

Automatic Computerized Consolidation Apparatus (Odeometer), UMI-111A

Ref. Standards:

IS : 2720 (PART-XV), ASTM D2435

BS 1377:5, ASTM D3877, ASTM D4546, EN 17892-5

Electronic one dimensional consolidation apparatus consist of a loading frame with weights, consolidation cell and complete with porous stones, Pressure Pad, Cutting Ring, Water reservoir etc. as per the conventional unit, but with a sensitive Displacement Transducer of range 0-10 mm and a Micro-processor based digital LCD indicator.

Construction :

The equipment Consists of following parts and accessories

Loading Unit - 01 No.:

- Maximum capacity 20 kg/cm²
- Consisting of a loading yoke connected to a lever arm with a counter balancing adjustment and having a lever ratio of 1:10.
- The whole assembly being mounted on a steel frame stand.

Consolidation cell assembly- 01 No.:

- Fixed ring type for testing 60 mm dia x 20 mm thick specimens
- Fixed ring for specimens 60 mm dia x 20 mm thick with a guide ring
- Top porous stone for 60 mm dia specimen
- Bottom porous stone for 60 mm dia specimen
- Pressure pad - Perforated
- Channeled base with water inlet
- Gasket
- Flanged water jacket

Weights to give a pressure of 10 kg/cm² on 60 mm specimen - 01 Set:

- 7 off 0.05 kg/cm²
- 5 off 0.1 kg/cm²
- 6 off 0.2 kg/cm²
- 6 off 0.5 kg/cm²
- 5 off 1.0 kg/cm²

Water reservoir with plastic tube, T-connection and pinch cock : 01 No.:





Soil

Electronic System:

- Sensitive L.V.D.T. (LINEAR VARIABLE DIFFERENTIAL TRANSDUCER) : 01 Nos with range 0-15 mm, Least Count : 0.001 mm
- Electronic Microprocessor based digital indicator - 01 Channel for displacement indication
- Indicator with LCD Display
- Indicator also offers battery back up facility continuous for 36 hours, in case of power failure to retain the results of ongoing test.
- Facility to connect Pen Drive USB-PORT to extract the data
- RS-232 PC Interface facility to connect to BASIC PC Software to extract and log the data in excel/PDF File will be provided
- Operation on 220 volt 50 Hz Ac supply.

Note:

- Dedicated PC Software for Report Generation, Graph Plotting, Tangent Creation etc. will be provided at extra cost
- End user will have to arrange PC (Personal Computer) to run the PC Software

