



# SIVA INSTRUMENTS



## TAN DELTA SYSTEM MODEL EW-188



TANDELTA SYSTEM EW-188 is specially designed for quality control of enameled wire. Tangent delta and the tangent data temperature characteristic are the concepts often discussed in connection with enameled copper wire. The precise measurement of tangent delta is of higher importance for the characterisation of hardening state of the enameled insulation

If an alternating voltage is applied to wire enamel, a small current passes through it which is phase shifted. A yard stick for this phase shift is tangent delta. In EW-188 a measuring frequency of 1 KHz sine voltage is applied to the sample. The result is phase shift between voltage and current which is proportional to tangent delta. This phase shift is detected with very precise phase detector circuit.

EW-188 can be used for single point measurement as well as determinations of bending point. The temperature can be set anywhere upto 300 degree Celsius for single point measurement. Tan delta and temperature are displayed simultaneously. Further more the curve measurement can be automated on x-y recorder, or directly on a PC through suitable software prepared by the company.

### **The Salient Features:**

- 1) Automatic Balancing
- 2) Simple preparation of sample
- 3) Measuring set up is not adding any error in Tan delta readout
- 4) Provision of outputs for x-y recorder and data acquisition by PC
- 5) Direct display

## TECHNICAL SPECIFICATIONS:

### A) TAND MEASUREMENTS:

Test Voltage	:	10V (peak to peak) 1KHz
Tand Display	:	0.00 to 19.99 %
Accuracy	:	$\pm 1\%$ of the reading $\pm 1$ digit

### B) TEMPERATURE MEASUREMENT

Temp. Range	:	upto 300 degree Celsius
Temp. Accuracy	:	$\pm 1$ degree Celsius
PDI Accuracy	:	$\pm 2$ degree Celsius
Power Supply	:	230V $\pm 15\%$ , 50 Hz
Dimensions	:	435 x 300 x 135mm
Weight	:	approx 7kg

### C) TEMPERATURE BATH

The fluid metal bath serves for the temperature control of the wire and consists of cooling fan and sample holder.

Heating Capacity	:	200 Watt
Power supply	:	230V, 50Hz
Dimensions	:	335 x 160 x 195mm

Sivananda Electronics also offers other equipments useful for Cable Industry & Enamelled Wire Industry. These are RC Unbalance Meter, Mutual Inductance Meter, Pin Hole Tester, BDV Tester, Conductor Resistance Meter, Direct Reading Capacitance Meter (Excitation Frequency 1 Mhz), Impedance Meter, Jelly Test Set and Spark Tester.

For detailed information and product catalogue, please write to:

To keep pace with the latest technology Sivananda Electronics reserves the right to update it's system. Hence, information in the brochure is likely to change without notice.



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