Differential Pressure Transmitter

**SERIES 616W**

**DIFFERENTIAL PRESSURE TRANSMITTER**

NEMA 4X Enclosure, 0.25% FS Accuracy

Positive, negative and differential pressures can be measured within a full span accuracy of ±0.25 with the Series 616W Differential Pressure Transmitter. Units are enclosed in a polycarbonate case, rated NEMA 4X (IP66), and operate by sensing the pressure of air and compatible gases then sending a standard 4-20 mA output signal. Design enables operation in 2-wire current loops. A wide range of models are available factory calibrated to specific ranges. The span and zero controls are for use when checking calibration. They are not intended for re-ranging to a significantly different span. The LCD display allows local indication of pressure.

**FEATURES/BENEFITS**

- NEMA 4X rated enclosure provides protection in harsh environments permitting outdoor monitoring or in areas where dust and particulate matter exists
- Zero and span controls provide easy calibration checks and shorter installation time to get device running and monitoring
- Weatherproof unit is enclosed in a polycarbonate case, designed to meet (IP66/NEMA 4X)
- Current Consumption: Digital, push-button adj. 40 mA (max).
- Zero and Span Adjustments: Digital, push-button adj.
- Loop Resistance: Current output: 0 to 1250 Ω max; Voltage output: Load resistance 1 kΩ (min).
- Current Consumption: 40 mA (max).
- Electrical Connections: 3-wire removable European style terminal block for 16 to 26 AWG.
- Process Connections: Barbed, dual size to fit 1/8˝ and 3/16˝ (3.12 and 4.76 mm) ID rubber or vinyl tubing.
- NEMA 4X Enclosure, 0.25% FS Accuracy.
- Weight: Without LCD 8.8 oz. (249 g); with LCD 9.6 oz. (272 g).
- Agency Approvals: CE.

**APPLICATIONS**

- Dust collection
- Outdoor HVAC
- Rooftop equipment

**MODEL CHART**

<table>
<thead>
<tr>
<th>Model</th>
<th>Range</th>
<th>Max. Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>616W-2-LCD</td>
<td>0 to 6 in. w.c.</td>
<td>10 psig</td>
</tr>
<tr>
<td>616W-3-LCD</td>
<td>0 to 10 in. w.c.</td>
<td>10 psig</td>
</tr>
<tr>
<td>616W-4-LCD</td>
<td>0 to 20 in. w.c.</td>
<td>20 psig</td>
</tr>
<tr>
<td>616W-5-LCD</td>
<td>0 to 40 in. w.c.</td>
<td>20 psig</td>
</tr>
<tr>
<td>616W-6-LCD</td>
<td>0 to 100 in. w.c.</td>
<td>15 psig</td>
</tr>
<tr>
<td>616W-7-LCD</td>
<td>0 to 200 in. w.c.</td>
<td>45 psig</td>
</tr>
<tr>
<td>616W-20B-LCD</td>
<td>0 to ±10 in. w.c.</td>
<td>10 psig</td>
</tr>
<tr>
<td>616W-3M-LCD</td>
<td>0 to 2.5 kPa</td>
<td>68.9 kPa</td>
</tr>
</tbody>
</table>

Note: Units with “M” in the model number are metric units.

**OPTIONS**

- To order add suffix: Description
  - NIST NIST traceable calibration certificate

**Example:** 616W-3-LCD-NIST

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**SERIES 616WL**

**DIFFERENTIAL PRESSURE TRANSMITTER**

Low Ranges Down to 0.25 in. w.c. (60 Pa), NEMA 4X Housing (IP66)

The Series 616WL Differential Pressure Transmitter senses very low pressures of air and non-combustible, compatible gases and sends a standard 4-20 mA output signal. All models, including those featuring the 3 digit LCD digital read-out, are factory calibrated to specific ranges as listed in the chart below. Positive, negative and differential pressures can be measured within a full span accuracy of ±0.5%. This weatherproof unit is enclosed in a polycarbonate case, designed to meet (IP66/NEMA 4X).

