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electrochem  
**Origalyr**

**OGF<sup>+</sup> 05AEIS**

OrigaFlex range



Universitat d'Alacant  
Universidad de Alicante

**Potentiostat - Galvanostat - EIS**  
 **$\pm 50 \mu\text{A}$  to  $\pm 5 \text{ A}$  /  $\pm 15 \text{ V}$  /  $\pm 20 \text{ V}$  10 $\mu\text{Hz}$  to 5MHz**

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

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OrigaFlex range

## HOW IT WORKS

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

### DRIVE UNIT - MULTI-CHANNEL CONFIGURATION

Power supply / Control of channels / Built-in dummy cell

#### OGFDRV



#### OGF<sup>+</sup>DRV



#### Communication



#### Example :



OGF<sup>+</sup>500 + OGF<sup>+</sup>01A + OrigaMux + 3 x OGF<sup>+</sup>05A

#### Control of external instruments:

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

### POWER SUPPLY - FOR SINGLE-CHANNEL



#### OGFPWR

- Power supply
- For only one channel



One channel 500 mA  
= Pack **OGF500**

Check out our difference OGF packs:



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## POTENTIOSTAT GALVANOSTAT IMPEDANCE T°C PROBE BATTERY HOLDER

**±5 A / ±20 V**

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

ZRA method

TTL Communication

**Integrated EIS:  
5 MHz - 10 μHz**

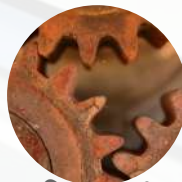
### OrigaMaster 5

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 4 Channels OGF05A with 1 Drive Unit & Dummy Cell



Batteries



Corrosion

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## OrigaFlex range

### OPTIONAL ITEMS

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

**OrigaMp:** 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 $\mu$ V on $\pm$ 3 V
<b>Max applied potential</b>	$\pm$ 15 V	<b>Current resolution</b>	0.003 % FSR (Best: 1.5 nA)
<b>Compliance voltage</b>	$\pm$ 20 V	<b>Input impedance</b>	1 T $\Omega$ (//20 pF)
<b>Maximum current</b>	$\pm$ 5 A	<b>Potential bandwidth</b>	1 MHz
<b>EIS frequency</b>	10 $\mu$ Hz to 5 MHz	<b>Computer interface</b>	USB 2.0
<b>Current ranges</b>	$\pm$ 50 $\mu$ A to $\pm$ 5 A in 6 decades	<b>Software</b>	OrigaMaster
<b>Potential ranges</b>	$\pm$ 3 V, $\pm$ 6V and $\pm$ 15V	<b>Current accuracy</b>	< 0.1 % FSR
<b>Potential accuracy</b>	< 0.1 % FSR (Full Scale Range)		



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## OrigaFlex range

Interactive methods

### OrigaMaster

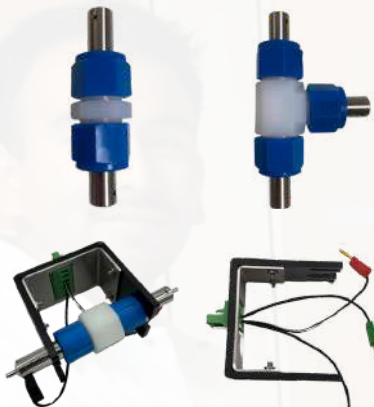
	VOLTAMMETRY
Pot. Cyclic Voltammetry (CV)	yes
Pot. Advanced Cyclic Voltammetry	yes
Gal. Cyclic Voltammetry	yes
Pot. Linear Voltammetry	yes
Pot. CV 4 limits	yes
Stripping Voltammetry	yes
Staircase Voltammetry (SCV)	yes
	CHRONO
Open Circuit Potential (OCP)	yes
Chrono Amperometry (CA)	yes
Chrono Amperometry 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	yes
I/V Characterization	yes

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OrigaFlex range

## BATTERY HOLDERS FOR ORIGAFLEX

### Holders / Swagelok (2 electrodes - 3 electrodes)



Specifications:

- Suitable for potentiostats from the OrigaFlex range
- Easily removable
- Empty weight: 44.51 g
- Weight with battery: 200 g
- Banana connector:  $\varnothing 2$  mm
- Operating temperature:  $-30^{\circ}\text{C}$  to  $80^{\circ}\text{C}$

For more information on our supports and Swagelok, we invite you to consult our accessories catalog.



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



Specifications - coin battery holder :

- Suitable for potentiostats from the OrigaFlex range
- Easily removable
- Length: 80mm
- Width: 32mm
- Temperature probe
- Operating temperature:  $-30^{\circ}\text{C}$  to  $80^{\circ}\text{C}$

For more information on our battery supports, we invite you to contact us.



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OrigaFlex range

## OrigaDiff

### ADDING A VOLTAGE MEASUREMENT IN YOUR CELL



Adapted to the OrigaFlex

## IDEAL SOLUTION FOR BATTERY FIELD

### CONCEPT :

Add a high input impedance voltage measurement at any point in your cell.

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



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

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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.



Institute of Electrochemistry, University of Alicante, Spain



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## ELECTROSYNTHESIS OF POLYMER FILMS

« The simplicity and the richness of its features helped us to take matters into our own hands very quickly »

Our OrigaFlex potentiostat with two channels, the OGF500 and OGF05A, allowed us to perform various and very precise electrochemical measurements. Thanks to this system, we have been able to develop our research axis dedicated to the electrosynthesis of conductive polymer films on different substrates and their applications in the fields of fuel cells, corrosion protection, electrochemical sensors, metallization of plastic parts, etc. The simplicity of the software and the richness of its features helped us to take matters into our own hands very quickly and carry out our experiments in very good conditions. We really liked the OrigaFlex potentiostat which is a very good solution to handle different electrochemical studies. In the future, we plan to supplement our OrigaFlex system with OGF01A and OGF10A.



University Ibn Zohr, Faculty of sciences, Agadir, Morocco

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**OrigaLys**

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**A QUESTION ? CONTACT US!**

**OUR FRANCE NETWORK**

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