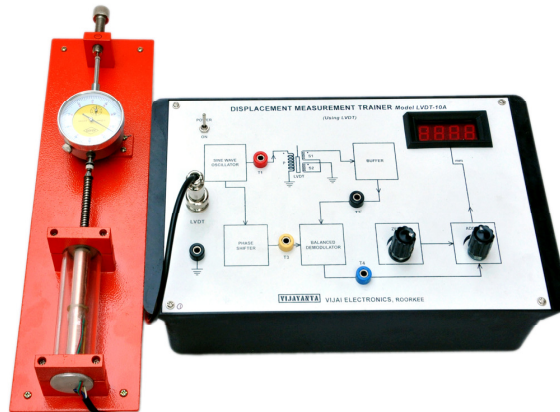


STUDY OF LINEAR VARIABLE DIFFERENTIAL TRANSFORMER **(LVDT), MODEL : LVDT – 10 A.**

A Linear Variable Differential Transformer (LVDT) is an Electromechanical Transducer that measures very small linear movements in structure or a mechanical device. Mechanical motion is translated in to an Electrical signal that contains position information. A LVDT is essentially a Differential Transformer whose Primary coil and two Secondary coils are symmetrically spaced on a cylindrical former and iron core is moveable. When the primary coil is energized by an A.C. Source, Voltage is induced in two secondary coils. These coils are connected in series in such a manner that the induced voltages are 180° out of phase.

- Weight : 1Kg. Approximately
- Dimension : 195mm x 315mm x 75mm



APPLICATION :

Include dimensional gauging and production inspection, linear motion measurements and feedback output for fine positional control in machine tools, large vibration amplitude measurements at very low frequencies, strain measurements in structures, displacement measurement, force and surface finish measurement.

THE SET – UP CONSISTS OF :

- LVDT ± 10 , mm.
- Calibration jig fitted with dial gauge 25, mm least count 0.01, mm.
- Low Noise Fixed Frequency Oscillator 2 KHz / 5 KHz.
- 3 ½ Digit LED, Digital Display.

FOLLOWING FEATURES CAN BE STUDIED :

- Input Output Characteristics.
- Determination of linear range.
- Calibration as displacement meter and to determine the sensitivity of the instrument.
- To study the phase difference between two coils.

NOTE :

Since the dial gauge provided in this set – up has a least count of 0.01, mm while with a mm scale we can measure a small valve upto 1, mm only the Model – LVDT – 10 A is a real instrumentation tutor for LVDT.

Note: There may be any change in specification due to continuous R & D without notice.

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