OGFIOA

Potentiostat – Galvanostat

±100 µA to ±10 A / ±15 V / ±20 V

**POTENTIOSTAT
GALVANOSTAT
T°C PROBE
BATTERY HOLDER**

OrigaMaster 5

USB 2.0
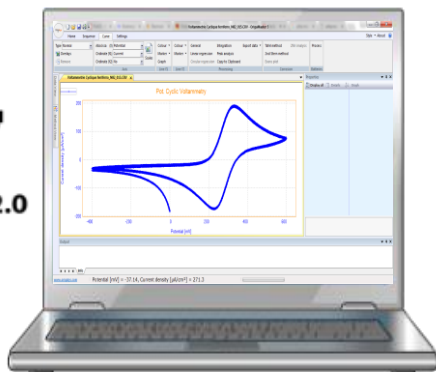
Licence free software

Windows XP, Vista, 7, 8 and 10.

EASY TO USE

Origalys

GARANTIE INSTRUMENT
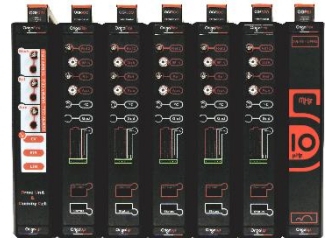5 ANS YEARS AÑOS
INSTRUMENT WARRANTY

How it works

To supply the system, there are two possibilities, depending on your needs...

OGFDRV – DRIVE UNIT – MULTI-CHANNEL CONFIGURATION

- ✓ **Power supply**
- ✓ **Control of channels**
- ✓ **Built-in dummy cell**

ETHERNET

Use an "**OGFDRV - Drive Unit"**, from one channel and to extend it in the future.

For instance:

5 channels 500 mA (OGF500)
+
One EIS module

OGFPWR – POWER SUPPLY – FOR SINGLE-CHANNEL

- ✓ **Power supply**
- ✓ **For only one channel**
- ✓ **And one OGFEIS**

USB 2.0

or

Consult our different Pack OGF:

Pack OGF500

Pack OGF01A

Pack OGF05A

Pack OGF10A

For instance:

One channel 500 mA
+
One EIS module
or
One channel 500 mA
=
Pack OGF500

2

OGF10A

The OGF10A combines compactness, performance and accurate price. It is a 10 A potentiostat/galvanostat which can be complemented by one Impedance module OGFEIS.

His handle allows you to carry it easily and everywhere.

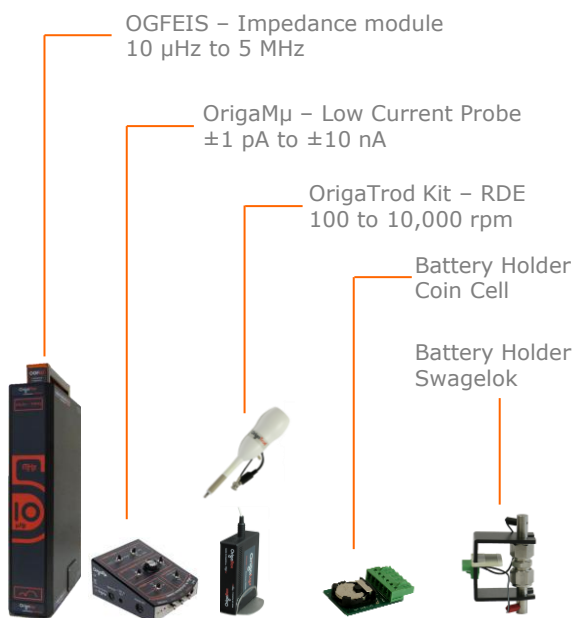Connected to a Drive Unit OGFDRV, it becomes a Multi-Channel system.

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	±10 A
Current ranges	±100 µA to ±10 A in 6 decades
Potential accuracy	< 0.1 % FSR (Full Scale Range)
Potential resolution	0.003 %
Current accuracy	< 0.1 % FSR
Current resolution	0.003 % FSR (Best: 3 nA)
Input impedance	1 Ω (//20 pF)
Potential bandwidth	100 KHz
Computer interface	USB 2.0
Software	OrigaMaster

Optional items

OGFEIS – Impedance module
10 µHz to 5 MHz

OrigaMµ – Low Current Probe
±1 pA to ±10 nA

OrigaTrod Kit – RDE
100 to 10,000 rpm

Battery Holder
Coin Cell

Battery Holder
Swagelok

OrigaMaster

Easy to use and licence free

or

with or without EIS

Thanks to the Power Supply

USB 2.0

Origa**Master**
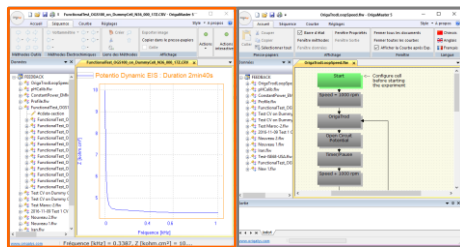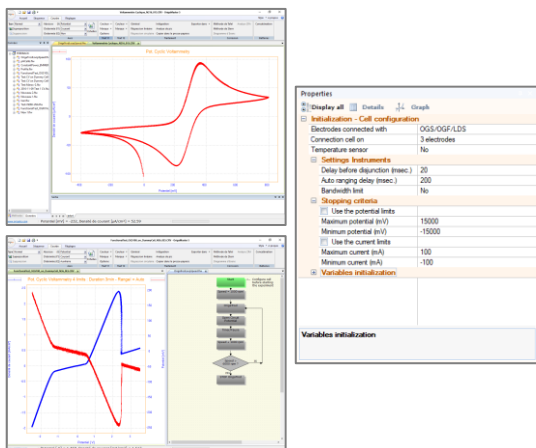

