

Title: Calibration Of Clare High Current Ohmmeter

Scope Work Instruction for the internal calibration of a Clare High Current Ohmmeter

Preparation

Calibration must be carried out using Category A Master instruments as required.

Equipment required;-

1. Keithley Digital Multimeter Model 136.
2. H & BAC Digital Clip-On Ammeter Model ID 200.
3. High Current Resistance Box.
4. Solartron Model 7065 Microprocessor Voltmeter.

Method

- 1.1.1 All calibration results must be entered on the results sheets (see appendix A)
 - 1.1.2 Note the lab temperature and R.H. and enter on results sheet.
 - 1.1.3 Carry out test 1.
 - 1.1.4 Carry out test 2 using item 1.
 - 1.1.5 Carry out test 3 using item 2.
 - 1.1.6 Measure the actual values of the high current resistance box (item 3.) using item 4. and record. Note: All leads must be fully uncoiled for these tests.
 - 1.1.7 Carry out tests 4 to 17 using the high current resistance box, using the values recorded in 1.1.6.
 - 1.1.8 Complete results sheet header and enter Pass / Fail.
- All records must be kept for audit purposes

References

Appendix A Calibration Results for Clare High Current Ohmmeter

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Appendix A

Calibration Results for Clare High Current Ohmmeter

Model Serial No

Date Result

Lab Temp / RH Operator

User Location Certificate No

Accuracies quoted are from manufacturer's specifications or relevant British Standard

Test 1	Is pointer on zero with instrument horizontal?	Pass / Fail
Test 2	Record open circuit voltage volts	Pass / Fail
Test 3	Record short circuit current amps This current must not be less than 25A	Pass / Fail

Resistance Calibration 0 – 200 mill ohms range: 3m test lead
 Accuracy $\pm 2\%$ FSD or $\pm 10\%$ reading.

Test	Test Resistor ohms		UUT Indication	Allowed Limits	Results
	Nominal	Calibrated			
4	S/C	S/C		0 to 0.004	Pass / Fail
5	0.100			$\pm 10\%$ of reading	Pass / Fail
6	0.200			$\pm 10\%$ of reading	Pass / Fail

Resistance Calibration 0 – 2 ohms range: 3m test lead.
 Accuracy $\pm 2\%$ FSD or $\pm 10\%$ reading.

Test	Test Resistor ohms		UUT Indication	Allowed Limits	Results
	Nominal	Calibrated			
7	S/C	S/C		0 to 0.04	Pass / Fail
8	0.5			$\pm 10\%$ of reading	Pass / Fail
9	1.0			$\pm 10\%$ of reading	Pass / Fail
10	2.0			$\pm 10\%$ of reading	Pass / Fail

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