

# ORIGALINE CATALOG

Accessories for electrochemical analytical systems

www.origalys.com





# Summary

### 3 Origalys

- 3 Our expertise
- 4 Our values
- 5 Our services
- 7 They trust us
- 8 Our France & Export network

# 10 Origalens

- 11 Reference Electrodes (REF)
- 18 How to store them properly?
- 19 Salt-bridge
- 21 Auxiliary electrodes (AUX)
- 29 Working electrodes (WORK)
- 41 Selective electrodes
- 45 pH electrodes
- 50 Conductivity electrodes
- 52 Industrial electrodes
- 53 Other electrodes
- 55 Solutions for electrodes

### 37 Origa<mark>Tip</mark>

- 37 Tips
- 38 Pellets
- 39 Sample holders
- 40 Polishing kit



### 57 OrigoCell

- 57 OrigaCell Kit
- 58 Corrosion Cells
- 61 Permeation Cell
- 62 Cells with Stand for EDT
- 63 Glass Cells with Stand
- 64 Glass or Plastic Cells

### 58 Origiaccess

- 65 Electrode Holder
- 65 Stopper for cells
- 65 Gas inlet tube
- 65 Grinding Plug
- 67 Battery Holders
- 68 SPE Holder
- 69 Swageloks and Holders
- 71 To Probes for Swagelok
- 73 High Voltage Measurement
- 73 Footswitch
- 74 External Dummy Cell
- 75 Connectors
- 75 Cables
- 75 Adaptors





### **Our expertise**

### Specialist in electrochemical analysis and measurement devices.

Designing, manufacturing & selling of analytical instruments in Electrochemistry.

Potentiostats / Galvanostats / Impedance meters

Conductivity meters / pH-meters

**Electrochemical multiplexer** 

Electrode range: REF / AUX / WORK...

Cell range

Complete range of accessories







### French quality and international presence



Customers worldwide



Products designed and manufactured in France



5-year warranty



International distributors



90% of our components are designed in the Auvergne Rhône-Alpes region.

### Over 75 years of experience in electrochemistry

1946	1988	2010
Tacussel	Radiometer	OrigaLys
r. 2	I HIVE	

### **Our values**

### Caring about people

Participative management / Team-building / Trust / Solidarity / Evolution







### **Innovate sustainably & differently**

Initiative - Eco conception - Repairability - Sustainability - Performance







### **Share & transmit**

**Experiences - Preserve our know-how - Transmit - Train** 









### **Our services**

#### Radiometer's Maintenance

As former Radiometer and Tacussel designers, we are qualified to provide a repair diagnosis for all your Radiometer Analytical and Tacussel instruments.\*

VoltaLab Range: PST006, PGZ100, PGP201, PST050, PGZ301 ou PGZ402.

Rotating Disk Electrode (RDE): EDI101.

Speed controller for RDE: CTV101.

\*Only in the European Union



#### Personalization

We design custom equipment from specifications to final product and develop tailored methods in our software.

OrigaLys can design special equipment with you, and for you.

From the first specifications to the final product, we are by your side.

We can integrate a specific method into our software.





### Webinars, training & application notes

Our Experts are at your service to improve your skills, efficiency and train you using our devices as well as various applications. Also thanks to our webinars, users could deepen their knowledge and discover more solutions







To access our application notes:



### BioMetriz: expert in biofilm analysis

BioMetriz was founded in Poitiers by researchers from ENSIP. BioMetriz joined OrigaLys in 2020. Thanks to its expertise, OrigaLys launched the Biofilm Monitor in 2021. It was BioMetriz's first product.

### Innovative solution for biofilm analysis.

Learn more about your water sample.

Adapt your treatment against biofilms thanks to our analysis kits.

Choose our preventive solution.





### **Teaching Prize**

For 14 years, we have encouraged innovation in the teaching of electrochemistry with the teaching prize awarded during the Electrochemistry Days.

### **Teaching Prize 2022**

8 devices offered: 4 OpH218 and 4 OCD218 for teaching.

Partnership with the French Chemical Society.

Support for Ukraine: donation to Taras Shevchenko University, Kyiv.



## ORIGA-DAY: Training by OrigaLys

Present your research topics, theses or projects during a scientific day dedicated to sharing and innovation.

### Doctoral student, researcher, or industrialist?

Highlight your work to a diverse audience.

Meet experts and enrich your perspectives.

Take part in a day that connects science and industry.





# They trust us!





















































## When our solutions come to life























### **Our France network**



**Maxime VALAY** 

Sales Manager

Ile-de-France - Lyon & DOM/TOM

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



Technical Sales Engineer

SOUTH ZONE

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



Our partners:

**Umit ALCI** 

Technical Sales Engineer **NORTH ZONE** 

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



**GRAND-EST AREA** 

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



## **Our international network**



#### Cédric MARTINEZ

Area Sales Manager

America, Africa, Asia, Spain/Portugal

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



Sales Manager

**Europe** 

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



Find the list of our distributors on our website.



# Oribaleur Baube



#### References (REF)

A reference electrode provides a fixed potential and is distinguished by the reference element and the electrolytic

iunction.



### **Auxiliaries (AUX)**

Auxiliary electrodes are distinguished by their metallic surface (Ag, Pt). For all other materials, please contact us.



#### WORK

From millimeter to micrometer electrodes, from stationary to rotating, OrigaLys offers you a wide range of working electrodes.



### Selective

Depending on the targeted ion, OrigaLys offers you a choice of selective, combined or noncombined electrodes for your measurements.



#### pH probes

To best support you in your pH measurements, we offer robust, combined or simple electrodes.



#### Conductivity cells

In order to guarantee you optimal conductivity measurements, we provide you with suitable conductivity cells.



#### **Industrial**

We offer two types of industrial electrodes: a reference electrode (Ag/AgCI) and an auxiliary electrode (Pt).



#### Other electrodes

Find here electrodes in specific application areas including the ORP Redox Ag/AgCl and Pt electrode and Karl Fisher titration.

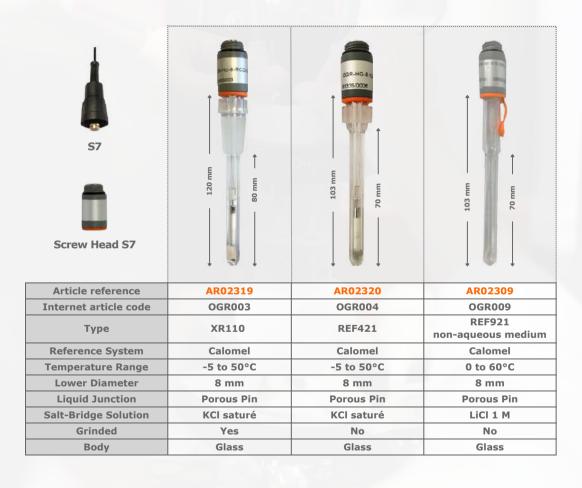


#### **Additional items**

We offer you all kinds of solutions (filling, buffers, calibration, ISAB / TISAB) as well as extensions adapted to your electrodes.



