

WBCS3000Le32

32 Channel Low Current Battery Test System



- **32 channel system**
- **Channel expansion is available**
- **Perfect for coin cell test at various C-rates**
- **$\pm 100\text{mA}$ current over 4 current ranges**
- **Applied voltage range of $\pm 5\text{V}$**
- **Potentiostat/Galvanostat circuit**
- **High accuracy**
- **Sampling time of 20msec**
- **Plugin channels for easy maintenance**
- **LAN communication**

32 channel Battery Charge/Discharge Test System for low current application

The 32 channel battery test system, **WBCS3000Le32**, is designed for low current applications and it allows multichannel operation users to set up a battery test system at an affordable price.

Coin cells are often used to test the capacities and rate capabilities of new materials in the initial stage and the **WBCS3000Le32** can be a perfect choice for coin cell testing at high C-rates and half cell testing. Not only does the **WBCS3000Le32** support various techniques for battery studies, but also carries out electrochemical techniques such as corrosion test techniques, electro-analytical techniques, cyclic voltammetry, chronoamperometry, and potentiometry, etc. and this feature allows user to perform general Echem experiments.

The **WBCS3000Le32** has four current control ranges of 100uA to 100mA and voltage range of -5V to +5V as standard. The accuracy for current and voltage on these channels is $\pm 0.01\%$ FSR. The sampling time is 20msec.

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 **WBCS3000Le32** is supplied with eight cell cables and can communicate with the computer by the way of a Local Area Network(LAN).

● Features

- Potentiostat/Galvanostat circuit : no time delay between the charge and discharge cycles.
- Supports techniques for battery studies such as CC/CV test, CC/CC test, C-rate/CV test, CV test, as well GITT/PITT test for calculation of diffusion coefficient.
- Tests the coin cell to charge-discharge cycles at the required C-rate.
- High sampling rate for calculating dynamic charge/discharge capacity ratings.
- Minimum order channel is 16 channels and extra channels can be added by the unit of 16 channels.
- 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 Energy Test

- Charge/Discharge(CC/CV) Test
- Constant Current Charge/Discharge(CC/CC) Test
- IV Curve Test
- Electrochemical Voltage Spectroscopy(EVS) Test
- Galvanostatic Intermittent Titration Technique(GITT) Test
- Potentiostatic Intermittent Titration Technique(PITT) Test
- Cyclic Voltammetry
- Potentiostatic Experiment With Half Cell

● Options

- Battery Jig
- Test Cell
- Dilatometer

● Specifications

Control voltage range	±5V
Control current range	100mA, 10mA, 1mA, 100uA (4 ranges)
LED	Run: 1ea
Input impedance	10 ¹² Ohm
Cell connection	4 probe type, alligator clip cables
No. of channels	16 (minimum order channel) 32 (for a standard system)
Channel expansion	up to 128 channels
Rise time	<50usec
Voltage accuracy	±0.01% f.s.
Current accuracy	±0.01% f.s.

Voltage Control/Measurement

Full scale ranges	±5V
Resolution(16 bits)	0.15mV

Current Control/Measurement

Full scale ranges	max. 100mA@5V
Resolution	16 bit(0.0015% f.s)
Communication	TCP/IP
Sampling time	20msec

All specifications are subject to change without notice.



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