

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

Nominal Range (Inches) ± 0.90
Nominal Range (mm) ± 22.86

Sensitivity (mV/V/.001 Inch) 0.468 (Ratiometric)
Sensitivity (mV/V/mm) 10.4 (Ratiometric)
Primary Impedance (Ω) 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



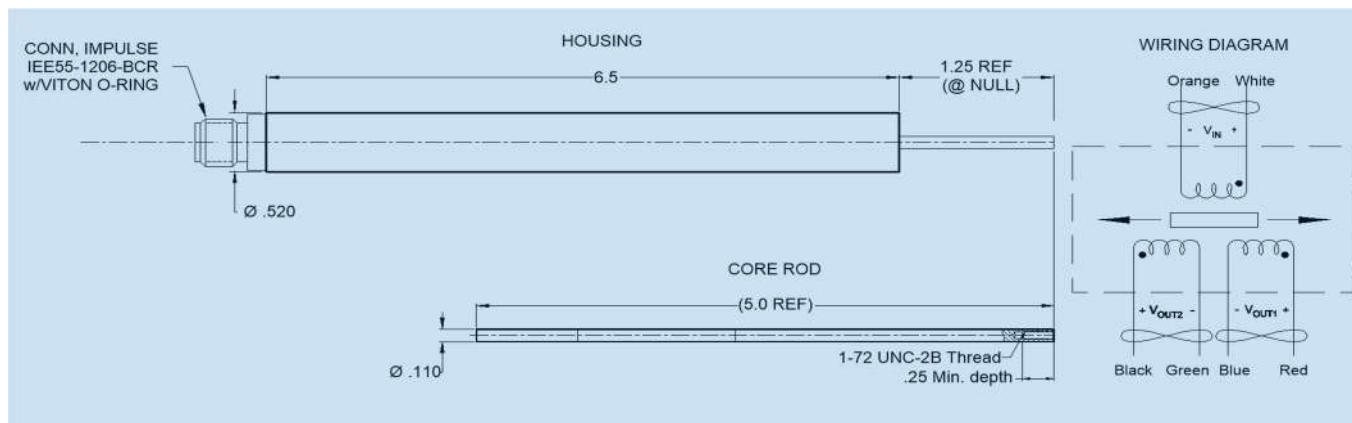
Environmental Specifications

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

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.



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