# **Saturated Calomel (ECS) Reference Electrodes**



### **Silver Chloride Reference Electrodes**





# **Silver Chloride Reference Electrodes**

#### **Industrial** electrode



**S7** 



**Screw Head S7** 





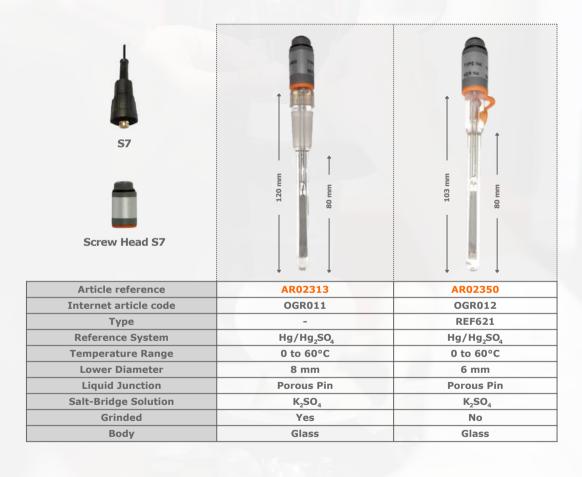
Article reference	AR02324	AR00301
Internet article code	OGR010	AR00301
Туре	Double junction	Industrial
Reference System	Ag/AgCl	Ag/AgCl (gel)
Temperature Range	0 to 80°C	-5 to 80°C
Lower Diameter	8 mm	8 mm
Liquid Junction	Porous Pin	Porous Pin
Salt-Bridge Solution	3M KCl with saturated AgCl	Saturated KCl gel
Grinded	No	No
Body	Glass	Glass

# **Mercury Oxide Reference Electrodes**





## **Mercury Sulfate Reference Electrodes**



# **RedRod** Reference Electrode





# **Copper Sulfate Reference Electrode**

**Salt-Bridge Solution** 

Grinded



No

Glass

# How to properly store reference electrodes?



### STEP 1

Clean the exterior of the electrode with distilled water.



### STEP 2

Empty the electrode and rinse the inside with distilled water to remove crystals.



### STEP 3

Take the appropriate filling solution (see p. 56)



### STEP 4

Fill the electrode with the filling solution.



### STEP 5

Close the electrode cap and cover it with parafilm.



### STEP 6

Put some solution into the cap.

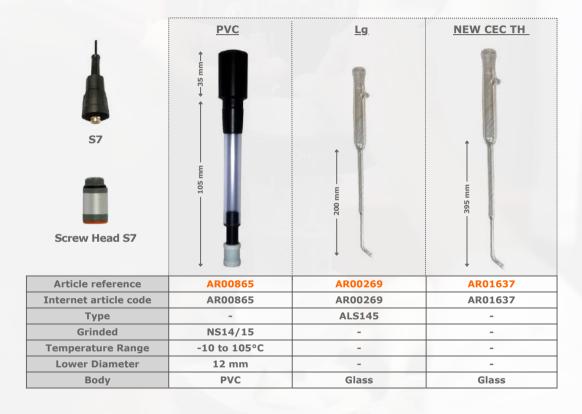


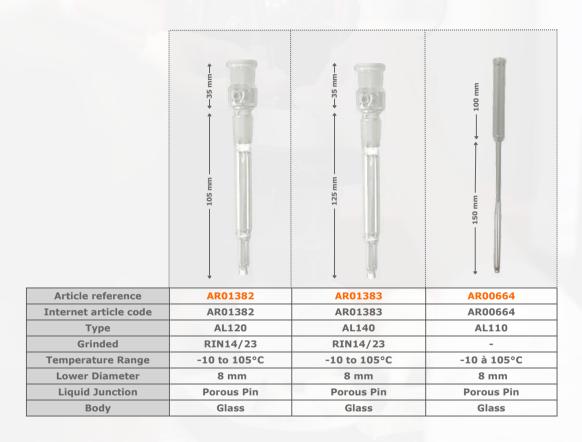
### STEP 7

Insert the electrode cap and cover it with parafilm.



# Salt-bridge







# Silver (Ag) Bar Auxiliary Electrode





**Screw Head S7** 



Article reference	AR02310	
Internet article code	OGV001	
Туре	M291Ag	
Sensitive element	Silver bar ø: 3 mm Length: 10 mm	
Temperature Range	0 to 80°C	
Lower Diameter	8 mm	
Grinded	No	
Body	Glass	

# Platinum Wire (Pt) Auxiliary Electrode

### **Industrial** electrode





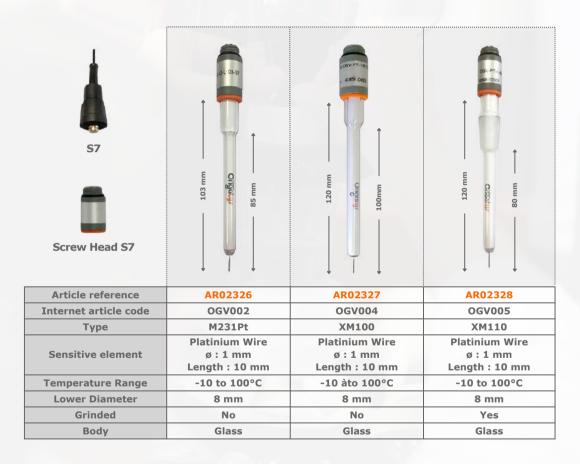
**Screw Head S7** 



Article reference	AR00302	
Internet article code	AR00302	
Туре	Industrial	
	Platinium Wire	
Sensitive element	ø : 1 mm	
	Length: 10 mm	
Temperature Range	-5 to 80°C	
Lower Diameter	8 mm	
Grinded	PG 13.5 screwing	
Body	Glass	



