WMPG1000M Series

Mid Power multichannel Potentiostat/Galvanostat

WMPG1000M1

WMPG1000M2

- *For mid power applications*
- *100Watt(M1) or 200Watt(M2)*
- *5 current ranges*
- *Applied voltage range of Max <±40V*
- *4 Kelvin probe type P'stat/G'stat circuit*
- *High accuracy*
- *Max 64 channels configuration*
- *Plugin channels for easy maintenance*
- *LAN communication*

Multichannel Potentiostat/Galvanostat
for Mid power application

The multichannel potentiotiostat/galvanostat, WMPG1000M1 or WMPG1000M2, is designed for Mid power purpose electrochemical experiments and its versatile features allow users to perform a wide range of electrochemical research and development. As a spin-off of WMPG1000S, the WMPG1000M seires has the same features as WMPG1000S but the channel power limit is 100Watt or 200Watt.

The WMPG1000M series has a current control range of max 20A@5V (M2) and voltage range of max 40V under 100Watt(M1) or 200Watt(M2). The accuracy for current is ±0.05% FSR.and voltage on these channels is ±0.02% FSR. Max channel configuration is 64 per one PC.

The WMPG1000M series can support various electrochemical techniques such as corrosion test techniques, electro-analytical techniques, cyclic voltammetry, chronoamperometry, potentiometry, and various experiments on energy devices. This feature can be used in electrolysis, electrosynthesis and electroplating etc.

The Smart Interface(SI) software for WMPG multichannel 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 WMPG1000M series can communicate with the computer by the way of a Local Area Network(LAN).

Features

- 5 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
Compliance voltage	Depending on control voltage
Control current range	Max 5A@10V(M1), 5 ranges Max 10A@10V(M2), 5 ranges
LED	Run: 1ea, Mode: 2ea
Input impedance	10^{12} 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	±0.05% f.s.
Voltage Control/Measurement	
Full scale ranges	±10V
Resolution(16 bits)	0.3mV
Current Control/Measurement	
Full scale ranges	f.s under 100Watt (M1) f.s under 200Watt (M2)
Resolution	16 bit(0.0015% f.s)
Communication	TCP/IP
Sampling time 16channels/SIF	- Without option (Max 64 channels) : 10msec - With option (AuxV and/or Temperature input) (Max 32 channels) : 10msec
Size	W446.7xD498.7xH285.9mm (M1) W446.7xD625.4xH374.5mm (M2)

All specifications are subject to change without notice.

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