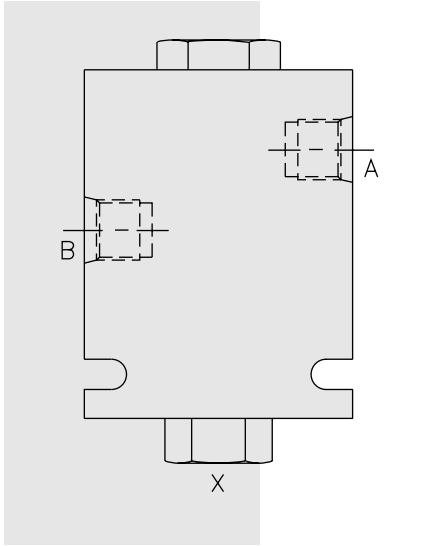


# DIRECTIONAL VALVES

## PCV10 Check, Pilot-to-Open



### DESCRIPTION

An in-line-housed, pilot-operated, hydraulic check valve for use in blocking or load-holding circuits.

### OPERATION

The **PCV10** allows flow from B to A, while normally blocking flow from A to B. Flow will be allowed from A to B when pressure is applied at X.

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

The check is spring-biased at 2 bar (30 psi) to assure holding in static or no-load conditions. A sealed pilot piston option with check spring bias of 6.9 bar (100 psi) is available.

### FEATURES

- Hardened seat for long life and low leakage.
- Optional sealed pilot piston.
- Optional spring ranges.
- Check section is serviceable as a cartridge.

### RATINGS

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

**Flow:** See Performance Chart

**Internal Leakage:**

- A to B: 0.25 cc/minute (5 drops/minute) max. at 240 bar (3500 psi);
- B to X (without sealed piston): 245 cc/minute (15 cu. in./minute) max. at 240 bar (3500 psi)

**Pilot Ratio:** 4:1

**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

**Check Spring Bias:** 2 bar (30 psi); with sealed piston option, 6.9 bar (100 psi)

**Seal Kit (for CV10-20):** SK10-2X-T; See page 8.650.1;

Piston Seal: See Dimension Drawing

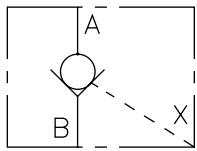
**Pilot Piston Service Part Numbers:**

O-Ring (1): Buna 6001014; Fluorocarbon 6003014

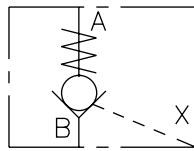
Back-ups (2): Buna 6011014; Fluorocarbon 6011014