# **Platinum Wire (Pt) Auxiliary Electrode**



# Platinum disc (Pt) Auxiliary Electrodes

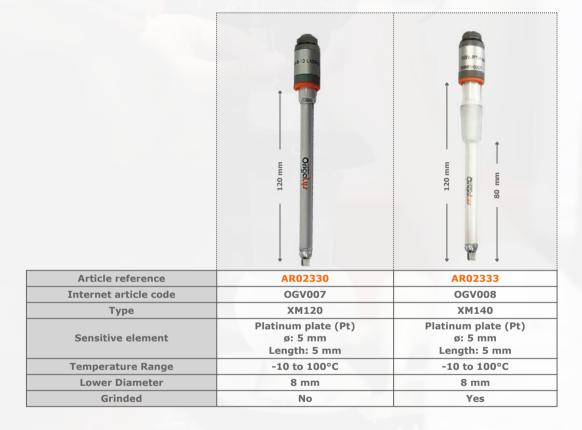




# Platinum Plate (Pt) Auxiliary Electrode

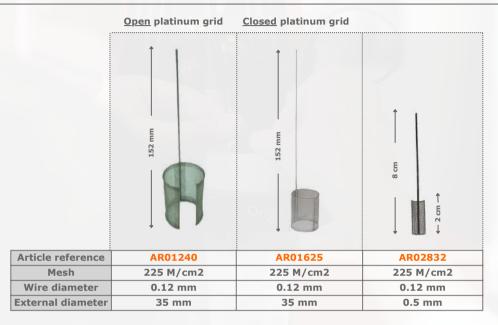


Article reference	AR02329	
Internet article code	OGV006	
Туре	M241Pt	
Sensitive element	Platinum plate (Pt) ø: 5 mm Length: 5 mm	
Temperature Range	-10 to 100°C	
Lower Diameter	8 mm	
Grinded	No	





# Platinum grids (Pt) - Auxiliary Electrodes



	Flared turntable grid	Platinum Grid	Spiral turntable
	— 150 mm — →	—————————————————————————————————————	← 150 mm — →
Article reference	AR02122	AR02451	AR02159
Mesh	225 M/cm2	225 M/cm2	-
Hoop diameter	-	1 mm	-
Number of rods	1	2	1
Rod diameter	0.12 mm	1.4 mm	-
Lower diameter	25 mm	60 mm	-
Upper diameter	35 mm	0.13 mm	-
Grid height	20 mm	-	-

# Carbon/Graphite Rods - Auxiliary Electrodes

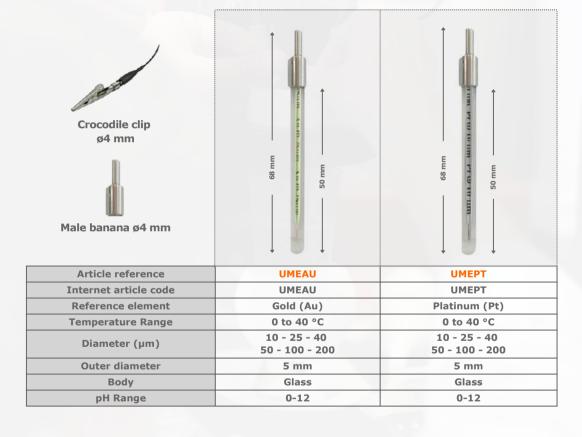


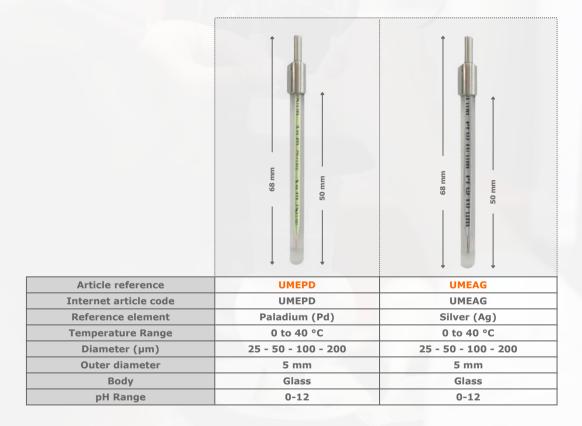
Article reference	AR00239	AR00260	AR00496	AR00497
Material	Carbon/Graphite	Carbon/Graphite	Graphite	Carbon/Graphite
Purity	99.997 %	99.997 %	99.997 %	99.997 %
Length	150 mm	150 mm	300 mm	250 mm
Lower diameter	ø5 mm	ø4 mm	ø6.4 mm	ø6.4 mm

Article reference	AR00521	AR01774	AR01775
Material	Graphite	Carbon	Carbon
Purity	99.997 %	-	- 3
Length	150 mm	100 mm	100 mm
Lower diameter	ø10 mm	ø10 mm	ø25 mm



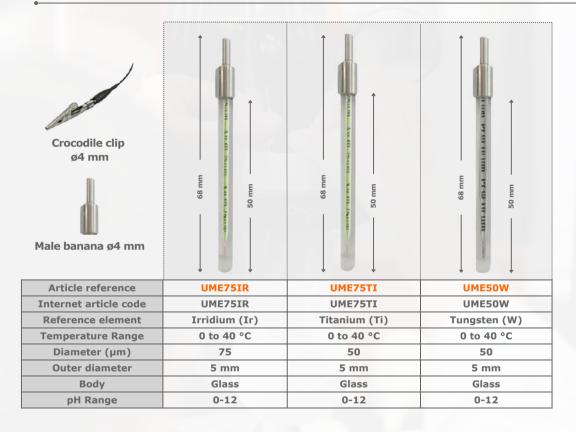
# Working electrodes - Micro-electrodes (UME)







# Working electrodes - Micro-electrodes (UME)



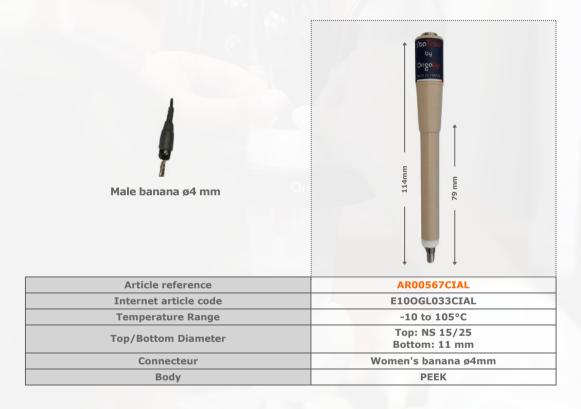
# Implantable microelectrodes (carbon fibers)

We also offer implantable microelectrodes:

- Beveled carbon fibers in 7 μm / 30 μm
- Non-beveled carbon fibers in 7 μm / 30 μm

Thanks to their exceptional finesse, these microelectrodes can be implanted very easily. Contact us for more information.

# Working electrode - Static electrode: โรดไเอป



# Compatible with tips & sample holders





# Rotating Disk Electrode (RDE): OrigoTrod



Perform reliable and accurate kinetic measurements with the Rotating Disk Electrode (RDE).

- Controlled by speed controller: OrigaBox (CTV101 from RadioMeter).
- Compatible with tips & sample holders (Radiometer too).



