

## Potentiostat – Galvanostat $\pm 10$ nA to $\pm 1$ A / $\pm 15$ V / $\pm 20$ V

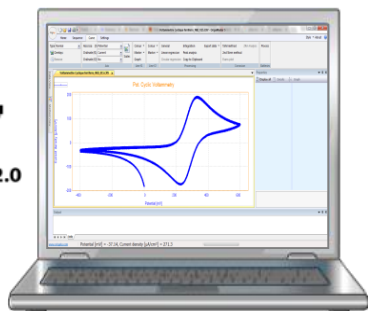
OGFPWR  
POWER  
SUPPLY



OGF01A  
POTENTIOSTAT  
GALVANOSTAT

### OrigaMaster

USB 2.0



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

Electrochem  
**OrigaLys**



# Included in the Pack

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

## 1 Power Supply - OGF<sup>PWR</sup>



It supplies current to one Potentiostat OGF<sup>01A</sup>

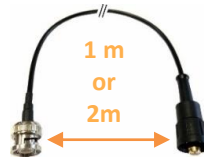
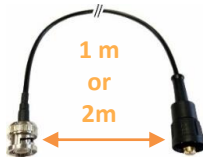
### Technical specifications:

Power: 100-240Vac – 50-60Hz – 1KVA

Weight: 3.10 kg

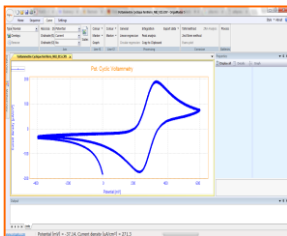
Dimensions (Length x Width x Height): 28.5 x 8.3 x 24.15 cm

## 2 Potentiostat & Galvanostat – OGF<sup>01A</sup> 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, Rp, Evans, Tafel

### Extra Methods if connected to the OGF<sup>EIS</sup>:

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

See the full list of methods on [www.origalys.com](http://www.origalys.com)



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

Its handle allows you to carry it easily and everywhere.

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

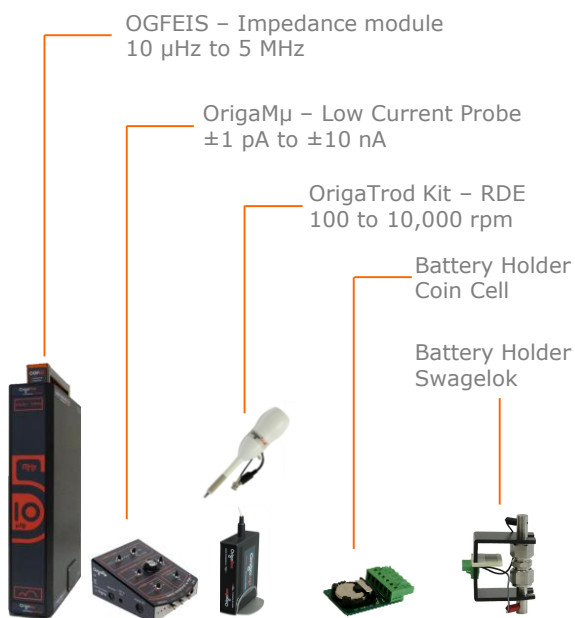
### Built-in modularity:

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	0.003 %
Current accuracy	< 0.1 % FSR
Current resolution	0.003 % FSR (Best: 300 fA)
Input impedance	10 GΩ (//20 pF)
Potential bandwidth	1 MHz
Computer interface	USB 2.0
Software	OrigaMaster

### Optional items



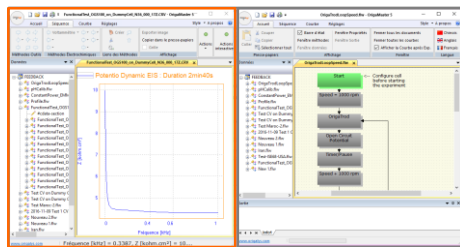
Easy to use and licence free



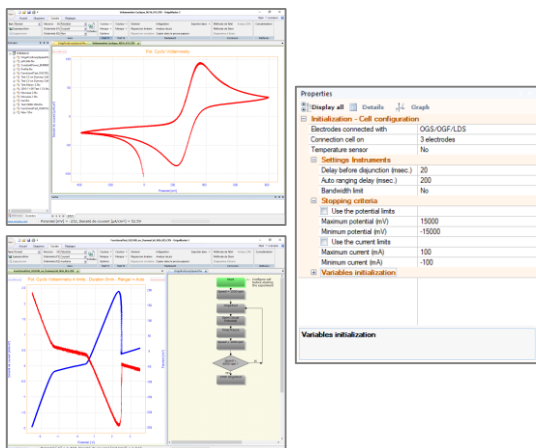
**Multi-Windowing**  
**Changing scales in real time**  
**Overlaying without limit**

- ✓ Windows Interface
- ✓ Easy graphic programming
- ✓ Up to 1,000,000 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

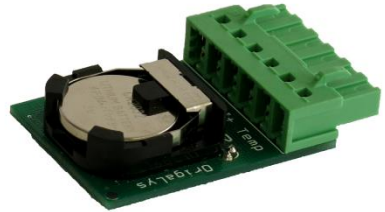
## BATTERIES and SUPER CAPACITORS

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

Subject to change without notice

## BATTERIES



[www.origalys.com](http://www.origalys.com)

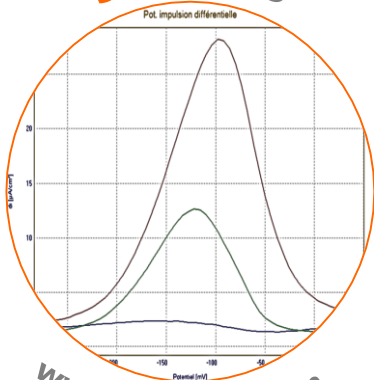
## CORROSION



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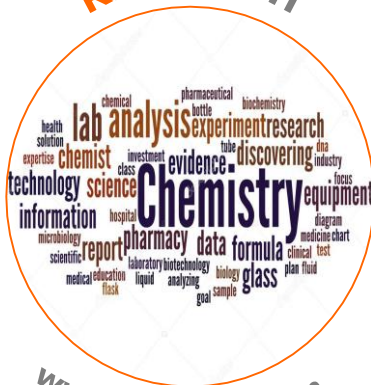


## SENSORS



[www.origalys.com](http://www.origalys.com)

## RESEARCH



[www.origalys.com](http://www.origalys.com)

Subject to change  
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