



# SCR ELEKTRONIKS

Leading Manufacturer of Industrial Electronic Products since 1975

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## Meters With Software Calibration

WITH SOFTWARE CALIBRATION FACILITY

To meet the challenge of energy theft, particularly, with meter tampering, meter manufacturers have introduced highly sophisticated Energy meters with wide range of peripheral functions. To cope up with this technology meter manufacturers, particularly, Indian manufacturers have to import the calibration and Testing panels at exorbitantly high cost. Due to privatisation and globalisation now there is additional pressure to reduce prices and provide enhanced functionality.



SCR Elektronik have developed a panel for calibration of Energy Meters with SOFTWARE CALIBRATION FACILITY. This is PC based, with latest micro controller technology for communication with METER UNDER TEST. The Blinking Rate of 'LED' on MUT, which is proportional to the energy registered is compared with Reference standard pulses. The meter error is calculated and the Correction factor, compatible to the meter protocol is generated. This factor in turn is loaded into memory of MUT. With this factor the meter is expected to read the correct energy. Again the error is read and confirmed that it is within the limit. The panel is available with 1,5,10,20,40,80 test station.

## **SEMI-AUTOMATIC TEST PANEL :**

### **The system comprises of :-**

1. Power Source with Manual Control for Meters - 1 No.
2. Error display unit with software calibration facility.
3. Arrangement to receive Pulses from Meter Under Test.
4. Fabricated panel for connecting the meters to the system.
5. SCR Make ADD ON Card.
6. Software.
7. Reference Standard Meter

#### **1. Power Source :** It is comprise of Voltage & current source meters with following specifications :

a. Input supply - 3 phase 50 Hz, 415 V +/- 10 %.

b. Outputs - I. Voltage Source & II. Current Source.

I. Voltage Source : Adjustable 0 - 300 Volt/1KVA with Static phase shifting arrangement to obtain 90 Deg Lead and 90 Deg Lag with respect to current source. Facility to switch to 70 % and 120 % of set voltage is provided for creep test.

II. Current Source : 0 - 100 Amps adjustable in steps with Switch and fine by variac. CT Ranges are 0.5Amp, 5Amps, 25Amps, 50Amps, 100Amps.

c. The Auto / Manual Switch is provided. The Setting of the current is through switch in Manual Mode and through PC in Auto Mode. Servo Controlled Current Source Keeps the current within +/- 1% of the set value. The current indication is TRUE RMS and available on controller itself. In terms of % of the CT Range.

d. Digital Voltmeter 3 & 1/2 digit 0 - 300 V class 1.

e. Power Factor Meter to read PF. between 0.10 Lag - Unity - 0.10 Lead.

f. Line frequency Indicator 40 Hz to 55 Hz.

g. Outputs are provided on Insulated terminals of proper sizes.

**2. Error Display Unit :** It is Micro Controller based 6 digit display unit to indicate +/- 100 % error (-100.00 to +100.00). It will take data from Computer, Pulse Inputs from standard meter and LED input from MUT. It also provides indication of PASS and FAIL in case the error is out of limit.

**3. Pulse Input :** For each Station Input is taken from Meter Under Test

**4. Fabricated Panel :** Fabricated panel to house meters display unit and arrangement to connect meters is provided. The arrangement for connection of the meters is simple for operation.

**5. ADD ON Cards :** SCR Make ADD ON Cards are provided to interface the bench to PC.

**6. Software :** User friendly software is provided which enables operator to select different test parameters and carry out the test. It also generates different reports.

**7. Reference Standard Meter Radian Make :** RM - 12.

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