E SERIES

Economy Series AC LVDT

SPECIFICATIONS

- **Economical**
- **Stroke ranges from ± 0.1 to ±2 inch**
- **AC operation, 50Hz to 10kHz**
- **Magnetically shielded case**
- **Available with imperial or metric core**

The **E Series** of LVDTs is highly economical, satisfying numerous applications in which LVDT performance and reliability are desired, but where budgets are limited. With a linearity of just ±0.5% of full range (E 2000, ±1.0%), the E Series is suitable for most applications with moderate operating temperature environments. Housed in magnetic stainless steel for protection against electromagnetic and electrostatic interference, the E Series rugged construction is capable of resisting the shock and vibration of most industrial applications.

Like in most of our LVDTs, the E Series windings are vacuum impregnated with a specially formulated, high temperature, flexible resin, and the coil assembly is potted inside its housing with a two-component epoxy. This provides excellent protection against hostile environments such as high humidity, vibration and shock.

FEATURES

- Customary LVDT performance
- AISI 400 Series stainless steel case
- Imperial or metric core

APPLICATIONS

- General industrial
- Moderate operating temperature environments
- Cost sensitive applications

PERFORMANCE SPECIFICATIONS

ELECTRICAL SPECIFICATIONS						
Parameter	**E 100**	**E 200**	**E 300**	**E 500**	**E 1000**	**E 2000**
Stroke range	±0.1 [±2.54]	±0.2 [±5.08]	±0.3 [±7.62]	±0.5 [±12.7]	±1 [±25.4]	±2 [±50.8]
Sensitivity, V/V/inch	2.40	1.57	1.20	0.68	0.76	0.46
Sensitivity, mV/V/mm	94.5	61.8	47.2	26.8	29.9	18.1
Output at stroke ends *(*)*	240mV/V	314mV/V	360mV/V	340mV/V	760mV/V	920mV/V
Non-linearity (maximum)	±0.5% of FR	±0.5% of FR	±0.5% of FR	±0.5% of FR	±0.5% of FR	±1.0% of FR
Phase shift	-3°	-5°	-8.5°	+6°	+4°	0°
Input impedance (PRI)	660Ω	970Ω	960Ω	408Ω	525Ω	585Ω
Output impedance (SEC)	960Ω	1010Ω	1005Ω	162Ω	690Ω	875Ω
Input voltage & frequency	3 VRMS @ 50Hz to 10kHz, sine wave					
Test input frequency	2.5kHz					
Null voltage (maximum)	1% of FRO					

ENVIRONMENTAL SPECIFICATIONS & MATERIALS	
Operating temperature	-65°F to +200°F [-55°C to 95°C]
Shock survival	500 g (11ms half-sine)
Vibration tolerance	20 g up to 2kHz
Housing material	AISI 400 Series stainless steel
Electrical connection	Six lead-wires, 28 AWG, PTFE insulated, 1 foot [0.3m] long
IEC 60529 rating	IP61

Notes:

All values are nominal unless otherwise noted

Electrical specifications are for the test frequency indicated in the table

Dimensions are in inch [mm] unless otherwise noted

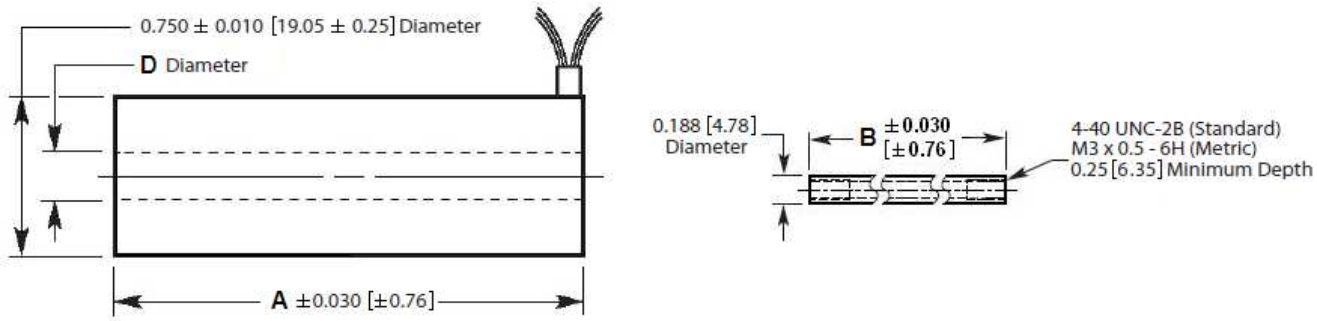
(*): Unit for output at stroke ends is millivolt per volt of excitation (input voltage)

FR: Full Range is the stroke range, end to end; FR=2xS for ±S stroke range

FRO (Full Range Output): Algebraic difference in outputs measured at the ends of the range

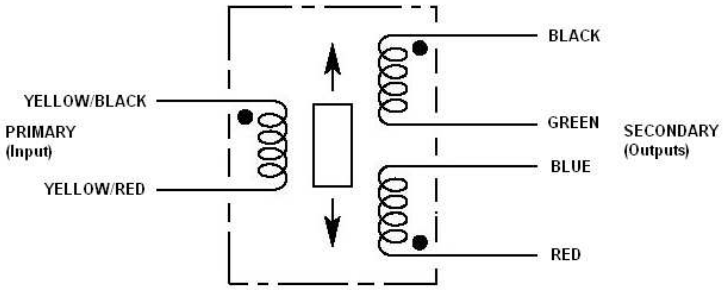
MECHANICAL SPECIFICATIONS

Parameter	**E 100**	**E 200**	**E 300**	**E 500**	**E 1000**	**E 2000**
Body length “A”	1.75 [44.5]	2.25 [57.2]	2.77 [70.4]	4.56 [115.8]	7.05 [179.1]	10.57 [268.5]
Core length “B”	1.25 [31.8]	1.48 [37.6]	1.62 [41.2]	3.00 [76.2]	3.80 [96.5]	6.20 [157.5]
Bore diameter “D”	0.236 [6.00]	0.236 [6.00]	0.236 [6.00]	0.220 [5.59]	0.220 [5.59]	0.220 [5.59]
Body weight, oz [gram]	1.09 [31]	1.27 [36]	1.59 [45]	1.98 [56]	2.43 [69]	4.48 [127]
Core weight, oz [gram]	0.12 [3.4]	0.13 [3.8]	0.17 [4.8]	0.30 [8.4]	0.39 [11]	0.60 [17]



Dimensions are in inch [mm]

WIRING INFORMATION



Connect Blue to Green for differential output

ORDERING INFORMATION

Description	Model	Part Number
±0.1 inch LVDT	E 100	02560541-000
±0.2 inch LVDT	E 200	02560542-000
±0.3 inch LVDT	E 300	02560543-000
±0.5 inch LVDT	E 500	02560544-000
±1 inch LVDT	E 1000	02560545-000
±2 inch LVDT	E 2000	02560546-000
Metric core option (M3x0.5-6H threads)	All	XXXXXXXX-006

ACCESSORIES	
Core connecting rod, 6 inches long, 4-40 threads	05282946-006
Core connecting rod, 12 inches long, 4-40 threads	05282946-012
Core connecting rod, 24 inches long, 4-40 threads	05282946-024
Core connecting rod, 36 inches long, 4-40 threads	05282946-036
Core connecting rod, 6 inches long, M3x0.5 metric threads	05282977-006
Core connecting rod, 12 inches long, M3x0.5 metric threads	05282977-012
Mounting block	04560950-000

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