# Speed controller for RDE: OrigoBox



- Control rotation speed
- By USB, analog setpoint or RS232
- Can be used alone or connected to a potentiostat

### How to use it with a potentiostat?

#### First solution: manual control

Thanks to the OrigaLys software: OrigaBox Interface, connected via USB. This solution is possible with <u>OrigaLys potentiostat</u> or <u>any other brand</u>.



#### Second solution: automatic control

<u>OrigaLys</u>: The rotation speed is controlled by OrigaMaster, the PC software that controls the potentiostat.

<u>Other brand</u>: The rotation speed is controlled by the PC software that controls the potentiostat. An analog or RS232 signal is required, contact us.

# Choose a complete solution: OrigoTrod kit



Opt for a complete solution with the OrigaTrod Kit including: the OrigaTrod, the OrigaBox (connectable via USB to the software on a PC), a USB key containing the control software (OrigaBox Interface) and the appropriate cables. The pads and sample holders are not included.



# Rotating Disk Electrode Lt: OrigoTrod Lt



<u>Potentiometer:</u>
Manual control of the rotation speed directly on the device.



BNC



and banana plug

With analog instruction



Article reference	AR00436CIAL	AR02633CIAL	AR00426CIAL
Internet article code	AR00436CIAL	AR02633CIAL	AR00426CIAL
Grinded	14.5/23	14.5/23	14.5/23
RPM	100 to 5 000	100 to 5 000	100 to 5 000
Precision	0,35%	0,35%	0,35%

# **External power supply**



The system must be directly powered by a 12V AC/DC adapter (except for AR02633CIAL).





## All our tips for OrigaTrod & StaTrod

Length	20 mm
Outer diameter	11 mm
Body	PEEK
Войу	(PTFE on request)



For example: Glacial Carbon Ø3mm

## Available tips: Ø1, 2, 3 or 5 mm

Matériaux Nickel Nickel, pureté à 99,99%	Diamètre (mm) 2 et 5
Nickel, pureté à	
, ·	_
33,33%	5
Peek	0
Platine	2 et 5
Platine, pureté à 99,99%	5
Etain	5
Titane	2 et 5
Tungstène	1
	2 et 5
	99,99% Etain Titane

Contact us for more information regarding the following tips: Chrome (Cr), Irridium (Ir), Palladium (Pd), Rhodium (Rh), Cobalt (Co) or any other materials.

## Compatible with the following electrodes:



OrigaTrod: OrigaLys Rotating Disk Electrode



EDI101: Radiometer Rotating
Disk Electrode



OrigaTrod Lt: Rotating Disk Electrode with potentiometer



StaTrod : Static electrode

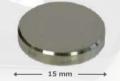
## Discover our range of pellets

Thicknesses	BDD: 1 mm Other pellets: 3 mm
Diameters	8 or 15 mm

## Available pellets: Ø8 or Ø15 mm

2	
Materials	Diameter (mm)
Steel A37	8
Stainless Steel AISI430	8 et 15
316L stainless steel	8 et 15
Stainless steel Z30Cr13	15
Aluminium	8
Silver	8
Glassy carbon	8 et 15
Copper	8 et 15
Boron Doped Diamond (BDD)	8 et 15
Iron	8
Graphite	8
Nickel	8 et 15
Gold	8
Platinum	8
Tungsten	8

316L stainless steel



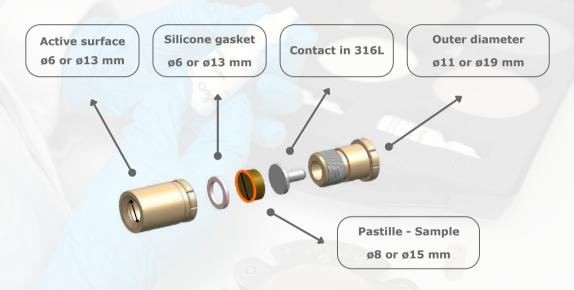


OrigaLys Pellets can be used with sample holders. The body is made of PEEK (PolyEther Ether Ketone).



## Discover our range of sample holders

Item code	Ø8 mm : E110GL001CIAL Ø15 mm : E110GL006CIAL
Temperature range	-10 to 105°C
Length	17 mm



Article reference	Sample tablet holder
AR00716CIAL	Titanium rod ø8 assembled
AR00717CIAL	Titanium rod ø15 assembled
AR02711CIAL	Stainless steel rod ø8 assembled
AR02712CIAL	Stainless steel rod ø15 assembled

Article reference	Seal kit for sample tablet holder
AR02713CIAL	Set of 5 silicone seals for ø8 sample holder
AR00577CIAL	Set of 5 PTFE gaskets for ø8 sample holder
AR00578CIAL	Set of 5 PTFE flat gaskets for ø15 sample holder
AR00906CIAL	Set of 5 flat silicone gaskets for sample holder ø15

## Discover our tip polishing kit



1	Steel polishing stand		
2	5 P1200 polishing discs		
3	5 P600 polishing discs		
4	5 satin polishing discs		
5	5 felt polishing discs		
6	3 bottles of alumina: 1 x 2-3 µm + 1 x 1 µm + 1 x 0.3µm		

Article reference: AR01647CIAL

- Achieve reliable & accurate measurements with our tip polishing kit.
- Achieve smooth surfaces for accurate analysis.
- Reduce edge effects for reliable measurements.
- Improve reproducibility with consistent sample preparation.



## Access the user manual

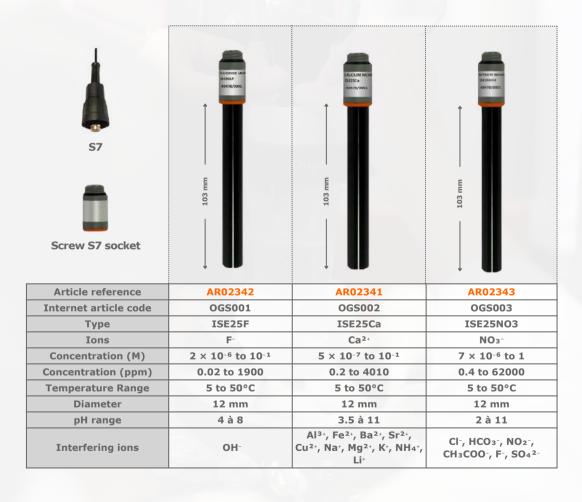
## **Read more**







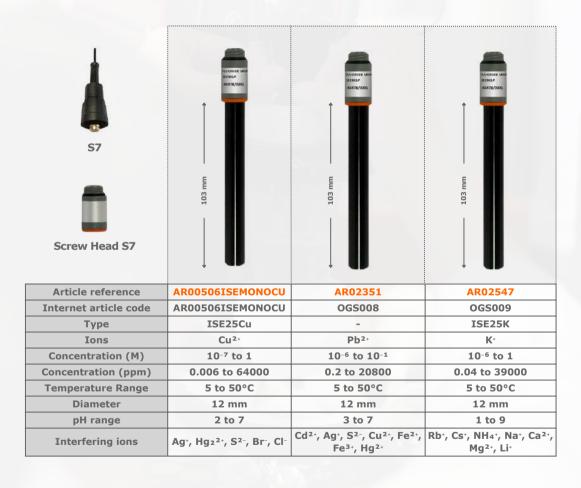
## **Non-combined** selective electrodes



