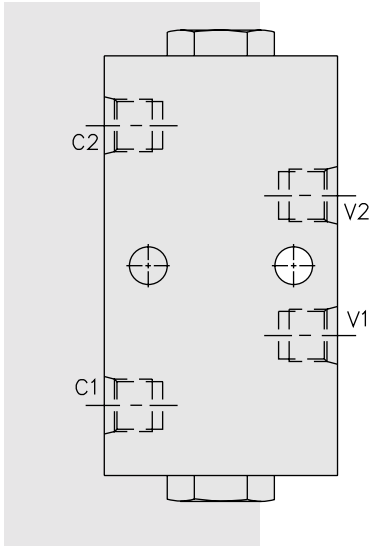


DIRECTIONAL VALVES

DCV10 Lock Valve



DESCRIPTION

An in-line-housed, double-pilot-operated, hydraulic check valve with optional thermal reliefs for use in blocking or load holding circuits.

OPERATION

The **DCV10** allows flow from V ports to C ports, while normally blocking flow in the opposite direction. Flow will be allowed from C to V when pressure is applied to the opposite side V port.

The valve has a 4:1 pilot ratio, so at least one-fourth of the load pressure held at either C port is required at the opposite V port to open the flow passage.

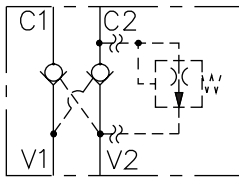
The check is spring-biased at 2 bar (30 psi) to assure holding in static or no-load conditions. An optional sealed piston with check spring bias of 6.9 bar (100 psi) is available. Optional thermal reliefs are preset to 214.5 bar (4700 psi) as standard.

FEATURES

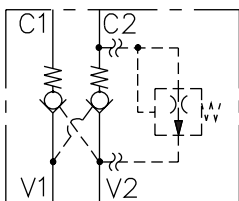
- Hardened seat for long life and low leakage.
- Check section serviceable as a cartridge.
- Optional cartridge thermal relief(s).
- Optional sealed piston.
- Optional spring ranges.
- Low pressure drop.

SYMBOLS

USASI:



ISO:



RATINGS

Flow: See Performance Chart

Optional Thermal Relief Factory Setting: 348 ±38 bar (5050 ±550 psi)

Thermal Relief Reset: 276 bar (4000 psi)

Internal Leakage Cx to Vx: 0.25 cc/minute (5 drops/minute) max. at 207 bar (3000 psi);

V1 to V2 (without sealed piston): 328 cc/minute (20 cu. in./minute) max. at 240 bar (3500 psi)

Pilot Ratio: 4:1

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

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

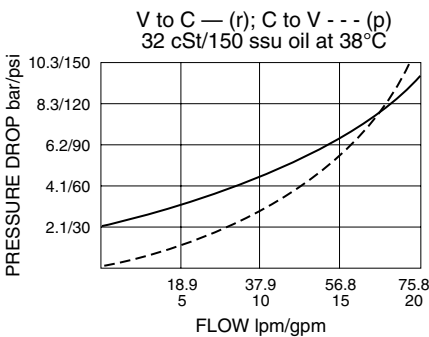
Seal Kit: See CV10-2X, page 4.011.1

Pilot Piston Service Part Numbers:

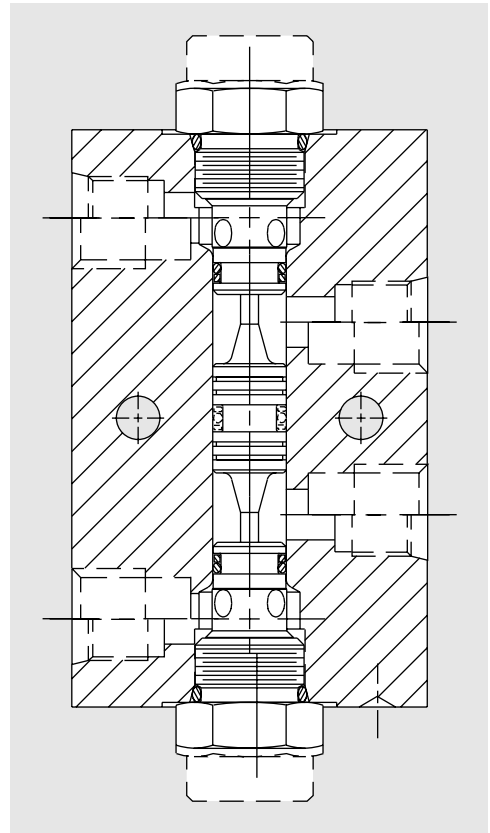
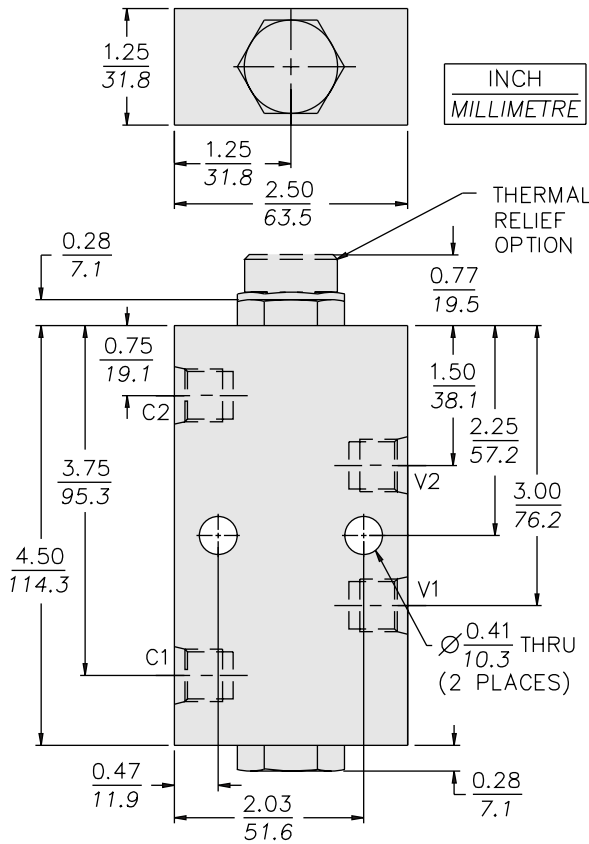
O-Ring (1) – Buna 6001014, Fluorocarbon 6003014

Back-up (2) – Buna 6011014, Fluorocarbon 6011014

PERFORMANCE (Cartridge Only)



DIMENSIONS



MATERIALS

Cartridge: (CV10-20): 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). See page 8.010.1. Ductile iron and steel bodies available; dimensions may differ; consult factory.

Product Weight: 0.58 kg. (1.28 lbs.)

TO ORDER

DCV10-

Porting

- SAE 6 **6T**
- SAE 8 **8T**

Seals

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

Bias Spring

- (Blank) 2.1 bar (30 psi) (Std.)*
- 40** 2.8 bar (40 psi)
- 70** 4.8 bar (70 psi)
- 100** 6.9 bar (100 psi)
- 200** 13.6 bar (200 psi)
- 300** 20.4 bar (300 psi)

Note: Both check valves must have same spring value.

* DCV10 valves built with standard 30 psi spring are not stamped with spring rating. Other spring ratings are stamped on valve.

Options

- None (Blank)
- Thermal Relief on C1 **1**
- Thermal Relief on C2 **2**
- Thermal Relief on C1 and C2 **3**