DESCRIPTION
A screw-in, cartridge-style, hydraulic check valve for use as a blocking or load-holding device.

OPERATION
The CV10-20 allows flow passage from 1 to 2, while normally blocking oil flow in the opposite direction.
The cartridge has a fully guided check which is spring-biased closed until sufficient pressure is applied at 1 to open to 2.

FEATURES
- Hardened seat for long life and low leakage.
- Optional bias springs for back-pressure application flexibility.
- 300 psi bias spring option with tall cap available.
- Fully guided check assembly.
- Industry common cavity.

RATINGS
Operating Pressure: 240 bar (3500 psi)
Proof Pressure: 350 bar (5075 psi)
Flow Rating: 75.8 lpm (20 gpm)
Internal Leakage: 0.10 ml/minute (2 drops/minute) max. at 240 bar (3500 psi)
Temperature: -40 to 100°C (-40 to 212°F) with Buna N seals;
-26 to 204°C (-15 to 400°F) with fluorocarbon seals;
-54 to 107°C (-56 to 225°F) with polyurethane or urethane 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
Cavity: VC10-2; See page 9.110.1
Cavity Tool: CT10-2XX; See page 8.600.1
Seal Kit: SK10-2X-T; See page 8.650.1

PERFORMANCE (Cartridge Only)

Pressure Drop vs. Flow - Port 1 to 2
with 2.1 bar/30 psi spring —;
with 0.34 bar/5 psi spring - - -;
32 cSt/150 sus oil at 40°C (104°F)

Pressure Drop vs. Flow
- - - 40 psi — 15 psi — 2 psi
32 cSt/150 sus oil at 40°C (104°F)

Pressure Drop vs. Flow
- - - 200 psi — 100 psi — 70 psi
32 cSt/150 sus oil at 40°C (104°F)
**DIMENSIONS**

**MATERIALS**

**Cartridge:** Weight: 0.08 kg. (0.18 lbs.)
T option weight: 0.12 kg. (0.26 lb.)
Steel with hardened work surfaces.
Zinc-plated exposed surfaces.
Buna N O-rings and polyester elastomer back-ups standard.

**Standard Ported Body:** Weight: 0.16 kg. (0.35 lbs.)
Anodized high-strength aluminum alloy, rated to 207 bar (3000 psi).
Ductile iron bodies available; dimensions may differ. See page 8.010.1

**TO ORDER**

<table>
<thead>
<tr>
<th>CV10-20</th>
<th>Adaptor Option</th>
<th>Porting</th>
<th>Bias Spring</th>
<th>Seals</th>
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<tbody>
<tr>
<td></td>
<td>T</td>
<td>0</td>
<td>02 0.14 bar (2 psi)</td>
<td>N Buna N (Std.)</td>
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<td>SAE 6  6T</td>
<td>05 0.34 bar (5 psi)</td>
<td>V Fluorocarbon</td>
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<td>SAE 8  8T</td>
<td>15 1 bar (15 psi)</td>
<td>HV Fluorocarbon</td>
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<td></td>
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<td>1/4 in. BSP* 2B</td>
<td>30 2.1 bar (30 psi)</td>
<td>P Polyurethane</td>
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<td>3/8 in. BSP* 3B</td>
<td>40 2.8 bar (40 psi)</td>
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<td>1/2 in. BSP* 4B</td>
<td>70 4.8 bar (70 psi)</td>
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<td>100 6.9 bar (100 psi)</td>
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<td>200 13.6 bar (200 psi)</td>
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<td>300* 20.4 bar (300 psi)</td>
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*Requires "T" Option

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Seals

N Buna N (Std.)
V Fluorocarbon
HV Fluorocarbon
P Polyurethane