

## DIELECTRIC CONSTANT KIT<sup>®</sup> ( FOR SOLID SAMPLES )

### OBJECTIVE

*DETERMINATION of DIELECTRIC CONSTANT of Solid Samples (Glass, Bakellie and PZT) by parallel plate capacitor.*

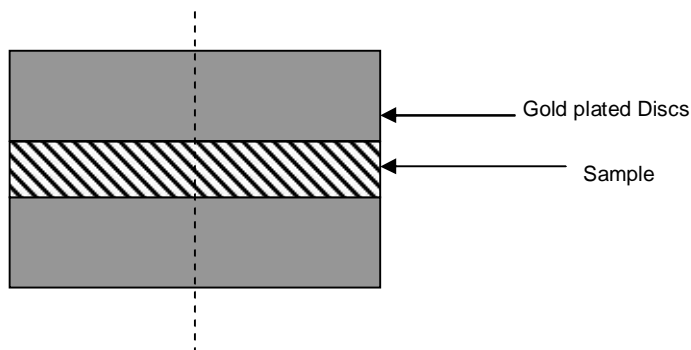
A dielectric is a material having low electrical conductivity in comparison to that of a metal. It is characterized by its dielectric constant. Dielectric constant is measured as the ratio of the capacitance  $C$  of an electrical condenser filled with the dielectric to the capacitance  $C_0$  of the evacuated condenser i.e.

$$\epsilon = \frac{C}{C_0}$$

Knowledge of the dielectric constant is of interest particularly to the Physicists and Engineers. A simple experimental set up is designed to measure the dielectric constant of solid samples in both range- LOW & HIGH.



### Dielectric Cell Assembly



### INSTRUMENT

- i) Main Unit having audio oscillator (1 KHz), digital voltmeter (0 – 9.99 V dc), standard capacitance and electronic circuitry.
- ii) Dielectric Cells: 75 mm Gold plated brass discs (1 set) and 25 mm Gold plated brass discs (1 set).
- iii) Samples : Low Range : Glass, Bakelite  
Hi Range : PZT DISC

*Manufacturers:*



### MITTAL ENTERPRISES<sup>®</sup>

2151/T-7C, New Patel Nagar, New Delhi – 110008

Telefax: 011-25702784

Mobile: +91-9810681132, +91-9868532156

E-mail : mittalenterprises@bol.net.in, info@mittalenterprises.com

Website : <http://www.mittalenterprises.com>