

The NewTek GDR Series Gage Head LVDTs are designed to work with DC voltage, 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 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 hermetically sealed steel housing
- Measurement ranges from  $\pm 0.05$  to  $\pm 2$  inches
- Linearity  $\pm 0.15\%$  of Full Range Typical
- Shock and vibration tolerant
- Choice of probe contact tips
- Standard and custom models available

## Applications

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

## Electrical Specifications

<b>Input Power:</b>	$\pm 15$ VDC, $\pm 25$ mA
<b>Full Scale Output:</b>	0 to $\pm 10$ VDC
<b>Linearity:</b>	$< \pm 0.15\%$ Full Range Typical
<b>Hysteresis:</b>	$< 0.01\%$ of Full Range Typical
<b>Repeatability:</b>	$< 0.01\%$ of Full Range Typical



## Environmental Specifications

<b>Operating Temperature:</b>	0°F to 185°F (-20°C to 85°C)
<b>Thermal Coefficient:</b>	$< -0.014\%/^{\circ}\text{F}$ ( $< -0.025\%/^{\circ}\text{C}$ ) of Full Range
<b>Humidity:</b>	90% R.H., 240 of FSO Typical
<b>Shock Survival:</b>	1000 g, 11 ms
<b>Vibration:</b>	20 g to 2 KHz

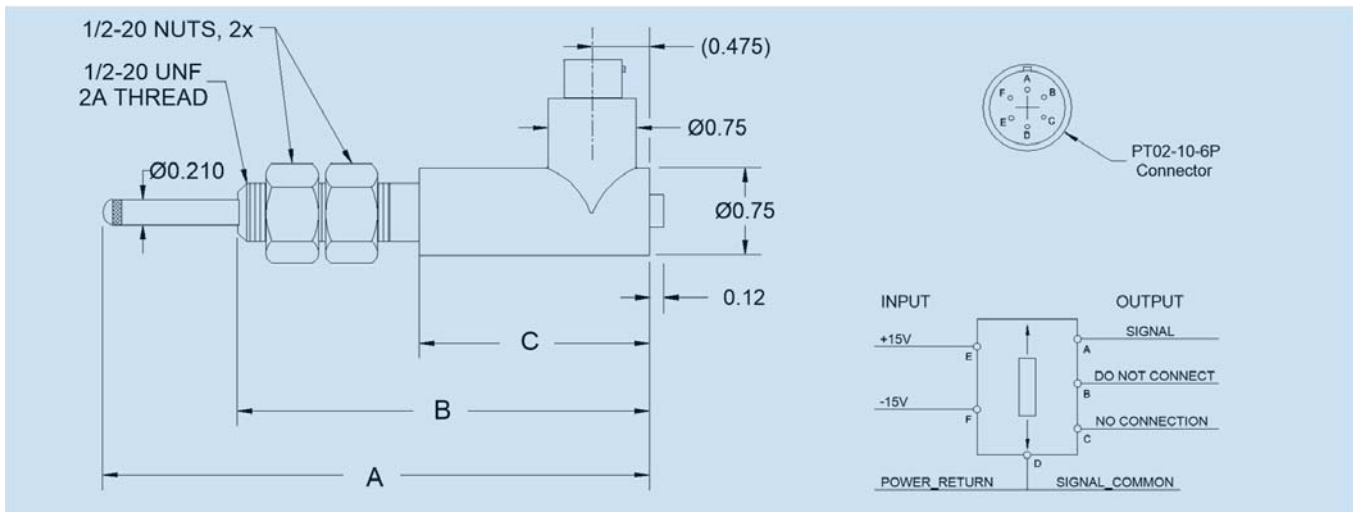
## Materials Specifications

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

## Specifications

Model	NT-GDR-750-50	NT-GDR-750-125	NT-GDR-750-250	NT-GDR-750-500	NT-GDR-750-1000	NT-GDR-750-2000
Parameter						
Nominal Range (inches)	$\pm 0.05$	$\pm 0.125$	$\pm 0.25$	$\pm 0.5$	$\pm 1.0$	$\pm 2.0$
Nominal Range (mm)	$\pm 1.25$	$\pm 3$	$\pm 6.3$	$\pm 12.5$	$\pm 25$	$\pm 50$
Scale Factor (V/inch)	200	80	40	20	10	5
Scale Factor V/mm)	8	3.3	1.6	0.8	0.4	0.2
Dimension "A" (inches)	5.45	6.05	6.80	11.33	13.80	21.70
Dimension "B" (inches)	4.35	5.00	5.70	9.88	11.42	17.18
Dimension "C" (inches)	2.80	3.40	4.20	6.70	5.20	11.70
Body Weight ( ounces)	3.0	3.5	4.5	6.5	8.2	10.6
Body Weight ( grams)	85	99	128	184	233	300

## Dimensions and Wiring



## Ordering Info

NT – GDR – 750 – XXX – XXX

Gage Head  $\pm 10\text{V}$  Out LVDT

Range  
(See Table)

Options  
Consult factory

### Notes:

- Electrical specifications measured at 3KHz excitation frequency.
- Additional options and alternate contact tips are 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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