# Title: Calibration Of GEC Precision D.C. Voltmeter 0 – 1500 V

## Scope

Work Instruction for the internal calibration of Precision D.C. Voltmeter 0 – 1500V. 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;-

1.1 Datron 9100 Calibrator.
1.2 $45^0$ instrument balance stand.

## Method

2.1 All calibration results must be entered on the results sheets (see appendix A).

2.2 Note the lab. temperature / R.H. and enter onto the results sheet.

2.3 Carry out test 1.

2.4 Carry out test 2 using item 1.2.

2.5 Carry out tests 3 to 8 using item 1.1.

2.6 Calibration Certificate to be endorsed “Calibrated up to 1100V only” in remarks section of Certificate.

2.7 Complete the results sheet header and enter Pass / Fail.

- All records must be kept for audit purposes

## References

Appendix A Calibration Results for GEC Precision D.C. Voltmeter 0 – 1500V

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# Title: Calibration Of GEC Precision D.C. Voltmeter 0 – 1500 V

**Appendix A**

**Calibration Results for GEC Precision DC Voltmeter 0 – 1500V**

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** Does the pointer remain within ± 1% at $45^0$ all planes? Pass / Fail

Calibration Accuracy ± 0.3% F.S.D. – Instrument horizontal

| Test No | UUT Volts | Calibrator Volts | Allowed Limits | Result |
|---|---|---|---|---|
| 3 | 200 | | 195.5 to 204.5 | Pass / Fail |
| 4 | 400 | | 395.5 to 404.5 | Pass / Fail |
| 5 | 600 | | 595.5 to 604.5 | Pass / Fail |
| 6 | 800 | | 795.5 to 804.5 | Pass / Fail |
| 7 | 1000 | | 995.5 to 1004.5 | Pass / Fail |
| 8 | 1100 | | 1095.5 to 1104.5 | Pass / Fail |

The UUT was calibrated using the following equipment:

1. Datron 9100 Calibrator S/N _____

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

D.C. Voltage: ± 0.01%

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

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