

**GIORGIO 30 RMAC**

**CATALOGUE 2025**

**30**

**YEARS  
TOGETHER**



**ARGO LAB**

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# CATALOGUE 2025

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## OUR BRANDS:



**ARGO LAB**

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## HOW TO ORDER



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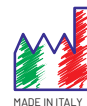


# pH METERS



PORTABLE  
INSTRUMENTS **WARRANTY 5 YEARS**

BENCHTOP  
INSTRUMENTS **WARRANTY 3 YEARS**



COMPANY WITH  
QUALITY MANAGEMENT SYSTEM  
**UNI EN ISO 9001:2015**  
CERTIFIED BY CERTIQUALITY



## HOW TO CHOOSE

	Violab pH 50	Violab pH 60	pH 8 PRO	pH 80 PRO
Resolution	0,01 pH	0,01 pH	0,001 pH	0,001 pH
Display	coloured LCD	coloured LCD	Coloured graphic	Coloured graphic
GLP calibration	○	●	●	●
Calibration password	○	○	●	●
Calibration points	3	3	5	5
Calibration due alarm	○	●	●	●
Electrode status indication	○	○	●	●
Selective ION	○	○	○	●
Data logger	○	●	●	●
PC / Printer connection	○	●	●	●
Analog view	○	○	●	●
Alarm settings	○	○	●	●
Multilanguage	○	○	●	●
Account manager + audit trail	○	○	○	●
External keyboard	○	○	○	●



# pH 80 PRO

- Resolution 0,1 / 0,01 / 0,001 pH
- Advanced user management (4 levels , 15 profiles)
- Data logger, 8000 data memory in GLP
- Analysis Menu for data traceability + Audit trail
- Customisable print templates
- Multiview screen

pH meter, digital benchtop ionmeter for advanced laboratory analyses.

Automatic pH calibration (6 buffer families) or manual, on 5 values.

ISE calibration from 2 to 5 points.

Automatic and manual ORP calibration (1 point).

Calibration due warning and/or measurement block.

Alarm setting and display functions in analogue, 'Hold' and 'Stability' format with titration mode (Tit) and time stability for ISE, self-diagnosis messages.

Advanced user management (Admin, Manager, User,

Guest) with different possibilities of access to instrumental functions.

Different data logger modes (Manual, Automatic, Min/Max, Delta value).

Analysis menu for complete editing of your measurements: you can enter all useful information about the sample and test.

Multiview screen (up to 6 user-selectable parameters can be displayed simultaneously).

Customisable print templates. Multilingual Setup Menu (Ita - Eng - Deu - Fra - Esp - Por).

Free Data-Link+ software available at [www.xsinstruments.com](http://www.xsinstruments.com) for PC data management, including Audit Trail.

2 USB outputs for external keyboard and PC connection. RS232 port for printer connection.

Independently controlled magnetic stirrer (optional).



## Measuring range:

pH: -2,000...20,000 (0,001 pH)

mV: -2000...+2000 (0,1 - 1 mV)

ISE: 0,001...19999ppm

ORP: -2000...+2000 mV (0,1 - 1 mV)

Temperature: -30...130,0 °C (0,1 °C)

## Equipped with

S7/BNC cable, NT 55 temperature probe, electrode holder stand, coloured buffer solutions, external keyboard, USB cable and multisocket power supply.

Name	Description	P/N
<b>pH 80 PRO STIRRER</b>	Complete with <b>digital electrode XS Standard DHS</b> , magnetic stirrer with adjustable speed	50101392
<b>pH 80 PRO STIRRER</b>	Complete with <b>electrode XS Standard</b> , magnetic stirrer with adjustable speed	50101402
<b>pH 80 PRO STIRRER</b>	Without electrode, with <b>magnetic stirrer with adjustable speed</b>	50101412
<b>pH 80 PRO BASIC</b>	Complete with <b>digital electrode XS Standard DHS</b> , without magnetic stirrer	50101442
<b>pH 80 PRO BASIC</b>	Complete with <b>electrode XS Standard S7</b> , without magnetic stirrer	50101422
<b>pH 80 PRO BASIC</b>	Without electrode and magnetic stirrer	50101432
<b>KEYBOARD</b>	External soft keyboard with USB cable for 80+ Series	50001462
<b>IQ-OQ MANUAL 80 SERIES</b>	Printed manual IQ-OQ for <b>XS 80 PRO Series</b>	50001472

# pH 8 PRO

- Resolution 0,1 / 0,01 / 0,001 pH
- Backlit colour **graphic display**
- Automatic temperature compensation
- Data logger, 1000 data memory in GLP
- Numerical password



Digital benchtop pH meter.

**Automatic pH calibration** (5 values) on different standard buffer, or custom (2 values).

Automatic and manual 1-point **ORP calibration**.

Recall and printout of calibration data. Graphical display of electrode status.

**Calibration due** warning and/or measurement block.

**Alarm setting** and analogic view, "Stop-reading" and 'Stability' with titration mode (Tit), self-diagnosis messages.

Numeric password for protecting saved data and calibration management.

**Data logger up to 1000 data in GLP** with possibility of sending to printer or PC.

**Multilanguage Setup Menu** (Ita - Eng - Deu - Fra - Esp - Por).

Free **Data-Link+** software at [www.xsinstruments.com](http://www.xsinstruments.com) for PC data management.

USB output for PC connection and RS232 port for printer connection.

Independently controlled magnetic stirrer (optional).

## Measuring range:

**pH:** -2,000...16,000 (0,001 pH)

**mV:** -2000...+2000 (0,1 - 1 mV)

**ORP:** -2000...+2000 (0,1 - 1 mV)

**Temperature:** -20...120,0 °C (0,1 °C)

## Equipped with:

S7/BNC cable, NT 55 temperature probe, electrode holder stand, coloured buffer solutions, USB cable and multi-socket power supply.

