

Inputs/Outputs

Front panel

POWER: 6-pin mini DIN, motor servo-controlling (rotating electrodes, stirrers...),
WORK: BNC, working electrode,
REF: BNC, reference electrode,
SENSE (Ref2): BNC, 4-pole measurement cell or second reference electrode,
AUX: BNC, auxiliary electrode,
°C: RCA, temperature measurement adjustable as a function of thermistor's resistance,
GND: banana, protected ground, Faraday cage or reference electrode for ionometric measurements using E1/E2 inputs,

Rear panel

Analog I/O: 8-pin DIN, EIS analog sockets for connection to an external unit or to a Frequency Response Analyser (please consult us),
COM1/2/3: RS232C, 3 serial ports for controlling external devices,
USB 2.0: USB-B, for connection to a PC.



Specifications

General specifications:

Auxiliary voltage: ± 17.5 V
Maximum current: ± 100 mA
Applied voltage: ± 5 V

Current measurement:

9 ranges from 1 nA to 100 mA
Best resolution 30 fA
Autoranging configurable

Scanning performances:

Scan rate applied 1000 samples /second
(typical ramp 10 V/s)

Ohmic drop compensation:

Dynamic, static and "Feed-back"

Electrochemical impedance (EIS):

1 mHz to 1 kHz
20 frequencies / decade
Applied potential step resolution 200 μ V for 1 V

Power supply:

90 to 264 Vac - 47 to 63 Hz - 30 VA
or 24 V battery
or 12 V battery using a converter

Dimensions:

Width: 13.5 cm (folded up feet)
24.7 cm (unfolded feet)
Depth: 32.6 cm
Height: 41.8 cm
Weight: 3kg

EC marking:

Compliance with the following regulations:
EMC 89/336/EEC according to the standards EN61326-1,
2002/95/EEC - (RoHS)

Environmental conditions:

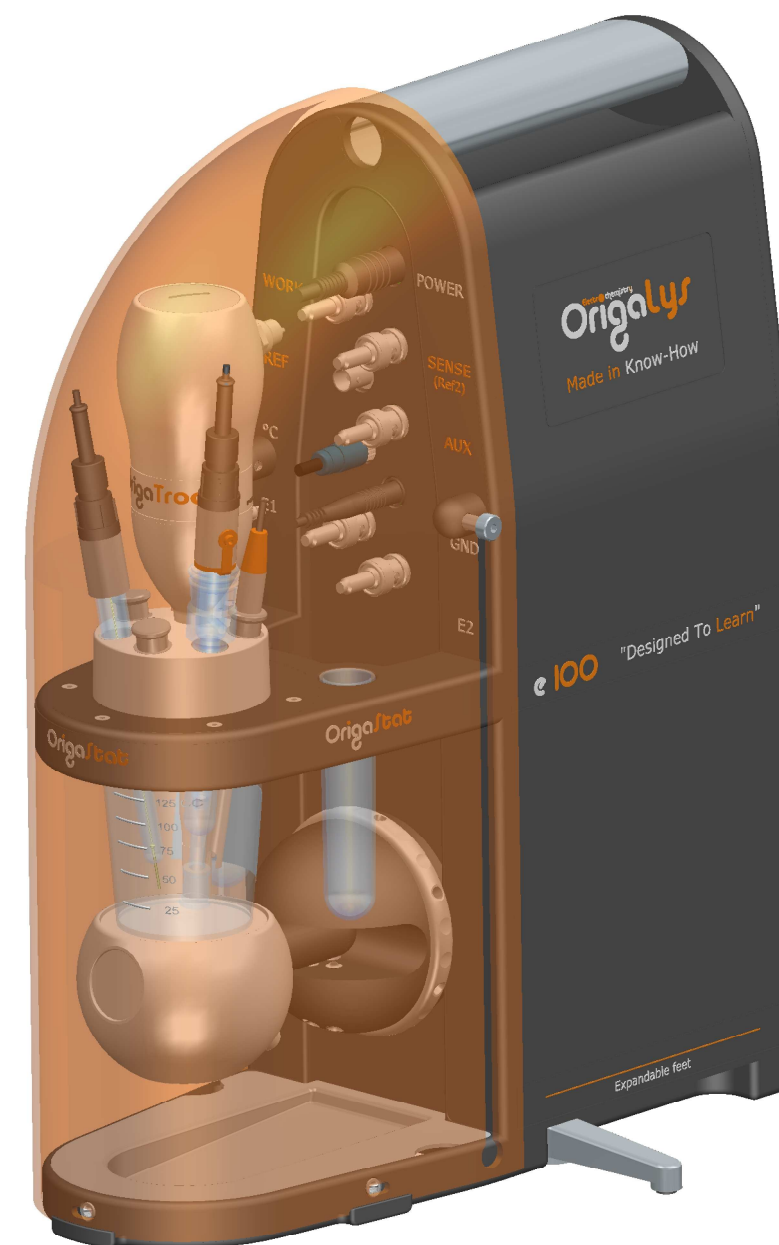
Working temperature: 5 to 40°C
Relative humidity: 20 to 80 %

