

ELECTRICAL INDICATING INSTRUMENTS

Digital meters:-

- voltage to time conversion digital voltmeters
- potentiometric digital voltmeter
- dual-slope integration digital voltmeter
- voltage-to-frequency conversion digital voltmeter
- digital multimeter

Analogue meters:-

Moving coil meters:-

- commonly used
- $T = KI$
- shunting resistance

Moving-iron meter:-

- ac and dc signals upto 125 Hz.
- attraction or repulsion types
- series resistance
- range 0 to 30V

Electrodynamic meters:-

- dc and ac signals upto 2 kHz
- rms current
- expensive

Clamp-on meters:-

- reading by transformer action
- low sensitivity

- minimum current measurable is 1 A.

Analogue multimeter:-

- moving coil meter

- rotatory switches

- internal power

Measuring high frequency signals:-

- rectify voltage signals

- sensitive to environmental temperature

Thermocouple meter:-

Electronic analog voltmeters:-

- High input impedance

- average responding types

- peak-responding type