



Overview



PGU-OEM

Potentiostat/Galvanostat

- Software controlled operation
- High resolution interface: 24 bit data acquisition, 26 bit scan resolution (330 nV)
- Communication via Ethernet
- Main Power 115 V/230 V

Description

The devices of our **PGU series** are standard laboratory equipment which provides a high degree of transparency and flexibility. **PGU-OEM** is a reduced form of the standard instruments. Two built in instruments show potential and current as digital values. Operation is exclusively software controlled. The instrument can perform simple interactive as well as more complex experiments. Transparency is kept, even when the automated tests are running. Observation of the measurements can be displayed via the digital instruments and/or with the graphical display of the software on the computer monitor. The device design is very flexible and offers the possibility to build different types out of a base device.

PGU-OEM is intended primarily for OEM solutions where the client creates own applications and uses merely the communication routines of the interface. Depending on the requirements, the device is mounted in a rack. So the customer can choose the cabinet or case he needs for his application.

Technical details

Output parameter	
Compliance voltage	± 12V
Polarisation ranges	Potentiostat: ± 10V Galvanostat: ± 1000mA / ± 2000mA
Current ranges	10 steps from 1000 mA to 1 nA / 2000 mA to 10 nA
Resolution	100 nA = 10000 mV in 100 nA range, 10 pA = 1 mV / 1 μA = 10000 mV in 1 μA range, 100 pA = 1 mV
Supply parameter	
Supply voltage	9–18 V DC via wide range desktop power supply double galvanically isolated (in floating mode) Power supply: Input: 100–240 V, 47–63 Hz
Supply current	1.6A
General parameter	
Modes	Potentiostat and Galvanostat
Impedance analyzer	optional
Electrode connections	2, 3, 4 Electrode (CE, RE, WE, WE-Sense)
Floating mode	Yes, switchable
Electrometer input impedance RE	10 ¹⁵ Ω
Bandwidth	100kHz
ADC	24 bit, max. resolution 1 μV
DAC	26 bit at ±10 V → 330 nV steps
Resolution of setvalue	< ±1 mV, ±0,01 %
Resolution of measurements	< ±1 mV, ±0,01 %
Sample rate	Standard 200 Hz at 24 bit, 1 kHz at 16 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
Additional inputs	none
Additional outputs	none