Name	Description	P/N
<b>pH 8 PRO STIRRER</b>	Complete with <b>digital electrode XS Standard DHS</b> , magnetic stirrer with adjustable speed	50101252
<b>pH 8 PRO STIRRER</b>	Complete with <b>electrode XS Standard</b> , magnetic stirrer with adjustable speed	50101232
<b>pH 8 PRO STIRRER</b>	Without electrode, with <b>magnetic stirrer with adjustable speed</b>	50101242
<b>pH 8 PRO BASIC</b>	Complete with <b>digital electrode XS Standard DHS</b> , without magnetic stirrer	50101192
<b>pH 8 PRO BASIC</b>	Complete with <b>electrode XS Polymer</b> , without magnetic stirrer	50101202
<b>pH 8 PRO BASIC</b>	Without electrode and magnetic stirrer	50101212
<b>IQ-00 MANUAL SERIES 8</b>	Printed manual IQ-00 for <b>XS 8 PRO Series</b>	50001492

## ACCESSORIES SERIES 8 / 80

	Description	P/N
<b>MAGNETIC STIRRER</b>	<b>Adjustable speed</b> , with electrode holder and connection cable	50001132
<b>PRINTER RS 232</b>	External printer with <b>normal paper</b> for XS 60 VioLab / 8 / 80 series	50001502
<b>POWER SUPPLY</b>	Power supply <b>12V/1A</b> for XS 8 PRO and 80 PRO series	50001512

# pH 60 *Viola*lab

- Resolution 0,1 / 0,01 pH
- Automatic and manual **temperature compensation**
- **Data logger** auto and manual , **up to 1000 savings in GLP**
- **Automatic calibration up to 3 points**
- **DHS digital sensors** management

Professional benchtop pH meters with innovative **backlit high definition coloured LCD display**, with possibility of brightness adjustment.

Management of **DHS digital sensors**.

Possibility to select the parameters to show on the display.

The **step by step guide** in setup and calibration allows a simple and immediate use of the device.

**Automatic pH calibration** with USA and NIST buffers, up to 3 points and 2 points defined by the user.

**Automatic ORP calibration** on 1 point.

Measurement **stability indication** and possibility to select 3 stability levels.

All operations are constantly monitored and shown to the operator by the **coloured LED** above the display and self-diagnosis messages.

**GLP function**: Date and time, recall of calibration data and function "Calibration due".

**Data logger up to 1000 savings**, manual and automatic, PC connection via micro-USB.

**Data-Link +** software available at [www.xsinstruments.com](http://www.xsinstruments.com).

RS 232 external **printer connection**



## Measuring range:

pH: -2,00...16,00 (0,01 pH)

mV: -1000...+1999 (0,1 - 1 mV)

ORP: -1000...+1900 (0,1 - 1 mV)

Temperature: -10...110,0 °C (0,1 °C)



## Equipped with:

Electrode holder stand, pH buffer solutions, USB cable, power supply and instructions for use.

Name	Description	P/N
<b>pH 60 VIOLAB</b> DHS ELECTRODE	Complete with <b>digital electrode XS 201 T DHS</b> , with integrated temperature sensor	50101102
<b>pH 60 VIOLAB</b> ANALOG ELECTRODE	Complete with <b>electrode XS 201 T</b> , with integrated temperature sensor	50101092
<b>pH 60 VIOLAB</b> WITHOUT ELECTRODE	With accessories, S7-BNC cable, temperature sensor NT 55, <b>without electrode</b>	50101112
<b>PRINTER</b> RS 232	External printer with <b>normal paper</b> for XS 60 / 8 / 80 series	50001502



# pH 50 Violab

- Resolution 0,1 / 0,01 pH
- Automatic and manual **temperature compensation**
- Coloured backlit high definition **LCD display**
- **Automatic calibration up to 3 points**
- **DHS digital sensors** management

Professional benchtop pH meter with innovative **backlit high definition coloured LCD display**, with possibility of brightness adjustment.

Management of **DHS digital sensors**.

Possibility to select the parameters to show on the display.

The **step by step guide** in setup and calibration allows a simple and immediate use of the device.

**Automatic pH calibration** with USA and NIST buffers, up to 3 points and 2 points defined by the user.

**Automatic ORP calibration** on 1 point.

Measurement **stability indication** and possibility to select 3 stability levels.

All operations are constantly monitored and shown to the operator by the **coloured LED** above the display and self-diagnosis messages.

## Measuring range:

pH: 0,00...14,00 (0,01 pH)

mV: -1000...+1000 (1 mV)

ORP: -1000...+1000 (1 mV)

Temperature: 0...100,0 °C (0,1 °C)



Colored LCD display

## Equipped with:

Electrode holder stand, pH buffer solutions, power supply and instructions for use.

Name	Description	P/N
<b>pH 50 VIOLAB</b> DHS ELECTRODE	Complete with <b>digital electrode XS 201 T DHS</b> , with integrated temperature sensor	50101032
<b>pH 50 VIOLAB</b> ANALOG ELECTRODE	Complete with <b>electrode XS 201 T</b> , with integrated temperature sensor	50101002
<b>pH 50 VIOLAB</b> WITHOUT ELECTRODE	With accessories, S7-BNC cable, temperature probe NT 55, <b>without electrode</b>	50101012

# pH 70 Vio

- Resolution 0,1 / 0,01 pH
- Coloured backlit high definition LCD display
- Automatic and manual **temperature compensation**
- **Data logger** auto and manual , up to 1000 savings in GLP
- GLP functions
- DHS digital sensors management

Professional portable pH meter with **innovative high-resolution colour display**, suitable to work in any conditions, thanks to the automatic and manual brightness adjustment.

Possibility to select the parameters you want to show.

The **step by step guide** in setup and calibration mode allows a simple and intuitive use of the device.

**Automatic pH calibration** with USA and NIST buffers up to 3 points and 2 points custom defined by the user.

**Automatic ORP calibration** in 1 point.

Measurement **stability indicator** and possibility of selecting 3 levels of stability.

