

Title: Calibration Of DC Ammeter/Mv Range 0 – 3000A / 75mv

Scope

Work Instruction for the internal calibration of D.C. Ammeter / mV Range 0 – 3000A / 75mV. To be used in the absence of a manufacturers calibration instruction.

Preparation

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

Equipment required;-

1. 45° Instrument balance stand.
2. D.C. Millivolt source.
3. Datron 9100 Calibrator.

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 1.1.1.
- 1.1.5 Carry out test 3 using equipment 1.1.2.
- 1.1.6 Carry out tests 4 – 8 using equipment listed in 1.1.3 using ohm override.
- 1.1.7 Complete results sheet header and enter Pass / Fail.
 - All records must be kept for audit purposes

References

Appendix A Calibration of D.C. Ammeter / mV Range 0 – 3000A / 75mV

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Appendix A

Calibration for D.C. Ammeter / mV Meter Range 0 – 3000A / 75mV

Model Serial No

Date Result

Lab Temp / RH Operator

User Location Certificate No

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

Movement Check

Test 1 Is pointer on zero – instrument horizontal Pass / Fail

Test 2 Instrument balance $\pm 1\%$ F.S.D. at 45° in all planes Pass / Fail

Test 3 Using D.C. Millivolt source, sweep instrument pointer slowly from zero to F.S.D. Did the pointer move freely and return to zero?

Pass / Fail

Calibration

Calibration must be carried out using instruments dedicated test leads.

Test No	Instrument Reading	Calibrator	Allowed Limits	Result
4	1000A / 25mV		24.625 – 25.375	Pass / Fail
5	1500 / 37.5mV		37.125 – 37.875	Pass / Fail
6	2000A / 50mV		49.625 – 50.375	Pass / Fail
7	2500A / 62.5mV		62.125 – 62.875	Pass / Fail
8	3000A / 75mV		74.625 – 75.375	Pass / Fail

The UUT was calibrated using the following equipment:

1. Datron 9100 Calibrator S/N _____

The uncertainty in the applied value is estimated not to exceed:

D.C. Millivolts : $\pm 0.085\%$

The uncertainty limits quoted refer to the applied values only and do not relate to the stability of the UUT.