

**OGF<sup>+</sup> 10AEIS**

OrigaFlex range

electrochem  
**OrigaLys**



**JGI JAIN**  
www.jainchem.com

**Potentiostat - Galvanostat - EIS**  
 **$\pm 100 \mu\text{A}$  to  $\pm 10 \text{ A}$  /  $\pm 15 \text{ V}$  /  $\pm 20 \text{ V}$   $10 \mu\text{Hz}$  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...

### DRIVE UNIT - MULTI-CHANNEL CONFIGURATION

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

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



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



#### Communication

TTL

RS232



New!

#### 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



#### OGF<sup>+</sup>PWR

- 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

**±10 A / ±20 V**

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

ZRA method

TTL Communication

**Integrated EIS:  
5 MHz - 10 μHz**

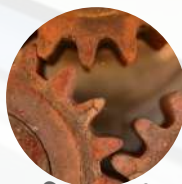
### OrigaMaster 5

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 OGF10A with 1 Drive Unit & Dummy Cell



Batteries



Corrosion

### 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>	0.003%
<b>Max applied potential</b>	±15 V	<b>Current resolution</b>	0.003 % FSR (Best: 3 nA)
<b>Compliance voltage</b>	±20 V	<b>Input impedance</b>	1 TΩ (//20 pF)
<b>Maximum current</b>	±10 A	<b>Potential bandwidth</b>	100 KHz
<b>EIS frequency</b>	10 μHz to 5 MHz	<b>Computer interface</b>	USB 2.0
<b>Current ranges</b>	±100 μA to ±10 A in 6 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)		

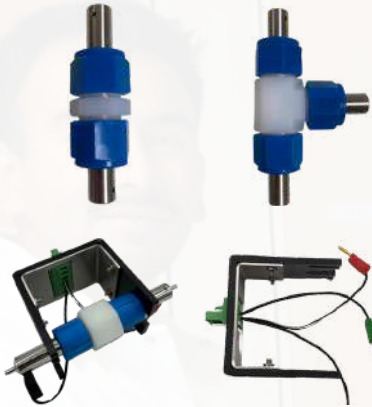
Interactive methods

### 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	yes
I/V Characterization	yes

## 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°C to 80°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°C to 80°C

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



## 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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## 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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## FUEL CELL, ELECTROLYZER & CATALYST

« **The OrigaLys machine has been a great success in achieving our goals and produced good results.** »

We have been using the OrigaLys model OGF10A+EIS used for general electrochemistry, Fuel cell, Electrolyzer and Catalyst research activity. We are very pleased with the results. Our aim was to develop a catalyst for Green energy applications. The OrigaLys machine has been a great success in achieving our goals and produced good results. The unit is easy to operate, has an analysis tools and produces a report that is both comprehensive and easy to interpret.



Jain University, Bengaluru, India

## A QUESTION ? CONTACT US!

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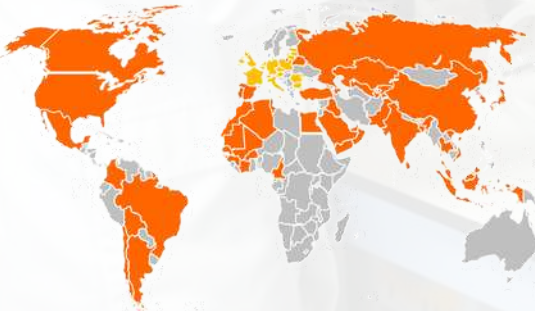


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