All operations and errors are constantly monitored and shown to the operator via the **coloured LED** above the display.

**GLP function**: Date and time, recall of calibration data and function "Calibration due".

**Data logger up to 1000 savings**, manual and automatic, PC connect via micro-USB.

**Data-Link + software** available from [www.xsinstruments.com](http://www.xsinstruments.com).



## Measuring range:

pH: -2,00...16,00 (0,01 pH)

mV: -1000...+1999 (0,1 - 1 mV)

ORP: -1000...+1900 (0,1 - 1 mV)

Temperature: -10...+110,0 (0,1 °C)

## Equipped with:

coloured buffer solutions of pH, USB cable and power supply, instructions for use and plastic carrying case.

Name	Description	P/N
<b>pH 70 VIO</b> DHS ELECTRODE	Complete with <b>digital electrode XS 201 T DHS</b> , with integrated temperature sensor	50110182
<b>pH 70 VIO</b> ANALOG ELECTRODE	Complete with <b>electrode XS 201 T</b> , with t integrated emperature sensor	50110112
<b>pH 70 VIO</b> WITHOUT ELECTRODE	With accessories, S7-BNC cable, temperature probe NT 55, <b>without electrode</b>	50110122
<b>pH 70 VIO</b> FOOD DHS	Complete with <b>penetration digital electrode XS 2 Pore T DHS</b> , for food applications	50110192
<b>pH 70 VIO</b> FOOD	Complete with <b>penetration electrode XS 2 Pore T</b> , for food applications	50110162

# pH 7 Vio

- Resolution 0,1 / 0,01 pH
- Coloured backlit high definition LCD display
- Automatic and manual **temperature compensation**
- DHS digital sensors management.

Professional portable pH meter with **innovative high-resolution colour display**, suitable to work in any conditions, thanks also to the possibility to adjust manually contrast and brightness of the display.

Possibility to select the parameters you want to show.

The guide onboard in setup and calibration mode allows a simple and intuitive use of the device.

**Automatic pH calibration** with USA and NIST buffers up to 3 points and 2 points custom defined by the user.

**Automatic ORP calibration in 1 point.**

Measurement stability indicator and possibility of selecting 3 levels of stability.

All operations and errors are constantly monitored and shown to the operator via the **coloured LED** above the display.



## Measuring range:

pH: 0,00...14,00 (0,01 pH)

mV: -1000... +1000 (1 mV)

ORP: -1000...+1000 (1 mV)

Temperature: 0...+100,0 (0,1 °C)

## Equipped with:

coloured buffer solutions of pH, instructions for use and plastic carrying case.

Magnetic support

Name	Description	P/N
<b>pH 7 VIO</b> DHS ELECTRODE	Complete with <b>digital electrode XS 201 T DHS</b> , with integrated temperature sensor	50110072
<b>pH 7 VIO</b> ANALOG ELECTRODE	Complete with <b>electrode XS 201 T</b> , with integrated temperature sensor	50110012
<b>pH 7 VIO</b> WITHOUT ELECTRODE	With accessories, S7-BNC cable, temperature probe NT 55, <b>without electrode</b>	50110022
<b>pH 7 VIO</b> FOOD DHS	Complete with <b>penetration digital electrode XS 2 Pore T DHS</b> , for food applications	50110082
<b>pH 7 VIO</b> FOOD	Complete with <b>penetration electrode XS 2 Pore T</b> , for food applications	50110032
<b>pH 7 VIO</b> GEL	Complete kit included <b>pH GEL electrode plastic body</b> 1 mt cable with BNC	50110062



# ACCESSORIES pH

## pH ELECTRODES

Name	Description	P/N
<b>XS STANDARD T DHS</b> DIGITAL pH ELECTRODE	Digital pH electrode combined with DHS technology. Glass body and cylindrical membrane for general applications. Refillable KCl 3M electrolyte. <b>Excellent chemical resistance and easy to clean. Included with serial number and certificate.</b> Dimensions (LxØ) mm 120x12 - pH 0...14 - Temperature -10...100 °C	32200123
<b>XS STANDARD</b> PH ELECTRODE	pH Electrode combined with S7 head. Glass body, for general use. Refillable KCl 3M Electrolyte. <b>Excellent chemical resistance and easy to clean. With serial number and certificate.</b> Dimensions (LxØ mm) 120x 12 - pH 0...14 - Temperature -10...100 °C.	32200363
<b>XS POLYMER</b> S7	Combined pH Electrode <b>S7 head</b> . Glass Body for general use. Cylindrical membrane. Polymer filling, open pore. <b>For a fast response with high accuracy in samples that might contaminate normal diaphragms.</b> Maintenance-free. Dimensions (LxØ) mm 120x12 - pH 0...14 - Temperature -10...80 °C	32200223
<b>201 T DHS</b> DIGITAL pH ELECTRODE	Digital pH electrode combined with DHS technology. Plastic body for general use. Polymer Filling, ceramic diaphragm. Maintenance-free. Dimensions (LxØ) mm 120x12. pH 0...14 - Temperature 0...60 °C	32200103
<b>201 T</b> PH ELECTRODE	Combined pH electrode with NTC temperature sensor integrated. Plastic body for general applications. Polymer filling with ceramic diaphragm. Maintenance-free. Fixed cable 1 mt., BNC + RCA plug. Dimensions (LxØ) mm 120x12 - pH 0...14 - Temperature 0...60 °C	50002002
<b>201 T / 5</b> PH ELECTRODE	Combined pH electrode with NTC temperature sensor integrated. Plastic body for general applications. Polymer filling with ceramic diaphragm. Maintenance-free. Fixed cable 5 mt., BNC + RCA plug. Dimensions (LxØ) mm 120x12 - pH 0...14 - Temperature 0...60 °C	50002022
<b>XS 2 PORE T DHS</b> DIGITAL pH ELECTRODE	Digital pH electrode combined with DHS technology. Glass Body. Filled with polymer, maintenance-free. <b>Penetration tip, Ideal for meats and cheese samples.</b> Dimensions (LxØ) mm 35x6 - pH 0...14, Temperature 0...60 °C	32200113
<b>XS 2 PORE T</b> BNC + RCA	Glass Body. Filled with polymer, maintenance-free. With temperature sensor integrated NTC 30 KΩ, <b>Penetration tip. Ideal for meats and cheese samples</b> Fixed cable 1 mt length, pH 0...14, Temperature 0...60 °C	32200323
<b>pH GEL</b> BNC + RCA	pH electrode GEL, double junction, double diaphragm pH 0...14, Temperature 0...60 °C Cable fix / BNC	32105223

