

Potentiostat – Galvanostat

± 10 nA to ± 1 A / ± 15 V / ± 20 V

OGFPWR
POWER
SUPPLY

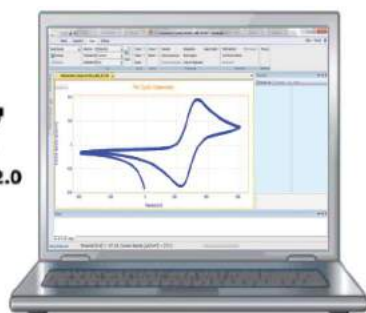


OGF01A
POTENTIOSTAT
GALVANOSTAT

OrigaMaster



USB 2.0



Licence free software
Windows XP, Vista,
7, 8 and 10.

Included in the Pack

All in one concept and **Ready to use**

1 Power Supply - OGFPWR



It supplies current to one Potentiostat **OGF01A**

Technical specifications:

Power: 100-240Vac – 50-60Hz – 1KVA

Weight: 3.10 kg

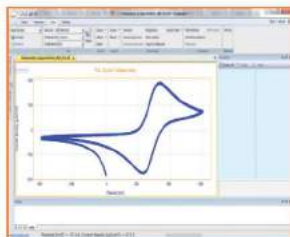
Dimensions (Length x Width x Height): 28.5 x 8.3 x 24.15 cm

2 Potentiostat & Galvanostat – OGF01A and its cords



The pack includes cords to connect 2, 3 or 4 Electrodes
OrigalyS customizes the cords for you, please ask us!

3 PC Software – OrigaMaster 5



USB 2.0

1. Graphic programming concept
2. User friendly
3. Windows Interface

Methods included:

Chrono: Pot. and Gal. CV, Staircase, CA, CC, CP

Pulse: DPV, SWV, GPV

Batteries: Charge/Discharge, Constant Power, Profile Generator, Internal Resistance, PITT, GITT

Corrosion: Pitting, R_p , Evans, Tafel

Extra Methods if connected to the OGFEIS:

EIS: Gal. and Pot. Dynamic, Mott-Schottky



The OGFO1A combines compactness, performance and accurate price. It is a 1A potentiostat/galvanostat which can be complemented by one Impedance module OGFEIS.

His handle allows you to carry it easily and everywhere.

Connected to a Drive Unit OGFDREV, it becomes a Multi-Channel system.

Built-in modularity:

1. Standalone Potentiostat & Galvanostat
2. Temperature measurement
3. Battery Holder Connector
4. Analog I/O to connect external devices
5. USB control

Main Technical Specifications

Electrode connections	2, 3 and 4
Max applied potential	± 15 V
Compliance voltage	± 20 V
Maximum current	± 1 A
Current ranges	± 10 nA to ± 1 A in 9 decades
Potential accuracy	< 0.1 % FSR (Full Scale Range)
Potential resolution	450 μ V on ± 15 V
Current accuracy	< 0.1 % FSR
Current resolution	0.003 % FSR (Best: 300 fA)
Input impedance	10 G Ω ($\parallel$ 20 pF)
Potential bandwidth	1 MHz
Computer interface	USB 2.0
Software	OrigaMaster

Optional items



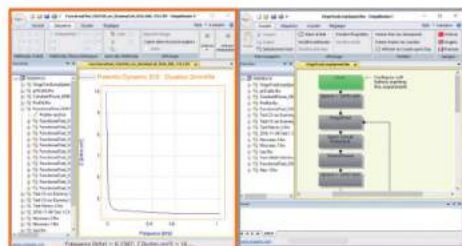
Easy to use and licence free



Multi-Windowing
Changing scales in real time
Overlaying without limit

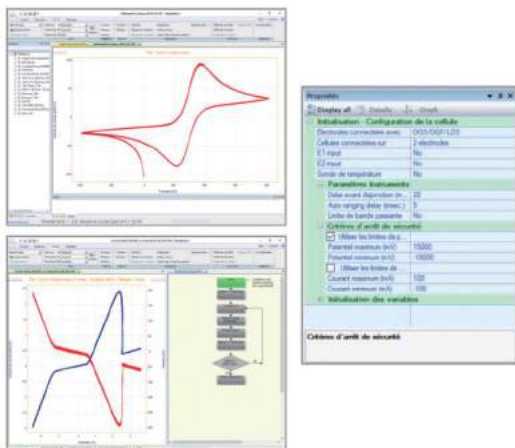
- ✓ Windows Interface
- ✓ Easy graphic programming
- ✓ Up to 10,000 cycles
- ✓ Zooming in real time
- ✓ Export data to Excel, Open Office, Regressi ...

