The Series DX is a differential pressure switch that makes a contact output based on the differential between two pressure sources. Wetted materials of brass and fluoroelastomer are suitable for use with most gases and water-based solutions. The switch can be used for low differential pressure indication with set point on a decrease of low as 0.07 bar. Differential set point ranges are available from 2.5 to 75 psid (0.17 to 5.17 bar) on increasing differential pressure and 1.0 to 67 psid (0.07 to 4.62 bar) on decreasing differential pressure. Unit features a high static pressure rating of 200 psig (13.8 bar) for higher static pressure applications. Standard is a weatherproof, UL type 4X, enclosure for dust laden, outdoor, or wash-down installation environments. Series DX incorporates an externally adjustable set point, integral mounting flange and a removable electrical terminal block for quick and easy installation. The DX uses opposing diaphragms to sense the high and low pressure with a pivot mechanism that transfers the difference of the two pressures to the SPDT switch.

Series DX, Differential Pressure Switch

<table>
<thead>
<tr>
<th>Model</th>
<th>Adjustable Differential Range (on increase)</th>
<th>Fixed Deadband</th>
</tr>
</thead>
<tbody>
<tr>
<td>DX-11-153-1</td>
<td>2.5 to 75 psid (0.17 to 5.07)</td>
<td>At Low Set Point 2.5 (0.17)</td>
</tr>
<tr>
<td>DX-11-153-2</td>
<td>10 to 50 psid (0.69 to 3.45)</td>
<td>At High Set Point 2.5 (0.17)</td>
</tr>
<tr>
<td>DX-11-153-3</td>
<td>25 to 50 psid (1.72 to 3.45)</td>
<td>3.5 (0.24)</td>
</tr>
<tr>
<td>DX-11-153-4</td>
<td>50 to 75 psid (3.46 to 5.17)</td>
<td>6.0 (0.41)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Set points on decrease will be the range minus the deadband.

**Wet/Wet Differential Pressure Switch Series DX**

NEMA 4X Enclosure, Low Differential Set Points

**SPECIFICATIONS**

- **Service**: Compatible gases and liquids
- **Wetted Materials**: Connection: Brass, Diaphragm: Fluoroelastomer.
- **Temperature Limits**: 30 to 140°F (-1 to 60°C).
- **Pressure Limits**: 200 psig (13.8 bar).
- **Continuous single side only pressure should not exceed 1.25 x full differential range.**
- **Enclosure Rating**: Weatherproof UL type 4X (IP65).
- **Repeatability**: ±2% of full range.
- **Nonlinearity**: ±0.05 w.c. (up to 2˝ range).
- **Resolution**: ±0.01 in w.c.
- **Hysteresis** and **Repeatability**: ±0.05%, FS.
- **Accuracy**: ±0.05% FS.
- **Clock Accuracy**: ±0.5% FS.
- **Thermal Accuracy**: ±0.5% FS.
- **Set point** repeats after 2.5 Gs, 5 to 500 Hz. Set point repeats after a 15 Gs, 10 millisecond duration.
- **Accuracy**: ±0.01 in w.c.
- **Silent Air Supply**: 25 to 50 psig (1.72 to 3.45 bar).
- **Sampling Rates**: 40 to 158°F (-40 to 70°C).
- **Memory Size**: 21,500 readings.
- **Housing Material**: Polyphenylene ether and polystyrene PPE & PS.
- **Power Consumption**: 5-10 µA.
- **Weight**: 1 lb 3 oz (0.54 kg).
- **Agency Approvals**: CE, CUL, UL.

**Series DL7**

Differential Pressure Data Logger

Also Measures and Logs Temperature, Self-Powered, 2-Channel, Compact

**SPECIFICATIONS**

- **No. of Channels**: Two, internal thermistor, and a differential pressure sensor.
- **Internal Thermistor Range**: 40 to 158°F (40 to 70°C).
- **Compensated Temp Range**: 32 to 158°F (0 to 70°C).
- **Memory Size**: 21,500 readings.
- **Accuracy**: ±0.05 w.c. (up to 2˝ range).
- **Resolution**: ±0.01 in w.c.
- **Internal Thermistor Resolution**: 0.7°F (0.4°C), R25 value equal to 10,000Ω [10kΩ @ 25°C (77°F)].
- **Resolution**: 12 bits (1 in 4096).
- **Nonlinearity**: ±0.05% FS (BFSL).
- **Hysteresis and Repeatability**: ±0.05%, FS.
- **Drift**: ±0.5% FS/yr.
- **Sampling Methods**: Continuous (first-in, first-out; not available from 40 ms to 8 s), stop when full (fill-then-stop), or delayed start.

**Sampling Rates**: Selectable from 0.04 s to 8 hrs.

- **Ambient Operating Temperature/RH**: -40 to 158°F (-40 to 70°C), 0 to 95% RH, non-condensing.
- **Connection**: Two 1/8˝ ID permanent protective tubing.
- **Computer Requirements**: IBM compatible 386 or above and Windows® 3.1 or later with 2 MB RAM and 2 MB hard drive disk space, one serial port.
- **Service**: Dry air and noncorrosive gases.
- **Max. Pressure Rating**: 4X rated pressure.
- **Power Requirements**: 3.6 V TL5134 lithium metal battery, internal, factory replaceable.
- **Power Consumption**: 5-10 µA.
- **Housing Material**: Polyphenylene ether and polystyrene PPE & PS.
- **Weight**: 4 oz (110 g).

**Agency Approvals**: CE.