

# WMPG1000S

## Multi-Channel Potentiostat/Galvanostat



- *For normal power applications*
- *Perfect for general electrochemical tests*
- *Max 50Watt per ch over 5 current ranges*
- *Applied voltage range of Max  $<\pm 40V$*
- *4 Kelvin probe type P'stat/G'stat circuit*
- *High accuracy*
- *Max 64 channels configuration*
- *Plugin channels for easy maintenance*
- *LAN communication*

### Multi-Channel Potentiostat/Galvanostat for standard application

The Multichannel potentiostat/galvanostat, **WMPG1000S**, is designed for general purpose electrochemical experiments and its versatile features allow users to perform a wide range of electrochemical research and development.

The **WMPG1000S** has a current control range of 100uA to 1A and voltage range of -10V to +10V as standard. The accuracy for current and voltage on these channels is  $\pm 0.02\%$  FSR. Max channel configuration is 128 per one PC.

The **WMPG1000S** does not only support various electrochemical techniques such as corrosion test techniques, electro-analytical techniques, cyclic voltammetry, chronoamperometry, and potentiometry, etc. but also carries out experiments on batteries. This feature allows user to perform general Echem experiments.

The Smart Interface(SI) software 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 **WMPG1000S** can communicate with the computer by the way of a Local Area Network(LAN).

## ● Features

- Multiple 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 ±40V
Max power per channel	50W
Control current range	5 ranges
LED	Run: 1ea, Mode: 2ea
Input impedance	10 <sup>12</sup> Ohm
Cell connection	4 probe type, alligator clip cables
No. of channels	8 channels per module Max 64 ch configuration
Voltage accuracy	±0.02% f.s.
Current accuracy	±0.02% f.s.
<b>Voltage Control/Measurement</b>	
Full scale ranges	Max ±40V
Resolution(16 bits)	0.0015% f.s
<b>Current Control/Measurement</b>	
Full scale ranges	Max. 5A@5V
Resolution	16 bit(0.0015% f.s)
Communication	TCP/IP
Sampling time	Without option - 8~40 channels system: 10msec - 41~64 channels system: 10msec (2 SIF Boards) With Option - 8~16 channels system: 10msec - 17~40 channels system: 10msec (2 SIF Boards) - 41~64 channels system: 20msec (2 SIF Boards)

All specifications are subject to change without notice.



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