

**OGF<sup>+</sup> 01AEIS**

OrigaFlex range

electrochem  
**OrigaLys**



**Potentiostat - Galvanostat - EIS**

**$\pm 10 \text{ nA}$  to  $\pm 1 \text{ A}$  /  $\pm 15 \text{ V}$  /  $\pm 20 \text{ V}$   $10 \mu\text{Hz}$  to  $5 \text{ MHz}$**

**MORE THAN 75 YEARS OF EXPERIENCE IN ELECTROCHEMISTRY**

## 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



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



For instance:

- 1 channel 500 mA (OGF<sup>+</sup>500)
- 1 channel 01A (OGF<sup>+</sup>01A)
- 1 multiplexer OrigaMux
- 3 channels 05A (OGF<sup>+</sup>05A)

### OGF<sup>+</sup>DRV – DRIVE UNIT - CONFIGURATION MULTI-VOIES



- Control of channels
- Built-in dummy cell
- Control of multiple external instruments

**Communication** TTL



RS232



**New!**



Control of external instruments:

- Rotating electrode (RDE)
- Magnetic agitator
- Thermostat bath
- Solar simulator
- Climate chamber

### OGFPWR – POWER SUPPLY - FOR SINGLE-CHANNEL



- Power supply
- For only one channel



One channel 500 mA  
= Pack OGF500

Check out our difference OGF packs:





## POTENTIOSTAT GALVANOSTAT IMPEDANCE T°C PROBE BATTERY HOLDER

**±1 A / ±20 V**

Potential ranges: **± 3 V / ± 6 V / ± 15 V**

ZRA method

TTL Communication

**Integrated EIS:  
5 MHz - 10 µHz**

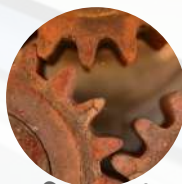
### OrigaMaster 5

Licence free software  
**EASY TO USE**

- Simultaneous measurements on different channels can be synchronized.
- Built-in EIS: 10 µHz-5 MHz
- Can be addressed directly to a PC, via USB and so controlled by OrigaMaster.
- See the Status or the free potential on the bottom screen
- Up to 10 Channels OGF01A with 1 Drive Unit & Dummy Cell



Batteries



Corrosion

### OPTIONAL ITEMS

**OrigaTrod Kit:** Rotating Disk Electrode (RDE) and its speed controller (OrigaBox).

**OrigaMµ:** Low current probe, up to 1 pA.

**OrigaDiff:** 2nd voltage measurement.

**OrigaMix:** Magnetic stirrer and its speed controller (OrigaBox).

**OrigaLine:** Static electrode, glass electrodes, tips, sample holder, electrochemical cell, etc.

**Battery Cell Holder**



### MAIN TECHNICAL SPECIFICATIONS

<b>Electrode connections</b>	2, 3 & 4	<b>Potential resolution</b>	91 µV on ±3 V
<b>Max applied potential</b>	±15 V	<b>Current resolution</b>	0.003 % FSR (Best: 300 fA)
<b>Compliance voltage</b>	±20 V	<b>Input impedance</b>	1 TΩ (//20 pF)
<b>Maximum current</b>	±1 A	<b>Potential bandwidth</b>	1 MHz
<b>EIS frequency</b>	10 µHz to 5 MHz	<b>Computer interface</b>	USB 2.0
<b>Current ranges</b>	±10 nA to ±1 A in 9 decades	<b>Software</b>	OrigaMaster
<b>Potential ranges</b>	±3 V, ±6V and ±15V	<b>Current accuracy</b>	< 0.1 % FSR
<b>Potential accuracy</b>	< 0.1 % FSR (Full Scale Range)		

