Unpacking Instructions

Remove the Packing List and verify that you have received all equipment, including the following (quantities in parentheses):
PX821 Transducer (1)
Operator’s Manual (1)

If you have any questions about the shipment, please call the OMEGA Customer Service Department.

When you receive the shipment, inspect the container and equipment for signs of damage. Note any evidence of rough handling in transit. Immediately report any damage to the shipping agent.

The carrier will not honor any damage claims unless all shipping material is saved for inspection. After examining and removing contents, save packing material and carton in the event reshipment is necessary.

General Description

The OMEGA® PX821 Series Differential Pressure Transducer is a high accuracy, lightweight, wet/wet differential pressure transducer. For compatibility with a number of liquid and gaseous media, both the positive and negative pressure ports are manufactured from Hastelloy C276 and 316L stainless steel. In addition, its rugged, all welded construction assures excellent resistance to shock, vibration, and overload.

Available Models

<table>
<thead>
<tr>
<th>Model</th>
<th>Range (PSID)</th>
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</thead>
<tbody>
<tr>
<td>PX821-005DV</td>
<td>0-5</td>
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<tr>
<td>PX821-010DV</td>
<td>0-10</td>
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<tr>
<td>PX821-015DV</td>
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<tr>
<td>PX821-020DV</td>
<td>0-20</td>
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<tr>
<td>PX821-030DV</td>
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<tr>
<td>PX821-050DV</td>
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<tr>
<td>PX821-075DV</td>
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<tr>
<td>PX821-100DV</td>
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<td>PX821-500DV</td>
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<tr>
<td>PX821-900DV</td>
<td>0-900</td>
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</tbody>
</table>

READ BEFORE INSTALLATION

Fluid hammer and surges can destroy any pressure transducer and must always be avoided. A pressure snubber should be installed to eliminate the damaging hammer effects. Fluid hammer occurs when a liquid flow is suddenly stopped, as with quick closing solenoid valves. Surges occur when flow is suddenly begun, as when a pump is turned on at full power or a valve is quickly opened.

Liquid surges are particularly damaging to pressure transducers if the pipe is originally empty. To avoid damaging surges, fluid lines should remain full (if possible), pumps should be brought up to power slowly, and valves opened slowly. To avoid damage from both fluid hammer and surges, a surge chamber should be installed, and a pressure snubber should be installed on every transducer.

Symptoms of fluid hammer and surge’s damaging effects:

1. Pressure transducer exhibits an output at zero pressure (large zero offset). If zero offset is less than 10% FS, user can usually re-zero meter, install proper snubber and continue monitoring pressures.
2. Pressure transducer output remains constant regardless of pressure.
3. In severe cases, there will be no output.

Electrical Connections

Red + Excitation
White Excitation
Yellow + Output
Blue - Output
Shield N/C to transducer body
Specifications (continued)

Temperature Range: -20 to 80°C  
(-5 to 175°F)

Temperature Effects: ±1.5% FS total error band  
from -5 to 175°F

Max. Static Pressure: 1000 PSI

Overpressure: The operating pressure range can be exceeded by the  
following multiples causing negligible calibration change:

Positive Connection: 6X for 5 PSI range, 4X for 10 PSI  
and above to 2000 PSI max.

Negative Connection: 4X for 5 PSI range, 2X for  
10-75 PSI ranges, 150 PSI max. for higher ranges.

Vibration Effects: Less than 0.05% FS/g @ 30 g  
10 Hz to 2 kHz

Wetted Parts: 316L SS and Hastelloy C276

Pressure Connections: 1/4" - 18 NPTM

Electrical Connection: 3 ft. shielded cable

Weight: 7.7 oz. (218 grams)