**SERIES 1640**

**FLOATING CONTACT NULL SWITCH FOR HIGH AND LOW ACTUATION**

Visual Set Point Adjustment, Adjustable Null Zone

The unique electric switch design in the SERIES 1640 is another Dwyer Instrument, Inc. innovation. The Dwyer® Model 1640 Differential Pressure Switch resembles the high precision large diaphragm Series 1630 switches. However, the Model 1640 is equipped with a single pole, double throw floating contact switch (not snap acting) so it functions as a null switch. As the diaphragm moves in response to pressure changes, it moves the floating contact to cause switching action at two preset points with no switching action between these points. The “high” circuit will be closed when rising pressure differential reaches the preset level. The “low” circuit will be closed when falling pressure differential reaches the preset level.

**FEATURES/BENEFITS**

- Floating “null” switch supports applications requiring two set point actions such as open and close damper control
- Visible set point indicator simplifies operation and trouble shooting
- Large diaphragm provides low range accuracy providing precise control

**APPLICATIONS**

- Damper positioning
- Duct air control

**SPECIFICATIONS**

- Service: Air and non-combustible, compatible gases.
- Wetted Materials: Consult factory.
- Temperature Limits: -30 to 110°F (-34.4 to 43.3°C).
- Pressure Limits: 10 psig (68.95 kPa) continuous, 25 psig (172.4 kPa) surge.
- Switch Type: SPDT floating contact (not snap action).
- Electrical Rating: Non-inductive — 2.5 A @ 110 VAC; 1.5 A @ 220 VAC; 0.5 A @ 24 VDC; 0.5 A @ 110 VAC; Inductive — 1 A @ 110 VAC; 0.5 A @ 220 VAC; 0.5 A @ 24 VDC (de-rate 70-80% for very slow pressure changes).
- Electrical Connections: 3 screw type.
- Process Connections: 1/8” female NPT.
- Mounting Orientation: Diaphragm in vertical position. Consult factory for other position orientations.
- Set Point Adjustment: Screw type inside mounting stud.
- Weight: 4 lb 13 oz (2.18 kg).
- Agency Approvals: CE.

**MODEL CHART**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Range (in w.c.)</th>
<th>Adjustable Null Span</th>
</tr>
</thead>
<tbody>
<tr>
<td>1640-0</td>
<td>0.5 to 2</td>
<td>0.2 to 0.7</td>
<td>Min. Set Point: 0.2</td>
</tr>
<tr>
<td>1640-1</td>
<td>0.2 to 1.0</td>
<td>0.02 to 0.06</td>
<td>Max. Set Point: 1.0</td>
</tr>
<tr>
<td>1640-2</td>
<td>1.0 to 4.0</td>
<td>0.03 to 0.12</td>
<td></td>
</tr>
</tbody>
</table>

**ACCESSORIES**

Process Tubing Options: See page 489 (Gage Tubing Accessories)