

Series 290

General Purpose AC LVDTs

The Series 290 AC LVDTs are general purpose transducers designed to operate in most industrial environments. All units are terminated in 6 leads, allowing convenient connection to most conditioning electronics.



KEY FEATURES

- Ranges from $\pm 0.05''$ to $6.0''$
- High Input Impedance
- Non-linearity $\leq 0.5\%$
- $0.5''$ and $0.75''$ Outer Diameter

SPECIFICATIONS - ELECTRICAL

| 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 EXCITATION |
|-----------|-----------------------------------|---------------------|------------------------|-------------------------|--------------------------|------------------------------|-----------------------------------|--------------------|
| 0290-0000 | 0.050 (1.27) | 10.0 KHz | 2.6 | 1550 | 860 | -3.6° | 7.0 KHz | 1.0 V.A. |
| 0291-0000 | 0.100 (2.54) | 5.0 KHz | 3.9 | 740 | 1790 | 0° | 5.0 KHz | 1.0 V.A. |
| 0292-0000 | 0.250 (6.35) | 2.4 KHz | 1.6 | 2100 | 813 | 9.3° | 30 KHz | 1.0 V.A. |
| 0293-0000 | 0.500 (12.7) | 2.4 KHz | 0.75 | 800 | 156 | 11° | 10 KHz | 1.0 V.A. |
| 0294-0000 | 1.00 (25.4) | 2.4 KHz | 0.61 | 458 | 194 | 9.3° | 9.3 KHz | 1.0 V.A. |
| 0295-0000 | 2.00 (50.8) | 2.4 KHz | 0.41 | 2050 | 520 | 7° | 6.4 KHz | 1.0 V.A. |
| 0296-0000 | 3.00 (76.2) | 2.4 KHz | 0.23 | 1360 | 356 | 14° | 6.8 KHz | 1.0 V.A. |

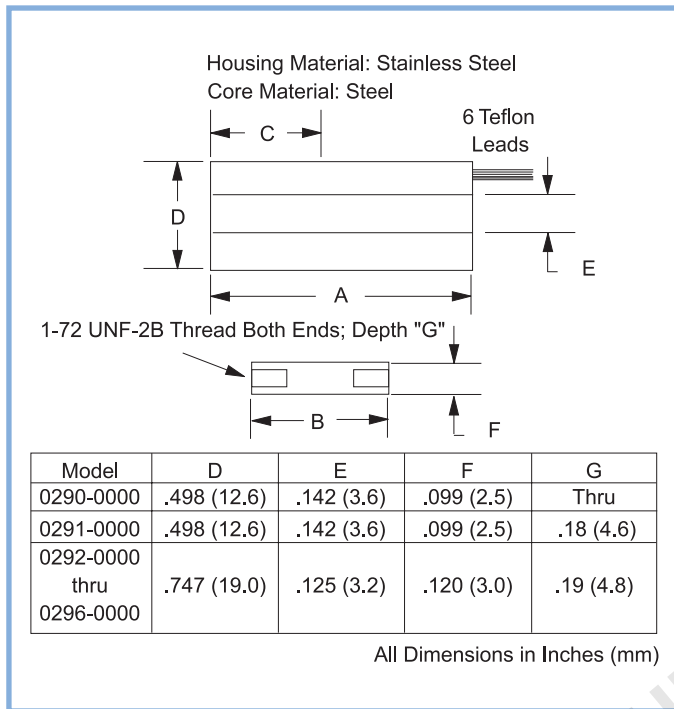
Notes:

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°F to +250°F (-46°C to +121°C)

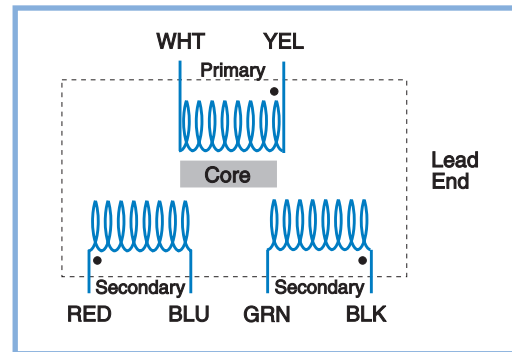
SPECIFICATIONS - MECHANICAL

| 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 |
|-----------|------------------------------------|---------------------------------|---------------------------------------|-----------------------|------------------------------------|--------------------------|------------------|--------------------|
| 0290-0000 | 0.88 (22.3) | 0.56 (14.2) | 0.34 (8.64) | PHENOLIC | 14 | 0.4 | C005-0003 | 7" AWG #30 |
| 0291-0000 | 1.06 (27.0) | 0.81 (20.6) | 0.46 (11.7) | PHENOLIC | 17 | 0.7 | C005-0007 | 7" AWG #30 |
| 0292-0000 | 3.21 (81.5) | 1.75 (44.5) | 1.40 (35.6) | S.S. | 56 | 2.5 | C005-0054 | 18" AWG #26 |
| 0293-0000 | 3.71 (94.2) | 1.50 (38.1) | 1.65 (41.9) | S.S. | 65 | 2.0 | C005-0055 | 18" AWG #26 |
| 0294-0000 | 4.71 (120) | 1.75 (44.5) | 2.15 (54.6) | S.S. | 74 | 2.5 | C005-0054 | 18" AWG #26 |
| 0295-0000 | 8.21 (209) | 2.50 (63.5) | 3.90 (99.1) | S.S. | 116 | 3.6 | C005-0056 | 18" AWG #26 |
| 0296-0000 | 10.52 (267) | 2.00 (50.8) | 5.30 (134) | S.S. | 136 | 2.8 | C005-0048 | 18" AWG #26 |

DIMENSIONAL DRAWING



SCHEMATIC



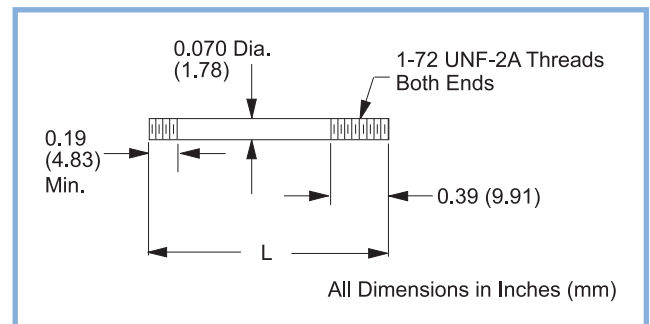
CORE EXTENSION RODS *(Sold Separately)*

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 | LENGTH L Inches (mm) | CORE EXTENSION ROD |
|-----------|-------------------------|-----------------------|
| 0290-0000 | 2.00 (50.8) | C006-0056 |
| 0291-0000 | 2.00 (50.8) | C006-0056 |
| 0292-0000 | 2.00 (50.8) | C006-0056 |
| 0293-0000 | 3.25 (82.6) | C006-0057 |
| 0294-0000 | 5.25 (133) | C006-0058 |
| 0295-0000 | 8.40 (213) | C006-0059 |
| 0296-0000 | 8.40 (213) | C006-0059 |

DIMENSIONAL DRAWING



SALES OPTIONS

| Option # | Description |
|----------|---|
| X0001 | Splashproof - protects the unit from washdown environments or outdoor applications. Applies to Models 0292-0000 through 0296-0000 |
| 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 |
| X0036 | Welded non-lead end. Applies to Models 0292-0000 through 0296-0000 |

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