The NewTek P Series AC LVDTs are specially designed for Extreme High-Pressure applications demanding the highest levels of reliability while performing in the rugged environments required for deep sub-sea applications. These transducers are constructed of special High-Pressure materials, allowing operation at pressure up to 20,000 psi. The P Series High-Pressure and Seawater Resistant LVDT Position Sensors offer extraordinary performance, regardless of offsets due to pressure and/or temperature. These P Series are available ± 0.900 inch (± 22.86 mm) and offer high sensitivity, high resolution and excellent linearity.

**Features**
- 20,000 PSI operating pressure
- 400°F operating temperature
- 0.52 inch diameter stainless steel housing
- Ratiometric output for reduced thermal sensitivity
- Standard and custom models available

**Applications**
- Deep Subsea Applications
- Hydraulic actuators
- Extreme high pressure applications
- Pressure test vessels

**Mechanical and Electrical Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal Range (Inches)</td>
<td>± 0.90</td>
</tr>
<tr>
<td>Nominal Range (mm)</td>
<td>± 22.86</td>
</tr>
<tr>
<td>Sensitivity (mV/V/.001 Inch)</td>
<td>0.468 (Ratiometric)</td>
</tr>
<tr>
<td>Sensitivity (mV/V/mm)</td>
<td>10.4 (Ratiometric)</td>
</tr>
<tr>
<td>Primary Impedance (Ω)</td>
<td>200</td>
</tr>
<tr>
<td>Input Voltage</td>
<td>3 Vrms (Nominal)</td>
</tr>
<tr>
<td>Input Frequency</td>
<td>400Hz to 10KHz</td>
</tr>
<tr>
<td>Linearity</td>
<td>&lt; ± 0.15% Full Range Typical</td>
</tr>
<tr>
<td>Null Voltage</td>
<td>0.5% Full Range Typical</td>
</tr>
<tr>
<td>Hysteresis</td>
<td>&lt;0.01% of Full Range Typical</td>
</tr>
<tr>
<td>Repeatability</td>
<td>&lt;0.01% of Full Range Typical</td>
</tr>
<tr>
<td>Body Weight (grams)</td>
<td>105</td>
</tr>
<tr>
<td>Core Weight (grams)</td>
<td>42</td>
</tr>
</tbody>
</table>

**Environmental Specifications**

- Operating Temperature: -65°F to 400°F (-55°C to 204°C)
- Thermal Coefficient: < -0.01%/°F (< -0.02%/°C) of Full Range
- Humidity: 90% R.H., 240 Hours
- Shock Survival: 1000 g, 11 ms
- Vibration: 20 g to 2 KHz

**Materials Specifications**

- Housing: Corrosion-resistant nickel-iron alloy
- Core: Hi-permeability nickel-iron alloy
- Coil Form: Ceramic/Plastic
- Magnet Wire: Film insulated copper
- Connector: IMPULSE IEE55-1206-BCR w/VITON O-RING
Dimensions and Wiring

Ordering Info

NT – P – 520 – 900 – xxx
High Pressure LVDT
Range 0.9 inch
Options
- M: Metric Threads
[none]: Standard Product

Notes
- Electrical specifications measured at 3KHz excitation frequency.
- Additional options and displacements available. Please consult factory for custom designs.
- Specifications subject to change.

Warranty
NewTek products are warrantied against defective materials and workmanship for a period of one year from the date of delivery to the original purchaser. NewTek accepts no liability for damages in the misuse of our products.