Check Valve, Ball-type

SC1F-B2

7/8-14 UNF • Q\textsubscript{max} 120 l/min (32 GPM) • p\textsubscript{max} 420 bar (6090 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 240 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.

**Symbol**

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
</tr>
</thead>
</table>

**Technical Data**

<table>
<thead>
<tr>
<th>Valve size / Cartridge cavity</th>
<th>7/8-14 UNF-2A / B2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. flow [l/min (GPM)]</td>
<td>120 (31.7)</td>
</tr>
<tr>
<td>Max. operating pressure [bar (PSI)]</td>
<td>420 (6090)</td>
</tr>
<tr>
<td>Cracking pressure [bar (PSI)]</td>
<td>0.5 (7.3) 1.5 (21.8) 3.5 (50.8) 5.0 (72.5) 7.0 (101.5)</td>
</tr>
<tr>
<td>Fluid temperature range (NBR) [°C (°F)]</td>
<td>-30 .... +100 (-22 ... +212)</td>
</tr>
<tr>
<td>Fluid temperature range (FPM) [°C (°F)]</td>
<td>-20 .... +120 (-4 ... +248)</td>
</tr>
<tr>
<td>Mass [kg (Ibs)]</td>
<td>0.12 (0.27)</td>
</tr>
</tbody>
</table>

**Datasheet**

<table>
<thead>
<tr>
<th>General information</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>GI_0060</td>
<td>Products and operating conditions</td>
</tr>
<tr>
<td>Valve bodies</td>
<td>SB_0018 SB-B2*</td>
</tr>
<tr>
<td>In-line mounted</td>
<td>SB-04(06)_0028 SB-<em>B2</em></td>
</tr>
<tr>
<td>Sandwich mounted</td>
<td>SMT_0019 SMT-B2*</td>
</tr>
<tr>
<td>Cavity details / Form tools</td>
<td>SP_0010</td>
</tr>
<tr>
<td>Spare parts</td>
<td>SP_8010</td>
</tr>
</tbody>
</table>

**Characteristics** measured at \( v = 32 \) mm\(^3\)/s (156 SUS)

Pressure drop related to flow rate

![Graph of pressure drop related to flow rate](image-url)
Dimensions

in millimeters (inches)

Ordering Code

SC1F-B2

Check Valve, ball-type
7/8-14 UNF

High performance

A

Surface treatment

zinc-coated (ZnCr-3), ISO 9227 (240 h)

B

zinc-coated (ZnNi), ISO 9227 (520 h)

Seals

NBR

FPM (Viton)

Cracking pressure

without spring

0.2 bar (2.92 PSI)

0.5 bar (7.3 PSI)

1.0 bar (14.6 PSI)

1.5 bar (21.8 PSI)

2.0 bar (29.2 PSI)

3.5 bar (50.8 PSI)

5.0 bar (73 PSI)

7.0 bar (101.5 PSI)

Subject to change · SC1F-B2_5017_1en_02/2016

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