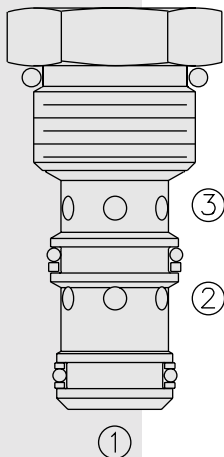


# DIRECTIONAL VALVES

## PC10-30 Check, Pilot-to-Open



### DESCRIPTION

A screw-in, cartridge-style, pilot-operated, hydraulic check valve for use in blocking or load-holding circuits.

### OPERATION

The PC10-30 allows flow passage from ② to ③, while normally blocking flow from ③ to ②. Flow will be allowed from ③ to ② when pressure is applied at ①.

The cartridge has a 4:1 pilot ratio, meaning that at least one-fourth of the load pressure held at ③ is required at ① to open the valve.

The check is spring-biased to assure holding in static or no-load conditions. A sealed pilot piston option is available.

Note: Special higher bias spring values available. Consult factory.

### FEATURES

- Hardened seat for long life and low leakage.
- Optional sealed piston.
- Optional spring ranges.
- Industry common cavity.

### RATINGS

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

**Flow:** See Performance Chart

**Internal Leakage:**

③ to ②: 0.25 cc/minute (2 drops/minute) max. at 240 bar (3500 psi);

② to ① (without sealed piston): 115 cc/minute (7 cu. in./minute) max. at 240 bar (3500 psi)

**Pilot Ratio:** 4:1

**Check Bias Spring:** 2.07 bar (30 psi);

With sealed piston option: 6.2 bar (90 psi) minimum

**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

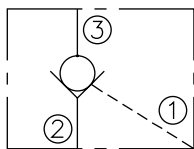
**Cavity:** VC10-3; See page 9.110.1

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

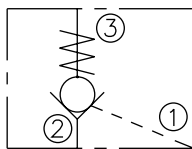
**Seal Kit:** SK10-3X-TM; See page 8.650.1

### SYMBOLS

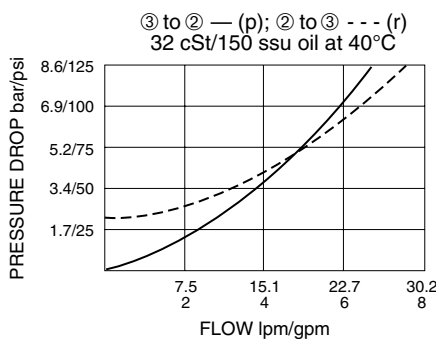
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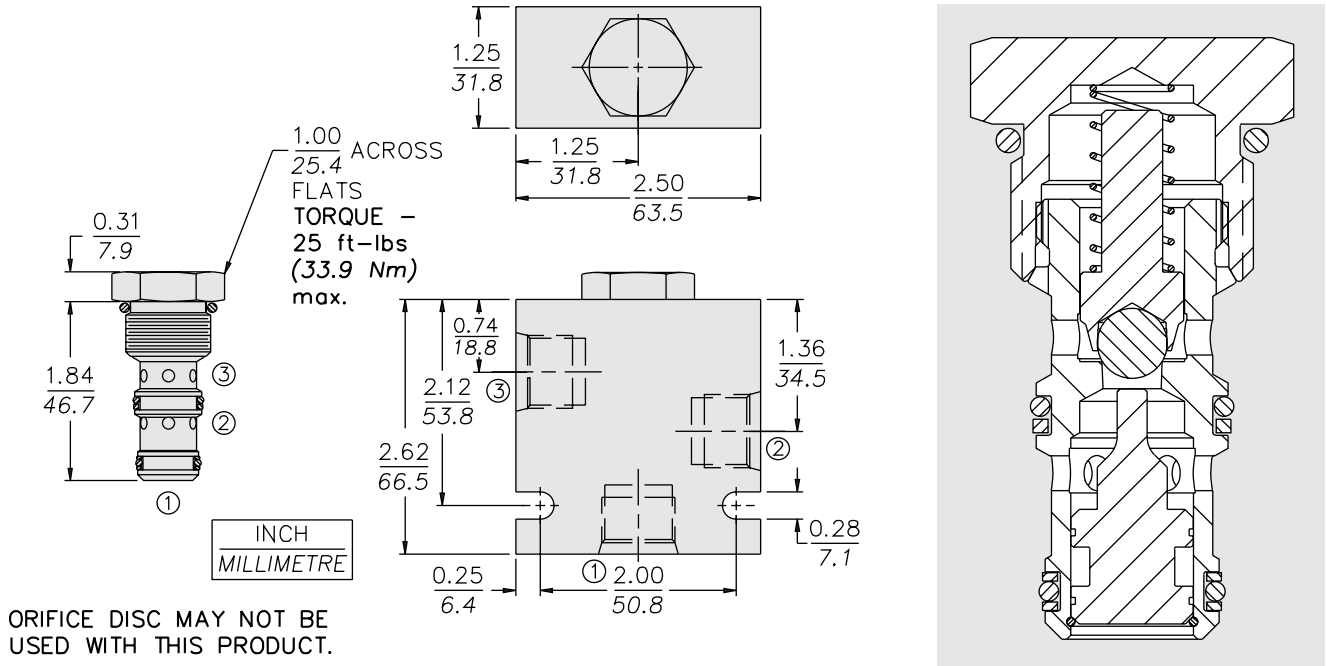


### PERFORMANCE (Cartridge Only)



**PC10-30**

**DIMENSIONS**



**MATERIALS**

**Cartridge:** Weight: 0.09 kg. (0.20 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 240 bar (3500 psi); See page 8.010.1. Ductile iron and steel bodies available; dimensions may differ; consult factory.

**TO ORDER**

**PC10-30 -**

**Porting**  
Cartridge Only **0**  
SAE 6 **6T**  
SAE 8 **8T**  
1/4 in. BSP\* **2B**  
3/8 in. BSP\* **3B**

\*BSP Body;  
U.K. Mfr. Only

**Bias Spring**  
(Blank) 2.07 bar/30 psi (Std.)\*  
**70** 4.8 bar/70 psi  
**90** 6.2 bar/90 psi  
**120** 8.2 bar/120 psi  
**270** 18.3 bar/270 psi

Note: Other bias spring pressures available for OEM applications. Consult factory.

\* PC10-30 valves built with standard 30 psi spring are not stamped with spring rating. Other spring ratings are stamped on valve.

**Seals**

**N** Buna N (Std.)  
**NS** Buna N with Sealed Piston  
6.2 bar (90 psi) minimum spring  
**V** Fluorocarbon  
**VS** Fluorocarbon with Sealed Piston  
6.2 bar (90 psi) minimum spring