Interactive methods

### OrigaMaster

	VOLTAMMETRY
Pot. Cyclic Voltammetry (CV)	yes
Pot. Advanced Cyclic Voltammetry	yes
Gal. Cyclic Voltammetry	yes
Pot. Linear Voltammetry	yes
Pot. CV 4 limits	yes
Stripping Voltammetry	yes
Staircase Voltammetry (SCV)	yes
	CHRONO
Open Circuit Potential (OCP)	yes
Chrono Amperometry (CA)	yes
Chrono Amperometry Expert	yes
Chrono Coulometry (CC)	yes
Chrono Potentiometry (CP)	yes
Chrono Potentiometry Expert	yes
Single Chrono Amperometry	yes
	IMPEDANCE
Pot. Dynamic EIS & Gal. Dynamic EIS	yes
Pot. Fixed Frequency EIS (Capacitance)	yes
Pot. Fixed Frequency EIS vs Time (HFR)	yes
Gal. Fixed Frequency EIS vs Time (HFR)	yes
	CORROSION
Pitting corrosion	yes
General corrosion (Rp)	yes
Coupled corrosion (Evans)	yes
Polarization for corrosion (Tafel)	yes
Harmonic Distorsion Analysis (HDA)	yes
Zero Resistance Ammeter (ZRA)	oui (only with OGF <sup>+</sup> & OGF <sup>+</sup> EIS)
	PULSE
Pot. Differential Pulse (DPV)	yes
Gal. Recurrent Differential Pulse	yes
Pot. SW Voltammetry (SWV)	yes
Potentiometric Stripping Analysis (PSA)	yes
	BATTERIES, SUPER CAPACITORS and PHOTOVOLTAIQUE
Single Charge or DisCharge	yes
Gal. Charge and DisCharge Cycle	yes
Expert Charge and DisCharge Cycle	yes
	PITT & GITT
Constant Power	yes
Constant Resistor	yes
Profile Generator	yes
	Internal Resistance
I/V Characterization	yes

## BATTERY SUPPORT FOR ORIGAFLEX

### Swagelok support (2 electrodes - 3 electrodes)



Dimensions:

- Length: 8cm
- Width: 4.2cm
- Height: 6.5 cm



Specifications:

- Easily removable
- Empty weight: 44.51 g
- Weight with battery: 200 g
- Banana connector:  $\varnothing$ 2 mm
- Operating temperature: -30°C to 80°C



### Button cell battery holder - AA / AAA - super capacitor

#### BUTTON BATTERY HOLDER



Suitable for batteries:

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

Specifications:

- Easily removable
- Length: 80mm
- Width: 32mm
- Temperature probe
- Operating temperature: -30°C to 80°C

Consult our catalog of electrodes and accessories:



Other Battery Support:  
Contact us

## OrigaDiff



ADD A VOLTAGE MEASUREMENT TO YOUR CELL



Adapted to the OrigaFlex, thanks to its support

### PERFECT SOLUTION FOR BATTERIES

#### CONCEPT :

High input impedance measurement at any location in your cell.

- Connectors: BNC
- Max voltage:  $\pm 20V$
- Real-time control
- Available on OM5 & OV2
- Compatible with : OrigaFlex range OGS100 & OGS200



Read the application note: AP-B07 on [origalys.com](http://origalys.com)

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## ELECTROCATALYSIS AND BATTERY RESEARCH

**"The OrigaFlex offers great value for a flexible system"**

It performs flawless during standard measurements such as rotating-ring disk measurements of nanoparticles or charge discharge curves of battery materials. We have used it, e.g., in our recent publication-in-ChemSusChem.

The system is simple and easy to use. Most importantly, my students like to work with the potentiostat as well as with the software Origa**Master** and Origa**Viewer**. The software is very intuitive and allows drawing complex experimental protocols using the most common electrochemical methods.

The graphical representation of the experimental protocol makes it also easy to document the performed experiment. Overall, the Origa**Flex** system offers great value for a flexible and accessible potentiostat system at a low price.





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## DEVELOPMENT OF NEW ELECTROCALYSTS

« We strongly recommend this system for the electrochemical measurement »

OrigaFlex (OGF05A) is an excellent option to perform electrocatalytic measurements related to water electrolysis. The system is very easy to use, and the software offers multiple and interesting options. On the other hand, the technical support of ORIGINALYS© is always accessible and effective. We strongly recommend this system for the electrochemical measurements dealing with water electrolysis.

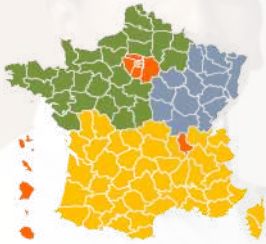


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## A QUESTION ? CONTACT US!

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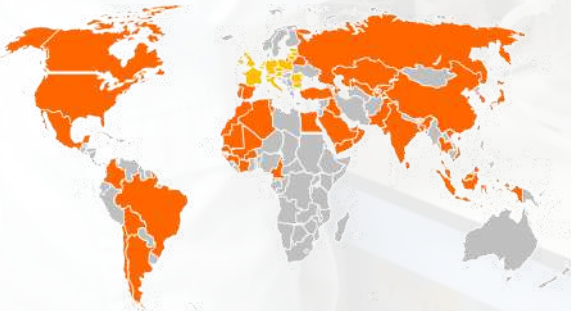


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