

# pH-meter Oph218

## OrigaMeter range



- ✓ **Sustainable and repairable**
- ✓ **Reliable and fast results**
- ✓ **Easy to use and simple connections**
- ✓ **Data transfers (Regressi, ExAo, Excel)**

OrigaLys was founded by four R&D engineers from Radiometer company.

Electrochem  
**OrigaLys**

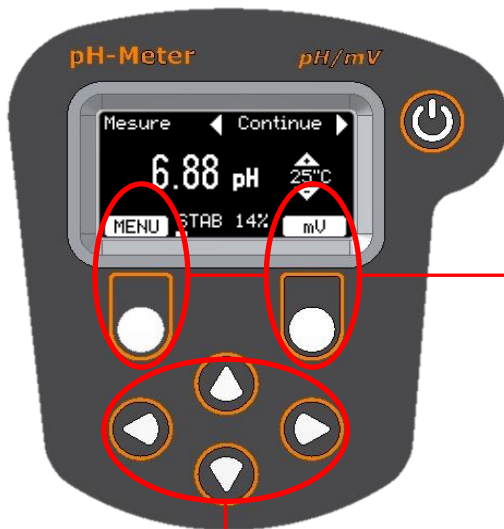


Power the pH-meter by pressing the button to the right of the screen

The home screen lights up, with time display



Pressing one of the keys on the keyboard, the pH/mV measurement screen in continuous mode appears:



### Function keys:

Each key is associated with a function defined in a white rectangle at the bottom of the screen.

In our example the left key allows you to enter the **MENU** to access the other functions of the device. The right key allows you to switch to potential (**mV**).

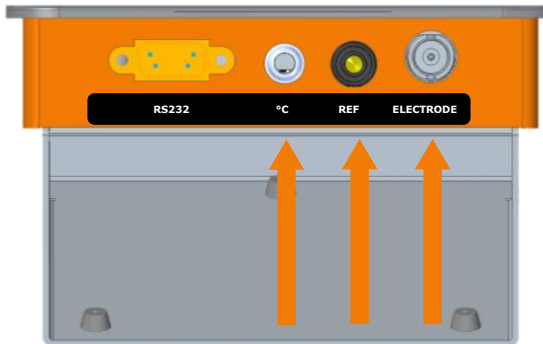
### Adjustment and navigation keys:

These keys allow you to move around menus, select a setting, or adjust the value of a variable.

In our example, **horizontal** arrow keys allow you to select the **Continuous** or **Auto** measurement mode. **Vertical** arrow keys adjust the temperature value.

# Connecting the electrodes

Example of using a non-combined pH electrode  
Check out our various Packs on page 7



When the device is turned off, the electrodes are automatically de-connected from the electronics and can remain plugged in without the risk of being damaged.

## Temperature probe

Reference:  
OGT-103-7-5-CINCH-CIAL

RCA-RCA cord  
Supplied with the probe

**NOTE:** You can use your own temperature sensor.



## Reference electrode

Reference:  
OGR004

Banana – S7 cord  
Reference:  
AR01206

## Non-combined pH Electrode

Reference:  
OGPH001

BNC – S7 cord  
Reference:  
AR01210

## Connection to the ground:

The basic OpH218 allows measurements to be made in floating mode. To connect it to the earth, simply connect it to a device such as a printer, recorder or PC, which is itself connected to the earth.

## Analog output and RS232 communication

### Analog output

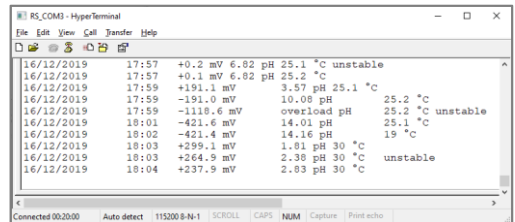
- ✓ Connecting to analog recorders
- ✓ Controlling a stirrer



ANALOG OUT

### RS232 communication

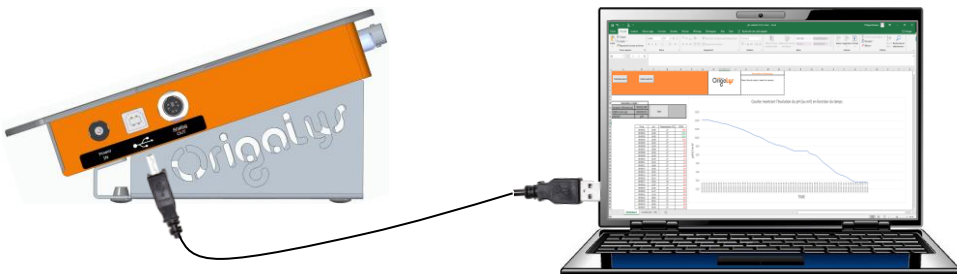
- ✓ Printing results at the end of calibration
- ✓ pH-meter control



