

# OGF500+

## Electrochemical workstation

$\pm 5$  nA to  $\pm 500$  mA /  $\pm 15$  V /  $\pm 20$  V

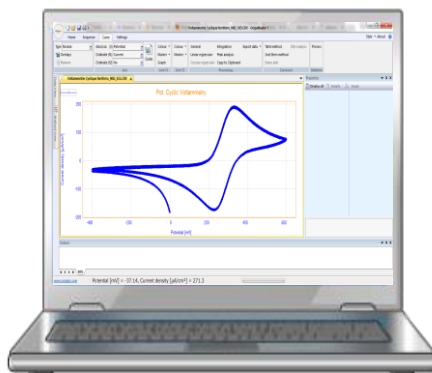


POTENTIOSTAT  
GALVANOSTAT  
T°C PROBE  
BATTERY HOLDER

### OrigaMaster 5



USB 2.0



Licence free software

Windows XP, Vista, 7, 8 and 10.

EASY TO USE

Electrochem  
**OrigaLys**



# How it works

## Supplying the potentiostat...

### Multi-Channel mode



Use the **Drive Unit & Dummy Cell**, if you need more than one Potentiostat

### Single-Channel mode

Use the **Power Supply**, if you need just one Potentiostat to begin



### Drive Unit & Dummy Cell

#### 3 main functions:

1. It **supplies current to the channels**, as the sum of each amps channel connected to a Drive Unit shall not exceed **20A** or **10 Channels**.
2. It allows **connection to a computer via Ethernet**. Thus, the included PC software, called **OrigaViewer** (licence free) can control every channel of the system. Individually, each channel can be controlled by the PC software **OrigaMaster** via USB.
3. Finally, thanks to its **dummy cell**, functional tests can be performed on cords and on the different Channels. Thus, it is ensured that each method will be perfectly performed.



#### For example:

Five 500 mA Channels  
+  
One EIS Channel

### Power Supply - OGFPOWER

#### 2 main functions:

1. It **supplies current to only one channel (500 mA, 1 A or 5 A)**.
2. It **also supplies current to an EIS module**.

It is **not connected to a PC**. The connection has to be made **from the Channel (via USB from the rear panel)**. Here, the channel is controlled by **OrigaMaster**.

**No Dummy Cell inside**

#### Technical specifications:

Power: 100-240Vac - 50-60Hz - 1KVA  
Weight: 3.10 kg  
Dimensions (Length x Width x Height) :  
28.5 x 8.3 x 24.15 cm



or



#### For example:

One 500 mA Channel + One 500 mA Channel  
+ One EIS Channel or



The OGF500 combines compactness, performance and accurate price. It is a 500 mA potentiostat/galvanostat which can be complemented by one Impedance module OGFEIS.

### 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

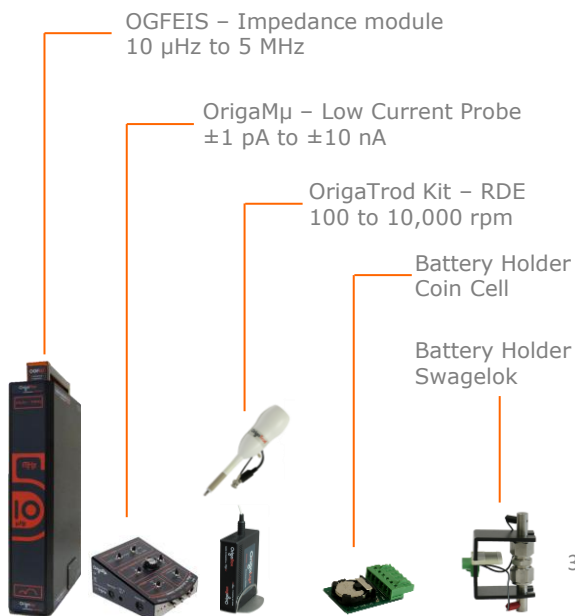
### Unique features:

- ✓ High Frequency Resistance and Tunable ACIR technique, designed to test the Industrial Grade standard Batteries.
- ✓ Internal resistance of Ionic Liquids testing – All new fully compatible connector suitable for all generic type conductivity electrodes.
- ✓ Extended range of working / applied potential to +/- 30V while 2 channels connected in series.

### Main Technical Specifications

Electrode connections	2, 3 and 4
Max applied potential	±15 V
Compliance voltage	±20 V
Maximum current	±500 mA
Current ranges	±5 nA to ±500 mA in 9 decades
Potential accuracy	< 0.1 % FSR (Full Scale Range)
Potential resolution	0.003 % (Best: 0.8 μV)
Current accuracy	< 0.1 % FSR
Current resolution	0.003 % FSR (Best: 150 fA)
Input impedance	1 TΩ (//20 pF)
Potentiostat rise/fall time	< 1 μs
Gain bandwidth range of amplifier	1 MHz
Input bias current	< 10 pA
Acquisition speed	500,000 samples/second
Potential bandwidth	1 MHz
Computer interface	USB 2.0
Software	OrigaMaster

### Optional items



## 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 (with the OGFEIS module)

Pot. Dynamic EIS	✓
Pot. Fixed Frequency EIS (Capacitance)	✓
Pot. Fixed Frequency EIS vs Time (HFR)	✓
Gal. Dynamic EIS	✓

## CORROSION

Pitting corrosion	✓
General corrosion (Rp)	✓
Coupled corrosion (Evans)	✓
Polarization for corrosion (Tafel)	✓

## 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	✓

Subject to change  
14-05-2020

Country Representative

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