HD

N600-HAB151 *$6,400*

POTENTIOSTAT/GALVANOSTAT w/WAVE GENERATOR

This versatile and low-cost, compact model is designed to provide a complete potentiostat/galvanostat/function generator instrument for demanding electrochemical applications. It is ideal for fundamental electrochemical studies in areas as diverse as physical electrochemistry, corrosion measurement, voltammetry, coulometry, automatic polarization and other studies. The unit consists of a potentiostat, a galvanostat, an electrometer, and a function generator. It provides a combination of blazing speed, a wide current range, low noise, high sensitivity, and unsurpassed versatility. This instrument combination represents the accumulation of HD's experience gained over the past 35 years.

Applications:
* Current Testing
* Voltammetry
* Coulometry
* Polarization
* Corrosion
* Physical Electrochemistry

Performance

The potentiostat/galvanostat portion with a maximum output of +/-15V/+/-1A and six current ranges (the lowest range: +/- 10µA) is adequate for most electrolysis tests and corrosion studies. Also included in this portion are an external control input, a current detecting filter, and warning lamps for "OUT-OF-CONTROL", "POTENTIAL-OVER", and "CURRENT-OVER". The function generator portion utilizes analog circuitry to yield smooth slopes. The function generator offers a wide scanning speed range (0.1mV/sec ~ 5000V/min) and a potential setting range of -5.0V to +5.0V. The STOP, HOLD, and REVERSE buttons are also included. The function generator portion is connected to the rest of the unit via an F.G. SET ON/OFF switch.

As a Potentiostat	
(a) Maximum Output	± 15V, ± 1A
(b) Current Measuring Range	± 1A, ± 100mA, ± 10mA, ± 1mA, ± 100µA, ± 10µA
(c) Maximum Control Potential	± 10V
(d) Control Accuracy	< ± 3mV
(e) Response Time	< 50µsec
(f) Reference Input Impedence	> 10exp10Ω
As a Galvanostat	
(a) Maximum Output	± 1A, ± 15V
(b) Current Setting Range	± 1A, ± 100mA, ± 10mA, ± 1mA, ± 100µA, ± 10µA
(c) Current Setting Accuracy	< ± 1% of range full scale
(d) Response time	< 50µsec
As an Electrometer	
(a) Input Resistance	> 10exp10Ω
(b) Bias Current	< 10exp-10A
(c) Response Time	< 10µsec
(d) Conversion Accuracy	< ± 0.1% of input potential
(e) Potential Display Range	± 2V and ± 10V full scale (Digital Display)
As a Function Generator	
(a) Waveforms	Ramp, One-shot triangle One-shot double triangle, Repetitive triangle
(b) Setting Potentials	
Range	-5,000V ~ +5,000V
Setting	Initial, upper, and lower potentials can be set
Setting Accuracy	independently (INITIAL, HIGH, LOW)
(c) Scanning Speed	
Setting 1	X10exp-1, X1, X10, X10exp2, X10exp3, X10exp4
Setting 2	1, 2, 5
Setting Units	mV/sec, 100mV/min
Setting Accuracy	< ± 1% (for X1 ~ X10); < ± 2% (for X10exp-1)
(d) Switches	START/STOP HOLD (output potential drift < ± 0.001 mV/sec) REVERSE; STOP LED; START LED; HOLD LED; UP LED; DOWN LED
PowerConsumption	120V, 20VA at stand-by mode; 100VA at max. load
Physical Dimension (WxHxD)	435mm X 100mm X 360mm/ 17.1" X 3.9" X 14.2"
Weight	7.7 kg/ 17.0 lbs.

Compact Design

Despite these impressive specifications, the N600-HAB151 is remarkably compact and lightweight. Hundreds of components in each model are built into an instrument that measures 435mm x 100mm x 360mm (WxHxD) and weighs 7.7 kilograms. Our engineers succeeded in building a compact instrument without sacrificing functionality or reliability. As a result, the Model N600-HAB151 is a world-class research potentiostat that occupies minimum bench space and is easily portable.

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