0-5" H₂O to 50 psid
Diaphragm Sensor for Liquids and Gases

Features
- Low DP ranges at high line pressures, down to 0-5 inches H₂O
- Rugged, weatherproof design
- Gauge, switch and transmitter versions
- Popular in filtration, flow and level measurements

Select these diaphragm sensor models where low differential pressures exist. The popular 1516 model measures from 0-1 psid up to 0-50 psid. Our 1800 series models include our most sensitive diaphragm which can measure from 0-5 in H₂O to 0-8 psid. We also offer compound range models with a zero center.

The diaphragm sensor separates the high and low-pressure ports making them popular for gases as well as liquids. There is no bypass between these ports as with our piston models.

Dimensions
Detailed drawings on website.
## Specifications (Detailed Specification Sheets on Website)

<table>
<thead>
<tr>
<th>Model</th>
<th>Differential pressure range</th>
<th>Maximum line pressure/temperature</th>
<th>Accuracy (FS) (Ascending)</th>
<th>Porting (Many porting types available)</th>
<th>Electrical Available*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1516DG/DGS/DS</td>
<td>0-1 to 0-50 psid (0.07 to 0-3.3 bar)</td>
<td>1500 psig (100 bar)/200°F (93°C)</td>
<td>2%</td>
<td>1/4&quot; NPT</td>
<td>Class 1 Div. 2</td>
</tr>
<tr>
<td>1518DG/DGS/DS</td>
<td>0-8 to 50-0-50 psid (0.5-0.5 to 3.3-3.3 bar)</td>
<td>1500 psig (100 bar)/200°F (93°C)</td>
<td>2%</td>
<td>1/4&quot; NPT</td>
<td>Class 1 Div. 2</td>
</tr>
<tr>
<td>1831DG/DGS/DS</td>
<td>0-5&quot; H₂O to 0-8 psid (0-125 mm H₂O to 0-0.5 bar)</td>
<td>Aluminum body</td>
<td>2%</td>
<td>1/4&quot; NPT</td>
<td>No enclosure</td>
</tr>
<tr>
<td>1833DG/DS/DGT/DT</td>
<td>0-5&quot; H₂O to 0-8 psid (0-125 mm H₂O to 0-0.5 bar)</td>
<td>Aluminum body</td>
<td>2%</td>
<td>1/4&quot; NPT</td>
<td>Class 1 Div. 2</td>
</tr>
<tr>
<td>1835DG/DGS/DS</td>
<td>5-0.5&quot; H₂O to 8-0.8 psid (125 mm-0.125 mm H₂O to 0.5-0.5 bar)</td>
<td>Aluminum body</td>
<td>2%</td>
<td>1/4&quot; NPT</td>
<td>No enclosure</td>
</tr>
</tbody>
</table>

*NEMA 4X switch models have a 1/2 inch NPT conduit port as standard. A DIN 43850A-PG11 with mating connector is optional, rated IP65 & NEMA 4X.

### How to Order

Select from each of the applicable categories to construct a model number. Use the model number when ordering or obtaining additional information and pricing from Orange Research or your local distributor.

**Reordering? You must supply the Part Number from your instrument label.**

### Sample Model Number

1516DGS - 1A - 2.5B - A 0-1 psid, 1, 3, E

<table>
<thead>
<tr>
<th>Model</th>
<th>Pressure Body</th>
<th>Dial Case</th>
<th>Switch</th>
<th>Range</th>
<th>Options (more on pg. 5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1516D</td>
<td>In-line ports:</td>
<td>2.5B = 2.5&quot; basic</td>
<td>A = SPST, N.O.</td>
<td>Model 1516: 1 = 1/2&quot; NPT</td>
<td></td>
</tr>
<tr>
<td>1516DS</td>
<td>1A = aluminum</td>
<td>3.5B = 3.5&quot; basic</td>
<td>B = SPST, N.C.</td>
<td>2 = plastic lens</td>
<td></td>
</tr>
<tr>
<td>1516DS</td>
<td>1C = stainless steel</td>
<td>4.5B = 4.5&quot; basic</td>
<td>C = SPDT</td>
<td>3 = liquid filled (glycerine)</td>
<td></td>
</tr>
<tr>
<td>1516DS</td>
<td>1E = brass</td>
<td>6B = 6.0&quot; basic</td>
<td>A-A = 2 ea.</td>
<td>4 = follower pointer</td>
<td></td>
</tr>
<tr>
<td>1516W</td>
<td>Change &quot;1&quot; above to &quot;4&quot; for back ports; to &quot;5&quot; for bottom ports</td>
<td>Change &quot;B&quot; to &quot;F&quot; above for flanged dial case</td>
<td>B-B = 2 ea.</td>
<td>5 = Teflon coated magnet/spring</td>
<td></td>
</tr>
<tr>
<td>1516W</td>
<td>Back/Bottom ports and brass N/A on 1800 series</td>
<td>R2 = relay</td>
<td>C-C = 2 ea.</td>
<td>6 = red arc (specify range)</td>
<td></td>
</tr>
<tr>
<td>1831DG</td>
<td>A = SPST, N.O.</td>
<td>T1 = transmitter</td>
<td>R2 = relay</td>
<td>7 = dual scale (specify both)</td>
<td></td>
</tr>
<tr>
<td>1831DG</td>
<td>B = SPST, N.C.</td>
<td>T1 = transmitter</td>
<td>T1 = transmitter</td>
<td>8 = high temperature</td>
<td></td>
</tr>
<tr>
<td>1831DG</td>
<td>C = SPDT</td>
<td></td>
<td></td>
<td>Special Diaphragm &amp; Seals (Buna-N standard):</td>
<td></td>
</tr>
<tr>
<td>1831DG</td>
<td>A-A = 2 ea.</td>
<td></td>
<td></td>
<td>E = EPDM</td>
<td></td>
</tr>
<tr>
<td>1831DG</td>
<td>B-B = 2 ea.</td>
<td></td>
<td></td>
<td>F = Fluorosilicone</td>
<td></td>
</tr>
<tr>
<td>1831DG</td>
<td>C-C = 2 ea.</td>
<td></td>
<td></td>
<td>V = Viton</td>
<td></td>
</tr>
<tr>
<td>1831DG</td>
<td>R2 = relay</td>
<td></td>
<td></td>
<td>T = Teflon (o-ring seals only)</td>
<td></td>
</tr>
<tr>
<td>1835DG</td>
<td>T1 = transmitter</td>
<td></td>
<td></td>
<td>For compound ranges, see p 26</td>
<td></td>
</tr>
</tbody>
</table>