**CV08-20 Check Valve**

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

**OPERATION**
The CV08-20 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.
- Fully guided check assembly.
- Compact size.
- Fast closing and seating.

**RATINGS**

- **Operating Pressure:** 240 bar (3500 psi)
- **Flow Rating:** See Performance Chart
- **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:** VC08-2; See page 9.108.1
- **Cavity Tool:** CT08-2XX; See page 8.600.1
- **Seal Kit:** SK08-2X-X; See page 8.650.1

**PERFORMANCE (Cartridge Only)**

Pressure Drop vs. Flow - Port 1 to 2
(Cartridge only with 0.7 bar/10 psi spring)
32 cSt/150 sus oil at 40°C (104°F)

<table>
<thead>
<tr>
<th>FLOW lpm/gpm</th>
<th>7.8</th>
<th>15.1</th>
<th>22.7</th>
<th>30.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRESSURE DROP bar/ps</td>
<td>6.9</td>
<td>5.8</td>
<td>4.7</td>
<td>3.0</td>
</tr>
<tr>
<td>2.8</td>
<td>1.8</td>
<td>1.4</td>
<td>1.0</td>
<td></td>
</tr>
</tbody>
</table>

**ISO SYMBOL**

[Diagram of ISO Symbol]

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4.010.1
**DIMENSIONS**

ALUMINUM BODY SHOWN

**MATERIALS**

Cartridge: Weight: 0.05 kg. (0.12 lbs.)
Steel with hardened work surfaces.
Zinc-plated exposed surfaces.
Buna N O-rings and back-up 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 8.008.1

**TO ORDER**

CV08-20 - - -

Porting
Cartridge Only 0
SAE 4 4T
SAE 6 6T
1/4 in. BSP* 2B
3/8 in. BSP* 3B
1/2 in. BSP* 4B
*BSP Body;
U.K. Mfr. Only

Bias Spring
04 0.3 bar (4 psi)
10 0.7 bar (10 psi)
25 1.7 bar (25 psi)
40 2.8 bar (40 psi)
60 4.1 bar (60 psi)
100 6.9 bar (100 psi)
150 10.3 bar (150 psi)
200 13.8 bar (200 psi)
270 18.3 bar (270 psi)
M25 25.0 bar (363 psi)

Seals
N Buna N (Std.)
V Fluorocarbon
HV Fluorocarbon
P Polyurethane
U Urethane