SRS Valve
Manifold mountable plastic switching solenoid valve

FEATURES

· 3-way, 2 position valve (NO, NC & Distributor)
· Design incorporates thermoplastics and non-corrosive metals
· Offers high-density manifold mounting with convenient manifold to PC board interface
· Weighs only 7 g, perfect where low weight is critical to overall system

MEDIA COMPATIBILITY

Gases and select liquids

WETTED MATERIALS

Body: PBT; LNP Thermocomp®
Elastomers: FKM
Non-corrosive metals: 302 series stainless steel; 430 FR series stainless steel; CMI-B core iron; electroless nickel plating

ELECTRICAL

Power: 0.5, 1.0 or 2.0 W
Voltage: 5, 12, 24 V<sub>DC</sub> ± 10%

PHYSICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating environment</td>
<td>0 to 70 °C</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-40 to 70 °C</td>
</tr>
<tr>
<td>Length</td>
<td>38 mm (1.5 in)</td>
</tr>
<tr>
<td>Width</td>
<td>10 mm (0.394 in)</td>
</tr>
<tr>
<td>Height</td>
<td>15.5 mm (0.61 in)</td>
</tr>
<tr>
<td>Porting</td>
<td>Manifold mount, (gasket and screws supplied)</td>
</tr>
<tr>
<td>Weight</td>
<td>7 g (0.23 oz)</td>
</tr>
<tr>
<td>Internal volume</td>
<td>0.0267 cm&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td>Filtration (recommended)</td>
<td>40 µm</td>
</tr>
<tr>
<td>Lubrication</td>
<td>None required</td>
</tr>
</tbody>
</table>

Thermocomp® is a registered trademark of General Electric Company.
PERFORMANCE CHARACTERISTICS

<table>
<thead>
<tr>
<th>Part no.</th>
<th>Pressure</th>
<th>Vacuum</th>
<th>Orifice sizes/ Equivalent C\textsubscript{V}\textsuperscript{1}</th>
<th>Leak rate\textsuperscript{2}</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRS10...</td>
<td>0...35 psig</td>
<td>0...27 \textdegree Hg (0...13 psi)</td>
<td>0.020&quot; (0.510 mm)/ 0.0075 C\textsubscript{V}</td>
<td>≤0.016 sccm (bubble tight)</td>
<td>&lt;30 msec cycling (2 Watts)</td>
</tr>
<tr>
<td>SRS11...</td>
<td>0...85 psig</td>
<td></td>
<td>0.030&quot; (0.762 mm)/ 0.017 C\textsubscript{V}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRS13...</td>
<td>0...20 psig</td>
<td></td>
<td>0.045&quot; (1.143 mm)/ 0.027 C\textsubscript{V}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRS14...</td>
<td>0...50 psig</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRS16...</td>
<td>0...10 psig</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SRS17...</td>
<td>0...20 psig</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FLOW CURVES (typical air flow)\textsuperscript{3}

Notes:
1 The C\textsubscript{V} value is the volume flow in US gallons/min under specific flow conditions and describes the relative flow capacity of a valve. If several valves with the same nominal diameter are compared, the valve with the highest C\textsubscript{V} value has the best flow dynamics design. The equivalent european measure is the k\textsubscript{V} value expressed in m\textsuperscript{3}/h (k\textsubscript{V} = 0.86 C\textsubscript{V}).
2 sccm denotes Standard Cubic Centimeters per Minute. It is a unit for the flow rate at standard conditions of temperature and pressure. 1000 sccm = 1 slpm.
3 slpm denotes Standard Liters per Minute. It is a unit for the flow rate at standard conditions of temperature and pressure. 1 slpm = 1000 sccm.
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OUTLINE DRAWING

Dimensions in inches (mm)

E / 11261 / A

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VALVE TYPE

Type 1

N.C. PRESSURE

REQUIREMENT
(2)

SUPPLY
(1)

EXHAUST
(3)

N.O. VACUUM

REQUIREMENT
(2)

EXHAUST
(1)

SUPPLY
(3)

Type 2

N.O. PRESSURE

REQUIREMENT
(2)

EXHAUST
(1)

SUPPLY
(3)

N.C. VACUUM

REQUIREMENT
(2)

SUPPLY
(1)

EXHAUST
(3)

Type 3

DISTRIBUTOR PRESSURE

REQUIREMENT
(2)

REQUIREMENT 1

DISTRIBUTOR VACUUM

REQUIREMENT
(2)

SUPPLY 2

SUPPLY 1
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**ELECTRICAL INTERFACE OPTIONS**

- **SRS...F** (Square pins, front)
- **SRS...M** (Square pins, manifold)
- **SRS...L** (Wire leads)

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>Options</th>
<th>Series</th>
<th>Model no.</th>
<th>Max. pressure</th>
<th>Orifice size</th>
<th>Coil wattage</th>
<th>Type</th>
<th>Material</th>
<th>Seal material</th>
<th>Voltage</th>
<th>Electrical connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>SRS</td>
<td></td>
<td>0...35 psi</td>
<td>0.020&quot; (0.510 mm)</td>
<td>0.5 W</td>
<td>1: 3-way NC</td>
<td>P: PBT</td>
<td>V: FKM</td>
<td>5: 5 V&lt;sub&gt;DC&lt;/sub&gt;</td>
<td>F: 0.025&quot; square pins, front</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td>0...85 psi</td>
<td>0.020&quot; (0.510 mm)</td>
<td>1 W</td>
<td>2: 3-way NO</td>
<td></td>
<td></td>
<td>12: 12 V&lt;sub&gt;DC&lt;/sub&gt;</td>
<td>L: insulated wire leads, 18&quot;</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td>0...20 psi</td>
<td>0.030&quot; (0.762 mm)</td>
<td>0.5 W</td>
<td>3: distributor</td>
<td></td>
<td></td>
<td>24: 24 V&lt;sub&gt;DC&lt;/sub&gt;</td>
<td>M: 0.025&quot; square pins, manifold interface</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td>0...50 psi</td>
<td>0.030&quot; (0.762 mm)</td>
<td>1 W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td>0...10 psi</td>
<td>0.045&quot; (1.143 mm)</td>
<td>0.5 W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td>0...20 psi</td>
<td>0.045&quot; (1.143 mm)</td>
<td>1 W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Example: SRS 10 2 P V 12 M

**Note:** Not all combinations might be available. Please contact First Sensor for further information.