



EIE INSTRUMENTS PVT. LTD.
(An ISO 9001:2015 Certified Company)

DILATOMETER-(DETERMINATION OF LINEAR THERMAL EXPANSION)-1400 °C



DILATOMETER-DETERMINATION OF LINEAR THERMAL EXPANSION-1400 °C

This equipment is used to measure the coefficient of thermal expansion of ceramics and related solid specimens.

FURNACE STRUCTURE

1. Size of the equipment : »250 x 1000 x 300 mm
2. Shell Construction : Double wall structure with high quality fabrication of M.S. Body with powder coating
3. Insulation : Low thermal mass zirconia blend fiber board.
4. Furnace movement : Linear bearing wheels and stainless steel rails are used for easy furnace movement and exact location

HEATING SYSTEM

1. Heating elements : Special Silicon Carbide single end element **I squirrel R, USA make**
2. Operation : 15 Amps/ 230 V / AC
3. Maximum Temperature : 1400°C
4. Operating Temperature : 1400°C

CONTROL SYSTEM

1. Temperature control : TAIE make PID Programmable Digital Temperature Indicator cum Controller and B- type Thermocouple
2. Accuracy : $\pm 1^\circ\text{C}$

3. Safety controller : By non-indicating temperature controller with air break magnetic contactor (to take care of the furnace while accidental failure of Thyristor).
4. Thyristor : Phase angle control thyristor system with isolation transformer input to heating element
5. Indications : a) Digital Ammeter and Digital Voltmeter
b) Mains Indicator
c) Out put Indicator
6. Control switches : Mains on and out put on
7. Safety : Input and out put fuses

EXPANSION MEASUREING SYSTEM

1. Measuring method : LVDT technique with digital read out **(GERMAN MAKE)-MASSETRON**
2. Measuring accuracy : 1 Micron
3. Read Out : Digital out put as well as computerized
4. Software : Special Software to computer interface for entire operation **(LABVIEW)**
5. Computer : latest standard PC-With inkjet printer
6. Measuring range : 0 to 2000 Microns
7. Specimen size : 10 x 10 x 45mm $\pm$ 2 mm
8. Sample tube & probe : Recrystallized alumina
9. Calibration certificate : a. For LVDT (expansion)
b. For thermocouple (temperature)

Optional @ Extra cost

1. Spare heating element - Rs.90,000 plus taxes
2. Sample holder RCA - Rs.45,000 plus taxes
3. Push rod - Rs.15,500 plus taxes
4. Calibrated sample - Rs. 15,000 plus taxes
5. PID controller - Rs. 30,000 plus taxes
6. Spare R type thermocouple- Rs. 30,000 plus taxes

Corporate Office:

A-1301, BVR Ek, Opp. Hotel Inder Residency,
Near Gujarat College, Ellisbridge,
Ahmedabad-380 006.
Phone : (079) 6621 1234
Website : www.eieinstruments.com

Calibration Laboratory:

Survey No. 1098, Nr. Mahakali Temple,
Opp. Primary School, Village Kubadthal,
Tal-Daskroi, Ahmedabad-382 433.
Phone: (079)-3520 8300
E-mail : info@eieinstruments.com

GST TIN No. : 24AABCE4018L1ZU
I.T. PAN No. : AABCE 4018L
IEC No. : 0813026598 Dt. 04/03/2014
CIN No. : U29199GJ2004PTC045078
TAN No. : AHME00572F