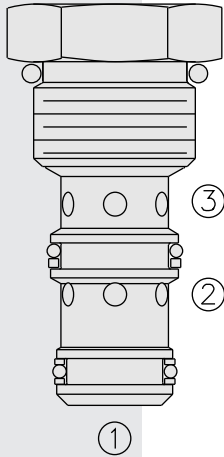


# PC10-30 Check, Pilot-to-Open



## 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:** 241 bar (3500 psi)

**Flow:** See Performance Chart

**Maximum Internal Leakage** at 207 bar (3000 psi):

- 3 to 2: 0.10 ml/minute (2 drops/minute)
- 2 to 1 without sealed piston: 115 ml/minute (7 cu. in./minute)
- 2 to 1 with sealed piston: zero leakage

**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 (-40 to 248°F) 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

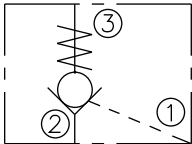
**Installation:** No restrictions; See page 9.020.1

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

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

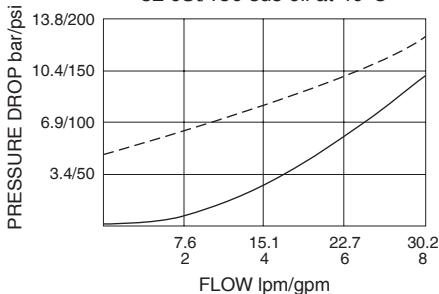
**Seal Kit:** SK10-3X-TM (Buna N); SK10-3V-TM (Viton); SK10-3P-TM (Polyurethane)  
See page 8.650.1

## ISO SYMBOL

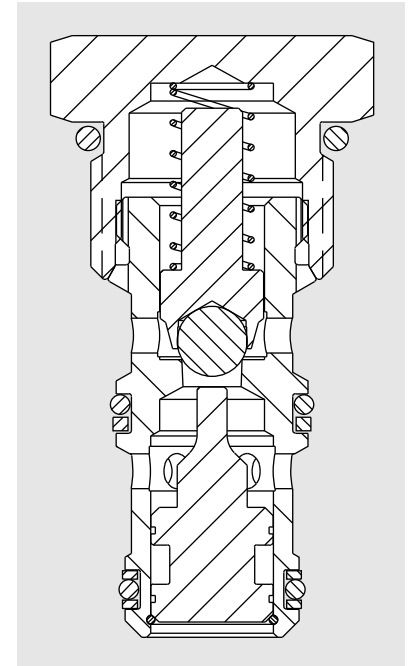
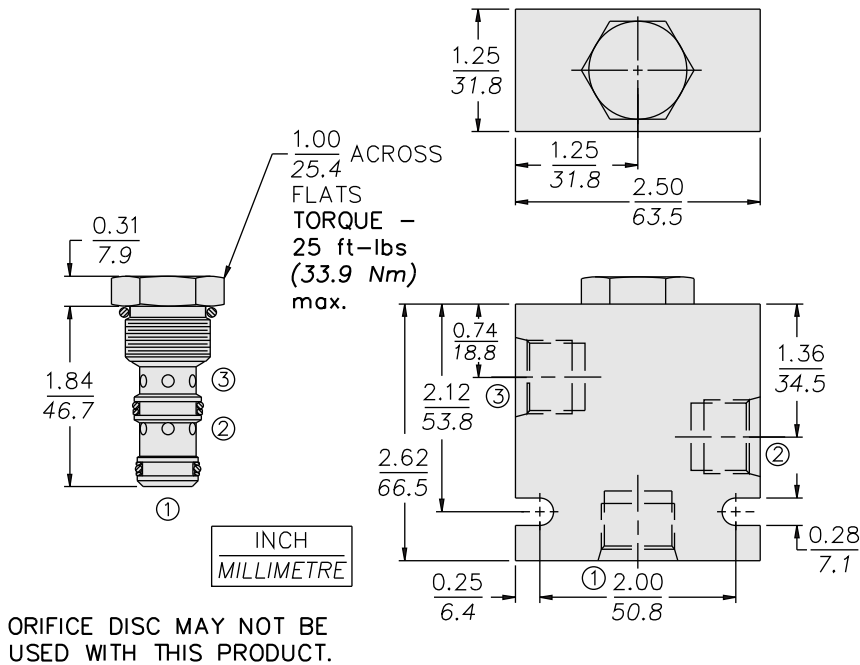


## PERFORMANCE (Cartridge Only)

Pressure Drop vs. Flow  
For cartridge only with 70 psi spring  
3 to 2 — (p); 2 to 3 - - - (r)  
32 cSt/150 sus oil at 40°C



## DIMENSIONS



## MATERIALS

**Cartridge:** Weight: 0.09 kg. (0.20 lbs.)  
 Steel with hardened work surfaces.  
 Zinc-plated exposed surfaces.  
 Buna N O-rings and back-ups standard.

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

## 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) 2.1 bar/30 psi (Std.)\*  
**70** 4.8 bar/70 psi  
**90** 6.2 bar/90 psi  
**120** 8.3 bar/120 psi  
**270** 18.6 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  
**P** Polyurethane  
**PS** Polyurethane with Sealed Piston:  
 6.2 bar (90 psi) minimum spring