

The NewTek HIR Series sensors are rugged hermetically sealed 4-20 mA LVDTs with excellent linearity, high resolution, and superior repeatability. These sensors are constructed of 3/4 inch diameter stainless steel and manufactured for general industrial use. Electrical connection is made through a radially mounted connector, resulting in a reduced housing length. 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 HIR Series windings are potted inside the housing with a 2 component epoxy, providing excellent protection against hostile environments.

Features

- Welded 3/4 inch hermetically sealed steel housing
- Radially 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 (-65°F to 275°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:** 9-30 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:** -65°F to 275°F (-55°C to 135°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

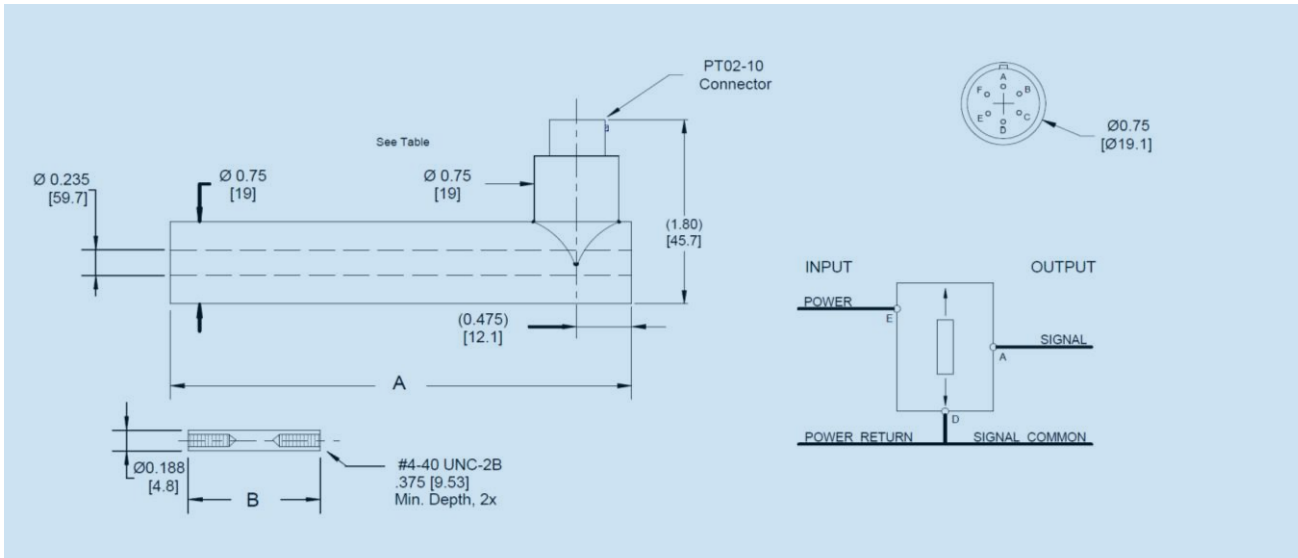
Materials Specifications

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

Specifications

| Model | NT-HER-750-100 | NT-HER-750-250 | NT-HER-750-500 | NT-HER-750-1000 | NT-HER-750-2000 | NT-HER-750-4000 | NT-HER-750-6000 | NT-HER-750-8000 | NT-HER-750-10000 | NT-HER-750-15000 | NT-HER-750-20000 |
|------------------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|
| Parameter | | | | | | | | | | | |
| 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) | 100.0 | 40.0 | 20.0 | 10.0 | 5.0 | 2.5 | 1.7 | 1.3 | 1.0 | 0.7 | 0.5 |
| Scale Factor (mA/mm) | 3.94 | 1.57 | 0.79 | 0.39 | 0.20 | 0.10 | 0.07 | 0.05 | 0.04 | 0.03 | 0.02 |
| 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

HER - 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 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.

