

# WPG100S Series

## General Potentiostat/Galvanostat



- *For Mid power applications*
- *Max 400Watt*
- *6 current ranges*
- *Applied voltage range of Max  $\leq \pm 40V$*
- *4 Kelvin probe type P'stat/G'stat circuit*
- *High accuracy*
- *Sampling time of 500usec*
- *LAN communication*

### Mid Power Potentiostat/Galvanostat channel for power application

The mid power potentiostat/galvanostat, **WPG100S**, is designed for Mid power purpose electrochemical experiments and its versatile features allow users to perform a wide range of electrochemical research and development. The **WPG100S series** power limit is 400Watt.

The **WPG100S series** can be configured with custom specification not exceeding its maximum power (400Watt), voltage limitation(  $\leq \pm 40V$ ).

Typical models for WPG100S are

- -10V to 10V @ 20Amp WPG100S\_1020B
- -20V to 20V @10Amp WPG100S\_2010B

Optional accessories for this system is auxiliary voltage measurement and temperature measurement

The **WPG100S series** can support various application such as corrosion, physical electrochemistry, electrosynthesis, electrolysis, electroplating and experiments on energy devices.

The Smart Interface(SI) software for WPG potentiostat/galvanostat is a convenient and powerful tool allowing:

- easily making schedule files by using schedule editor
- selecting pre-defined techniques
- classifying/grouping channels by user's purpose
- monitoring detailed test data
- providing general/cycle graph format
- converting the data to ASCII or excel format

The **WPG100 series** can communicate with the computer by the way of a Local Area Network(LAN).

## ● Features

- 6 current ranges for improved accuracy over a wide range of testing conditions.
- High resolution 16 bit DAC/ADC for system control and data acquisition.
- Supports techniques for battery studies such as CC/CV test, CC/CC test, CV test, as well GITT/PITT test for calculation of diffusion coefficient.
- High sampling rate.
- The various safety functions are provided to protect the cell and system from being damaged.
- The obtained data can be analyzed by IVMAN™ software without license code for further analysis.

## ● For Electroanalytical Measurement

- Cyclic voltammetry
- Linear sweep voltammetry
- Chrono-amperometry
- Chrono-coulometry
- Chrono-potentiometry

## ● Corrosion Measurement

- Tafel plot
- Potentiodynamic
- Potentiostatic
- Galvanostatic
- Cyclic polarization
- Ecorr vs. time
- Linear polarization resistance

## ● For Energy Test

- Charge/Discharge(CC/CV) Test
- Constant Current Charge/Discharge(CC/CC) Test
- Steady state CV
- Pstat IV curve
- Gstat IV curve
- Electrochemical Voltage Spectroscopy(EVS) Test
- Galvanostatic Intermittent Titration Technique(GITT) Test
- Potentiostatic Intermittent Titration Technique(PITT) Test

## ● Specifications

Control voltage range	Max <math>\pm 40V</math>
Compliance voltage	Depending on control voltage
Control current range	6 ranges
LED	Run: 1ea, Mode: 2ea, Irange:6 ea
Input impedance	$10^{12}$ Ohm
Cell connection	4 probe type, alligator clip cables
Voltage accuracy	$\pm 0.05\%$ f.s.
Current accuracy	$\pm 0.05\%$ f.s.

### Voltage Control/Measurement

Full scale ranges	Max $\pm 40V$
Resolution(16 bits)	0.0015% f.s

### Current Control/Measurement

Full scale ranges	Max. f.s under 400Watt
Resolution	16 bit(0.0015% f.s)
Communication	TCP/IP
Sampling time	500usec

All specifications are subject to change without notice.



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