## REDOX ELECTRODES

<b>REDOX</b> ELECTRODE REDOX	Fix cable 1 m, BNC connector, epoxy body. Gel filling, double junction, maintenance-free. Ceramic diaphragm. <b>Range ± 1.000 mV, Temperature 0...60 °C.</b> Dimensions (LxØ) 120 x 12 mm	32105302
<b>REDOX / 5</b> ELECTRODE REDOX	Fix cable 5 m, BNC connector, epoxy body. Gel filling, double junction, maintenance-free. Ceramic diaphragm. <b>Range ± 1.000 mV, Temperature 0...60 °C.</b> Dimensions (LxØ) 120 x 12 mm	32105102

## CONNECTING CABLE

Connecting cable with **S7 head** and BNC plug for XS meters.  
Diameter 3 mm, length 1 m.

Name	Description	P/N
<b>BNC</b>	Cable S7-BNC 	33551733

## STORAGE SOLUTION

Name	Pack	P/N
Storage solution for electrodes	55 ml	32208043
Storage solution for electrodes	500 ml	32208053

## TEMPERATURE PROBES

<b>NT 55</b> TEMPERATURE SENSOR	Temperature probe NTC 30 KΩ for XS instruments, <b>for liquids and air</b>	50002012
<b>NT 7P</b> TEMPERATURE SENSOR	Temperature probe NTC 30 KΩ, <b>penetration tip</b> , diameter 4 mm, cable fix 1 m	50011122

## ACCESSORIES

Name	Description	P/N
<b>ECOSTIR</b> MAGNETIC STIRRER	Variable speed magnetic stirrer complete with electrode holder, magnetic stirring rod and main power supply	22001953
<b>ELECTRODE HOLDER</b> MOD: 3900	Flexible electrode holder	50000112
<b>PRINTER</b>	External printer with normal paper for <b>XS 8 / 80 SERIES</b> <b>XS VIOLAB 60</b> power supply and RS 232 cable	50001502
<b>POWER SUPPLY</b> VIO - PORTABLE	Power supply and cable for XS Vio portable series	50110172

# PX Vio

## NEW pH - mV SIMULATOR

- pH/mV selection
- USA/NIST standard pH buffer simulation
- 32 preset pH and mV values
- 5 pH values + 5 mV values settable by the user
- High impedance input test
- Large, easy-to-read display
- Intuitive controls
- Ergonomic, one-handed operation
- Robust, splash-proof construction
- Battery level indication

The large, high-definition colour LCD display allows immediate visualisation of all the information and parameters needed to use the instrument.

In addition to pH, simulation of the most common REDOX / ORP solution values, even at different temperatures thanks to the stored temperature tables.

High impedance simulation verifies the efficiency of the pH meter input circuit and the good insulation of the pH/RX electrode connection cable.

In automatic mode, the simulator allows the following values to be selected:

### pH

- USA buffers: 1,68 / 4,01 / 7,00 / 10,01 / 12,45
- NIST buffers: 1,68 / 4,00 / 6,86 / 9,18 / 12,46

### mV / ORP solutions

- 1900 / 900 / 177 / 0 / -177 / -900 / -1900 mV
  - 200 / 250 / 468 / 475 / 650 mV
- (Even at different temperatures)

The keyboard is splash-proof and designed for simple and immediate operation.



### The KIT INCLUDES

Instrument, BNC-BNC cable.  
Coloured pH buffer solutions,  
user manual, test report, Hard suitcase.



Name	Description	P/N
<b>NEW PX COMPLETE KIT</b>	Simulator in suitcase + cables (BNC - BNC/BNC - DIN / BNC - S7 / BNC - open wires)	50111322
<b>NEW PX</b>	Simulator in suitcase	50111312
<b>S7 MALE - BNC CABLE</b>	Useful for checking connecting cables	33550813
<b>BNC - BNC CABLE</b>		33550833
<b>BNC - DIN CABLE</b>		33550843
<b>BNC CABLE - OPEN WIRES</b>		33550823

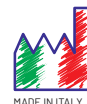


# CONDUCTIVITY METERS



PORTABLE  
INSTRUMENTS **5**  
YEARS WARRANTY

BENCHTOP  
INSTRUMENTS **3**  
YEARS WARRANTY



COMPANY WITH  
QUALITY MANAGEMENT SYSTEM  
**UNI EN ISO 9001:2015**  
CERTIFIED BY CERTIQUALITY



## HOW TO CHOOSE

	Violab COND 50	Violab COND 60	COND 8 PRO	COND 80 PRO
COND and TDS	●	●	●	●
Salinity	○	●	●	●
Resistivity	○	○	○	●
Ultra pure water compensation	○	○	○	●
Display	colour backlit LCD	colour backlit LCD	Colour graphic	Colour graphic
GLP Calibration	○	●	●	●
Calibration password	○	○	●	●
Calibration points	4	4	4	4
Calibration due alarm	○	●	●	●
Electrode status indication	○	○	●	●
Data logger	○	●	●	●
PC / printer connection	○	●	●	●
Multilanguage menu	○	○	●	●
Account manager + audit trail	○	○	○	●
External keyboard	○	○	○	●

# COND 80 PRO

- Resolution 0,01  $\mu\text{S}$  - 4-rings sensor
- Automatic and manual **temperature compensation**
- Advanced user management** (4 levels, 15 profiles)
- Data logger**, 8000 data memory in GLP
- Menu Analysis** for data tracking + **Audit Trail**
- Customisable print templates**
- Multiview**

Digital benchtop conductivity meter for advanced laboratory analysis.