### SYMBOLS

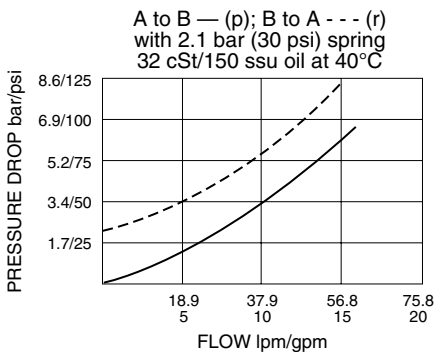
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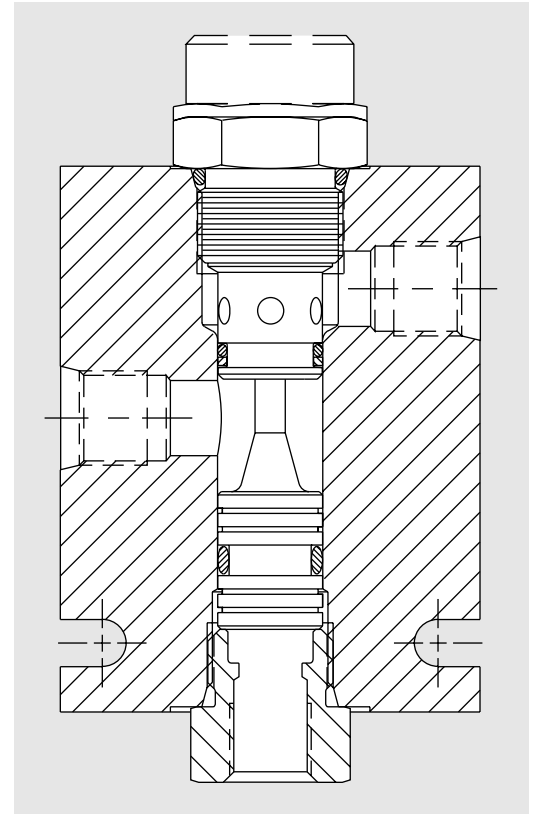
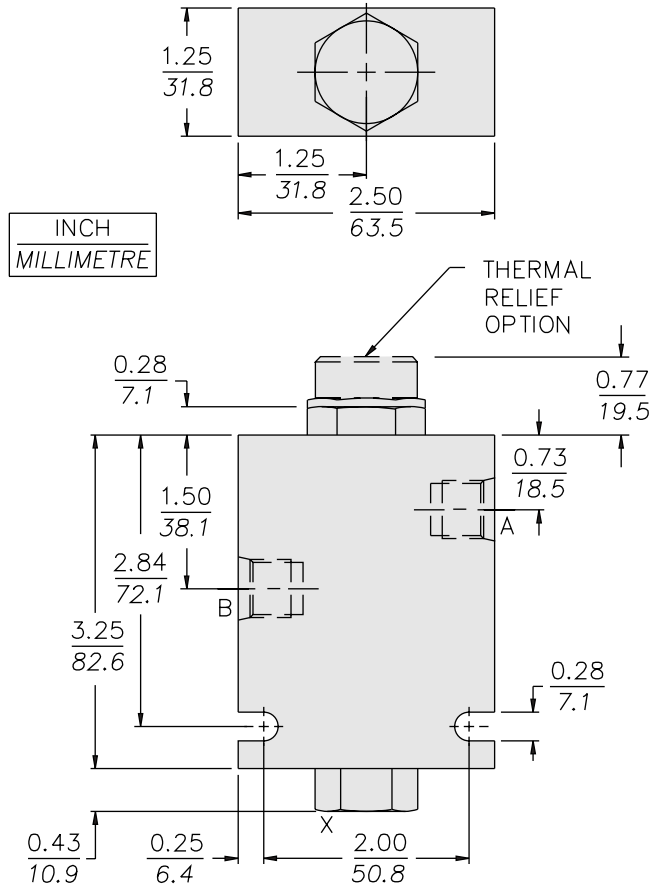
**ISO:**



### PERFORMANCE (Cartridge Only)



## DIMENSIONS



## MATERIALS

**Cartridge (CV10-20):** Weight: 0.08 kg. (0.17 lbs.); Steel with hardened work surfaces. Zinc-plated exposed surfaces. Buna N O-rings and polyester elastomer back-ups standard.

**Pilot Piston:** Hardened steel.

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

**Product Weight:** 0.5 kg. (1.10 lbs.).

## TO ORDER

### PCV10 -

#### Porting

SAE 6; SAE 6 Pilot **6T**  
SAE 8; SAE 6 Pilot **8T**

#### Bias Spring

(Blank) 2.1 bar (30 psi) (Std.)\*  
**40** 2.8 bar (40 psi)  
**100** 6.9 bar (100 psi)  
**200** 13.8 bar (200 psi)  
**300** 20.7 bar (300 psi)

#### Seals

**N** Buna N (Std.)  
**NS** Buna N w/Sealed Pilot Piston (100 psi spring minimum required)  
**V** Fluorocarbon  
**VS** Fluorocarbon with Sealed Pilot Piston (100 psi spring minimum required)

#### Options

(Blank) None  
**1** Thermal Relief on C1

\* PCV10 valves built with standard 30 psi spring are not stamped with spring rating. Other spring ratings are stamped on valve.