WMPG1000D Series

Dual Channel Potentiostat/Galvanostat Module

- *For Mid power applications*
- *Max 400Watt*
- *5 current ranges*
- *Applied voltage range of Max <±40V*
- *4 Kelvin probe type P'stat/G'stat circuit*
- *High accuracy*
- *Max 64 channels configuration*
- *Independent power supply per dual channel*
- *LAN communication*

Mid Power Potentiostat/Galvanostat channel for power application

The mid power potentiotiostat/galvanostat channel, WMPG1000D, 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 WMPG1000D series requires external 8channel controller and the channel power limit is 400Watt.

The WMPG1000D series can be configured with custom specification not exceeding its maximum power (400Watt), voltage limitation(<±40V).

Typical models for WMPG1000D are
- *±10V @ 16Amp WMPG1000D_1016BC10*
- *±20V @ 8Amp WMPG1000D_208BC21*

Dual channel module has its own power supply.
Auxiliary voltage input and temperature input are optional.
The WMPG1000D series channel can support various application such as corrosion, physical electrochemistry, electrosynthesis, electrolysis, electroplating and experiments on energy devices.

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 WMPG1000 series can communicate with the computer by the way of a Local Area Network(LAN).

WMPG1000D series

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

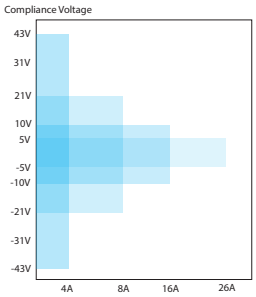
Specifications

Control voltage range	Max <±40V
Compliance voltage	Refer to Power configuration map
Control current range	5 ranges
LED	Run: 1ea, Mode: 2ea, Irange:5 ea
Input impedance	10^{12} Ohm
Cell connection	4 probe type, alligator clip cables
No. of channels	2 per module
Voltage accuracy	±0.05% f.s. (<10V)
Current accuracy	±0.05% f.s.
Voltage Control/Measurement	
Full scale ranges	Max ±40V
Resolution(16 bits)	0.0015% f.s
Current Control/Measurement	
Full scale ranges	Max. f.s under 400Watt
Full scale ranges	Max. f.s under 400Watt
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	W447.1xD505.2xH241mm (excluding controller)

Max. f.s under 400Watt

Maximum current depending on voltage range
1) Max 26A @ ±5V(C5V*)
2) Max 16A @ ±10V(C10V*)
3) Max 8A @ ±20V(C21V*)
4) Max 4A @ ±40V (C43V*)

* Compliance voltage



Power Configuration Map

All specifications are subject to change without notice.

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