

**Applications** 

Dimensional gaging

Materials testing

Factory automation

Packaging equipment

Automotive testing

The NewTek GAR Series gage head sensors are spring-loaded AC LVDTs with excellent linearity, high sensitivity and infinite resolution. Construction consists of a stainless steel probe assembly and  $\frac{3}{4}$  inch diameter hermetically sealed housing. Electrical connection is made through a radially mounted connector, resulting in a reduced housing length. Designed for a wide range of position measurement and dimensional gaging applications, they are available in ranges of ±0.50 inch (1.27mm) to ±2 inches (50mm). The GAR Series windings are potted inside its housing with a 2 component epoxy, providing excellent protection against hostile environments.

#### **Features**

- Spring loaded probe
- Radially mounted connector
- Welded 3/4 inch hermetically sealed steel housing
- Measurement ranges from ± 0.05 to ± 2 inches
- Linearity ±0.15% of Full Range Typical
- Shock and vibration tolerant
- Wide operating temperature range (-65°F to 275°F)
- Choice of probe contact tips
- Standard and custom models available

#### **Electrical Specifications**

Input Voltage:3 Vrms (Nominal)Input Frequency:400Hz to 10KHzLinearity:< ± 0.15% Full Range Typical</td>Null Voltage:0.5% Full RangeHysteresis:<0.01% of Full Range Typical</td>Repeatability:<0.01% of Full Range Typical</td>

# NEWTEK SENSOR

## **Environmental Specifications**

Operating Temperature:-65°F to 275°F (-55∘C to 135∘C)Thermal Coefficient:<-0.01%/∘F (<-0.02%/∘C) of Full Range</th>Humidity:90% R.H., 240 HoursShock Survival:1000 g, 11 msVibration:20 g to 2 KHz

### **Materials Specifications**

Housing:Corrosion-resistant nickel-iron alloyCore:Hi-permeability nickel-iron alloyMagnet Wire:Film insulated copperConnector:PT02A-10-6PProbe:AGD #9 contact tip

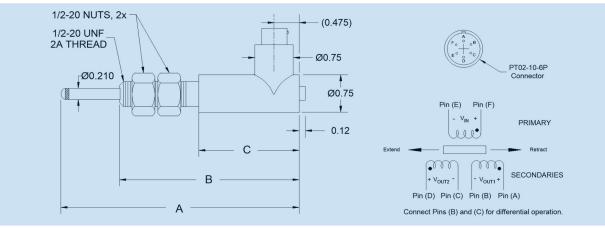
NewTek Sensor Solutions, LLC 7300 US Route 130 North, Bld # 7 Pennsauken, NJ 08110-1541 USA Tel: (856) 406-6877 Fax: (856) 406-6578 www.newteksensors.com



## **Specifications**

Model	NT-GAR-750-	NT-GAR-750-	NT-GAR-750-	NT-GAR-750-	NT-GAR-750-	NT-GAR-750-
Parameter	050	125	250	500	1000	2000
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 ( $\Omega$ )	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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