DE-S2B  PILOT OPERATED POPPET, 2 WAY NORMALLY CLOSED

DESCRIPTION
10 size, 7/8-14 thread, “Delta” series, solenoid operated, 2 way normally closed, pilot operated poppet valve with reverse flow energized and de-energized.

OPERATION
When de-energized the DE-S2B acts as a check valve, allowing flow to pass from (2) to (1), while blocking flow from (1) to (2). When energized the valve opens allowing flow to pass from (1) to (2).

OPERATION OF MANUAL OVERRIDE OPTION: too override, pull knob out. On the detented version, after pulling knob out twist 180 degrees and release. The valve will remain in that position.

FEATURES
• Hardened parts for long life.
• Efficient wet-armature construction.
• Cartridges are voltage interchangeable.
• Manual override option.
• Industry common cavity.
• Unitized, molded coil design.
• Continuous duty rated solenoid.
• Optional coil voltages and terminations.

HYDRAULIC SYMBOL

PERFORMANCE
Actual Test Data (Cartridge Only)

<table>
<thead>
<tr>
<th>Flow (GPM)</th>
<th>Pressure Drop (PSI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>30</td>
<td>35</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Flow (LPM)</th>
<th>Pressure Drop (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

| Port 1 to 2 (eng) | Port 2 to 1 (eng) | Port 2 to 1 (de-eng) |

VALVE SPECIFICATIONS

<table>
<thead>
<tr>
<th>Spec</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Flow</td>
<td>15 GPM (57 LPM)</td>
</tr>
<tr>
<td>Rated Operating Pressure</td>
<td>3500 PSI (241 bar)</td>
</tr>
<tr>
<td>Typical Internal Leakage</td>
<td>0-5 drops/min</td>
</tr>
<tr>
<td>Viscosity Range</td>
<td>36 to 3000 SSU (3 to 647 cSt)</td>
</tr>
<tr>
<td>Filtration</td>
<td>ISO 18/16/13</td>
</tr>
<tr>
<td>Media Operating Temp. Range</td>
<td>-40° to 250°F (-40° to 120°C)</td>
</tr>
<tr>
<td>Weight</td>
<td>.27 lbs (.12 kg)</td>
</tr>
<tr>
<td>Operating Fluid Media</td>
<td>General Purpose Hydraulic Fluid</td>
</tr>
<tr>
<td>Cartridge Torque Requirements</td>
<td>30 ft-lbs (40.6 Nm)</td>
</tr>
<tr>
<td>Coil Nut Torque Requirements</td>
<td>4-6 ft-lbs (5.4-8.1 Nm)</td>
</tr>
<tr>
<td>Cavity</td>
<td>DELTA 2W</td>
</tr>
<tr>
<td>Cavity Tools Kit</td>
<td>(form tool, reamer, tap)</td>
</tr>
<tr>
<td>Seal Kit</td>
<td>40500000</td>
</tr>
<tr>
<td></td>
<td>21191200</td>
</tr>
</tbody>
</table>
### DIMENSIONS

**SOLENOID OPERATED DIRECTIONAL CONTROLS**

**VOLTAGE**
- 7/8-14 UNF 2 A

**MANUAL OVERRIDE**
- STANDARD
- 7/16-20 UNF 2 A THREAD

**DE-S2B**

#### OPTIONS
- Buna Standard: 00
- Viton Standard: V0
- Buna, Override, Detent: 0M
- Viton, Override, Detent: VM
- Buna, Screen: A0
- Viton, Screen: W0
- Buna, Override, Non-Detent: B1
- Viton, Override, Non-Detent: V1
- Buna, Screen, Override, Non-Detent: B3
- Viton, Screen, Override, Non-Detent: V3
- Buna, Screen, Override, Detent: B4
- Viton, Screen, Override, Detent: V4

#### BODIES
- Blank: Without Body
- N: 3/8 NPTF Ports
- S: #8 SAE Ports

#### VOLTAGE
- 06: 6 VDC
- 12: 12 VDC
- 24: 24 VDC
- 36: 36 VDC
- 48: 48 VDC
- 25: 24 VAC
- 11: 120 VAC
- 22: 220 VAC
- 44: 440 VAC

#### IMMERSION PROOF “D” TYPE
- F: Coil AMP Superseal - Integral
- F: Coil Deutsch - Integral DT04-2P
- F: Coil AMP Jr. Timer - Integral
- F: Coil Metri-Pack - Integral

#### “D” COIL TERMINATION
- (All DC Except as Noted)
  - DL: Double Lead
  - DT: Deutsch on Leads DT04-2P
  - ML: Metri-Pack on Leads
  - PL: Packard on Leads
  - WL: Weatherpack on Leads
  - SS: Single Spade
  - DS: Double Spade
  - HC: DIN 43650 (Hirschmann) - (AC&DC)
  - CL: Conduit Lead - (AC Only)
  - DI: Deutsch - Integral DT04-2P

#### Note: use screen only if flow direction is from (1) to (2)

### WARNING:
The specifications/application data shown in our catalogs and data sheets are intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

**DELTA POWER CO.**
4484 Boeing Drive - Rockford, IL 61109 • USA • Phone +1 (815) 397-6628 • Fax +1 (815) 397-2526
mail: delta@delta-power.com • www.delta-power.com

**TECNORD**
Via Malavolti, 36 • 41122 Modena • ITALY • Phone +39 (059) 254895 • Fax +39 (059) 253512
mail: tecnord@tecnord.com • www.tecnord.com

**Phone:** +1 (815) 397-6628 • **Fax:** +1 (815) 397-2526
**E-mail:** delta@delta-power.com • **Website:** www.delta-power.com

**Phone:** +39 (059) 254895 • **Fax:** +39 (059) 253512
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