**FEATURES/BENEFITS**

- NEMA 4X rated enclosure provides protection in harsh environments permitting outdoor monitoring or in areas where dust and particulate matter exists
- Zero and span controls provide easy calibration checks and shorter installation time to get device running and monitoring
- High precision accuracy at low pressure ranges provides exceptional accuracy for insuring tight-control and minimizing costly out of specification conditions
- Zero and Span Adjustments:
  - With LCD 9.6 oz (272 g).
  - Without LCD 8.8 oz. (249 g);
  - Digital, push-button adj.

**APPLICATIONS**

- Low pressure applications
- Dust collection
- Rooftop equipment

**MODEL CHART**

<table>
<thead>
<tr>
<th>Model</th>
<th>Range</th>
<th>Max. Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>616WL-2-LCD</td>
<td>0 to 0.25 in. w.c.</td>
<td>2 psig</td>
</tr>
<tr>
<td>616WL-4-LCD</td>
<td>0 to 1 in. w.c.</td>
<td>4 psig</td>
</tr>
<tr>
<td>616WL-12-LCD</td>
<td>0 to ±0.25 in. w.c.</td>
<td>2 psig</td>
</tr>
<tr>
<td>616WL-14-LCD</td>
<td>0 to ±1 in. w.c.</td>
<td>4 psig</td>
</tr>
<tr>
<td>616WL-22-LCD</td>
<td>0 to 60 Pa</td>
<td>2 psig</td>
</tr>
<tr>
<td>616WL-32-LCD</td>
<td>0 to ±60 Pa</td>
<td>2 psig</td>
</tr>
<tr>
<td>616WL-25-LCD</td>
<td>0 to 250 Pa</td>
<td>4 psig</td>
</tr>
<tr>
<td>616WL-35-LCD</td>
<td>0 to ±250 Pa</td>
<td>4 psig</td>
</tr>
</tbody>
</table>

Zero and Span Adjustments: Digital, push-button adj.

**OPTIONS**

- To order add suffix: Description
  - NIST NIST traceable calibration certificate

**Example:** 616WL-4-LCD-NIST

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**SPECIFICATIONS**

- Service: Air and non-combustible, compatible gases.
- Wetted Materials: Consult factory.
- Accuracy: ±0.25% FS @ 77°F (25°C), display accuracy ±0.5%.
- Stability: ±1% FS/yr.
- Temperature Limits: 14 to 185°F (-10 to 85°C).
- Pressure Limits: See chart.
- Power Requirements: 10-35 VDC (2-wire), 17-36 VDC, or isolated 21.6-33 VAC (3-wire).
- Output Signal: 4-20 mA (2-wire), 0-5 VDC, or 0-10 VDC (3-wire).

**OPTIONS**

- To order add suffix: Description
  - NIST NIST traceable calibration certificate

**Example:** 616W-3-LCD-NIST

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**OPTIONS**

- To order add suffix: Description
  - NIST NIST traceable calibration certificate

**Example:** 616WL-4-LCD-NIST

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**SPECIFICATIONS**

- Service: Air and non-combustible, compatible gases.
- Wetted Materials: Consult factory.
- Accuracy: ±0.50% FS, display accuracy ±0.5%.
- Stability: ±1% FS/yr.
- Temperature Limits: 0 to 140°F (-17.8 to 60°C).
- Compensated Temperature Limits: 20 to 120°F (-6.7 to 48.9°C).
- Pressure Limits: See chart.
- Thermal Efect: ±0.02% FS"/°C (0.036% FS"/°F).
- Power Requirements: 12-30 VDC (2-wire).
- Output Signal: 4-20 mA.

**OPTIONS**

- To order add suffix: Description
  - NIST NIST traceable calibration certificate

**Example:** 616WL-4-LCD-NIST

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**OPTIONS**

- To order add suffix: Description
  - NIST NIST traceable calibration certificate

**Example:** 616WL-4-LCD-NIST

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**OPTIONS**

- To order add suffix: Description
  - NIST NIST traceable calibration certificate

**Example:** 616WL-4-LCD-NIST