



Sivananda Electronics

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**CAPACITANCE & TAN DELTA BRIDGE
MLS-11DA & HLS-12A**

Introduction

Electrical properties of insulating systems changes due to age and continuous electrical stress. By measuring electrical properties such as Capacitance and Tan Delta regularly it is possible to ensure the operational reliability of HV insulation systems and to avoid costly breakdowns. This is particularly important for high voltage bushings, power transformers, generator, power capacitors, HT Cables etc.

SIVA Capacitance & Tan Delta test set comprises of C & Tan Delta Bridge model MLS 11-D, high voltage power supply model HLS-12 with built in standard Electrical properties of insulating systems changes due to age and continuous electrical stress. By measuring electrical properties such as Capacitance and Tan Delta regularly it is possible to ensure the operational reliability of HV insulation systems and to avoid costly breakdowns. This is particularly important for high voltage bushings, power transformers, generator, power capacitors, HT Cables etc. Capacitor and set of cables.

Applications

- ⦿ Power Systems, HT Transformers, Motors, Generators Bushings, Power Cables, Power Capacitors, High Voltage Laboratories.

Specification

PARAMETER	RANGE	RESOLUTION	ACCURACY
CAPACITANCE	1000 pF 10000 pF	0.01 pF 1 pF	±0.2% of the reading ±1 pF ±0.2% of the reading ±10pF
TAN DELTA	0-0.1 0.1-1	0.00001 0.0001	±1.0% of the reading ±0.00015 ±1.0% of the reading ±0.0015
VOLTAGE	0-12 KVAC	0.01 KV	±1% of the reading ±1 digit
CURRENT	0-100 mA	1mA	±2% of the reading ±1 digit

Test Voltage 0 to 12KV AC

Rated Current 100mA continuous 200mA short term

Output Frequency 50Hz (Lines Frequency)

Switch for three different types measurement

1. UST- Ungrounded Specimen test.

This mode is used when object is not grounded.

This test provides more accurate results.

2. GST - Grounded Specimen test.

This mode is used when one terminal of object under test is permanently grounded.

3. GSTg - Grounded specimen test with Guard.

This mode is used for measuring stray capacitances and separating them from basic measurement in GST mode.

Indication : 3 ½ Digital panel meter for Voltage & Current.

Standard Capacitor :100pF / 200pF, 12KV built-in.

Input Voltage : 230VAC + 10%, Single Phase, 50Hz.

Safety Features :

* Zero start control.

* Open ground indicating lamp with double ground connection.

* External Interlock

* HT cut off on overload.

* HT ON and Supply ON Indication.

* All operating controls at earth potential.

* Necessary terminals & Sockets for connection to Bridge.

Null Detector

Built in battery operated electronic Null Detector.

This type of Null detector is most suitable for balancing of the bridge. It gives high sensitivity and

accuracy for most of the applications and it is very user friendly.

Phase sensitivity Null Detector can be given in place

of electronic Null detector on request.

Interference Cancellation Unit.(ICU)

The C & Tan delta Bridge has been specially shielded

with u metal sheets to avoid the effect to external interferences. This makes the measurement accurate

in both indoor and out door applications particularly

in switch yards.

Phase reversal switch provided in the HV power supply

effectively cancels interference/pick up by the object

under test in energized environment.

For situation where the pick up by the bridge is excessive and controlled by built-in u metal shielding

(rare cases), a separate three level interference suppression unit can also be given with separate C &

Tan delta adjustments.

Power Supply Size : 535 X 455 X 325mm

Weight : 30Kg (approx)

C & Tan Delta Bridge : 345 X 345 X 195

Weight : 12Kg (approx)

Warranty

Sivananda Electronics warrants its products against defects in material and workmanship for a period of one year from the date of installation or 15 months from the date of dispatch, whichever is earlier. This warranty excludes normal wear on finishes or damage that occurs due to abuse or misuse.

Our Other Products

- ❖ **Instruments:** 200+ types of test equipment's for Power, Wire & Cable, Capacitor, Oil & Petroleum industries are developed by in-house R&D Lab. Surge Testers, Automatic C&Tan Delta Bridges, Transformer Windings Resistance Meters, Oil Insulation Test Kits, Oil Tan Delta, Volume Resistivity & Dielectric constant Meter, Insulation Resistance Tester, Contact Resistance Meter etc.
- ❖ **Security:** Turnstiles, Tripods, Barriers, Metal Detectors, Bollards etc.

Disclaimer : To Keep pace with the technology Sivananda Electronics reserves it's right to update the system without prior consent.

About Us

- 50 years (in 2020) of service to India.
- 1st to develop metal detectors for security in India. Made in India.
- 1st to develop Turnstiles in India. Made in India.
- Eclina Awards (1995), Elecrama Awards (1996), NIMA Awards (1999)
- Leading manufacturers of Security Systems and Test & Measuring Instruments in India.
- Largest supplier of Turnstiles in India in the last 25 years
- 150 different types of Electronic Test & Measuring instruments are indigenously developed for many industries.
- Exporting to 70+ countries.