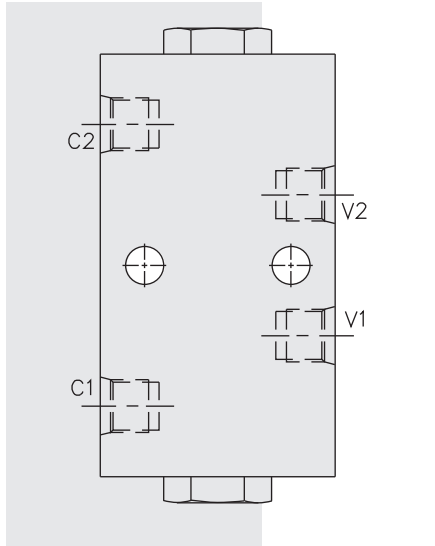


DCV10 Lock Valve



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.

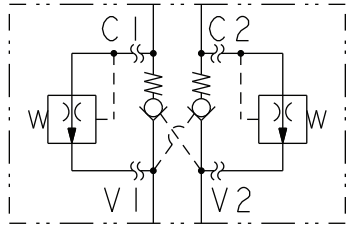
The check is spring-biased at 2 bar (30 psi) to assure holding in static or no-load conditions. An optional sealed piston with check spring bias of 6.9 bar (100 psi) is available. Optional thermal reliefs are preset to 348 bar (5050 psi) as standard.

NOTE: Thermal reliefs cannot be used with sealed pistons.

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.

ISO SYMBOL



RATINGS

Flow: up to 76 lpm (20 gpm)

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

Thermal Relief Reset: 207 bar (3000 psi)

Internal Leakage:

Cx to Vx: 0.25 cc/minute (5 drops/minute) maximum at 207 bar (3000 psi);

V1 to V2: (without sealed piston): 328 cc/minute (20 cu. in./minute) maximum 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 sus); See Temperature and Oil Viscosity, page 9.060.1

Installation: No restrictions; See page 9.020.1

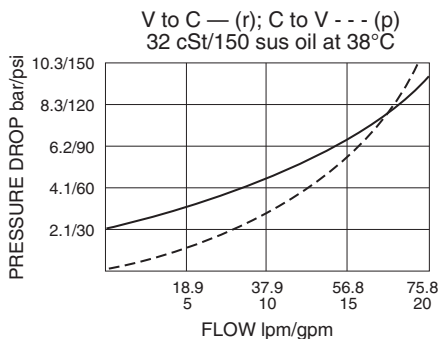
Seal Kit (for CV10-2x): SK10-2x-T (2 required); See page 8.650.1

Pilot Piston Service Part Numbers:

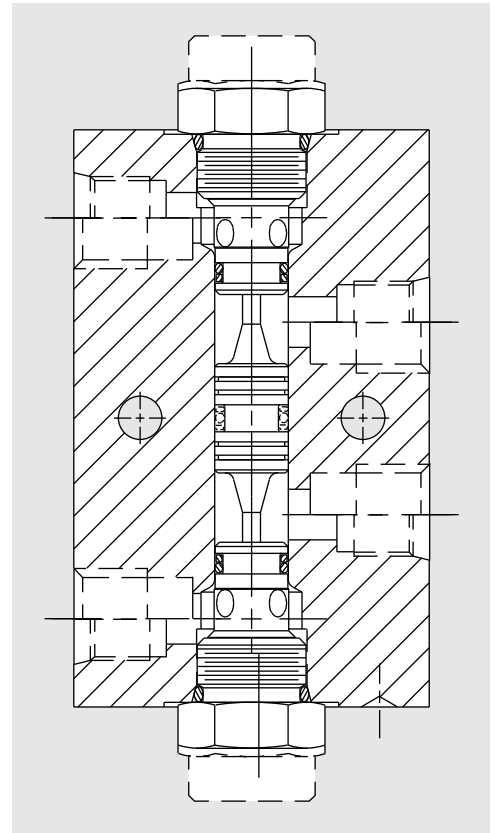
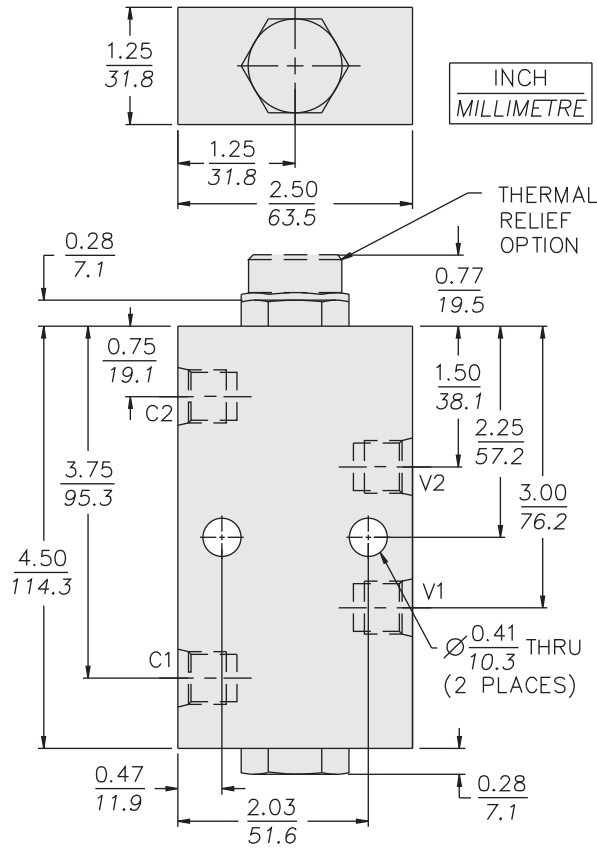
O-Ring (1) – Buna 6001014, Fluorocarbon 6003014

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 207 bar (3000 psi). Ductile iron bodies available; dimensions may differ.
See page 8.010.1

Product Weight: 0.68 kg. (1.5 lbs.)

TO ORDER

DCV10-

Porting
SAE 6 **6T**
SAE 8 **8T**

Seals

Buna N (Std.) **N**
(6.1 bar/30 psi spring minimum required)
Fluorocarbon **V**
(6.1 bar/30 psi spring minimum required)
Buna N w/Sealed Piston **NS**
(6.9 bar/100 psi spring minimum required)
Fluorocarbon w/Sealed Piston **VS**
(6.9 bar/100 psi spring minimum required)

Note: Thermal reliefs are not to be used with sealed pistons (NS and VS).

Bias Spring

(Blank) 2.1 bar (30 psi) (Standard)*
(Blank) Thermal Relief (65 psi only)
(Blank) 6.9 bar (100 psi)
(Std. NS and VS seals)
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.

Options

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

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