Potentiostat (Model EA161)

- Software-controlled
- Applied potentials of up to ±10 V
- Current ranges from 20 nA range up to 100 mA
- Current signal resolution 16 bits (0.0015% of range)
- Compact! Use inside Faraday cages, or inert atmosphere boxes
- Robust! Suitable for use even in undergraduate laboratories
- Galvanostat and ZRA modes

Description

The EA161 Potentiostat is a software-controlled, three-electrode potentiostat. It can be used at applied potentials of up to ±10 V, and where current flow is in the nanoampere range up to 100 milliamperes. Smaller current ranges, as are encountered with carbon fibre and other microelectrodes, can be handled by the more sensitive EA162 Picostat and EA164 QuadStat.

Compatibility

Supplied ready for use with **e-corder** units and includes an electrode cable terminated with miniature alligator clips.

Applications

- *Cyclic voltammetry:* compound characterization
- *Electrolysis:* small scale electrosynthesis or electropolymerisation
- *Analytical chemistry, research or teaching:* differential pulse, normal pulse, square wave voltammetry, stripping techniques
- *Kinetics:* pulse chronoamperometric techniques
- *Sensors:* suitable for use with amperometric sensors providing current in the nA to mA range
- *ZRA mode:* Zero resistance current measrements
- *Hi Z mode:* High impedance potential measurements

Specifications

Potentiostat type:	Voltage controlled current source
Compliance voltage:	>10 V
Output current	<±100 mA
Input resistance:	10^{13} Ω
Input bias current:	<10 pA @ 25 °C
Current range settings:	±100, 50, 20, 10, 5, 2, 1 mA ±500, 200, 100, 50, 20, 10, 5, 2, 1 µA ±500, 200, 100, 50, 20 nA
Gain:	10 mA/V, 100 µA/V, 1 µA/V, 100 nA/V
Maximum current signal:	±10 V
Low-pass filters:	10 kHz, 1 kHz, 4th order Bessel 100 Hz, 10 Hz, 2nd order Bessel
Slew rate:	3 V/µs

Drift with temperature:	<10 µV/°C
Multiport:	Centronics 24 pin. Provides control and power to the Potentiostat along with analog signal connections to the **e-corder**.
Power requirements: (supplied by **e-corder**)	±17 to ±22 V DC +7 to +12 V DC 25 mA typical 2 W
Dimensions (h x w x d):	50 mm x 76 mm x 260 mm (1.96" x 3.0" x 10.2")
Weight:	800 g (1.8 lb)
Operating temperature:	0 to 35 °C 0 to 90% humidity (non-condensing)
eDAQ reserves the right to alter these specifications at any time.	

WARRANTY: eDAQ Hardware units are supported by a one year warranty

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