Check Valve, Ball Type

SC1F-C2

1-1/16-12 UN • \( Q_{\text{max}} \) 150 l/min (40 GPM) • \( p_{\text{max}} \) 350 bar (5100 PSI)

Technical Features

› Hardened precision parts
› Sharp-edged steel seats for dirt-tolerant performance
› Leak-free closing, suitable for fast cycling with long life
› High flow capacity
› Optional bias spring ranges for back-pressure control
› In the standard version, the valve is zinc-coated for 520 h protection acc. to ISO 9227

Functional Description

A hydraulic check valve in the form of a screw-in cartridge for use as a blocking or load-holding device. The cartridge has a ball check which is closed by spring until sufficient pressure is applied at port 1 to open flow to port 2.

Technical Data

<table>
<thead>
<tr>
<th>Valve size / Cartridge cavity</th>
<th>1-1/16-12 UN / C2 (C-12-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. flow ( Q ) [l/min (GPM)]</td>
<td>150 (39.6)</td>
</tr>
<tr>
<td>Max. operating pressure ( p ) [bar (PSI)]</td>
<td>350 (5080)</td>
</tr>
<tr>
<td>Cracking pressure ( p ) [bar (PSI)]</td>
<td>1 (14.5)</td>
</tr>
<tr>
<td>Fluid temperature range (NBR) ( T ) [°C (°F)]</td>
<td>-30 ... +100 (-22 ... +212)</td>
</tr>
<tr>
<td>Fluid temperature range (FPM) ( T ) [°C (°F)]</td>
<td>-20 ... +120 (-4 ... +248)</td>
</tr>
<tr>
<td>Weight ( m ) [kg (lbs)]</td>
<td>0.182 (0.40)</td>
</tr>
</tbody>
</table>

Datasheet

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<thead>
<tr>
<th>Type</th>
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<tbody>
<tr>
<td>General information</td>
</tr>
<tr>
<td>Valve bodies</td>
</tr>
<tr>
<td>Cavity details / Form tools</td>
</tr>
<tr>
<td>Spare parts</td>
</tr>
</tbody>
</table>

Characteristics measured at \( v = 32 \text{ mm}^2/\text{s} \) (156 SUS)

Pressure drop related to flow rate

![Graph of pressure drop related to flow rate]
**Dimensions** in millimeters (inches)

![Diagram with dimensions](image)

**Ordering Code**

- **Check valve, ball type**
- **Valve cavity**
  - 1-1/16-12 UN (C-12-2)
- **Model**
  - High performance
- **Surface treatment**
  - zinc-coated (ZnNi), ISO 9227 (520 h)
- **Seals**
  - NBR
  - FPM (Viton)
- **No designation**
  - V
- **Cracking pressure**
  - without spring
  - 000: 1.0 bar (14.6 PSI)
  - 010: 1.0 bar (14.6 PSI)
  - 050: 5.0 bar (72.5 PSI)