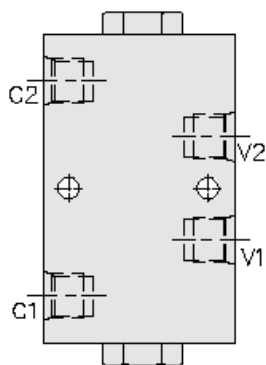
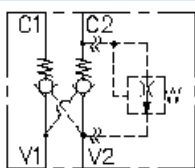




Overview



Symbol



Description

The DCV10 is a double pilot operated, hydraulic check valve for use in blocking or load holding circuits

Operation

The valve allows flow from "v" ports to "c" ports, while normally blocking flow in the opposite direction. Flow will be followed from "c" to "v" when pressure is applied to the opposite side "v" port. The valve has 4:1 pilot ratio, so at least 25% of the load pressure held at either "c" port is required at the opposite "v" port to open the flow passage. Optional thermal relief valves are available which CAN be on port "c1" or "c2" or on both ports "c1" and "c2"

Features

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

Ratings

Pressure Ratings

| | | |
|-------------------------------|---------------------------------|--|
| Pressure rating | 241 bar (3500 psi) | |
| Pilot ratio | 4:1 | |
| Check valve spring value | 2.1 bar (30 psi) | - Note: Standard for seal codes "n" and "v" |
| | 6.9 bar (100 psi) | - Note: Standard for seal codes "ns" and "vs" (sealed options) |
| Optional thermal relief | 348 to 38 bar (5050 to 550 psi) | |
| Thermal relief crack pressure | 207 bar (3000 psi) | - Note: Minimum |

Temperature Ratings

| | |
|-----------------------------|-------------------------------|
| Operating fluid temperature | -40 to 120 °C (-40 to 248 °F) |
|-----------------------------|-------------------------------|

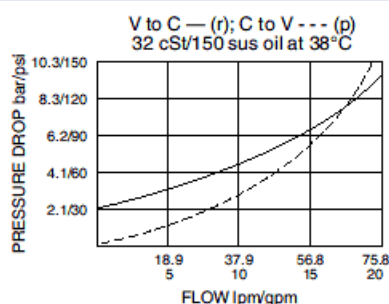
Flow Ratings

| | | |
|--------------------------|--------------------------------------|--|
| Maximum internal leakage | 0.25 ml/min (5 drops/min) | - Note: C to V at 241 bar (3500 psi) |
| | 328 ml/min (20 in ³ /min) | - Note: V1 to v2 without sealed piston at 241 bar (3500 psi) |
| Flow performance | See graph | |

Properties

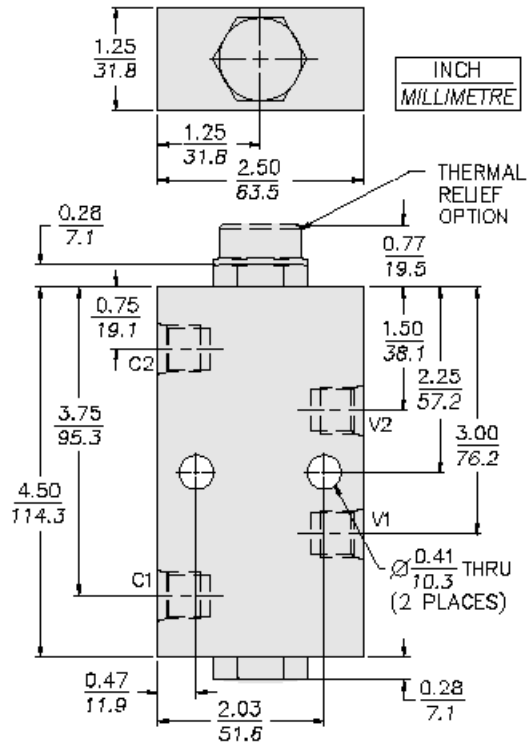
| | |
|-------------|--|
| Materials | Body - anodized high strength aluminum alloy. Cartridges - steel with hardened work surfaces and zinc plated exposed surfaces. Pilot piston - hardened steel |
| Unit weight | 0.68 kg (1.50 lb) |

Performance





Dimensions



Materials

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.

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: 0.68 kg (1.28 lbs).

Accessories

| | | |
|----------|-----------|----------------------|
| Seal kit | SK10-2N-T | - Note: Buna |
| | SK10-2V-T | - Note: Viton |
| Housings | | |

Order Code

| | | |
|---|------------------------------|--|
| 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). | | |
| Options | | |
| None (Blank) | | |
| Thermal Relief on C1 | 1 | |
| Thermal Relief on C2 | 2 | |
| Thermal Relief on C1 and C2 | 3 | |
| Bias Spring | | |
| (Blank) | 2.1 bar (30 psi) (Standard)* | |
| (Blank) | Thermal Relief (65 psi only) | |
| (Blank) | 6.9 bar (100 psi) | |
| (Blank) | (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. | | |
| * DCV10 valves built with standard 30 psi spring are not stamped with spring rating. Other spring ratings are stamped on valve. | | |