

OGF⁺ 05AEIS
OrigaFlex range

electrochem
OrigaLys



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 μHz to 5MHz

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⁺DRV



OGF⁺DRV



Communication

TTL

RS232

ON OFF



New!

Example :



OGF⁺500 + OGF⁺01A + OrigaMux + 3 x OGF⁺05A

Control of external instruments:

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

POWER SUPPLY - FOR SINGLE-CHANNEL



OGF⁺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

±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

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

Electrode connections	2, 3 & 4	Potential resolution	91 μ V on ± 3 V
Max applied potential	± 15 V	Current resolution	0.003 % FSR (Best: 1.5 nA)
Compliance voltage	± 20 V	Input impedance	1 T Ω (//20 pF)
Maximum current	± 5 A	Potential bandwidth	1 MHz
EIS frequency	10 μ Hz to 5 MHz	Computer interface	USB 2.0
Current ranges	± 50 μ A to ± 5 A in 6 decades	Software	OrigaMaster
Potential ranges	± 3 V, ± 6 V and ± 15 V	Current accuracy	< 0.1 % FSR
Potential accuracy	< 0.1 % FSR (Full Scale Range)		

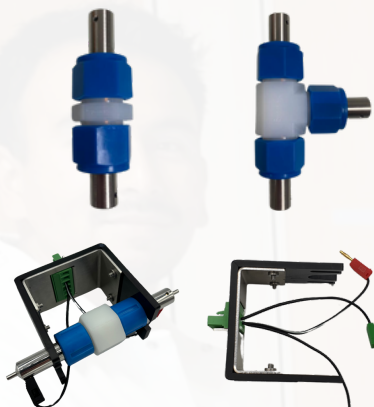
Interactive methods

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 ⁺ & OGF ⁺ 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	yes
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

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DEVELOPMENT OF NEW ELECTROCALYSTS

"We strongly recommend this system for the electrochemical measurement"

Origa**Flex** (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 ORIGALYS® is always accessible and effective. We strongly recommend this system for the electrochemical measurements dealing with water electrolysis.



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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 »

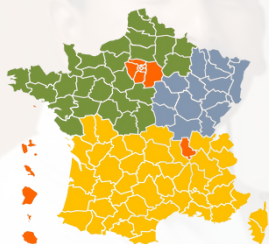
Our Origa**Flex** potentiostat with two channels, the OGF**500** and OGF**05A**, allowed us to perform various and very precise electrochemical measurements. Thanks to this system, we have been able to develop our research axis dedicated to the electrosynthesis of conductive polymer films on different 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 Origa**Flex** potentiostat which is a very good solution to handle different electrochemical studies. In the future, we plan to supplement our Origa**Flex** system with OGF**01A** and OGF**10A**.



University Ibn Zohr, Faculty of sciences, Agadir, Morocco

A QUESTION ? CONTACT US!

OUR **FRANCE** NETWORK



Maxime VALAY
Sales Manager

ILE-DE-FRANCE & LYON
- DOM/TOM

☎ | +33 7 82 88 97 90
✉ | maxime.valay@origalys.com



Mohamed KADEM
Technical Sales Engineer

SOUTH AREA

☎ | +33 7 66 50 31 78
✉ | mohamed.kadem@origalys.com



Umit ALCI
Technical Sales Engineer

NORTH AREA

☎ | +33 7 64 85 80 64
✉ | umit.alci@origalys.com



Patrick BALLAND
Distributor - Dexis
BFC

GREAT EAST

☎ | +33 3 29 62 40 70
✉ | ctb-choffel@dexis.eu

OUR **DISTRIBUTION** NETWORK



Cédric MARTINEZ
Area Sales Manager
Administrative, financial and
export manager

☎ | +33 6 51 65 97 31
✉ | cedric.martinez@origalys.com



Maxime VALAY
Sales Manager

☎ | +33 7 82 88 97 90
✉ | maxime.valay@origalys.com

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