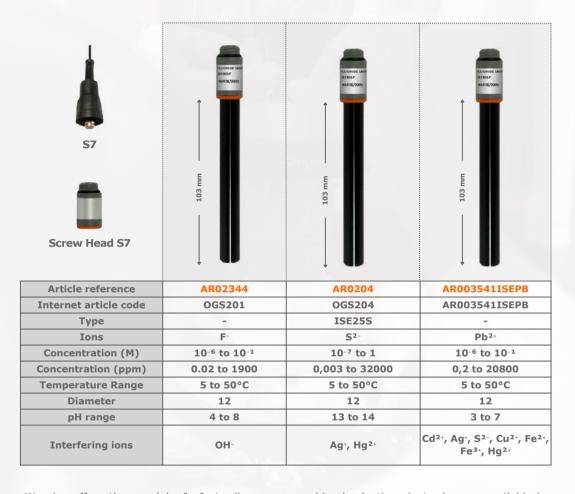




## Electrodes sélectives non-combinées



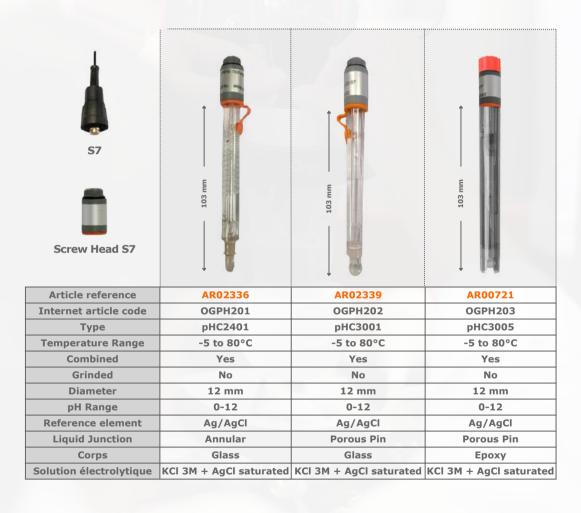
## **Combined** selective electrodes



We also offer other models. In fact, all our non-combined selective electrodes are available in a combined version. For more information, please do not hesitate to contact us.



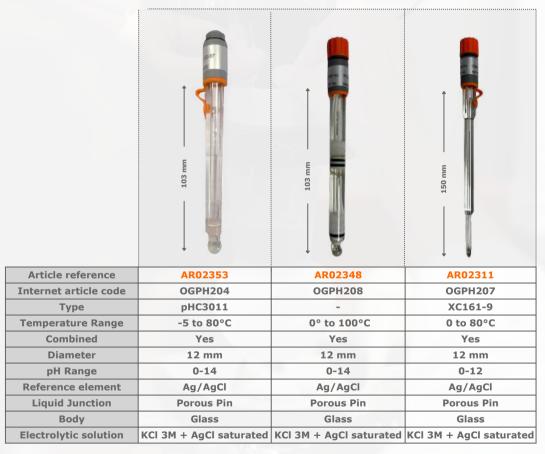
## **Combined pH electrodes**



# EIS OF THE STATE O

For aggressive environments

#### Long combination





# **Combined pH electrodes**



## Non-combined pH electrodes





## pH electrodes (integrated temperature probe)



## **Conductivity cells**





## **Conductivity cells**

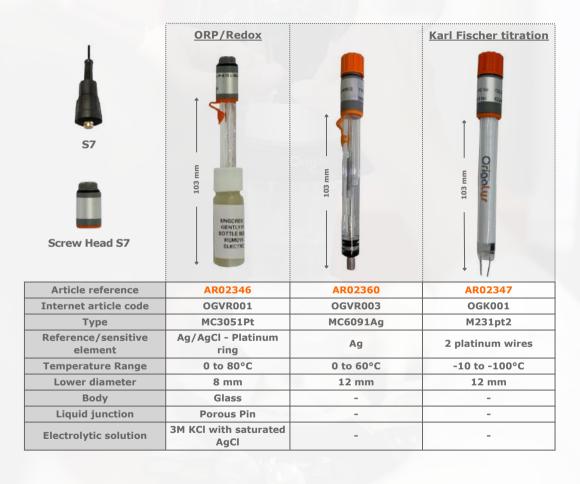


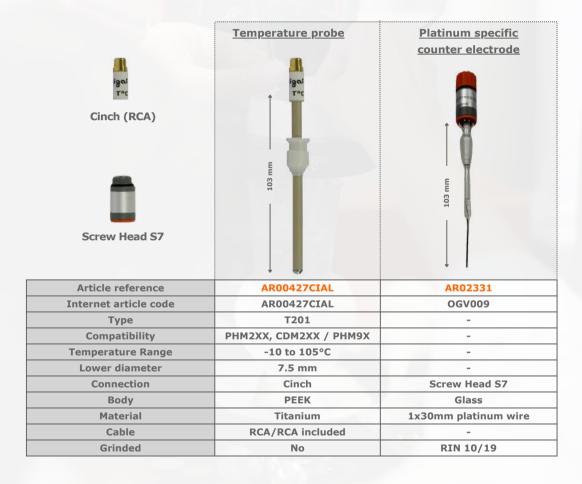
# **Industrial** electrodes

•	<u>Reference</u> electrode	<u>Auxiliary</u> electrode
\$7	120 mm — + + + + + + + + + + + + + + + + +	120 mm 7 mm 8 mm 8 mm 8 mm 8 mm 8 mm 8 mm
	11   90	120 m
Screw Head S7		
Article reference	AR00301	AR00302
Internet article code	AR00301	AR00302
Туре	Industrial	Industrial
Reference/sensitive element	Ag/AgCl (gel)	Platinum wire (Pt) ø: 1mm Length: 10 mm
Temperature Range	-10 to 100°C	-5 to 80°C
Lower diameter	6 mm	8 mm
Body	Verre	Verre
Grinded	No	PG 13.5 screwing
Liquid Junction	Porous Pin	-
Electrolytic solution	3M KCl with saturated AgCl	-



