

The NewTek M Series AC LVDTs are specially designed for applications demanding the highest levels of reliability while performing in the rugged environments that are required for industrial equipment. These transducers consist of a coil assembly potted into a 3/8" diameter housing with a separate moveable core. The M Series are available from ± 0.025 inch (± 0.63 mm) to ± 2.0 inch (± 50 mm) and offer high sensitivity, high resolution and excellent linearity.

Features

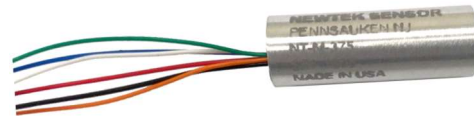
- Rugged 3/8 inch stainless steel housing
- Measurement ranges from ± 0.025 to ± 2 inches
- Linearity $\pm 0.15\%$ of Full Range Typical
- Shock and vibration tolerant
- Operating temperature range: -65°F to 275°F (Standard) or extended temperature range: -65°F to 400°F (optional)
- Choice of imperial or metric threaded core
- Standard and custom models available

Applications

- Factory automation
- Medical equipment
- Valve position monitoring
- Materials testing
- Dimensional gaging

Electrical Specifications

Input Voltage:	3 Vrms (Nominal)
Input Frequency:	400Hz to 10KHz
Linearity:	$< \pm 0.15\%$ Full Range Typical
Extended Operating Range:	1.5 X Linear Range
Null Voltage:	0.5% Full Range
Hysteresis:	$< 0.01\%$ of Full Range Typ
Repeatability:	$< 0.01\%$ of Full Range Typical



Environmental Specifications

Operating Temp.;	Standard:	-65°F to 275°F (-55°C to 135°C)
Operating Temp.;	400° Option:	-65°F to 400°F (-55°C to 204°C)
Thermal Coefficient:		$< -0.01\%/^{\circ}\text{F}$ ($< -0.02\%/^{\circ}\text{C}$) of Full Range
Humidity:		90% R.H., 240 Hours
Shock Survival:		1000 g, 11 ms
Vibration:		20 g to 2 KHz

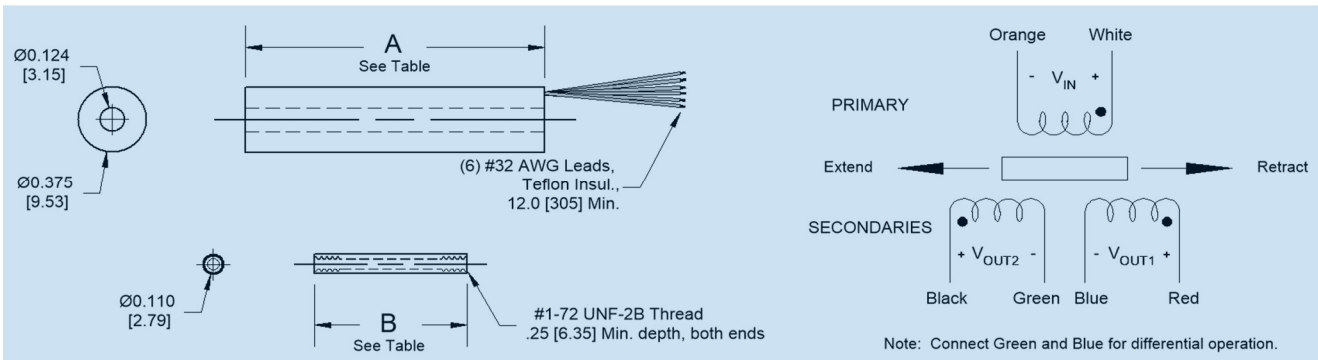
Materials Specifications

Housing:	Corrosion-resistant nickel-iron alloy
Core:	Hi-permeability nickel-iron alloy
Coil Form:	Ceramic/Plastic
Magnet Wire:	Film insulated copper
Lead Wires:	# 32 AWG Teflon insulated, 12" long

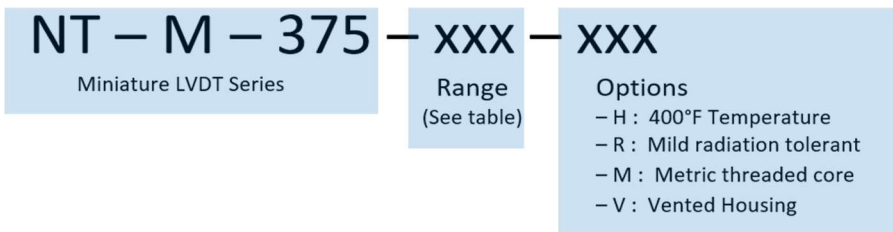
Specifications

Model	NT-M-375-025	NT-M-375-050	NT-M-375-100	NT-M-375-250	NT-M-375-500	NT-M-375-1000	NT-M-375-2000
Parameter							
Nominal Range (Inches)	± 0.025	± 0.050	± 0.100	± 0.250	± 0.500	± 1.00	± 2.00
Nominal Range (mm)	± 0.63	± 1.25	± 2.50	± 6.25	± 12.5	± 25.4	± 50.8
Sensitivity (mV/V/.001 Inch)	3.5	1.7	1.8	2.5	1.7	0.75	0.50
Sensitivity (mV/V/mm)	138	67	71	98	67	30	19.7
Primary Impedance (Ω)	95	345	345	505	130	240	540
Dimension " A" (inches)	0.45	0.75	1.00	1.75	3.30	5.50	9.95
Dimension " B" (inches)	0.40	0.60	0.65	1.15	2.00	3.00	5.50
Body Weight (grams)	3.0	6.0	6.0	11.5	18.0	28.0	56
Core Weight (grams)	0.3	0.5	0.5	1.0	1.6	2.6	5.2

Dimensions and Wiring



Ordering Info



Notes

- Electrical specifications measured at 3KHz excitation frequency.
- Additional options 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.

