Versatile NeGa-Rate® Belleville disc spring pressure switch for a wide range of applications. Series 100P (diaphragm sensor) for pneumatic and low impulse hydraulics up to 3000 psig system pressure.

### Operating Pressure Data

<table>
<thead>
<tr>
<th>Adjustable Range Number</th>
<th>Adjustable Set Point Range</th>
<th>Deadband (approximate)</th>
<th>Maximum Recommended System Pressure</th>
<th>Proof Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Increasing</td>
<td>Decreasing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>5 to 75</td>
<td>2.3 to 72.3</td>
<td>2.7</td>
<td>600</td>
</tr>
<tr>
<td>2</td>
<td>15 to 150</td>
<td>9 to 144</td>
<td>6</td>
<td>3000</td>
</tr>
<tr>
<td>4</td>
<td>50 to 300</td>
<td>36 to 286</td>
<td>14</td>
<td>3000</td>
</tr>
<tr>
<td>5</td>
<td>125 to 600</td>
<td>100 to 575</td>
<td>25</td>
<td>3000</td>
</tr>
<tr>
<td>7</td>
<td>500 to 1500</td>
<td>440 to 1440</td>
<td>60</td>
<td>3000</td>
</tr>
<tr>
<td>8</td>
<td>800 to 2800</td>
<td>675 to 2675</td>
<td>125</td>
<td>3000</td>
</tr>
</tbody>
</table>

All values given in psig.

### Standard Specifications

**Electrical**
- Snap action electrical switch recognized by Underwriters’ Laboratories, Inc. and CSA International

**Electrical Connection**
- 1/2 NPT female conduit connection with terminal block

**Pressure Connection**
- Wetted Material 1
  - 1/4 NPT Female
- Wetted Material 4, 5, 7 and 9
  - 1/2 NPT Female

**Temperature Range**
- Ambient: -40°F to +180°F (-40°C to +82°C)
- Media: -40°F to +300°F (-40°C to +149°C)

**Media temperature limits change with O-Ring selection**

**Adjustment**
- Concealed wrench flat adjustment with range scale

**Shipping Weight**
- Approximately 3 pounds

**Ordering Sequence** — Select desired option for each category

**OPTIONS**
- **Wetted Material**
  - 1 Aluminum port, Teflon coated polyimide diaphragm and Buna-N O-Ring
  - 4 316 stainless steel port, Teflon coated polyimide diaphragm and Buna-N O-Ring
  - 5 316 stainless steel port and diaphragm, heliarc welded
  - 7 Hastelloy C port and diaphragm, heliarc welded (Except Range 1)
  - 9 Monel port and inconel diaphragm heliarc welded (Except Range 1)

**Adjustable Range**
- 1 2.3 psig dec. to 75 psig inc. (0.2 bar dec. to 5.2 bar inc.)
- 2 9 psig dec. to 150 psig inc. (0.6 bar dec. to 10.3 bar inc.)
- 4 36 psig dec. to 300 psig inc. (2.5 bar dec. to 20.7 bar inc.)
- 5 100 psig dec. to 600 psig inc. (6.9 bar dec. to 41.4 bar inc.)
- 7 440 psig dec. to 1500 psig inc. (30.3 bar dec. to 103.4 bar inc.)
- 8 675 psig dec. to 2800 psig inc. (46.5 bar dec. to 193.1 bar inc.)

**Electrical Form**
- C 15 amp at 125 or 250 VAC; 1/8, hp at 125 VAC; 1/4 hp at 250 VAC; .5 amp resistive, .04 amp inductive at 125 VDC
- CC 11 amp, 1/4 hp at 125 or 250 VAC; 5 amp resistive, 3 amp inductive at 28 VDC; .5 amp resistive at 125 VDC

**Enclosure**
- 3 Meets or exceeds the requirements of NEMA Type 3, 3R, 3S, 4, 4X and 13

**Miscellaneous**
- A Epoxy paint exterior — extra protection for severe environments
- B Viton O-Ring
- C EPR O-Ring
- D SIL approval and marking, per IEC61508 (includes FMEA report)
- E 7/16 - 20 SAE port (Wetted Material 1 Only)
- F Fire fuse — for fire-tested equipment (Wetted Material 4 & 5 only)
- J Annealed stainless steel port screws for H2S environments (Wetted Materials 4 and 5 only)
- L Neon indicator light — 115 VAC
- M Gold electrical contacts for extremely low current applications
- P 5-Pin Brad Harrison connector (Reduce AC electrical rating to 8 amps — Not for CC3 Electrical)
- S Stainless steel diaphragm (Wetted Material 4 only)
- W Stainless steel screws — exterior (Standard with Wetted Materials 4, 5, 7 and 9)
- X UL and CSA Approved and CE Mark (Not available with L or P option)
- Y 2” NPT Female port for viscous medias. Port Material is carbon steel (Wetted Material “3”) — Order as 100P3xxxxY

**Ordering Procedure**
- When factory presetting is desired, stipulate set point, increasing or decreasing
- Insert available option number or letter designation as required

**Example**

```
100P 1 2 C3 __
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Envelop Dimensions

Adjustable Range 1

Adjustable Range 2-8

Electrical Form

FORM "C" (SPDT)

FORM "CC" (DPDT)

FORM "Z" (DOUBLE BREAK)

Basic Principles of Design

Specifications and dimensions subject to change.