Automatic calibration up to 4 conductivity standards (84, 1413  $\mu\text{S}$ , 12.88 mS, 111.8 mS) from 1 to 4 points with calculation of different cell constants or 1 point of user's choice.

Automatic scale change, automatic and manual temperature compensation (0...100,0  $^{\circ}\text{C}$ ).

Reference temperature (15...30  $^{\circ}\text{C}$ ), Linear (0.00...10.00%) and non-linear temperature coefficient for ultrapure water. Compatible with 4-rings and 2-rings cells, with indication of the selected constant.

Calibration due warning and/or measurement lockout.

Alarm setting and analogic view, 'stop-reading', stability indication, self-diagnosis messages.

Advanced user management (Admin, Manager, User, Guest) with different permissions.

Data logger modes: Manual, Automatic, Min/Max, Delta value.

Analysis menu for complete editing of your measurements: you can enter all useful information on the sample and test.

Multiview (up to 6 user-selectable parameters can be displayed simultaneously).

Customisable print templates. Multilingual Setup Menu (Ita - Eng - Deu - Fra - Esp - Por).

Free Data-Link+ software available at [www.xsinstruments.com](http://www.xsinstruments.com) for PC data management, including Audit Trail.

2 USB outputs for external keyboard and PC connection. RS232 for printer connection.

Independently controlled magnetic stirrer (optional).



## Measuring range:

Cond: 0,1  $\mu\text{S}$  ...1 S (0,01  $\mu\text{S}$  - automatic)

TDS: 0,1 mg/l...500,0 g/l

Salinity: 0,1 ppm...100,0 ppt

Resistivity: 1,00  $\Omega$  ...10,00 M $\Omega$

Temperature: -30...+130,0 (0,1  $^{\circ}\text{C}$ )

## Equipped with:

Electrode holder stand, conductivity standards, external keyboard, USB cable, multi-socket power supply and user manual.

Name	Description	P/N
<b>COND 80 PRO STIRRER</b>	Complete with conductivity cell EPT 4 with four rings, integrated temperature sensor, and magnetic stirrer with adjustable speed	50103392
<b>COND 80 PRO STIRRER</b>	Complete with EC cell VPT 1 glass/platinum (C=1) with integrated temperature sensor, and magnetic stirrer with adjustable speed	50103402
<b>COND 80 PRO STIRRER</b>	Without EC cell, with magnetic stirrer with adjustable speed	50103412
<b>COND 80 PRO BASIC</b>	Complete with conductivity cell EPT 4 with four rings and integrated temperature sensor, without magnetic stirrer	50103442
<b>COND 80 PRO BASIC</b>	Complete with EC cell VPT 1 glass/platinum (C=1) with integrated temperature sensor, without magnetic stirrer	50103422
<b>COND 80 PRO BASIC</b>	Without EC cell and magnetic stirrer	50103432
<b>KEYBOARD</b>	Soft external keyboard for XS 80 PRO Series	50001462
<b>IQ-OQ MANUAL 80 SERIES</b>	Paper manual IQ-OQ for XS 80 PRO Series	50001472

# COND 8 PRO

- Resolution 0,01  $\mu$ S
- Coloured backlit high definition LCD display
- Automatic and manual **temperature compensation**
- **Data logger** auto and manual , up to 1000 savings in GLP

Digital benchtop conductivity meter.

**Automatic calibration up to 4 conductivity standards**

(84, 1413  $\mu$ S, 12.88 mS, 111.8 mS) from 1 to 4 points with calculation of different cell constants or 1 point of user's choice.

Recall and printout of calibration data.

Automatic scale change, automatic and manual temperature compensation (0...100.0 °C). Reference temperature (15...30 °C).

Linear temperature coefficient (0.00...10.00%).

2 rings cell technology with selection and indication of cell constant (0.1 - 1.0 - 10).

**Calibration due** warning and/or measurement block.

**Alarm setting** and analogic view, "Stop reading", stability indication, **self-diagnosis messages**.

Numeric password for protection of saved data and calibration management.

**Data logger up to 1000 data in GLP** with possibility of printing and data download to PC.

**Multilingual Setup Menu** (Ita - Eng - Deu - Fra - Esp - Por).

**Free Data-Link+** software available at [www.xsinstruments.com](http://www.xsinstruments.com) for PC data management data to PC.

USB output for PC connection.

RS232 for printer connection. Independently controlled magnetic stirrer (optional).



## Measuring range:

**Cond:** 0,1  $\mu$ S ...500 mS (0,01  $\mu$ S - automatic)

**TDS:** 0,1 mg/l...200,0 g/l

**Salinity:** 0,1 ppm ...100,0 ppt

**Temperature:** -20...+120,0 (0,1 °C)

## Equipped with:

Electrode holder stand, conductivity standards, USB cable, multi-socket power supply and user manual.