Control with HyperTerminal

## USB communication and remote control

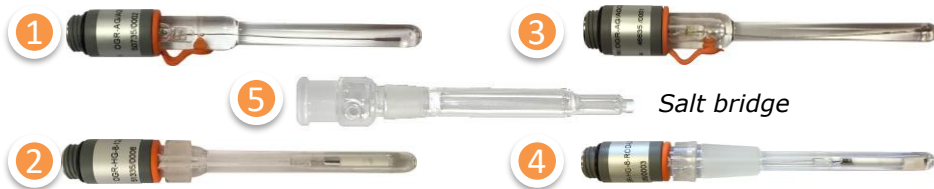
USB communication with a PC is provided by a DLL developed and provided by Originalys. Full documentation and an example of use with Microsoft Excel (pH collector) software are available for download on [www.originalys.com](http://www.originalys.com). This allows real-time storage, display and tracing on a graph and pH/mV measurements based on time.



pH collector – Microsoft Excel

# Technical Features

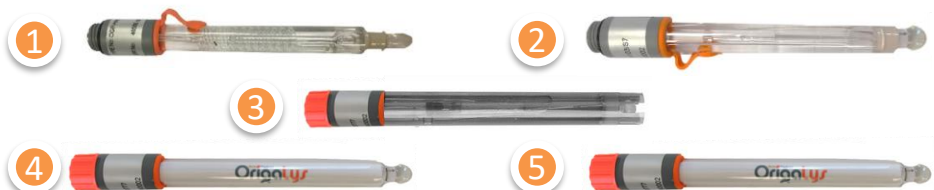
Measurement ranges	pH: - 9 to 23 pH
	mV: $\pm 2000$ mV
	°C: - 10°C to 110°C
Resolution	pH: $\pm 0,01$ pH
	mV: $\pm 0,1$ mV
	°C: $\pm 0,1$ °C
Electrode entry impedance	$> 2 \times 10^{12}$ Ohms
Polarization electrodes	It is possible to impose a current of 10 $\mu$ A in the connected electrode on the BNC input
Stability criterion	3 mV/min ( $\simeq 0,05$ pH/min )
Measures	2 modes : <ul style="list-style-type: none"> <li>• Continuous: Continuous display of pH/mV and temperature</li> <li>• Automatic: The pH result is frozen and memorized when the drift is below the stability criterion.</li> </ul>
Calibration	1 to 3 points
Choosing buffers	3 modes: <ul style="list-style-type: none"> <li>• Automatic recognition of buffers (Series: IUPAC or 4-7-10)</li> <li>• Handbook selection of buffers among the series IUPAC and 4-7-10</li> <li>• Free by manual adjustment of pH value</li> </ul>
Criteria for agreeing to calibration	<ul style="list-style-type: none"> <li>• Slope: 95 to 102%</li> <li>• Zero-pH: 5.80 to 7.50 pH</li> </ul> Non-blocking criteria generating a warning
Languages	French, English, Spanish, German and Italian
Display	Chart 128x64, OLED Technology, Size 60 x 30 mm
Input / Output	<ul style="list-style-type: none"> <li>• 1 input for glass electrode or combined (BNC socket)</li> <li>• 1 input for reference electrode (TAKE BANANE 4 mm)</li> <li>• 1 input for temperature sensor (take RCA / CINCH)</li> <li>• 1 RS232 series port (take SUB-D 9 pins)</li> <li>• 1 USB 2.0 port (type B socket)</li> <li>• 1 analog output (take mini-DIN8)</li> </ul>
Box	Project-resistant and dirt-resistant (INOX - PC - PMMA)
Dimensions (H x W x D)	80 x 140 x 180 mm
Weight	1 Kg
Power	2 possibilities: <ul style="list-style-type: none"> <li>• By AC adapter 12Vdc, 1A, 12W (JACK plug)</li> <li>• By USB 2.0 port (type B socket)</li> </ul>
Environmental conditions	<ul style="list-style-type: none"> <li>• Temperature of use: 5 to 40°C</li> <li>• Relative use humidity: 20 to 80%</li> </ul>



