SERIES 1831

DPDT LOW DIFFERENTIAL PRESSURE SWITCHES
Manual Reset, No Power Required

One of our most popular differential pressure switches is now available with a DPDT switch and manual reset. The SERIES 1831 combines small size with 4% set point repeatability. Absolutely no power is required to operate the DPDT switch. Set point adjustment on the switch is easily accessible for modifying the set point. The Series 1831 DPDT Low Differential Pressure Switches with Manual Reset eliminate common problems associated with typical high duct static cutout installations. Since the 1831 requires absolutely no power to drive its outputs, a separate power loop and its associated additional wiring and conduit is alleviated, reducing material and labor installation costs. Both control contacts of the Series 1831 activate at the same time. The potential of the lead switch shutting down the fan preventing the lag switch from sending an alarming signal to the DDC is no longer a probable system liability. Potential costly maintenance calls are diminished. Unlike typical switches that possess only a single conduit entry for both control loops, the Series 1831 provides two conduit connections simplifying wiring while eliminating additional conduit tees.

FEATURES/BENEFITS
- No power to operate DPDT switch means no additional wiring or conduit reduces material and installation labor costs
- Easy access for modifying set point simplifies adjustment
- Both control contacts activate at the same time eliminating system issues where lead switch activities prevent the lagging switch from sending a signal

APPLICATIONS
- High duct static cutout applications
- HVAC

MODEL CHART

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Range (in w.c.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1831-1-RA-S</td>
<td>Manual reset DPDT, activate on increase</td>
<td>2.5 to 9</td>
</tr>
<tr>
<td>1831-2-RA-S</td>
<td>Manual reset DPDT, activate on increase</td>
<td>7.5 to 23</td>
</tr>
</tbody>
</table>

SERIES 1840

FLOATING CONTACT NULL SWITCH FOR HIGH AND LOW ACTUATION
Visual Set Point Adjustment, Adjustable Null Zone

The unique electric switch design in the SERIES 1840 is another Dwyer Instrument, Inc. innovation. The Dwyer® Model 1840 Differential Pressure Switch resembles the high precision large differential Series 1630 switches. However, the Model 1840 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 as open and close damper control
- Visable set point indicator simplifies operation and trouble shooting
- Large diaphragm provides low range accuracy providing precise control

APPLICATIONS
- Damper positioning
- Duct air control

MODEL CHART

<table>
<thead>
<tr>
<th>Model</th>
<th>Ranges</th>
<th>Adjustable Null Span</th>
<th>Min. Set Point</th>
<th>Max. Set Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>1640-0</td>
<td>0.1 to 0.2</td>
<td>0.1</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>1640-1</td>
<td>0.2 to 1.0</td>
<td>0.2</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>1640-2</td>
<td>1.0 to 4.0</td>
<td>0.3</td>
<td>1.2</td>
<td></td>
</tr>
</tbody>
</table>

SPECIFICATIONS
Service: Air and non-combustible, compatible gases.
Wetted Materials: Consult factory.
Temperature Limits: -30 to 110°F (-34 to 43°C).
Pressure Limits: 10 psig (69.05 kPa) continuous, 25 psig (172.4 kPa) surge.
Switch Type: SPDT floating contact (not snap action).
Actuation Time Difference: 3 ms max.
Weight: 1 lb 2 oz (522 g).

Process Tubing Options: See page 489 (Gage Tubing Accessories)
Agency Approvals: CE.