Overview

Potentiostat/Galvanostat

- Portable
- Computerized
- For test and education purpose

Description

PguEducation with TFT display is a further development of our previous training potentiostat for people who want to discover the world of electrochemical measurements and gain initial experience in this field. Even advanced users can carry out experiments and measurements with this compact device.

When connecting the **PguEducation** with a computer running our **EcmWin** Software it behaves like a normal potentiostat. Performing OCP, Constant value, Scan and Pulse measurements are supported. EIS or ECN are not feasible with this device.

A maximal current of 50mA some realistic measurements can be carried out. In cases a higher current is required you can also reduce the sample size to be inside of the possible current. With 6 ranges, the lowest current range is 1 µA. It is obvious that the resolution and the accuracy of a professional device cannot be reached in this range. Nevertheless also measurement can be done in this range.

With a compliance voltage of +- 10V and a polarization range of +-5V, the device is ideal for teaching and training. Moreover it is able to introduce in the typical nature of electrochemical measurements.

Technical details

Output parameter	
Compliance voltage	± 10V
Polarisation ranges	Potentiostat: ± 5V Galvanostat: ± 50mA
Current ranges	6 steps from 50 mA to 1 µA
Resolution	1 na = 1 mV
Supply parameter	
Supply voltage	9-18 V DC
Supply current	300 mA
General parameter	
Modes	Potentiostat and Galvanostat
Impedance analyzer	none
Electrode connections	2, 3 electrode (CE, RE, WE)
Floating mode	none
Electrometer input impedance RE	10^{13} Ω
Bandwidth	5 kHz
ADC	24 bit
DAC	26 bit
Resolution of setvalue	< ±3 mV, ±0,5 %
Resolution of measurements	< ±3 mV, ±0,5 %
Sample rate	300 Hz at 24 bit, 1 kHz at 18 bit
Interface	Ethernet/USB
Software	EcmWin, EcmView
Methods	OCP, hold experiments, reversed scan cyclic voltammetry, chronoamperometry, sequence measurement with battery charging and discharging functions, measurement current density versus time, current density versus potential
Dimensions [L x W x H] in mm	120 x 120 x 550
Weight in kg	0,9

Equipment

- 4-pole circular connector for connecting the electrodes (RE, WE, CE and GND).
- USB and Ethernet cable for connection to computer
- 12V Power Supply