

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  $\pm 0.900$  inch ( $\pm 22.86$  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

Nominal Range (Inches)  $\pm 0.90$   
Nominal Range (mm)  $\pm 22.86$

Sensitivity (mV/V/.001 Inch) 0.468 (Ratiometric)  
Sensitivity (mV/V/mm) 10.4 (Ratiometric)  
Primary Impedance ( $\Omega$ ) 200  
Input Voltage 3 Vrms (Nominal)  
Input Frequency 400Hz to 10KHz  
Linearity  $< \pm 0.15\%$  Full Range Typical  
Null Voltage 0.5% Full Range Typical  
Hysteresis  $< 0.01\%$  of Full Range Typical  
Repeatability  $< 0.01\%$  of Full Range Typical  
Body Weight ( grams) 105  
Core Weight ( grams) 42



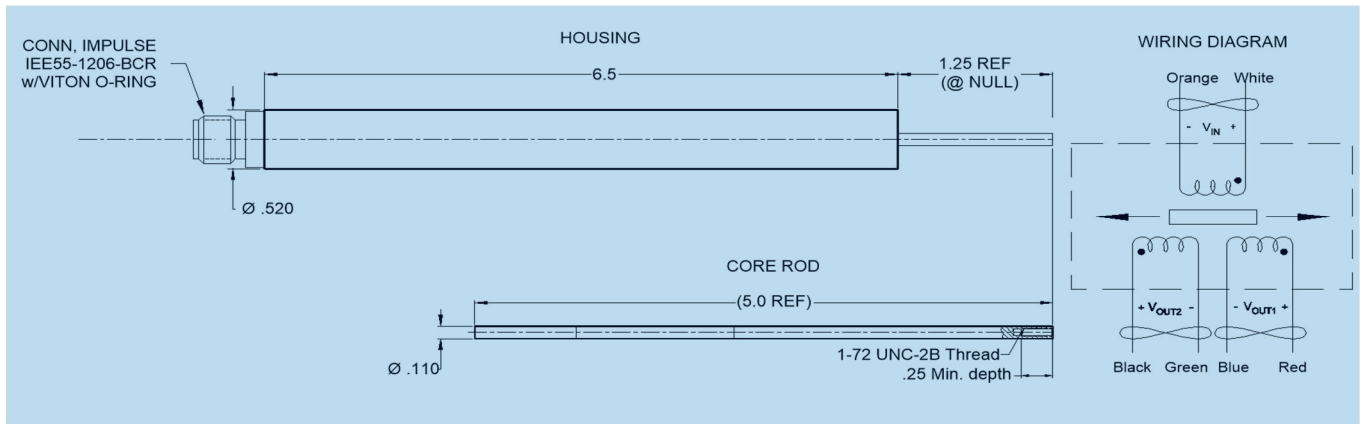
## Environmental Specifications

Operating Temperature: -65°F to 400° F (-55°C to 204°C)  
Thermal Coefficient:  $< -0.01\%/^{\circ}\text{F}$  ( $< -0.02\%/^{\circ}\text{C}$ ) 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

<b>NT - P - 520 -</b>	<b>900</b>	<b>XXX</b>
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 warranted 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.