

# WMPG1000LK8

## 8 Channel Low Current Potentiostat Galvanostat



- **Fixed specification**
- **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**
- **Sampling time of 10msec**
- **Plugin channels for easy maintenance**
- **LAN communication**

### 8 Channel Potentiostat/Galvanostat for low current application

The 8 channel potentiostat/galvanostat, **WMPG1000LK8**, is designed for low current applications and it is especially suitable for sensor development. As a spin-off of WMPG1000L, the **WMPG1000LK8** has the same features as WMPG1000L but the channel expansion of **WMPG1000LK8** is not available.

The **WMPG1000LK8** has a current control range of 1 $\mu$ A to 10mA and voltage range of -10V to +10V as standard. The accuracy for current and voltage on these channels is  $\pm 0.01\%$  FSR. The sampling time is 10msec.

The **WMPG1000LK8** 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 **WMPG1000LK8** is supplied with eight cell cables and 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 <sup>12</sup> Ohm                |
| Cell connection                    | 4 probe type, alligator clip cables |
| No. of channels                    | 8                                   |
| Voltage accuracy                   | ±0.01% f.s.                         |
| Current accuracy                   | ±0.01% f.s.                         |
| <b>Voltage Control/Measurement</b> |                                     |
| Full scale ranges                  | ±10V                                |
| Resolution(16 bits)                | 0.3mV                               |
| <b>Current Control/Measurement</b> |                                     |
| Full scale ranges                  | Max. 10mA@10V                       |
| Resolution                         | 16 bit(0.0015% f.s)                 |
| Communication                      | TCP/IP                              |
| Sampling time                      | 10msec                              |

All specifications are subject to change without notice.



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