**Multi-Windowing
Changing scales in real time
Overlaying without limit**

✓ **Windows Interface**

✓ **Easy graphic programming**

✓ **Up to 1,000,000 cycles**

✓ **Zooming in real time**

✓ **Export data to
Excel, Open Office, Regressi ...**

Opening two Origa Master** or more at the same time**

1st Origa**Master**   2nd Origa**Master**

Properties

Display all	Details	Graph

Initialization - Cell configuration	
Electrodes connected with	OGS/OGF/LDS
Connection cell on	3 electrodes
Temperature sensor	No
Settings Instruments	
Delay before disjunction (msec.)	20
Auto ranging delay (msec.)	200
Bandwidth limit	No
Stopping criteria	
Use the potential limits	
Maximum potential (mV)	15000
Minimum potential (mV)	-15000
Use the current limits	
Maximum current (mA)	100
Minimum current (mA)	-100
Variables initialization	

Variables initialization

✓ **Expert mode**

✓ **No point or time limitation**

✓ **Safety criteria**

✓ **Customization**

✓ **Multi-languages:
English, French and Chinese**

4

OrigaMaster's Methods

	OrigaFlex – OGF10A
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)	✗
PULSE	
Pot. Differential Pulse (DPV)	✓
Gal. Recurrent Differential Pulse	✓
Pot. SW Voltammetry (SWV)	✓
Potentiometric Stripping Analysis (PSA)	✗
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	✗
pH auto Calibration	✗
pH measurement	✗
mV measurement	✗

OrigaLine

Battery Holders for OrigaFlex

Swagelok Holders
2 electrodes / 3 electrodes

Coin cell Holder
CR2032

Dimensions:
- ✓ Length: 80 mm
- ✓ Width: 42 mm
- ✓ Height: 65 mm

Fitting the following batteries:
- ✓ Thickness: 3,2 mm maximum
- ✓ Diameter: 20 mm maximum

Main Specifications:
- ✓ Easily removable from the device
- ✓ Empty weight: 44,51 g
- ✓ Full weight: 200 g
- ✓ Banana connectors: ø2 mm
- ✓ Operating temperature:
          -30°C à 80°C

Main Specifications:
- ✓ Easily removable from the device
- ✓ Length: 80 mm
- ✓ Width: 32 mm
- ✓ Temperature sensor
- ✓ Operating temperature:
          -30°C to 80°C

Other Battery Cell Holders:
On demand

Detailed specifications

	OrigaFlex			
	OGF500	**OGF01A**	**OGF05A**	**OGF10A**
Potentiostat	yes			
Galvanostat	yes			
Maximum current	±500 mA	±1 A	±5 A	±10 A
Compliance voltage	±20 V			
Max applied potential	±15 V			
Voltage range	±15 V			
Potential accuracy	< 0.1% FSR (full scale range)			
Potential resolution	0.003 %			
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)	6 (11 with low current option)
with standard board	±5 nA to ±500 mA	±10 nA to ±1 A	±50 µA to ±5 A	±100 µA to ±10 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)	0.003 % FSR (Best: 3 nA)
Input impedance	1 TΩ (//20 pF)			
Interfaces	Ethernet, USB 2.0			
Acquisition time	$\geq$100 µs			
IR Compensation	Yes, manual and automatic Static			
Electrode connections	2, 3, 4			
A/D converter	16 bits			
EIS Capability	10 µHz to 5 MHz			
Analog I/O	Yes, 1			
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	300 x 170 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	115/230 Vac, 47-63 Hz, 150 VA
Weight	4.55 kg	4.55 kg	8 kg	16 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

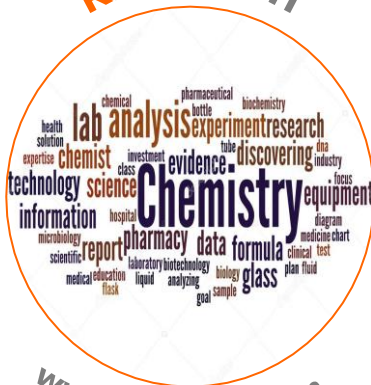www.origalys.com

CORROSION

www.origalys.com

FABRIQUÉ EN FRANCE
MADE IN FRANCE

SENSORS

Pot. impulsion différentielle
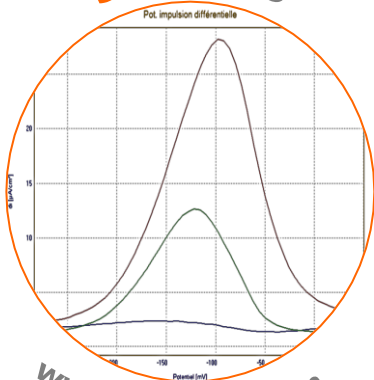
www.origalys.com

RESEARCH

chemical
pharmaceutical biochemistry
health lab analysis experiment research
solution bottle dna
expertise chemist class tube discovering industry
technology science evidence equipment focus
information hospital Chemistry diagram
microbiology medicine chart
scientific report pharmacy data formula clinical test
medical education laboratory biotechnology biology plan fluid
flask liquid analyzing glass
goal sample

www.origalys.com

Country Representative

OrigaLys ElectroChem SAS

Les Verchères 2
62A, avenue de l'Europe
69140 RILLIEUX–la–PAPE
FRANCE
☎ **+33 (0)9 54 17 56 03**
🖷 **+33 (0)9 59 17 56 03**
contact@origalys.com