2/2 Directional Valve, Solenoid Operated, Spool Type, Direct Acting

SD2E-B2

7/8-14 UNF • Q max. 60 l/min (16 GPM) • p max. 350 bar (5100 PSI)

Lightline

Technical Features

› Hardened precision parts
› High flow capacity
› High transmitted hydraulic power
› Wide range of manual overrides available
› All ports may be fully pressurized
› Variety of optional spools available
› Coil interchangeability among SD*-B* product line
› In the standard version, the valve is zinc-coated (240 h corrosion protection in NSS acc. to ISO 9227)

Functional Description

2-way, 2-position high pressure directional spool valve in form of a screw-in cartridge. The valve is used mainly to direct flow to actuators.

Model Code 2111 2112
Symbol

High performance

Technical Data

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Lightline</th>
<th>High performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valve size / Cartridge cavity</td>
<td>7/8-14 UNF-2A / B2 (C-10-2)</td>
<td></td>
</tr>
<tr>
<td>Max. flow l/min (GPM)</td>
<td>50 (13.2)</td>
<td>60 (15.9)</td>
</tr>
<tr>
<td>Max. operating pressure bar (PSI)</td>
<td>250 (3630)</td>
<td>350 (5080)</td>
</tr>
<tr>
<td>Fluid temperature range (NBR) °C (°F)</td>
<td>-30...60 (-22...140)</td>
<td>-30...80 (-22...176)</td>
</tr>
<tr>
<td>Fluid temperature range (FPM) °C (°F)</td>
<td>-20...60 (-4...140)</td>
<td>-20...80 (-4...176)</td>
</tr>
<tr>
<td>Ambient temperature range °C (°F)</td>
<td>-30...50 (-22...122)</td>
<td>-30...80 (-22...176)</td>
</tr>
<tr>
<td>Supply voltage tolerance %</td>
<td>AC, DC: ± 10</td>
<td>AC, DC: ± 15</td>
</tr>
<tr>
<td>Max. switching frequency 1/h</td>
<td>15 000</td>
<td></td>
</tr>
<tr>
<td>Weight without coil kg (lbs)</td>
<td>0.22 (0.49)</td>
<td>0.29 (0.64)</td>
</tr>
</tbody>
</table>

Datasheet Type

General information GI_0060 Products and operating conditions C_8007 C198* C22B*
Coil types Valve bodies In-line mounted SB_0018 SB-B2*
Sandwich mounted SB-04(06)_0028 SB-*B2*
Cavity details / Form tools SMT_0019 SMT-B2*
Spare parts SP_8010

Characteristics measured at v = 32 mm/s (156 SUS)

Operating limits - Lightline

Oil 60 °C (140 °F) / Ambient temperature 50 °C (122 °F) / Voltage U n -10% (21.6 V DC)

Operating limits - High performance

Oil 80 °C (176 °F) / Ambient temperature 50 °C (122 °F) / Voltage U n -10% (21.6 V DC)

Pressure drop related to flow rate

- Lightline, High performance

Model Connection

For operating limits under conditions and flow directions other than shown contact our technical support.

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Subject to change · SD2E-B2_4060_3en_06/2019
In case of solenoid malfunction or power failure, the spool of the valve can be shifted by manual override as long as the pressure in port T does not exceed 25 bar (363 PSI). For alternative manual overrides contact our technical support.

**Ordering Code**

2/2 directional valve, solenoid operated, spool type, direct acting

Valve cavity
7/8-14 UNF (C-10-2)

Model
Lightline
High performance

Functional symbol

No designation  Designation M2  Designation M5  Designation M9

<table>
<thead>
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<th>Designation M2</th>
<th>Designation M5</th>
<th>Designation M9</th>
</tr>
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<tbody>
<tr>
<td>standard</td>
<td>rubber boot protected</td>
<td>socket head screw, size 2.5</td>
<td>without manual override</td>
</tr>
</tbody>
</table>

Surface treatment
A zinc-coated (ZnCr-3), ISO 9227 (240 h)
B zinc-coated (ZnNi), ISO 9227 (520 h)

Seals
NBR
FPM (Viton)

Manual override
standard
rubber boot protected
socket head screw
without manual override