# OrigaTrod Kit

# RDE - Rotating Disk Electrode 100 to 10,000 rpm

OrigaTrod RDE OrigaBox SPEED CONTROLLER





#### **OrigaBox Interface**



Licence free software

Windows XP, Vista, 7, 8 and 10.

Radiometer's EDI101 and CTV101 Legacy





# OrigaTrod

#### OrigaTrod is designed to last



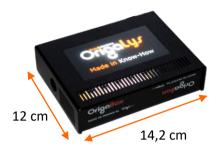
Fully compatible with Potentiostats from OrigaLys and other brands

- ✓ Manufactured with noble plastics PETP, PTFE, PEEK and the best stainless steel.
- Motor fitted with ball bearings of a "swiss made®" reference top quality.
- ✓ With an optical digital encoder, OrigaTrod guarantees a rotation speed accuracy of 0.35%.
- ✓ The electrical signal is ensured thanks to graphite contact doped with silver.
- A removable barbed fitting allows a neutral gas to flow through the electrode when it is used in a corrosive atmosphere.
- ✓ NS 14/23 ground joints (sleeve).

Fully compatible with the tips from Radiometer

## OrigoBox

#### **RDE Speed Controller**



- ✓ It controls the RDE speed rotation
- ✓ USB or analog or RS232 control
- ✓ Can be used alone or connected to a potentiostat

#### By using a Potentiostat from:

**OrigaLys** 

Other brands

#### 1st solution = MANUAL CONTROL



Thanks to the software from OrigaLys: OrigaBox Interface.
Connected with USB.



#### 2<sup>nd</sup> solution = AUTOMATIC CONTROL

The Speed Rotation is controlled by OrigaMaster: the software which controlled the Potentiostat.



The Speed Rotation is controlled by the software which controlled the Potentiostat.

An analog signal or RS232 is required from the Potentiostat, consult us

# Origabox Interface

## **Speed Controller Software Easy to use and licence free**





## New version January 2020

- ✓ Windows Interface
- ✓ Speed constant adjustable to control other kind of RDE
  - **✓ Easy Start and Stop**
- ✓ Accurate speed thanks to an optical encoder

Controlling one OrigaTrod or more on the same PC is possible



#### **Setting the Speed**



- √ 0.35% digital resolution
- With analog signal, the speed rotation is controlled by potentiostat from other brands

## OrigaTrod Lt

### An easy solution



## Rotating Disk Electrode with a built-in Speed Controller

- ✓ Suitable to any kind of brands: Metrohm-Autolab, Bio-Logic, CH Instruments, and so on
  - ✓ Compatible with tips from Radiometer-Hach
    - ✓ From 100 to 5,000 rpm



#### **Potentiometer**

Monitoring manually the rotation speed of the OrigaTrod and directly on the device.



#### **External Power Supply**

The system needs to be directly supplied by a standard AC / DC switching adaptor 12V output.

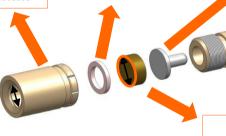
### Sample Holders

**Pellets** from OrigaLys can be used with a **Sample Holder**, which can be adapted on the **RDE** (OrigaTrod). The material is **PEEK** (PolyEther Ether Ketone).



Sample Holder Active area Ø6 or Ø13 mm O-ring in Silicone ø6 or ø13 mm 316 L contact

Sample Holder Outer Diameter Ø11 or Ø19 mm



Sample Pellet ø8 or ø15 mm See page 27

#### TO BE USED WITH RDE AND STATIC ELECTRODE



OrigaTrod OrigaLys' RDE



EDI101 Radiometer's RDE



OrigaTrod Lt RDE with potentiometer

### Pellets

To be inserted in the Sample-Holder, **OrigaLys** provides a whole range of sample pellets.

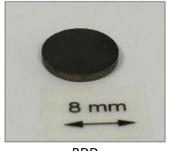
Thickness	BDD: 1 mm	
THICKHESS	Other pellets: 3 mm	
Diameter	8 or 15 mm	

#### **AVAILABLE PELLETS: Ø8 or 15 mm**

Material	Diameter (mm)
316L Stainless	8 and 15
A37	8
Aluminium	8
Boron Doped Diamond (BDD)	8 and 15
Carbon Steel XC38	8
Copper	8 and 15
Glassy Carbon	8 and 15
Gold	8
Graphite	8
Iron	8
Nickel	8 and 15
Platinum	8
Silver	8
Stainless Steel	8
Tungsten	8



316 L Ø15 mm



BDD Ø8 mm

## Tips

**Tips** from **OrigaLys** can be used with our **RDE** (OrigaTrod) and with the **Static Electrode** (StaTrod) but also with most of other RDE on the market.

Length	20 mm	
Material	PEEK	



For instance: Glassy Carbon Ø3 mm

#### AVAILABLE TIPS: Ø1, 2, 3 or 5 mm

Material	Diameter (mm)	Material	Diameter (mm)
316L Stainless	2 and 5	Iron	5
70% Copper and 30% Nickel	5	Nickel	2 and 5
Aluminium	5	Palladium	2
Antimony	5	Peek	0
Cadmium	5	Platinum	2 and 5
Carbon Steel XC38	5	Rhodium	2
Cobalt	5	Silver	2 and 5
Copper	5	Tin	5
Glassy Carbon	3 and 5	Titanium	5
Gold	2 and 5	Tungsten	1
Iridium	5	Zinc	1

#### TO BE USED WITH RDE AND STATIC ELECTRODE



OrigaTrod OrigaLys' RDE



EDI101 Radiometer's RDE



OrigaTrod Lt RDE with potentiometer

## OrigaTrod Kit

### **Rotating Disk Electrode (RDE)**



#### **Fully compatible with tips from Radiometer**

#### OrigaTrod

- ✓ RDE
- √ 100 to 10,000 rpm
- ✓ Accuracy: 0.35%

#### **OrigaBox**

- ✓ Speed Controller
- ✓ With PC Software
- ✓ Resolution: 0.35%

#### **OPTION: OrigaSwitch - Remote control footswitch**



- ✓ Start & Stop the RDE with foot
- ✓ Handle your experiment safely
- ✓ For OrigaStat & OrigaBox
- ✓ Perfect for Glovebox

## OrigaTrod Kit

### A complete solution



Reference: AR00484CIAL



It's fully compatible with the tips from Radiometer.

#### **RDE Stand**

This stand for RDE is composed by:

- A standard stand With a robust base The height is easily adjustable
- A glass cell The volume can vary, on demand. This cell can also be thermostated. With its 5 holes, the cell can fit RDE, counter electrodes, working electrodes and reference electrodes.



Reference: AR00735CIAL

#### OrigaTrod Kit

When the OrigaTrod is used together with the OrigaBox, it is provided with a box. Thus, everything is safely transported.

This kit contains:

- OrigaTrod
- OrigaBox
- USB Key, containing the software (PC Control Panel)
- User's manual
- The convenient cords
- The box

Not delivered with tips, pellets or sample holders. But it has been designed to carry it, easily.

## More information

#### Available on www.origalys.com:

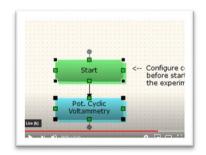
- ✓ Application Notes
  - ✓ Tutorial videos









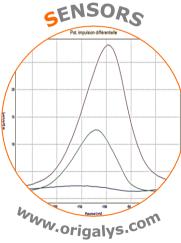














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