## **Other electrodes**







## Filling solutions (REF, allonges, pH combinées en verre)









Article reference	AR00806	AR00278	AR01269	AR02423
Internet article code	AR00806	AR00278	AR01269	AR02423
Solution type	Saturated KCI	3M saturated KCI (Ag/AgCI)	K <sub>2</sub> SO <sub>4</sub> saturated	KOH 0.1 M
Quantity	250 mL	250 mL	500 mL	250 mL

## **Conductivity** solutions









Article reference	AR01876	AR01880	AR01878	AR01879
Internet article code	AR01876	AR01880	AR01878	AR01879
Solution type	1.413 mS to 25°C	12.85 mS to 25°C	111.80 mS to 25°C	1.408 mS to 25°C
Quantity	500 mL	500 mL	500 mL	500 mL
Article reference	AR02523	AR01877	AR01881	
Internet article code	AR02523	AR01877	AR01881	

12.88 mS to 25°C

500 mL

## **pH** solutions

Solution type

Quantity



1.015 mS to 25°C

500 mL





111.31 mS to 25°C

500 mL

Article reference	AR01380	AR01380	AR01381
Internet article code	AR01380	AR01380	AR01381
Solution type	For pH electrodes $4.005 \pm 0.010$ at $25^{\circ}$ C	•	For pH electrodes 9.180 ± 0.010 at 25°C
Quantity	250 mL	250 mL	250 mL

## What solution for my REF electrode?

Internet article code	Article reference	Туре	Type of electrodes	Filling solution
OGR001	AR02317	XR400	Mercury oxide (Hg/HgO) without grinded 120 mm	KOH 0.1M
OGR002	AR02318	XR400	Mercury oxide (Hg/HgO) with grinded 120 mm	КОН 0.1М
OGR003	AR02319	XR110	Calomel Saturated (ECS) with grinded 120 mm	Saturated KCI
OGR004	AR02320	REF421	Calomel Saturated (ECS) without grinded 103 mm	Saturated KCI
OGR005	AR02321	REF321	Silver chloride (Ag/AgCl) without grinded 103 mm	3M KCl saturated with Ag/AgCl
OGR006	AR02322	XR300	Silver chloride (Ag/AgCl) diameter inf. without grinded 120 mm	3M KCl saturated with Ag/AgCl
OGR007	AR02323	XR300	Silver chloride (Ag/AgCl) 6 mm lower diameter without grinded 120 mm	3M KCl saturated with Ag/AgCl
OGR008	AR02314	REF201	RedRod without grinded 103 mm	Saturated KCI
OGR009	AR02309	REF921	Calomel Saturated (ECS) non-aqueous medium without grinded 103 mm	LiCl 1M
OGR010	AR02324	-	Silver chloride (Ag/AgCl) without grinded 120 mm	3M KCl saturated with Ag/AgCl
OGR011	AR02313	-	Mercury sulfate (Hg/Hg2SO4) With grinded 120 mm	K <sub>2</sub> SO <sub>4</sub> saturé
OGR012	AR02350	REF621	Mercury sulfate (Hg/Hg2SO4) Without grinded 103 mm	K₂SO₄ saturé
AR00301	AR00301	Industrial	Silver chloride (Ag/AgCl) without grinded 120 mm	Saturated KCl gel
OGR013	AR02352	-	Copper sulfate (Cu/CuSO4) Without grined 103 mm	CuSO <sub>4</sub>

## Calibration / Buffer Solutions (ISAB / TISAB)

We provide you with a wide range of solutions adapted to your needs for your selective electrodes:

- > Calibration solutions
- > ISAB (Ionic Strength Adjustment Buffer) solutions
- > TISAB (Total Ionic Strength Adjustment Buffer) solutions

For any additional information, do not hesitate to contact us.



## Cell for OrigaStat: OrigaCell Complete Kit



Article reference: X110GL001CIAL

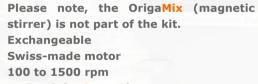
The OrigaCell Kit is composed of 4 parts:

- 1 Plastic protective cover
- ② Electrode holder with LED cell lighting
- 3 Beaker holder (glass plastic beaker, 30 to 125mL)
- (4) Base with retention trav

**Exclusively with the OrigaStat range:** each part can be adjusted or removed.

Ideal for teaching and surface treatment.

> See our specific packs.



For OrigaStat only



Article reference: X100GL004



OGIIOO without OrigaCell Kit



(1)













OGIIOO with OrigaCell Kit

(2)

## Thermostatic corrosion cell (CCTO/TH)



Article reference: AR00780CIAL

This corrosion cell is perfect for surface treatment and for flat samples with large surface area.

#### Available in:

- thermostated
- · non-thermostated

Ideal cell for crevice corrosion and surface treatment testing.

## **Corrosion cell (TYPE CEC/TH)**



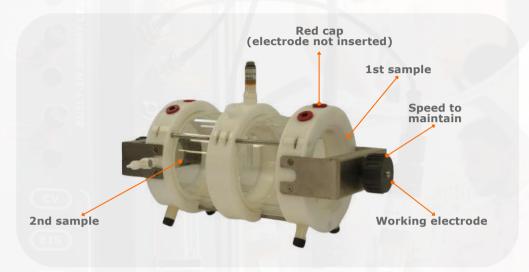
Article reference: AR01225CIAL This thermostatically controlled corrosion cell (Flow Cell) is perfect for galvanic corrosion on surfaces less than 2 cm<sup>2</sup> and for disk samples.

It includes a sample holder and a platinum (Pt) counter-electrode:

- Sample diameter: 1.5 cm
- Pt counter-electrode: ø10 mm
- Ag/AgCl reference electrode
- Temperature probe



## **Galvanic corrosion cell**



Article reference:
AR00828CIAL

This galvanic corrosion cell (Flow Cell) is perfect for surface treatment tests and for flat samples. It is designed for flat samples with a large surface area. Position your electrodes wherever you want: up to 9 locations.

This thermostated cell includes:

· Active surface: ø133 mm

· Maximum sample width: 158 mm

Maximum sample length: unlimited





100 cm<sup>2</sup>

2,5 L

## Flow Cell Corrosion Cell

This flow-through corrosion cell is perfect for erosion corrosion of disk samples. Flow an electrolyte through the cell.