Name	Description	P/N
<b>COND 8 PRO STIRRER</b>	Complete with epoxy EC cell 2301T (C=1) integrated temperature sensor, and magnetic stirrer with adjustable speed	50103232
<b>COND 8 PRO STIRRER</b>	Without EC cell, with magnetic stirrer with adjustable speed	50103242
<b>COND 8 PRO BASIC</b>	Complete with epoxy EC cell 2301T (C=1) integrated temperature sensor, without magnetic stirrer	50103202
<b>COND 8 PRO BASIC</b>	Without EC cell and magnetic stirrer	50103212
<b>IQ-00 MANUAL SERIES 8</b>	Paper manual IQ-00 for XS 8 PRO Series	50001472

## ACCESSORIES 8 / 80 PRO SERIES

Name	Description	P/N
<b>PRINTER</b>	External printer with normal paper for XS VIOLAB 60 - 8 PRO - 80 PRO , power supply and RS232 cable included	50001502
<b>STIRRER</b>	Magnetic stirrer with adjustable speed for XS 8 PRO and 80 PRO series, complete with electrode holder and connecting cable	50001132

# COND 60 Violab

- Resolution 0,01  $\mu$ S
- Coloured backlit high definition LCD display
- Automatic and manual temperature compensation
- Data logger auto and manual , up to 1000 savings in GLP
- PC/Printer connection

Professional benchtop conductivity meter with innovative **backlit high definition coloured LCD display**, with possibility of brightness adjustment. Possibility to select the parameters to show on the display.

The **step by step guide** in setup and calibration allows a simple and immediate use of the device.

**Automatic conductivity calibration** up to 4 points (84; 147; 1413  $\mu$ S e 12,88; 111,8 mS) or 1 point custom.

**Automatic resolution**, reference temperature from 15 to 30 °C, and selectable cell constant (C= 0,1; 1; 10).

**Indication of the calibrated points**, with icons.

**Measurement stability indication.**

All operations are constantly monitored and shown to the operator by the **coloured LED** above the display and **self-diagnosis messages**.

**GLP function:** Date and time, recall of calibration data and function "Calibration due".

**Data logger up to 1000 savings**, manual and automatic,



PC connection via micro-USB.

**Data-Link +** software available at [www.xsinstruments.com](http://www.xsinstruments.com).

RS 232 external printer connection.

## Measuring range

Cond: 0,1  $\mu$ S ... 200 mS (0,01  $\mu$ S - automatic)

TDS: 0,1 mg/l ... 200 g/l

Salinity: 0,1 ppm ... 100 ppt

Temperature: - 10 ... + 110,0 (0,1 °C)



## Equipped with:

Electrode holder stand, conductivity standards, USB cable, power supply and instructions for use.

Name	Description	P/N
<b>COND 60 VIOLAB</b> WITH EC CELL	Complete with conductivity cell I2301T , integrated temperature sensor, 1 m cable	50103072
<b>COND 60 VIOLAB</b> WITHOUT EC CELL	With accessories, without conductivity cell	50103082



# COND 50 *Viola*lab

- Resolution 0,01  $\mu$ S
- Coloured backlit high definition LCD display
- Automatic and manual **temperature compensation**

Professional benchtop conductivity meter with **innovative backlit high definition coloured LCD display**, with possibility of brightness adjustment. Possibility to select the parameters to show on the display.

The **step by step guide** in setup and calibration allows a simple and immediate use of the device.

**Automatic conductivity calibration** up to 4 points (84; 147; 1413  $\mu$ S e 12,88; 111,8 mS) or 1 point custom.

**Automatic resolution**, reference temperature from 15 to 30 °C, and selectable cell constant (C= 0,1; 1; 10).

**Indication of the calibrated points**, with icons.

Measurement **stability indication**.

All operations are constantly monitored and shown to the operator by the **coloured LED** above the display and **self-diagnosis messages**.



## Measuring range

Cond 0,1  $\mu$ S ...200 mS (0,01  $\mu$ S - automatic)

TDS: : 0,1 mg/l...200 g/l

Temperature: 0...+100,0 (0,1 °C)



## Equipped with:

Electrode holder stand, conductivity standards and instructions manual.

Name	Description	P/N
<b>COND 50 VIOLAB</b> WITH EC CELL	Complete with conductivity cell 2301T , integrated temperature sensor, 1 m cable	50103002
<b>COND 50 VIOLAB</b> WITHOUT EC CELL	With accessories, <b>without conductivity cell</b>	50103012

# Cond 70 *vio*

- Resolution 0,01  $\mu$ S
- Automatic and manual **temperature compensation**
- **Automatic calibration** on 4 standard points or 1 custom
- **Data logger** auto and manual , **up to 1000 savings in GLP**
- Coloured backlit high definition **LCD display**
- **GLP** functions

Professional conductivity meter with innovative **backlit high definition coloured LCD display**, suitable to work in any conditions, thanks also to the possibility to adjust automatically and manually contrast and brightness of the display.

Possibility to select the parameters you want to show.

The **step by step guide** in setup and calibration mode allows a simple and intuitive use of the device.

**Automatic calibration of conductivity** up to 4 points or 1 point custom defined by the user.

**Adjustable reference temperature and selectable cell constant.**

**Indication with icons of the calibrated points.**

Measurement **stability indicator**.

All operations and errors are constantly monitored and shown to the operator via the **coloured LED** above the display.

**GLP function:** Date and time, recall of calibration data and function **"Calibration due"**.

**Data logger up to 1000 savings**, manual and automatic, PC connection via **micro-USB**.

**Data-Link +** software available at [www.xsinstruments.com](http://www.xsinstruments.com).



## Measuring range:

**Cond:** 0,1  $\mu$ S ... 200,0 mS (0,01  $\mu$ S - automatic)

**TDS:** 0,1 mg/l ... 200,0 g/l

**Salinity:** 0,1 ppm ... 100 ppt

**Temperature:** -10...+110,0 (0,1 °C)



Data Link+ Software

## Equipped with:

Conductivity standards, USB cable, power supply, user manual and carrying case.

Name	Description	P/N
<b>COND 70 VIO</b> WITH CELL	Complete with <b>conductivity cell 2301T with integrated temperature sensor</b> . Cable 1 m	50110512
<b>COND 70 VIO</b> WITHOUT CELL	With accessories, <b>without conductivity cell</b>	50110522

# Cond 7 Vio

- Resolution 0,01  $\mu$ S
- Automatic and manual **temperature compensation**
- Coloured backlit high definition **LCD display**
- **Automatic calibration** on 4 standard points and 1 custom
- 3 selectable **cell constants**

Professional portable conductivity meter with **innovative high resolution color display** for excellent data display in all light conditions, thanks also to the possibility of adjusting display contrast and illumination.