Accessories:

OrigaLys is capable to provide a whole range of electrodes and accessories: please consult us.

OrigaStat | Potentiostat Galvanostat Impedancemeter

Complete, Compact and Upgradable Electrochemical System



More info: www.origalys.com

Electrochemistry
OrigaLys

European manufacturer



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e100

Research - Cells & Batteries - Weak
currents - Education - Corrosion
Application for Surface Treatment

OrigaStat e 100

knowledge in electrochemistry

The **OrigaLys team** originates from the depth of knowledge of electrochemistry in LYONS, and they have more than **20 years** experience in designing electrochemical systems. They aim to meet all possible requirements by offering high quality, good design, at a competitive price.

OrigaStat is an example of this knowledge, and offers a product with a potentiostat/galvanostat, an impedancemeter, a speed control unit for the **rotating electrode**, stirrer and measurement stand. Fitted with a temperature sensor and electrometer inputs, the OrigaStat offers the measurement of **pH**, ions and also **titration**. Finally, the logical inputs/outputs enable the system to control **many peripherals** such as furnaces, pumps, balances, reagent addition burettes, sample changers, and thermostated baths.

With its **USB** interface, the **OrigaMaster 5** PC software benefits from improved data-computing, and is compatible with Windows XP, Vista and 7. In addition to the usual methods it also **features graphic programming** of the sequences, the possibility of running **conditional loops**, cycles tests, and insertion of a mathematical equation, of starting a peripheral, and receiving **start/stop commands** from external units.

OrigaStat with its **logical inputs** combined with OrigaMaster 5 and its stop/start instructions, provides a **complete automation** system for electrochemical applications.

Applications

The **OrigaStat & OrigaMaster** system is ideal for application for surface treatment, studying corrosion, testing batteries and fuel cells and developing new materials.

Its **weak current range of 1 nA** (30 fA resolution) is well suited for investigation of materials such as insulators, dielectrics, ceramics, nano materials (nanotubes from carbon) and semiconductors.

OrigaStat is **compact** and **easily transportable** thanks to its handle and protective cover, it can thus be installed near the subject under study or the bath to be checked. With its 24 V battery power supply (12 V if using a converter), OrigaStat is the ideal tool to carry out field analyses.



Why choose OrigaStat ?

For the **performances** of its **OrigaMaster 5** software.

For its **user-friendliness** founded on :

- an efficient lighting with **powerful Leds** of its **measurement cell** allowing you to work under a fume cupboard or far from a source of light,
- a **silent functioning** due to a high quality of its components based on the 20 years experience of the designers,
- a **simplicity of use**: Easy to **carry**, and to **install** near a wall or of another equipment and convenient to put side by side in a cupboard thanks to its retractable feet.

For its **robustness** and its **reliability** founded on :

- electronics components and mechanics selected by **skilled professionals**,
- the selected materials, which combine chemical **resistance** and **mechanical properties**. The colour-impregnated materials used will remain as brand-new even after repeated cleanings.

Rotating Electrode

The **OrigaTrod** Rotating electrode is connected **directly to the OrigaStat** instrument (mini DIN 6 "Power" socket) and does not require the use of an external speed control unit.

This electrode results from the know-how of the **OrigaLys** team in electrochemical instrumentation. It adapts to a great majority of measurement cells fitted with **NS 14/23 ground joints**.

Able to function from **0 to 10000 tr/mn**, The OrigaTrod is driven by a motor fitted with ball bearings of a "**swiss made** ®" reference top quality.

The electrical signal is ensured thanks to graphite contact **doped with silver**.

Supplied with no tips in standard version, the OrigaTrod Rotating electrode is available with a wide range of OrigaLys active **tips** in various materials and diameters (**platinum, gold, glassy carbon** for the most common ones). It can also be equipped with M6 compatible tips.

