



1030 Microcal Voltage & Current Source

- 3 Voltage ranges to 1V
- 2 Current ranges to 100mA
- 0.1% accuracy
- Compact
- Portable



Introduction

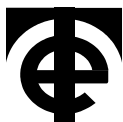
The 1030 is a compact, low cost, portable voltage and current calibrator for general purpose signal injection.

Three voltage ranges give an adjustable output from 10 μ V to 1V and two current ranges give 10 μ A to 100mA.

A precision 1k Ω resistor is also supplied with the unit to enable the user to obtain an extended range of voltage output. The resistor is connected across the output terminals and the 10mA current range selected. This will increase the voltage output between 0V and 8V with an accuracy of 0.3%.

The 1030 is simple to operate and does not require any standardisation prior to use. The operator need only switch on, check the battery condition, select the required range and output value.

The 1030 is supplied with a leatherette carry case.



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Specifications

Voltage Ranges	0 – 1V (1mV resolution) 0 – 100mV (100 μ V resolution) 0 – 10mV (10 μ V resolution)
Current Ranges	0 – 100mA (100 μ A resolution) 0 – 10mA (10 μ A resolution)
Current Shunt	1k Ω . External resistor used to provide extended voltage range of 0-8 V at 0.3% accuracy. Output resistance 1k Ω .
Accuracy	1V and 100mV ranges: \pm 0.1% of full scale 10mV and current ranges: \pm 0.2% of full scale
Linearity	0.15%
Temperature Coefficient	150ppm per $^{\circ}$ C (1V range)
Noise	30ppm of full scale (1V range)
Battery	PP3, 9V type. Approx 60 hours life. An alternative power source is a Ni-Cad rechargeable cell of the same type. This can be recharged via the socket on the top of the unit without removing the cell from the unit.
Battery Condition	Monitored by front panel indicator.
Output Polarity	Positive or negative, switch selected. A centre 'off' position is also provided.
Maximum Output Current	20mA (voltage ranges)
Maximum Output Voltage	8V (current ranges)
Output Resistance	0.2 Ω on 1V and 100mV range 10 Ω on 10mV range
Maximum Overload	The 1030 can withstand continuous open circuit or short circuit on all ranges.

General Information

Dimensions	115 x 62 x 60mm (Overall length, height, width)
Optional Extras	Rechargeable Battery Pack: A mains recharger and Ni-Cad rechargeable battery are available. The battery can be recharged without being removed.
Country of Origin	UK

Ordering Information

Description	Order Code
Microcal (Combined Voltage and Current Source)	1030
Rechargeable Battery Pack (Ni-Cad Battery and 240V Mains Charger)	1031
Rechargeable Battery Pack (Ni-Cad Battery and 110V Mains Charger)	1032
N.P.L. Traceable Calibration Certificate	9155
UKAS Calibration Certificate	9110