

The NewTek GIR Series Gage Head LVDTs are designed to work with loop-powered 4-20 mA circuits, and have excellent linearity, high sensitivity and high resolution. They permit highly accurate readout and recording of an output signal directly without auxiliary signal conditioning electronics. Electrical connection is made through a radially mounted connector, resulting in a reduced housing length. These GIR Series spring-loaded LVDTs are designed for a wide range of position measurement and dimensional gaging applications and available in ranges of 0.10 inch (2.5mm) to 4 inches (100mm).

Features

- Spring loaded probe
- Radially mounted connector
- Welded 3/4 inch hermetically sealed steel housing
- Measurement ranges from 0.10 to 4 inches
- Linearity $\pm 0.15\%$ of Full Range Typical
- Available in Air Extend Option
- Choice of probe contact tips
- Standard and custom models available
- Cable runs can be hundreds of feet

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 |

Applications

- Pinch and roller alignment
- Dimensional gaging
- Factory automation
- Materials testing
- Packaging equipment
- TIR measurements



Environmental Specifications

| | |
|-------------------------------|---|
| Operating Temperature: | 0°F to 185° F (-20°C to 85°C) |
| Thermal Coefficient: | $< -0.014\%/^{\circ}\text{F}$ ($< -0.025\%/^{\circ}\text{C}$) of Full Range |
| Humidity: | 90% R.H., 240 Hours |
| Shock Survival: | 100 g, 11 ms |
| Vibration: | 20 g to 2 KHz |

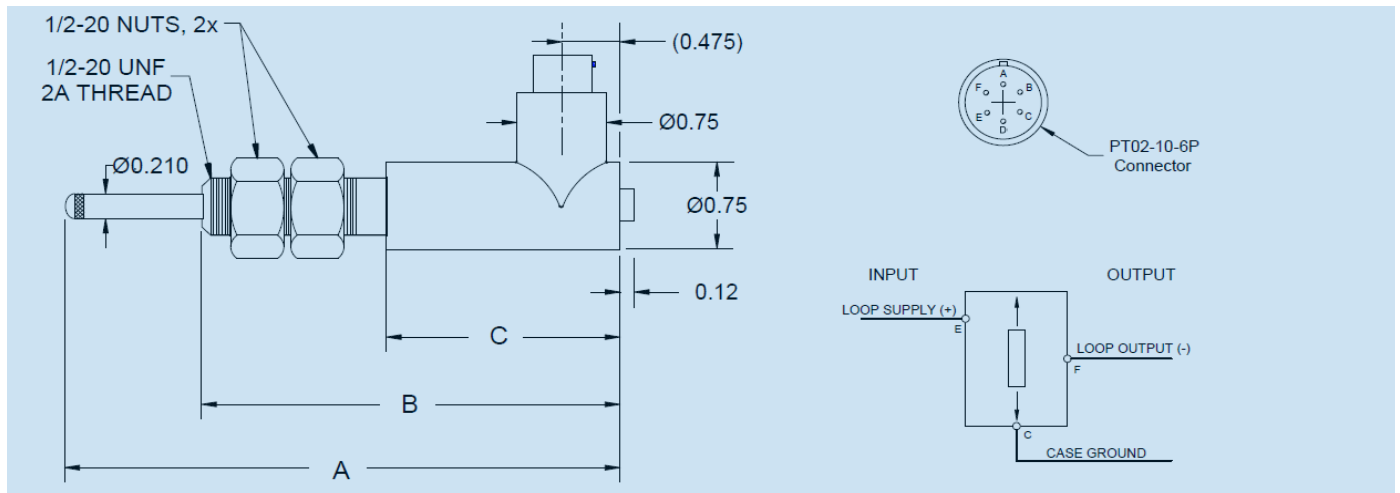
Materials Specifications

| | |
|---------------------|---------------------------------------|
| Housing: | Corrosion-resistant nickel-iron alloy |
| Core: | Hi-permeability nickel-iron alloy |
| Magnet Wire: | Film insulated copper |
| Connector: | PT02A-10-6P |
| Probe: | AGD #9 contact tip |

Specifications

| Model | NT-GIR-750-100 | NT-GIR-750-250 | NT-GIR-750-500 | NT-GIR-750-1000 | NT-GIR-750-2000 | NT-GIR-750-4000 |
|-------------------------|----------------|----------------|----------------|-----------------|-----------------|-----------------|
| Parameter | | | | | | |
| Nominal Range (inches) | 0.10 | 0.25 | 0.50 | 1.0 | 2.0 | 4.0 |
| Nominal Range (mm) | 2.5 | 6.3 | 12.5 | 25.0 | 50.0 | 100.0 |
| Scale Factor (mA/inch) | 160 | 64 | 32 | 16 | 8.0 | 4.0 |
| Scale Factor (mA/mm) | 6.3 | 2.6 | 1.3 | 0.6 | 0.3 | 0.2 |
| Dimension " A" (inches) | 5.45 | 6.05 | 6.85 | 11.35 | 13.80 | 21.75 |
| Dimension " B" (inches) | 4.35 | 5.00 | 5.70 | 9.85 | 11.35 | 17.19 |
| Dimension " C" (inches) | 2.80 | 3.45 | 4.15 | 6.75 | 8.15 | 11.71 |
| Body Weight (ounces) | 3.0 | 3.5 | 4.1 | 6.5 | 6.9 | 10.5 |
| Body Weight (grams) | 83 | 101 | 171 | 182 | 298 | 296 |

Dimensions and Wiring



Ordering Info

GIR - 750 - XXX - X

Measuring Range

Options

- A - Pneumatic Extend, Spring Retract (20-40 psig req.)
- M - Calibration in millimeters

Notes:

- Electrical specifications measured 24 VDC power supply.
- Additional options and alternate contact tips are 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.



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