Measurement of **Conductivity**, TDS, with **Temperature** display.

Online help in setup and calibration allows easy and immediate use of the device.

**Automatic conductivity calibration** up to 4 points or 1 user-defined point.

Adjustable reference temperatures (15...30 °C) and selectable cell constant (C= 0.1 - 1 - 10).

**Indication of calibrated points with icons.**

**Measurement stability indicator.**

All operations are constantly kept under control and signaled to the operator through the colored LED above the display and auto-diagnosis messages.

## Measuring range:

**Cond:** 0,1  $\mu$ S ... 200,0 mS (0,01  $\mu$ S - automatic)

**TDS:** 0,1 mg/l ... 200,0 g/l

**Temperature:** 0 ... 100,0 (0,1 °C)



Cond



Cond 7 Vio Kit

## Equipped with:

Conductivity standards, user manual and carrying case.

Name	Description	P/N
<b>COND 7 VIO</b> WITH CELL	Complete with conductivity cell 2301T with integrated temperature sensor. 1 m cable	50110412
<b>COND 7 VIO</b> WITHOUT CELL	With accessories, without conductivity cell	50110422

## ACCESSORIES

### CONDUCTIVITY CELLS

Name	Description	P/N
<b>EPT 4</b> EC CELL	Cell in epoxy body C= 0.55, fixed cable, Multipin connector only for 80 PRO Series. Measuring range : 0.1 $\mu$ S...1 S, Temperature 0...+80 °C,	50003362
<b>VP 1</b> EC CELL	Cell in glass body with platinum plates C=1, fixed cable 1 mt. with BNC plug. Measuring range: 10 $\mu$ S...10 mS – Temperature 0...80 °C	50004062
<b>VPT 1</b> EC CELL	Cell in glass body with platinum plates C=1, with integrated temperature sensor. Fixed cable 1 mt., BNC + RCA Cinch plug. Measuring range: 10 $\mu$ S...100 mS – Temperature 0...80 °C	50003352
<b>VPT 01</b> EC CELL	Steel and PVC cell, C=0,1, with integrated temperature sensor. Fixed cable 1 mt., BNC + RCA plug. Measuring range: 0,1 $\mu$ S...1 mS – Temperature 0...60 °C	50004012
<b>VPT 10</b> EC CELL	Cell in glass body with platinum plates C=10, integrated temperature sensor, fixed cable 1 mt. BNC + RCA Cinch plug. Measuring range: 100 $\mu$ S...200 mS..	50004072
<b>VPT 10 H</b> EC CELL	Cell in glass body with platinum plates C=10, integrated temperature sensor, fixed cable 1 mt. BNC + RCA Cinch plug. Measuring range: 100 $\mu$ S...500 mS. Only for XS REVIO and COND 80 PRO	50003372
<b>2301 T</b> EC CELL	Cell in epoxy body C=1, with integrated temperature sensor. Fixed cable 1 mt. BNC+RCA cinch plug. Measuring range: 10 $\mu$ S...200 mS – Temperature 0...60 °C	50004002
<b>2301 T / 5</b> EC CELL	Cell in epoxy body C=1, with integrated temperature sensor. Fixed cable 5 mt. BNC+RCA cinch plug. Measuring range: 10 $\mu$ S...200 mS – Temperature 0...60 °C	50004022
<b>VPT SOIL</b> EC CELL	Conductivity cell with integrated temperature sensor and penetration tip, C=1, for soil measurement, cable 1,5 m. Measuring range 10 $\mu$ S...50 mS	50004082
<b>EPT 1</b> EC CELL	Cell in epoxy body C==1, with integrated temperature sensor. Fixed cable 1 m, BNC-Cinch. Measuring range 10 $\mu$ S...100 mS. For oily or viscous samples.	50003382

### TEMPERATURE PROBE

Name	Description	P/N
<b>NT 55</b> TEMPERATURE SENSOR	Temperature sensor NTC 30K $\Omega$ for liquids and air	50002012

### BUFFER SOLUTIONS

With **certificate of analysis** downloadable from [www.xsinstruments.com](http://www.xsinstruments.com)

#### ○ SACHETS 25 ml

Name	Description	P/N
<b>EC 1413 <math>\mu</math>S/cm (25°C)</b>	Pack of 20 sachets, with certificate of analysis	51102053
<b>EC 12880 <math>\mu</math>S/cm (25°C)</b>	Pack of 20 sachets, with certificate of analysis	51102063
<b>SET CAL COND</b>	Includes 10 x EC 1.413 $\mu$ S and 10 x EC 12.880 $\mu$ S	51102223
<b>COND REPLACEMENT</b>	Includes 7 x EC 1.413 $\mu$ S, EC 12.880 $\mu$ S and 6 x deionized H2O	51102253
<b>H2O</b>	Pack of 20 sachets of deionized water	51102093

