

WMPG1000Ls

Low Current Multichannel Potentiostat/Galvanostat



- *For low power applications*
- *Perfect for sensor development*
- *±10mA current over 5 current ranges*
- *Applied voltage range of ±10V*
- *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 low current application

The multichannel potentiostat/galvanostat, **WMPG1000Ls**, is designed for low current applications and it is especially suitable for sensor development.

The **WMPG1000Ls** has a current control range of 1 μ A to 10mA 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 64 per one PC.

The **WMPG1000Ls** 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 compact size **WMPG1000Ls** 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.
- Provides various techniques for sensor test.
- 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	±10V
Compliance voltage	±12V
Control current range	10mA, 5 ranges
LED	Run: 1ea
Input impedance	10 ¹² Ohm
Cell connection	4 probe type, alligator clip cables
Max channels	64
Voltage accuracy	±0.02% f.s.
Current accuracy	±0.02% f.s.

Voltage Control/Measurement

Full scale ranges	±10V
Resolution(16 bits)	0.3mV

Current Control/Measurement

Full scale ranges	Max. 10mA@10V
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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