

The NewTek HI Series sensors are rugged hermetically sealed 4-20 mA LVDTs with excellent linearity, high resolution, and superior repeatability. These sensors are constructed of ¾ inch diameter stainless steel and manufactured for general industrial use. Electrical connection is made through an axial mounted connector. Designed for a wide range of position measurement applications, they are available in ranges of 0.1 inches (2.54mm) to 20 inches (500mm). In addition to being sealed to IP-68, the HI Series windings are potted inside the housing with a 2 component epoxy, providing excellent protection against hostile environments.

## Features

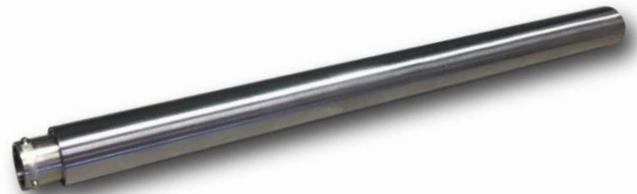
- IP-68 Welded 3/4 inch hermetically sealed steel housing
- Axial mounted connector
- Measurement ranges from 0.1 inches to 20 inches
- Linearity  $\pm 0.25\%$  of Full Range Max ( $\pm 0.1\%$  optional)
- Wide operating temperature range ( $-15^{\circ}\text{F}$  to  $185^{\circ}\text{F}$ )
- Standard and custom models available
- "Plug & Play," 4-20 mA compatible with most PLCs and Controllers

## Applications

- Factory automation
- Materials testing
- Packaging equipment
- Valve position sensing
- Corrosive environments

## Electrical Specifications

**Input Power:** 11-28 VDC (24 VDC nom.)  
**Full Scale Output:** 4 - 20 mA  
**Linearity:**  $< \pm 0.15\%$  Full Range Typical  
**Hysteresis:**  $< 0.01\%$  of Full Range Typical  
**Repeatability:**  $< 0.01\%$  of Full Range Typical



## Environmental Specifications

**Operating Temperature:**  $-15^{\circ}\text{F}$  to  $185^{\circ}\text{F}$  ( $-25^{\circ}\text{C}$  to  $85^{\circ}\text{C}$ )  
**Thermal Coefficient:**  $< -0.01\%/^{\circ}\text{F}$  ( $< -0.02\%/^{\circ}\text{C}$ ) of Full Range  
**Humidity:** 90% R.H., 240 Hours  
**Shock Survival:** 100 g, 11 ms  
**Vibration:** 20 g to 2 KHz

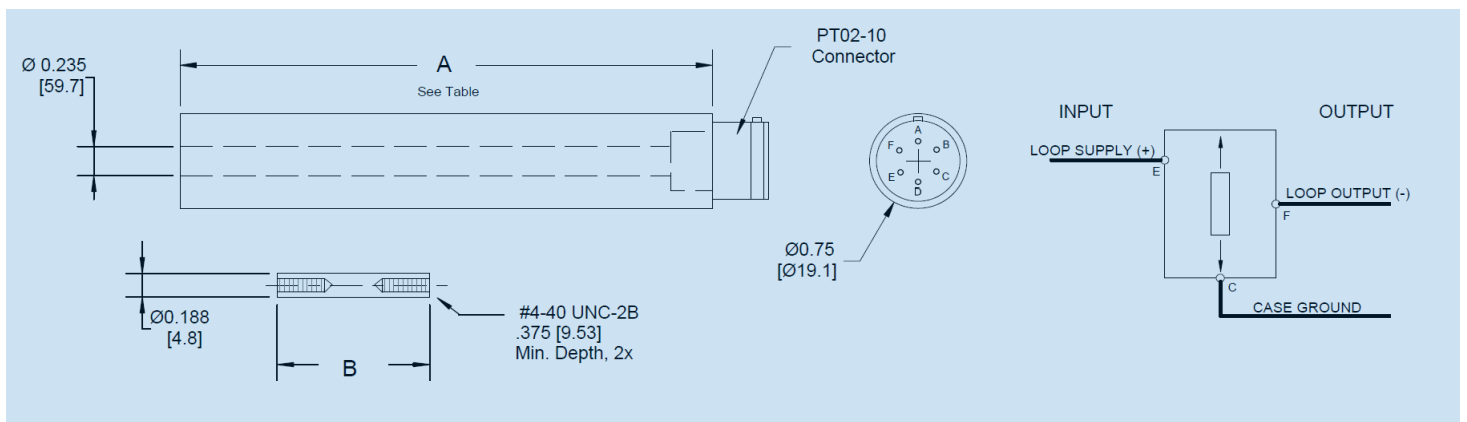
## Materials Specifications

**Housing:** Corrosion-resistant nickel-iron alloy  
**Core:** Hi-permeability nickel-iron alloy  
**Magnet Wire:** Film insulated copper  
**Connector:** PT02A-10-6P

## Specifications

| Model                  | NT-HI-750-100 | NT-HI-750-250 | NT-HI-750-500 | NT-HI-750-1000 | NT-HI-750-2000 | NT-HI-750-4000 | NT-HI-750-6000 | NT-HI-750-8000 | NT-HI-750-10000 | NT-HI-750-15000 | NT-HI-750-20000 |
|------------------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|
| <b>Parameter</b>       |               |               |               |                |                |                |                |                |                 |                 |                 |
| Nominal Range (inches) | 0.10          | 0.250         | 0.500         | 1.00           | 2.00           | 4.00           | 6.00           | 8.00           | 10.00           | 15.00           | 20.00           |
| Nominal Range (mm)     | 2.54          | 6.00          | 12.60         | 25.4           | 50.0           | 100.0          | 150.0          | 200.0          | 250.0           | 380.0           | 500.0           |
| Scale Factor (mA/inch) | 160.0         | 64.0          | 32.0          | 16.0           | 8.0            | 4.0            | 2.7            | 2.0            | 1.6             | 1.1             | 0.8             |
| Scale Factor (mA/mm)   | 6.30          | 2.52          | 1.26          | 0.63           | 0.31           | 0.16           | 0.10           | 0.08           | 0.06            | 0.04            | 0.03            |
| Dimension "A" (inches) | 2.86          | 3.48          | 4.25          | 6.7            | 8.2            | 11.7           | 14.5           | 16.95          | 19.45           | 25.01           | 32.38           |
| Dimension "B" (inches) | 0.80          | 1.25          | 1.65          | 3.45           | 3.45           | 5.30           | 6.20           | 6.20           | 6.20            | 7.00            | 9.50            |
| Body Weight (ounces)   | 1.90          | 2.50          | 3.00          | 4.20           | 5.00           | 8.20           | 10.60          | 11.50          | 12.10           | 16.30           | 20.50           |
| Core Weight (ounces)   | 0.10          | 0.12          | 0.18          | 0.41           | 0.41           | 0.66           | 0.80           | 0.80           | 0.80            | 0.91            | 1.20            |

## Dimensions and Wiring



## Ordering Info

HI - 750 - XXX - X

**Measuring Range**

**Options**

M - Calibration in millimeters & Metric M3 Thread in Core

## Notes

- Electrical specifications measured at 24 VDC supply voltage.
- Additional customization options 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.

