

# Series 280

## Economy AC LVDTs

The Series 280 AC LVDTs are designed and manufactured to provide an accurate, yet economical, means of measuring linear displacement. The transducers are available in working ranges of 0.1 to 2.0 inches. Maximum non-linearity is specified as  $\pm 0.4\%$  of full scale.



### KEY FEATURES

<b>Ranges from <math>\pm 0.05"</math> to 2.0"</b>	<b>Large Core to Bore Clearance</b>
<b>Non-linearity <math>\leq 0.4\%</math></b>	<b>Low Cost</b>

### TRANSDUCER SPECIFICATIONS

MODEL	LINEAR RANGE $\pm$ Inches (mm)	REFERENCE FREQUENCY	SENSITIVITY V/in./V	INPUT IMPEDANCE Ohms	OUTPUT IMPEDANCE Ohms	PHASE ANGLE UNCOMPENSATED	FREQUENCY FOR ZERO PHASE SHIFT	MAXIMUM NON- LINEARITY	MAXIMUM EXCITATION
0280-0000	0.050 (1.27)	1.0 KHz	4.5	71	935	3°	1.6 KHz	$\pm 0.4\%$ Full Scale	1.0 V.A.
0281-0000	0.100 (2.54)	1.0 KHz	3.2	70	372	3°	1.4 KHz		
0282-0000	0.250 (6.35)	2.4 KHz	2.9	46	160	25°	17 KHz		
0283-0000	0.500 (12.7)	2.4 KHz	1.8	107	265	15°	10 KHz		
0284-0000	1.00 (25.4)	2.4 KHz	0.95	100	134	9.5°	7.8 KHz		

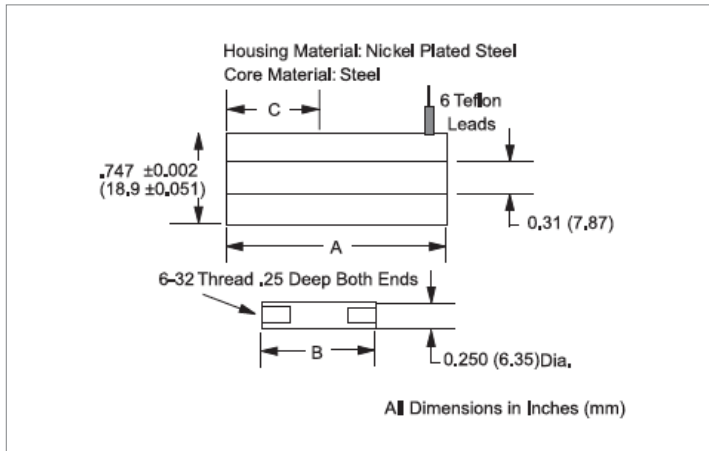
#### Notes:

1. Electrical specifications are based on energizing the primary coil with the specified excitation frequency.
2. Nominal values are given for sensitivity.
3. Operating Temperature  $-50^{\circ}\text{F}$  to  $+250^{\circ}\text{F}$  ( $-46^{\circ}\text{C}$  to  $+121^{\circ}\text{C}$ )

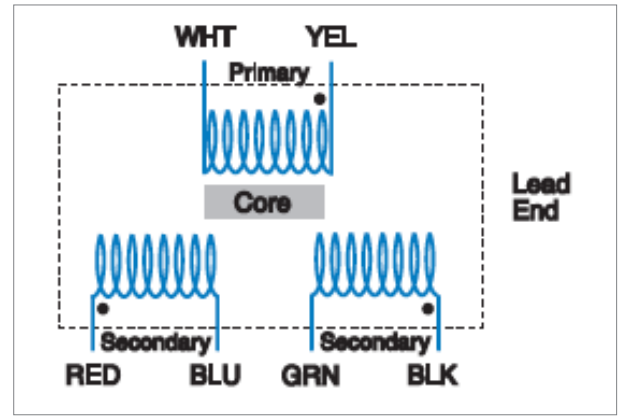
### SPECIFICATIONS - MECHANICAL

MODEL	HOUSING LENGTH A Inches (mm)	CORE LENGTH B Inches (mm)	ELECTRICAL CENTER C Inches (mm)	INNER SLEEVE MATERIAL	TOTAL NET WEIGHT W/O CORE Grams	CORE NET WEIGHT Grams	CORE PART NUMBER	LEAD LENGTH, GAUGE
0280-0000	1.63 (41.4)	1.00 (25.4)	0.63 (16.0)	PHENOLIC	40	5.4	C005-0046	7" AWG #26
0281-0000	1.94 (49.3)	1.19 (30.2)	0.78 (19.8)	PHENOLIC	48	6.4	C005-0045	7" AWG #26
0282-0000	3.31 (84.1)	1.25 (31.8)	1.47 (37.3)	PHENOLIC	67	7.0	C005-0044	7" AWG #26
0283-0000	4.88 (124)	2.00 (50.8)	2.25 (57.2)	PHENOLIC	105	12.1	C005-0037	7" AWG #26
0284-0000	6.88 (175)	3.00 (76.2)	3.25 (82.6)	PHENOLIC	120	18.4	C005-0038	7" AWG #26

## DIMENSIONAL DIAGRAM

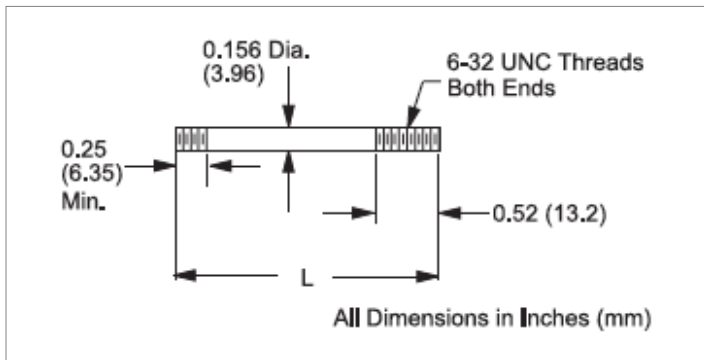


## SCHEMATIC



## CORE EXTENSION RODS *(Sold Separately)*

The recommended core extension rods are made of nonmagnetic stainless steel and are sized to allow the transducers to operate over their full range. Extension rods from models with longer strokes may be used to facilitate installation. Using extension rods shorter than recommended may reduce the LVDT's usable measurement range.



MODEL	RECOMMENDED CORE EXTENSION ROD	DIMENSION A Inches (mm)
0215-0000	C006-0174	3.00 (76.2)
0216-0000	C006-0175	3.60 (91.4)
0217-0000	C006-0176	4.70 (119.4)
0218-0000	C006-0177	7.20 (182.8)
0219-0000	C006-0178	9.30 (236.2)
0220-0000	C006-0179	13.70 (348.0)
0221-0000	C006-0180	19.00 (482.6)
0222-0000	C006-0181	24.20 (614.7)
0223-0000	C006-0182	35.00 (889.0)
0224-0000	C006-0183	45.50 (1156)
0225-0000	C006-0184	56.00 (1422)
0226-0000	C006-0185	66.50 (1689)

## SALES OPTIONS

The following options are available with this series of transducer. The option must be specified at the time an order is placed.

Option #	Description
X0009	Provide longer leads to a specified length
X0012	Replace leads with an integral connector type MS3101A-14S-6P; adaptor for connector has 1.00" O.D.; mating connector included

For more detailed information about these options, please contact the factory.