This thermostated cell includes:

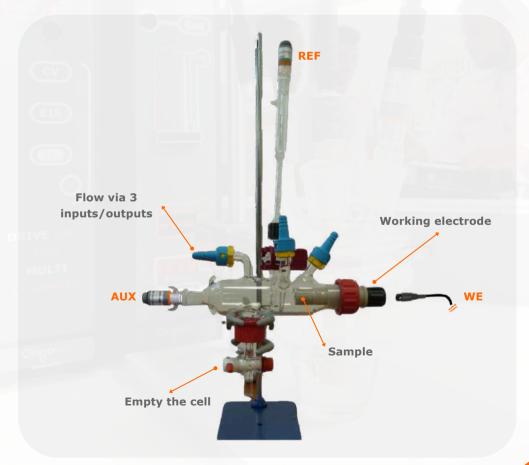
- · Active surface: ø13 mm
- A Calomel reference electrode
- · A platinum disk counter-electrode ø10 mm





1,33 cm<sup>2</sup>

A flux



Article reference: AR00335CIAL



## Thermostatic hydrogen permeation cell

The Devanathan-Stachursky thermostated hydrogen permeation cell is used to study and measure the diffusion of hydrogen gas through materials.

#### This thermostated cell includes:

- · Active surface: ø16 mm
- Two reference electrodes
- · Two platinum disk counter-electrodes ø10 mm
- Two temperature probes



Article reference: AR01223CIAL

## Cells with RDE stand (OrigaTrod)

#### Large model:



Article reference:
AR00484CIAL

#### This stand for EDT is composed of:

- <u>Standard stand</u> with sturdy base and the height is easily adjustable.
- A glass cell: the volume can vary on request. This cell can also be thermostatically controlled.

With its 5 openings, the cell is perfectly suited for a rotating electrode, a working electrode, a reference electrode and a counter electrode.

#### Small model:



Référence article : AR02756CIAL

This stand for EDT is composed of:

- <u>Standard stand</u> with sturdy base and the height is easily adjustable.
- A glass cell: the volume can vary on request. This cell can also be thermostatically controlled.

With its 5 openings, the cell is perfectly suited for a rotating electrode, a working electrode, a reference electrode and a counter electrode.



## Glass cells with stand



Article reference:
AR00735CIAL

#### This stand for EDT is composed of:

- <u>Standard stand</u> with sturdy base and the height is easily adjustable.
- A glass cell: the volume can vary on request. This cell can also be thermostatically controlled.

With its 5 openings, the cell is perfectly suited for a rotating electrode, a working electrode, a reference electrode and a counter electrode.



Article reference: AR02052CIAL

#### This stand for EDT is composed of:

- <u>Standard stand</u> with sturdy base and the height is easily adjustable.
- A glass cell: the volume can vary on request. This cell can also be thermostatically controlled.

With its 5 openings, the cell is perfectly suited for a rotating electrode, a working electrode, a reference electrode and a counter electrode.

# Glass or plastic cells



Number	1	2	3	4	5	6
Article reference	AR00369	AR02103CIAL	AR00483	AR00471	AR01130	AR01129
Max volume.	150 ml	150 ml	150 ml	130 ml	100ml	100 m
Material	Glass	Glass	Glass	Plastic (beaker)	Glass	Glass
Thermostated	Yes	No	Yes	No	Yes	No
Compatibility	All	All	All	All	OrigaStat*	OrigaStat*

<sup>\*</sup>Only usable with the OrigaStat OrigaCell Kit

For all other cell requests, contact us!



#### Accessories for electrodes & cells



#### **Article reference: AR00325**

The adaptable electrode holder is an essential device designed to hold electrodes in place during electrochemical experiments.

It offers great versatility and adapts to all types of electrodes.



#### **Article reference: AR00373**

Stopper for electrochemical cell: ensures perfect sealing, preventing leaks, contamination and evaporation of the electrolyte.



#### **Article reference: AR00905**

Bubbler tube: ideal for controlling the gas atmosphere of an electrochemical cell, by precisely diffusing a gas into the electrolyte.



#### **Article reference:** AR01004

Hole plug for lapping: designed to hold the electrodes while ensuring sealing and stability in the cell.





## **Battery** holders (button CR2032, AA, AAA)







ARTICLE REFERENCE	AR01190CIAL	AR01498CIAL
Number of measurement points	4	4
Operating ranges	-30° to 80°C	-30° to 80°C
Temperature probe	Integrated (PT1000)	Integrated (PT1000)
Temperature measuring range	-55°C to 155°C	-55°C to 155°C
Dimensions (L x W x H) in mm	70 x 32.5 x 13	70 x 32.5 x 13
Comments	Insertion on the front	Insert on top







ARTICLE REFERENCE	AR02156CIAL	AR02157CIAL
Number of measurement points	4	4
Operating ranges	-30° to 70°C	-30° to 70°C
Temperature probe	Integrated (PT1000)	Integrated (PT1000)
Temperature measuring range	-55°C to 155°C	-55°C to 155°C
Dimensions (L x W x H) in mm	97,5 x 32,5 x 13	105,2 x 32,5 x 13

## **Battery holders (super capacitor & 18650)**









ARTICLE REFERENCE	AR02162CIAL	AR02552CIAL
Number of measurement points	4	4
Operating ranges	-40° to 100°C	-30° to 70°C
Temperature probe	Integrated (PT1000)	Integrated (PT1000)
Temperature measuring range	-55°C to 155°C	-55°C to 155°C
Dimensions (L x W x H) in mm	105,2 x 32,5 x 13	97,5 x 32,5 x 13

## **SPE** support for screen printed electrodes





ARTICLE REFERENCE	AR02639CIAL	
Dimensions (L x W x H)	55 x 46 x 32 mm	
Connections (on OrigaFlex range)	Phoenix connector: 4 electrodes + temperature	
Connections (on other devices)	2mm bananas: 3 electrodes	



# Swagelok (3 and 2 electrodes) in PFA material

With supports	3 electrodes	2 electrodes
	Banana Ø2mm ←	Banana Ø2mm ← ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑
	Banana Ø2mm ←	Banana Ø2mm ← 1727 1 1011
ARTICLE REFRENCE	AR02647	AR02648
SUPPORT REFRENCE	AR02695	AR02660
T°C PROBE REFERENCE	AR02657	AR02657
Diameter	Ø12.7 / 1/2"	Ø12.7 / 1/2''
Material	PFA	PFA
Number of electrodes	3	2

	3 electrodes	2 electrodes
	ø6.35 ←→	ø6.35 ←→
	57,4 mm — 90 mm	← 43.2 mm → 90 mm
ARTICLE REFRENCE	AR02651	AR02649
SUPPORT REFRENCE	AR02696	AR02697
T°C PROBE REFERENCE	AR02658	AR02658
Diameter	Ø6.35 / 1/4''	Ø6.35 / 1/4''
Material	PFA	PFA
Number of electrodes	3	2

Compatible with all brands of potentiostats.

