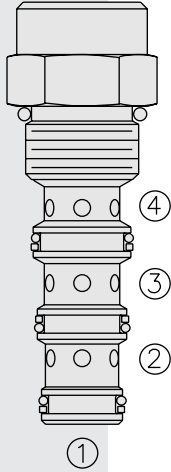


# DIRECTIONAL VALVES

## BV10-42 Brake Release Valve, 2-Position



### 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 **BV10-42** 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 ④ to ②.

### FEATURES

- Hardened spool and cage for long life.
- Industry common cavity.

### RATINGS

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

**Flow:** See Performance Chart

**Internal Leakage:** 82 cc/minute (5 cu. in./minute) max. at 207 bar (3000 psi)  
② to ③ (shifted)

**Differential Pressure Required** (④ > ①) to Shift to Close ② to ③ /  
Open 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 sus); See Temperature and Oil Viscosity, page 9.060.1

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

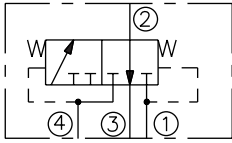
**Cavity:** VC10-4; See page 9.110.1

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

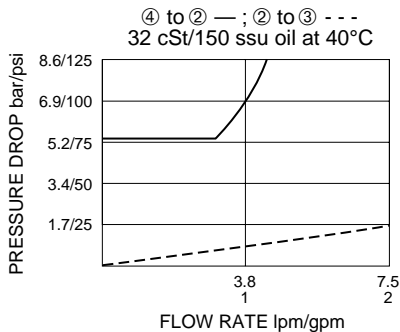
**Seal Kit:** SK10-4X-TBT; See page 8.650.1

### SYMBOLS

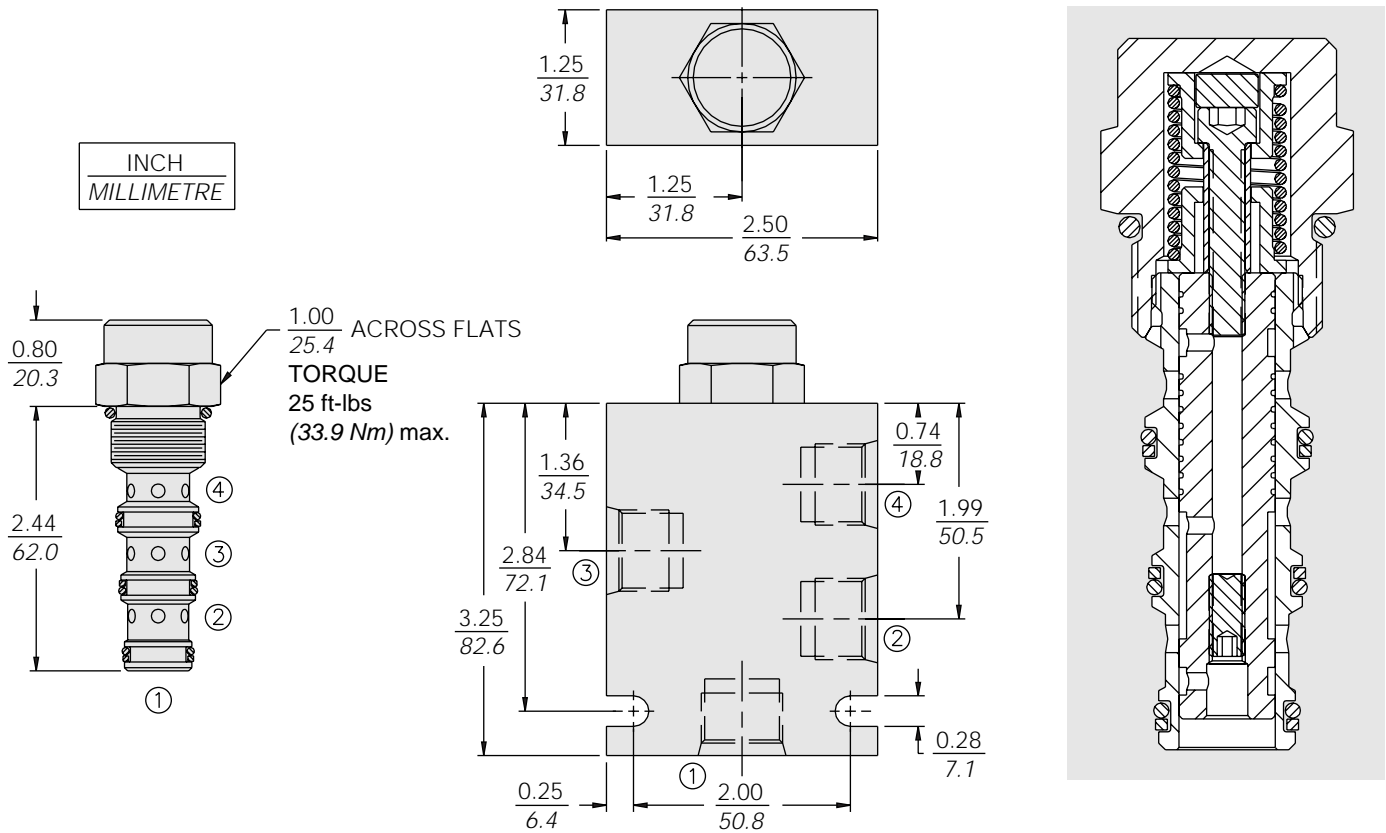
#### USASI/ISO:



### PERFORMANCE (Cartridge Only)



## 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 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ. See page 8.010.1.

## TO ORDER

<b>BV10-42 -</b>		<b>-</b>	
<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