## Reference electrodes

## Other

Models	① OGR005 Type REF321	② OGR004 Type REF421	③ OGR006 Type XR300	④ OGR003 Type XR110	⑤ D11OGL008 Type AL120
Dimensions	ø 8 x 103 mm	ø 8 x 103 mm	ø 8 x 120 mm	ø 8 x 120 mm	ø 8 x 140 mm
Body	Glass	Glass	Glass	Glass	Glass
Reference systems	Ag/AgCl	Calomel	Ag/AgCl	Calomel	-
Electrolyte	KCl 3M with saturated AgCl	Saturated KCl	KCl 3M with saturated AgCl	Saturated KCl	-



## Combined pH electrodes

## Non-combined pH electrodes

Models	① OGP201 Type pHC2401-8	② OGP202 Type pHC3001	③ OGP203 Type pHC3005	④ OGP001 Type pHG301	⑤ OGP002 Type pHG311
pH range	0 - 12	0 - 12	0 - 12	0 - 12	0 - 14
T°C range	-5 to 80°C	-5 to 80°C	-5 to 80°C	-5 to 80°C	-5 to 80°C
Dimensions	ø 12 x 103 mm	ø 12 x 103 mm	ø 8 x 103 mm	ø 8 x 103 mm	ø 8 x 103 mm
Body	Glass	Glass	Epoxy	Glass	Glass
Reference systems	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl
Electrolyte	KCl 3M with saturated AgCl	KCl 3M with saturated AgCl	KCl 3M with saturated AgCl	Saturated KCl	Saturated KCl

See the full list of electrodes on  
[www.oralys.com](http://www.oralys.com)

## pH-meter Packs

### Non-combined Calomel Pack

pH-meter OpH218



- ✓ Two cables
- ✓ One pH electrode
- ✓ One Calomel reference electrode

### Non-combined Ag/AgCl Pack

pH-meter OpH218



- ✓ Two cables
- ✓ One pH electrode
- ✓ One Ag/AgCl reference electrode

### Combined Pack

pH-meter OpH218



- ✓ One cable
- ✓ One combined pH electrode (in glass or in epoxy)

### Simple Pack

Only the pH-meter OpH218



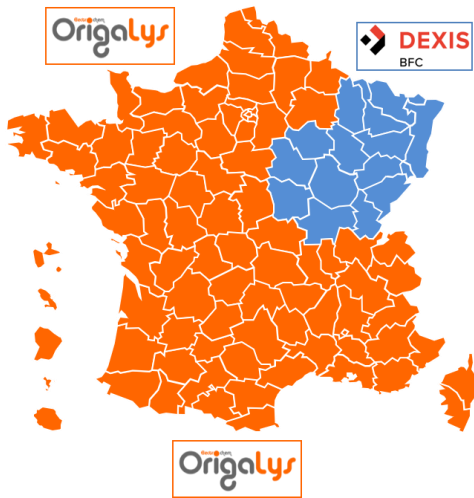
## Teaching Pack



OrigaStat – OGS080: Potentiostat, Galvanostat & EIS

- Highlighting slow and fast systems
- Observation of the diffusion level and the influence of agitation with the rotating electrode
- Study of the field of electrochemical inertia of solvent
- Study of the concepts of batteries, electrolytes, batteries
- Go further in TIPE with corrosion studies

## ➤ The team in France



North & South Area



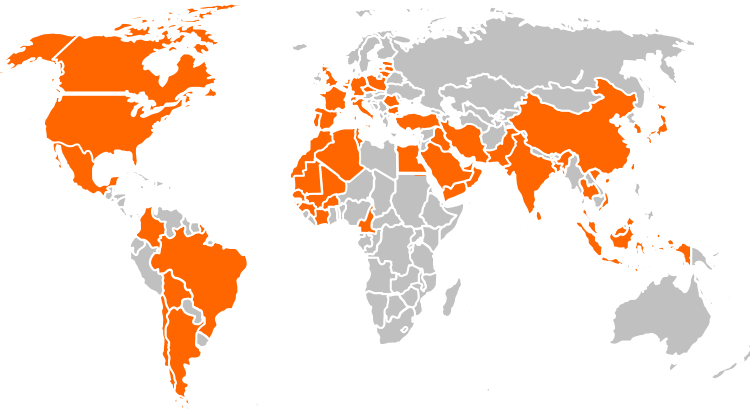
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## ➤ The distributor network



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Distributor full list on [www.origalys.com](http://www.origalys.com)

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