Neo-Dyn® Series 101P Pressure Switch/External Adjustment

Versatile Nega-Rate® Belleville disc spring pressure switch for a wide range of applications. Series 101P (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
  - 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)

*Temperature limits change with O-Ring selection

**Adjustment**
- External screwdriver slot adjustment and range scale

**Shipping Weight**
- Approximately 3 pounds

Order Miscellaneous Option "D"

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

**OPTIONS**

<table>
<thead>
<tr>
<th>Wetted Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aluminum port, Teflon coated polyimide diaphragm and Buna-N O-Ring</td>
</tr>
<tr>
<td>4</td>
<td>316 stainless steel port, Teflon coated polyimide diaphragm and Buna-N O-Ring</td>
</tr>
<tr>
<td>7</td>
<td>Hastelloy C port and diaphragm, heliarc welded</td>
</tr>
</tbody>
</table>

**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; .5 hp at 250 VAC; .04 amp inductive at 125 VDC
- Z: 15 amp at 125 or 250 VAC; 1/4 hp at 125 VAC; 1/2 hp at 250 VAC; 1 amp resistive, .5 amp inductive 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)
- K: External adjustment knob
- 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)
- X: 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 101P3xxxxY

**Special (Consult representative or factory)**
- Non-catalog adjustable range and/or set point
- Operating temperature capability from -65°F to +400°F
- Wide deadband
- 10 amps 125 VDC electrical rating

### Ordering Procedure

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

**Example**

101P 12 C 3
### Envelope Dimensions

#### Adjustable Range 1
- .19
- 2.85 Max.
- 3.50
- 3.72
- 82
- .19
- 3.50
- 3.05
- 3.50 Max. (range 1)
- 3.31 Max. (range 4-9)
- .82
- 1.9
- 3.25
- Conduit Connection
- 3/8 NPT (range 4-9)

#### Adjustable Range 2-8
- 2.85 Max.
- .5
- 1.12
- Conduit Connection
- 3/8 NPT (range 1 only)

#### Adjustment Knob
- 2.65 Dia.
- Mtg. Holes (2 places)

#### Range Scale
- 3/8 NPT (wetted material 1)
- 3/4 NPT (wetted material 4-9)
- 1.18

#### Pressure Port
- 7/8 NPT (range 2-8)

### Electrical Form

#### FORM “C” (SPDT)
- RED NC1
- BRN C1
- BLU NO1
- GRN Screw

#### FORM “Z” (DOUBLE BREAK)
- RED NC
- BLU NO
- GRN Screw

### Basic Principles of Design

- Snap Action Electrical Element
- Actuator
- Minimum Bearing Points
- O-Ring
- Diaphragm
- Pressure Port
- Pressure Plate
- Negative Rate Belleville Disc Spring
- Terminal Strip
- Adjustment