# Swagelok in 316L stainless steel

ign in	3 electrodes	2 electrodes
	### 12.77 mm ### 13.0 mm ### 13.0 mm ### 14.0 mm ### 1	#12.7 → mm E,12 → → → → → → → → → → → → → → → → → → →
ARTICLE REFERENCE	AR02656	AR02655
SUPPORT REFERENCE	AR02695	AR02660
T°C PROBE REFERENCE	AR02657	AR02657
ELECT. INSULATOR REFERENCE.	AR02652	AR02652
Diameter	Ø12.7 / 1/2''	Ø12.7 / 1/2''
Material	316L stainless steel	316L stainless steel
Number of electrodes	3	2

	3 electrodes	2 electrodes
	ø6.35 ←→	ø6.35 ←→
	53.8 mm — + - 90 mm — + 90 mm — +	← 40,9 mm → 90 mm
ARTICLE REFERENCE	AR02653	AR02654
SUPPORT REFERENCE	AR02696	AR02697
T°C PROBE REFERENCE	AR02658	AR02658
ELECT. INSULATOR REFERENCE.	AR02652	AR02652
Diameter	Ø6.35 / 1/4''	Ø6.35 / 1/4''
Material	316L stainless steel	316L stainless steel
Number of electrodes	3	2



# Temperature probes for Swagelok

#### For Swagelok 1/2"



ARTICLE REFERENCE	AR02657	
Diameter	Ø12.7 / 1/2"	
Material	316L stainless steel	
T°C measuring range	-10°C to 105°C*	

<sup>\*</sup>Possibility to extend the measuring range

#### For Swagelok 1/4"



<sup>\*</sup>Possibility to extend the measuring range





## High input impedance voltage measurement

Add a high impedance input voltage measurement to anywhere in your cell.





ARTICLE REFERENCE	AR01556CIAL
Connectors	BNC
Max. voltage.	±15V
Software	Available on OrigaMaster 5 & OrigaViewer 2
Compatibility	OrigaFlex range & OGS100 / OGS200

## Foot pedal control

Operate safely with the OrigaSwitch, our foot pedal control designed for the OrigaBox and OrigaStat.



ARTICLE REFERENCE	AR01526		
Connectors	BNC		
Max. voltage.	±15V		
Software	OrigaMaster & OrigaViewer		
Dimensions	10 cm x 7 cm		
Compatibility	OrigaFlex range & OGS100 / OGS200		

## **External** dummy cell

#### The OrigaTest is an external, easily transportable dummy cell, allowing:

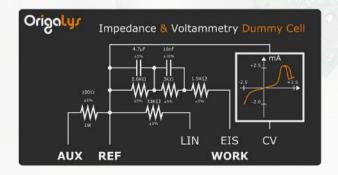


- Verification of the main technical specifications of OrigaLys products: OrigaStat or OrigaFlex.
- To become familiar with the OrigaMaster software; to prepare, launch and examine the experiments.
- Cable control. This allows us to determine whether the cables are operational or whether they need to be changed.

ARTICLE REFERENCE	AR00792		
Connectors	Banana 4mm		
Weight	0,150 kg		
Dimensions (L x W x H) in mm	12 x 6,4 x 4 cm		
Compatibility	OrigaStat & OrigaFlex		

#### Main functions of the fictitious cell:

- Linear Voltammetry (LIN)
- Cyclic Voltammetry (CV)
- Impedance (EIS), double loop
- Auxiliary (AUX)
- 2 or 3 electrodes
- · Reference (REF)
- Work (WRK)





## Connectors, cables and adapters

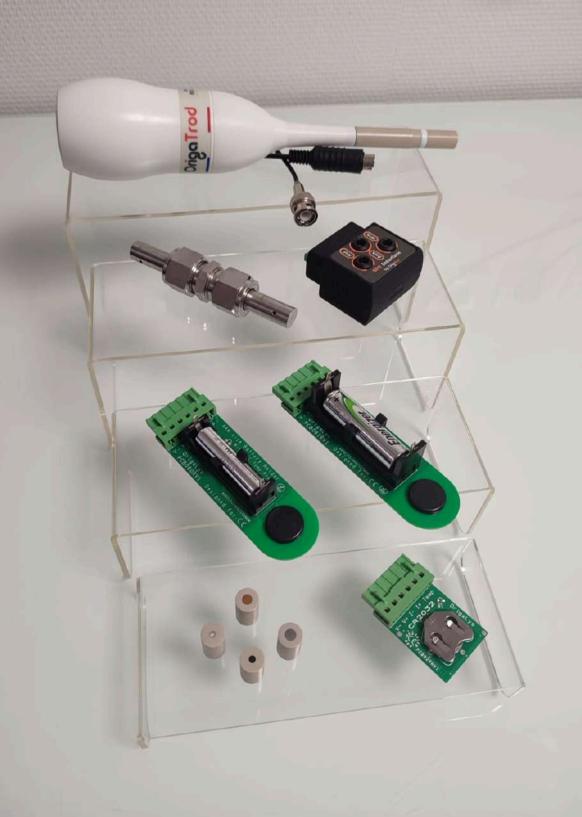
	S7	Male banana ø2mm	Male banana ø4mm	BNC	MiniDin6
Male banana ø4mm	AR01206 (1m) B AR01207 (2m) B		AR01204 (1m) B AR00550 (1m) R AR00580 (2m) B AR00579 (2m) R AR01265 (5m) B AR01266 (5m) R	AR01189 (0.25m) B AR01214 (1m) B AR01194 (2m) B	
BNC	AR01211 (0.25m) B AR01210 (1m) B	AR01910 (1m) Y AR01911 (1m) G AR01197 (1m) B AR01201 (1m) R AR01591 (2m) Y AR01596 (2m) G AR01593 (2m) B AR01599 (2m) R AR01600 (3m) Y AR01595 (3m) G AR01594 (3m) B AR01598 (3m) R	AR01189 (0.25m) N AR01214 (1m) N AR01194 (2m) N	AR01570 (1m) B AR00556 (2m) B AR00341 (5m) B	
UHF	AR01219 (1m) B		AR01191 (0.25m) B AR01203 (1m) B AR00455 (2m) B		
S7		AR01205 (1m) B	AR01206 (1m) B AR01207 (2m) B	AR01211 (0.25m) B AR01210 (1m) B	AR01635 (1m) B

Cable color: Y: Yellow / G: Green / B: Black / R: Red



- Cable adapter for OCD Mini-DIN6 male / DIN6 screwed female / 15 cm (AR01544)
- <u>Banana adapters and crocodile clips</u> (insulated in ø2mm and insulated and noninsulated in ø4mm) for male banana ø2mm, male banana ø4mm:







# OrigaLys ElectroChem SAS

Local distributor



555 Chemin du bois 69140 RILLIEUX-LA-PAPE FRANCE

Tel. +33 (0)9 54 17 56 03 Fax. +33 (0)9 59 17 56 03

contact@origalys.com