Opening two OrigaMaster or more at the same time



1st OrigaMaster 2nd OrigaMaster

- ✓ Expert mode
- ✓ No point or time limitation
- ✓ Safety criteria
- ✓ Customization
- ✓ Multi-languages: English, French and Chinese



OrigaMaster's Methods

OrigaFlex

VOLTAMMETRY

Pot. Cyclic Voltammetry (CV)	✓
Pot. Advanced Cyclic Voltammetry	✓
Gal. Cyclic Voltammetry	✓
Pot. Linear Voltammetry	✓
Pot. CV 4 limits	✓
Pot. Interactive CV	✓
Staircase Voltammetry (SCV)	✓

CHRONO

Open Circuit Potential (OCP)	✓
Chrono Amperometry (CA)	✓
Chrono Amperometry Expert	✓
Chrono Coulometry (CC)	✓
Chrono Potentiometry (CP)	✓
Chrono Potentiometry Expert	✓
Interactive Potentiometry	✓
Single Chrono Amperometry	✓

IMPEDANCE

Pot. Dynamic EIS	✓
Pot. Fixed Frequency EIS (Capacitance)	✓
Gal. Dynamic EIS	✓

CORROSION

Pitting corrosion	✓
General corrosion (Rp)	✓
Coupled corrosion (Evans)	✓
Polarization for corrosion (Tafel)	✓
Zero Resistance Ammeter (ZRA)	x

PULSE

Pot. Differential Pulse (DPV)	✓
Gal. Recurrent Differential Pulse	✓
Pot. SW Voltammetry (SWV)	✓
Potentiometric Stripping Analysis (PSA)	x

BATTERIES and SUPER CAPACITORS

Single Charge or DisCharge	✓
Gal. Charge and DisCharge Cycle	✓
Expert Charge and DisCharge Cycle	✓
PITT	✓
GITT	✓
Constant Power	✓
Profile Generator	✓
Internal Resistance	✓

pH AND mV MEASUREMENT

pH fixed Calibration	x
pH auto Calibration	x
pH measurement	x
mV measurement	x

Battery Holders



CR2032 Coin Cell

Swagelok Holder:

- ✓ Exchangeable
- ✓ Banana connectors: $\varnothing 2\text{mm}$

To be used with OrigaFlex

Dimensions:

- ✓ Length: 8 cm
- ✓ Width: 4.2 cm
- ✓ Height: 6.5 cm
- ✓ Height with the Swagelok: 11.4 cm

Main Specifications:

- ✓ Empty weight: 44.51 g
- ✓ Full weight: 200 g
- ✓ Operating temperature :
-30°C à 80°C
- ✓ Receptacle

Fitting the following batteries:

- ✓ Coin Cells
- ✓ Flat Cells
- ✓ Cylindrical Cells

To be used with OrigaFlex

Main Specifications for the batteries:

- ✓ Thickness: 3.2 mm maximum
- ✓ Diameter: 20 mm maximum

Main Specifications:

- ✓ Temperature sensor
- ✓ Operating temperature:
-30°C to 80°C
- ✓ Receptacle

Other Battery Cell Holders:
On demand

Detailed specifications

	OrigaFlex		
	OGF500	OGF01A	OGF05A
Potentiostat	yes		
Galvanostat	yes		
Maximum current	±500 mA	±1 A	±5 A
Compliance voltage	±20 V		
Max applied potential	±15 V		
Voltage range	±15 V		
Potential accuracy	< 0.1% FSR (full scale range)		
Potential resolution	450 µV		
Maximum scan rate	200 V/s		
Current ranges	9 (14 with low current option)	9 (13 with low current option)	6 (11 with low current option)
with standard board	±5 nA to ±500 mA	±10 nA to ±1 A	±50 µA to ±5 A
with low current option	1 pA to 10 nA		
Current accuracy	< 0.1% FSR		
Current resolution	0.003 % FSR (Best: 150 fA)	0.003 % FSR (Best: 300 fA)	0.003 % FSR (Best: 1,5 nA)
Potentiostat rise/fall time	< 4 µs		
Input impedance	10 GΩ (//20 pF)		
Interfaces	Ethernet, USB 2.0		
Acquisition time	≥100 µs		
IR Compensation Manual	No, 4 poles measurement capability		
Electrode connections	2, 3, 4		
A/D converter	16 bits		
EIS Capability	10 µHz to 5 MHz		
Analog I/O	Yes, 1		
External Booster of current	No		
Floating option	No versatile connection		
Filters	1 µs to 1 s, analog		
Dimensions (DxWxH)	300 x 85 x 450 mm		300 x 120 x 450 mm
Power requirements	88-264 Vac, 47-63 Hz, 30 VA	88-264 Vac, 47-63 Hz, 40 VA	115/230 Vac, 47-63 Hz, 150 VA
Weight	4.55 kg	4.55 kg	8 kg
PC Software	OrigaMaster (by USB 2.0) and OrigaViewer (by Ethernet)		
Cable length	On demand		
Temperature control	-10°C to 105°C (14°F to 221°F)		

Subject to change without notice

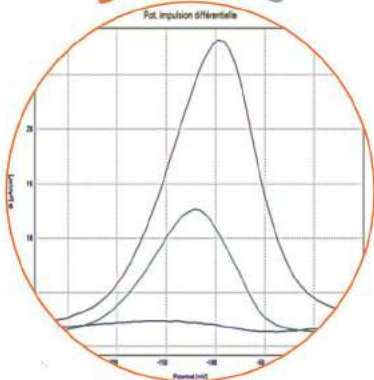
BATTERIES



CORROSION



SENSORS



RESEARCH



Subject to change
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