

The NewTek GA Series gage head sensors are spring-loaded AC LVDTs with excellent linearity, high sensitivity and infinite resolution. Construction consists of stainless steel probe assembly and 3/4 inch diameter hermetically sealed housing. Designed for a wide range of position measurement and dimensional gaging applications, they are available in ranges of  $\pm 0.50$  inch (1.27mm) to  $\pm 2$  inches (50mm). The GA Series windings are potted inside its housing with a 2 component epoxy, providing excellent protection against hostile environments.

## Features

- Spring loaded probe
- Welded 3/4 inch 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
- Wide operating temperature range ( $-65^{\circ}\text{F}$  to  $275^{\circ}\text{F}$ )
- Choice of probe contact tips
- Standard and custom models available

## Applications

- Dimensional gaging
- Factory automation
- Materials testing
- Packaging equipment
- Automotive testing

## Electrical Specifications

<b>Input Voltage:</b>	3 Vrms (Nominal)
<b>Input Frequency:</b>	400Hz to 10KHz
<b>Linearity:</b>	$< \pm 0.15\%$ Full Range Typical
<b>Null Voltage:</b>	0.5% Full Range
<b>Hysteresis:</b>	$< 0.01\%$ of Full Range Typical
<b>Repeatability:</b>	$< 0.01\%$ of Full Range Typical



## Environmental Specifications

<b>Operating Temperature:</b>	$-65^{\circ}\text{F}$ to $275^{\circ}\text{F}$ ( $-55^{\circ}\text{C}$ to $135^{\circ}\text{C}$ )
<b>Thermal Coefficient:</b>	$< -0.01\%/^{\circ}\text{F}$ ( $< -0.02\%/^{\circ}\text{C}$ )
<b>Humidity:</b>	90% R.H., 240 Hours
<b>Shock Survival:</b>	1000 g, 11 ms
<b>Vibration:</b>	20 g to 2 KHz

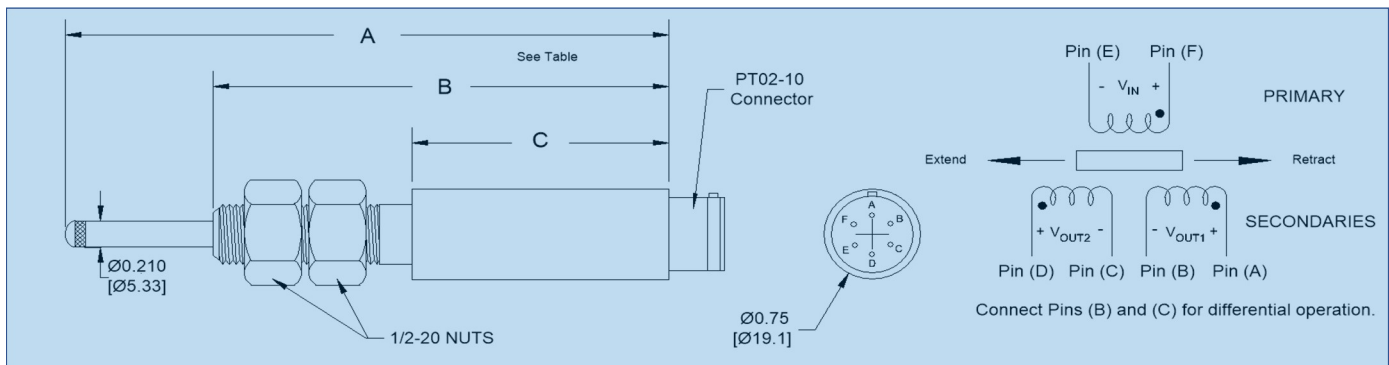
## Materials Specifications

<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

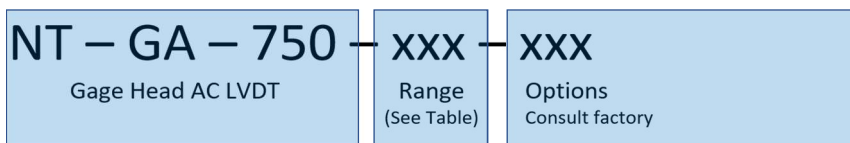
## Specifications

Model	NT-GA-750-050	NT-GA-750-125	NT-GA-750-250	NT-GA-750-500	NT-GA-750-1000	NT-GA-750-2000
<b>Parameter</b>						
Nominal Range (Inches)	± 0.05	± 0.125	± 0.25	± 0.5	± 1	± 2
Nominal Range (mm)	± 1.27	± 3.0	± 6.3	± 12.5	± 25.0	± 50.0
Sensitivity (mV/V/.001 Inch)	6.3	4.0	2.75	0.70	0.65	0.40
Sensitivity (mV/V/mm)	248	158	108	28	26	16
Primary Impedance (Ω)	330	740	1410	1210	1300	2200
Dimension " A" (inches)	4.62	5.30	6.00	11.00	13.00	21.00
Dimension " B" (inches)	3.50	4.20	5.00	9.00	10.45	16.45
Dimension " C" (inches)	2.00	2.65	3.38	5.85	7.38	10.80
Body Weight ( ounces)	2.7	3.3	3.6	5.6	7.0	11.0
Body Weight ( grams)	77	94	102	159	198	312

## Dimensions and Wiring



## Ordering Info



## Notes

- Electrical specifications measured at 3KHz excitation frequency.
- Additional options available (alternate contact tips, high temperature, mild radiation tolerant etc.). 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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