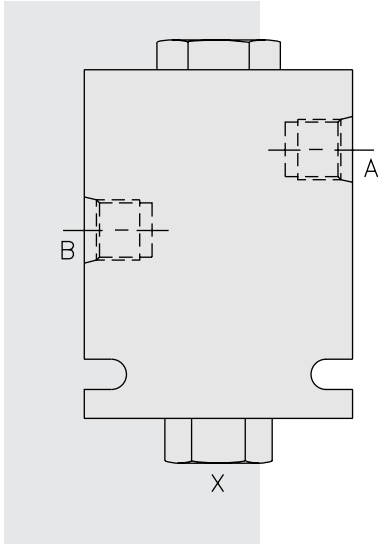


DIRECTIONAL VALVES

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 sus); See Temperature and Oil Viscosity, page 9.060.1

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

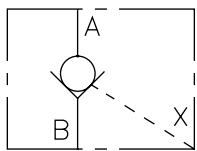
Pilot Piston Service Part Numbers:

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

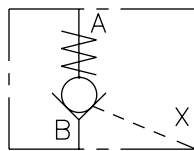
Back-ups (2): Buna 6011014; Fluorocarbon 6011014

SYMBOLS

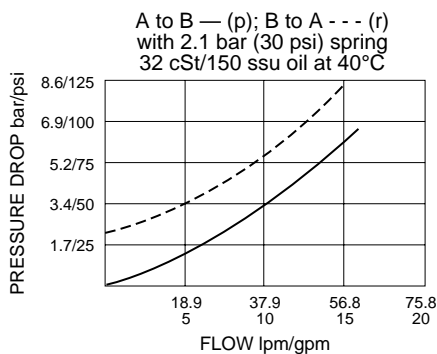
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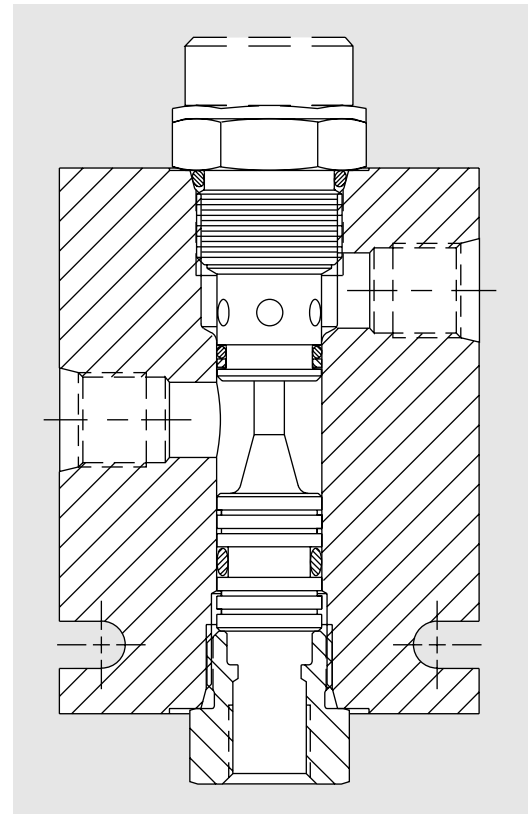
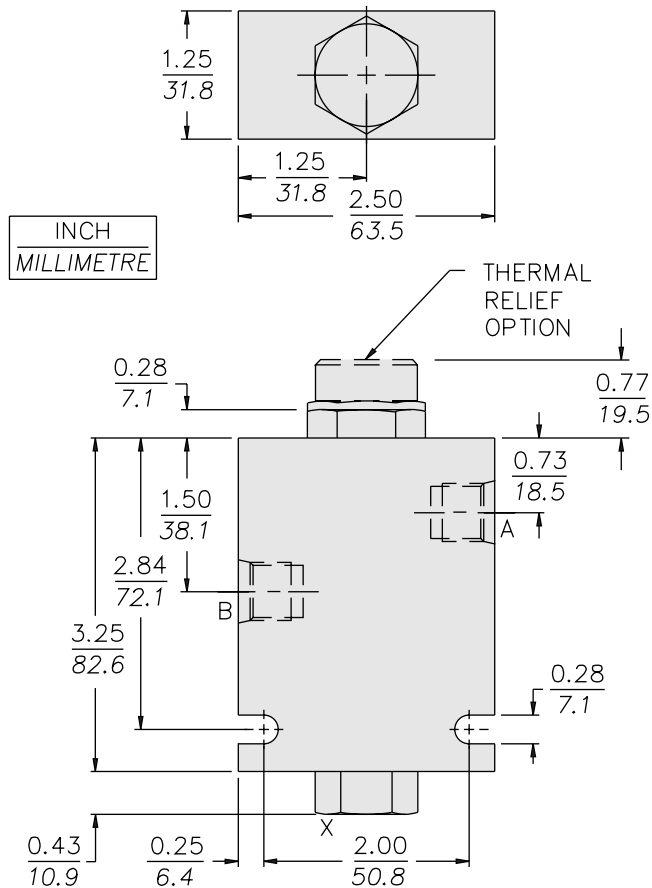
ISO:



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 poly-ester elastomer back-ups standard.

Pilot Piston: Hardened steel.

Standard Ported Body: Anodized high-strength 6061 T6 aluminum alloy, rated to 207 bar (3000 psi). Ductile iron 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)

* PCV10 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 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