



## E SERIES

### Economy Series AC LVDT

#### SPECIFICATIONS

- ◆ **Economical**
- ◆ **Stroke ranges from  $\pm 0.1$  to  $\pm 2$  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  $\pm 0.5\%$  of full range (E 2000,  $\pm 1.0\%$ ), 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

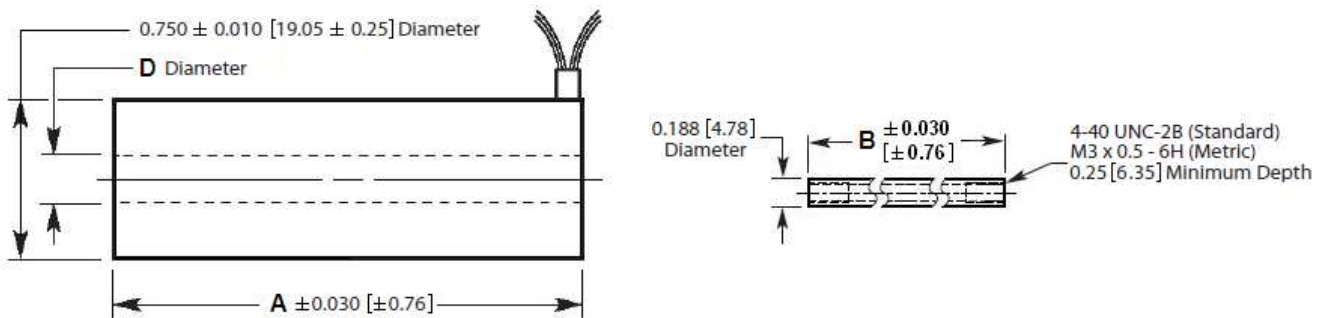
(\*): Unit for output at stroke ends is millivolt per volt of excitation (input voltage)

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]

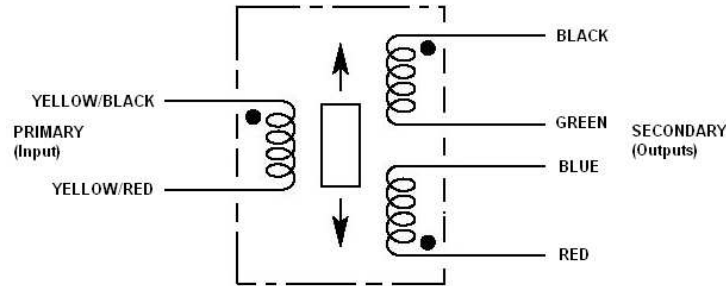


Dimensions are in inch [mm]

## E SERIES

Economy Series AC LVDT

### 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

#### NORTH AMERICA

Measurement Specialties, Inc.,  
a TE Connectivity company  
Tel: 800-522-6752  
Email: [customercare.frm@te.com](mailto:customercare.frm@te.com)

#### EUROPE

Measurement Specialties (Europe), Ltd.,  
a TE Connectivity Company  
Tel: 800-440-5100  
Email: [customercare.bevx@te.com](mailto:customercare.bevx@te.com)

#### ASIA

Measurement Specialties (China) Ltd.,  
a TE Connectivity company  
Tel: 0400-820-6015  
Email: [customercare.shzn@te.com](mailto:customercare.shzn@te.com)

[TE.com/sensorsolutions](http://TE.com/sensorsolutions)

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties, TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2015 TE Connectivity Ltd. family of companies All Rights Reserved.