

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 ± 0.05 to ± 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

Input Power:	± 15 VDC, ± 25 mA
Full Scale Output:	0 to ± 10 VDC
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:	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 of FSO Typical
Shock Survival:	1000 g, 11 ms
Vibration:	20 g to 2 KHz

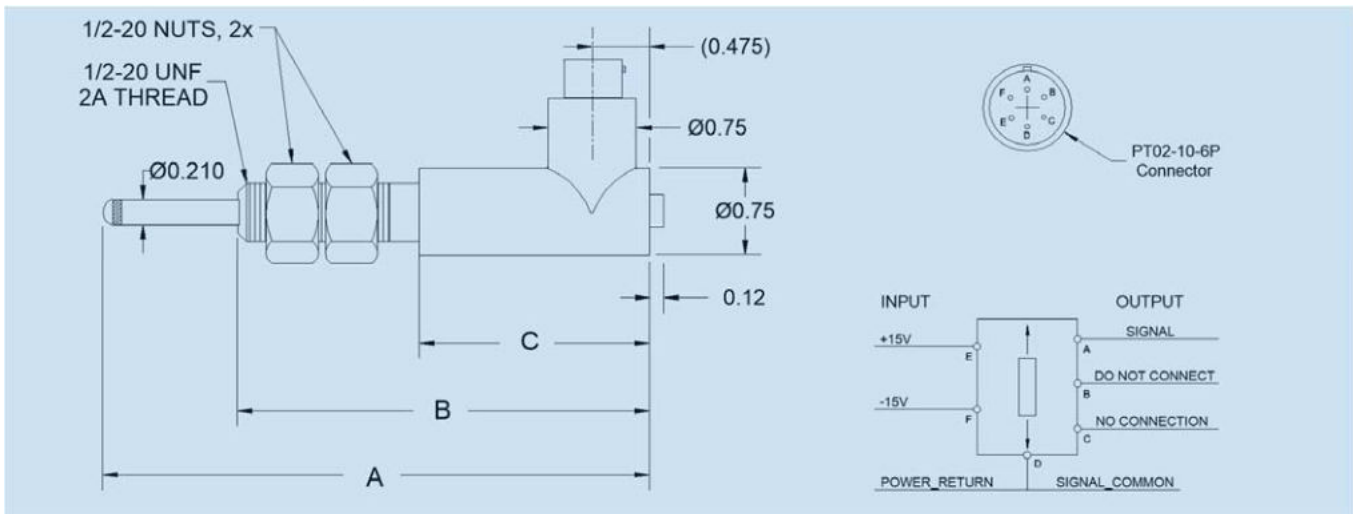
Materials Specifications

Housing:	Corrosion-resistant nickel-iron alloy
Core:	Hi-permeability nickel-iron alloy
Magnet Wire:	Film insulated copper
Connector:	PT02A-10-6P
Probe:	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)	± 0.05	± 0.125	± 0.25	± 0.5	± 1.0	± 2.0
Nominal Range (mm)	± 1.25	± 3	± 6.3	± 12.5	± 25	± 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 ± 10 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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