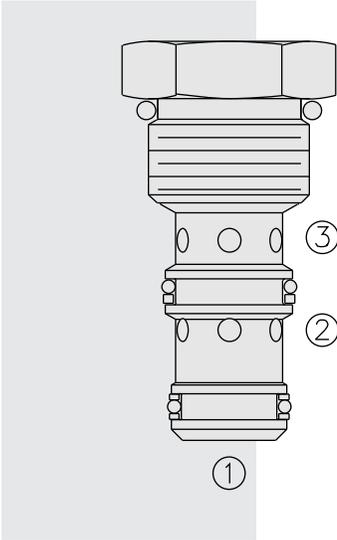


PC10-30 Check, Pilot-to-Open



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

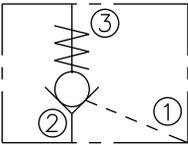
Installation: No restrictions; See page 9.020.1

Cavity: VC10-3; See page 9.110.1

Cavity Tool: CT10-3XX; See page 8.600.1

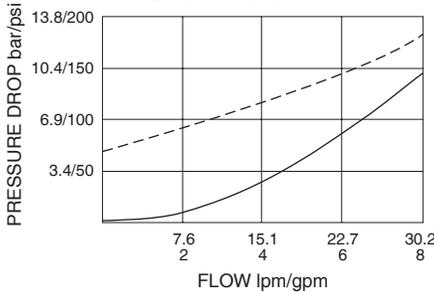
Seal Kit: SK10-3X-TM (Buna N); SK10-3V-TM (Viton); SK10-3P-TM (Polyurethane)
See page 8.650.1

ISO SYMBOL



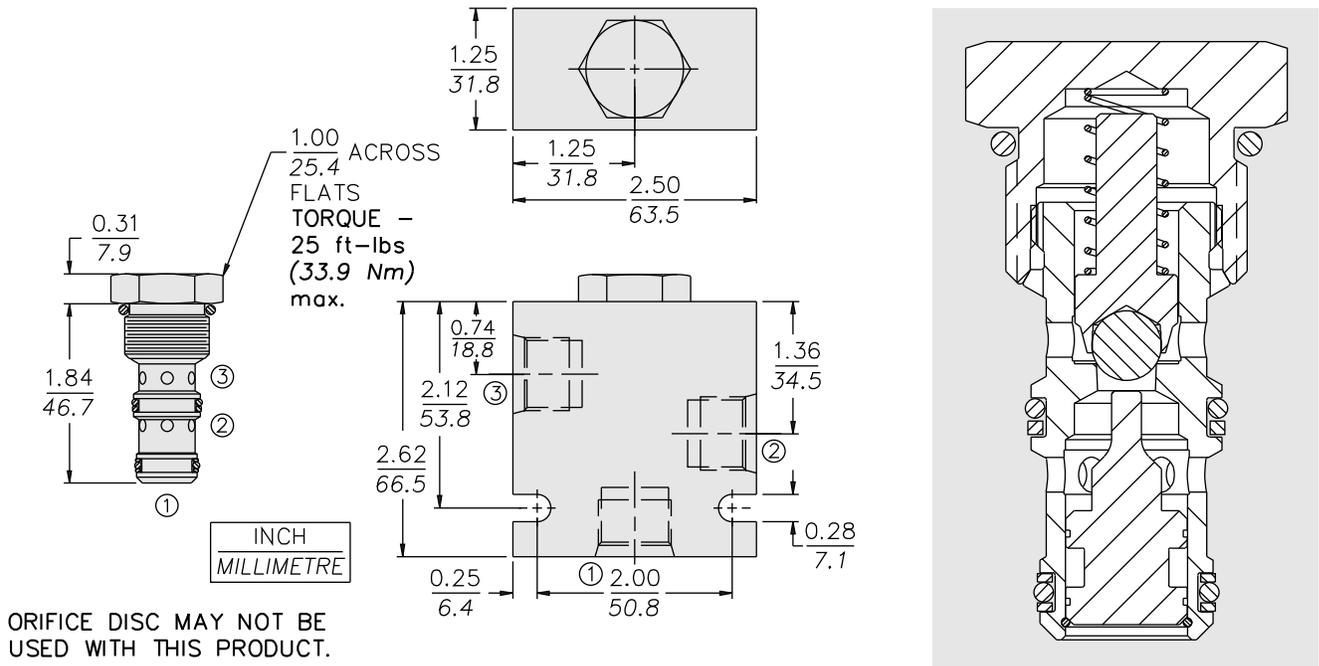
PERFORMANCE (Cartridge Only)

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



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 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