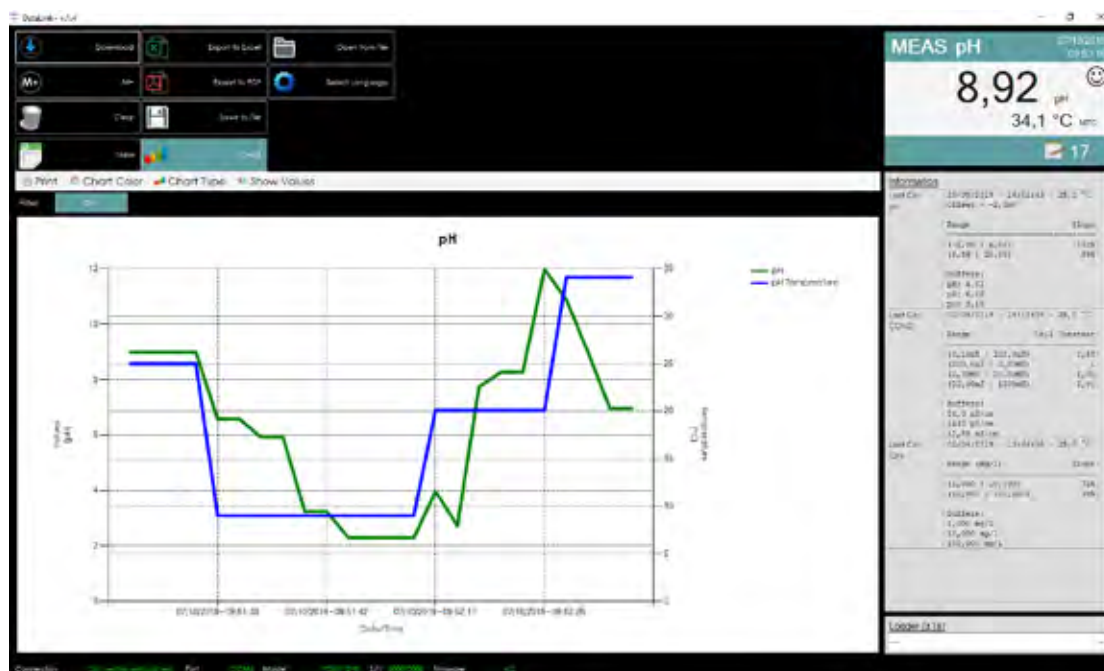
#### ○ BOTTLE 500 ml , with calibration compartment

Name	Description	P/N
<b>84 <math>\mu</math>S/cm (25°C)</b>	N.I.S.T. Accuracy $\pm$ 1%	51100613
<b>147 <math>\mu</math>S/cm (25°C)</b>	N.I.S.T. Accuracy $\pm$ 1%	51100623
<b>1413 <math>\mu</math>S/cm (25°C)</b>	1278 $\mu$ S/cm (20°C) – N.I.S.T. Accuracy $\pm$ 1%	51100633
<b>12.880 <math>\mu</math>S/cm (25°C)</b>	11670 $\mu$ S/cm (20°C) – N.I.S.T. Accuracy $\pm$ 1%	51100643



Name	Description	P/N
<b>NEW ECOSTIR</b> STIRRER	Magnetic stirrer, adjustable speed, with magnetic bar and power supply.	22001953
<b>ELECTRODE</b> <b>HOLDER</b> MOD: 3900	Flexible electrode holder	50000112
<b>PRINTER</b>	External printer with normal paper for XS 8 / 80 SERIES XS VIOLAB 60 power supply and RS 232 cable	50001502
<b>CASE IP67</b>	IP 67 waterproof case for Vio portable instruments	50010972
<b>SOFT CASE</b>	Bag with adjustable shoulder strap in eco-sustainable material for Vio portable instruments	50010962
<b>SUPPORT</b> VIO - PORTABLE	Magnetic support for Vio portable instruments	50110252
<b>POWER SUPPLY</b> VIO - PORTABLE	Power supply and cable for XS Revio / 70 Vio	50110172
<b>POWER SUPPLY</b> VIOLAB - BENCHTOP	Power supply and cable for XS VioLab benchtop series	50001052

# DATA LINK +



On the software are shown all the information about the instruments and calibrations, like slope and offset.

It is possible to view all saved data in graphic form, to see the trend, or in table form.

It is also possible to export data in Excel and in PDF.

On the top right corner the real time view allows to check measurement directly on the PC.

Multilanguage: English - Italian - French - German - Spanish - Portuguese.

Functions for the remote control of the instruments, like data saving and memory reset.

Software **Data Link +** available for free on our website [www.xsinstruments.com](http://www.xsinstruments.com).



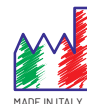
Brochures **XS Vio** and **XS VioLab** are available on our website [www.xsinstruments.com](http://www.xsinstruments.com)

# MULTIPARAMETERS



PORTABLE  
INSTRUMENTS **5**  
YEARS WARRANTY

BENCHTOP  
INSTRUMENTS **3**  
YEARS WARRANTY



COMPANY WITH  
QUALITY MANAGEMENT SYSTEM  
**UNI EN ISO 9001:2015**  
CERTIFIED BY CERTIQUALITY



## HOW TO CHOOSE

	Violab PC50	Violab PC 60	PC 8 PRO	PC 80 PRO
pH Resolution	0,01 pH	0,01 pH	0,001 pH	0,001 pH
ION	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
COND e TDS	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Salinity	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Resistivity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Ultra pure water compensation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Display	colour backlit LCD	colour backlit LCD	colour graphic	colour graphic
Analogic view	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
GLP Calibration	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Calibration password	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Calibrations points	3	3	5	5
Calibration due alarm	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Electrode status indication	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Data logger	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
PC / Printer connection	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Multilanguage	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Account manager + Audit trail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
External keyboard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

# PC 80 PRO

- Resolution 0.1 / 0.01 / 0.001 pH - 0.01  $\mu$ S
- Automatic and manual **temperature compensation**
- Advanced user management** (4 levels, 15 profiles)
- Data logger**, 8000 data memory in GLP
- Menu Analysis** for data tracking + **Audit Trail**
- Customisable print templates**
- Multiview**



Digital benchtop multiparameter for advanced laboratory analysis.

**Multiview** display (up to 6 parameters simultaneously).

Automatic or manual 5-points pH calibration with automatic standard recognition.

ISE calibration from 2 to 5 points. Automatic or manual ORP calibration on 1 point.

Automatic EC calibration up to 1 to 4 points with recognition of standards and calculation of different cell constants + 1 manual point.

Automatic scale, automatic and manual temperature compensation (0...100.0 °C).

Reference temperature (15...30 °C), linear (0.00...10.00%) and **non-linear temperature coefficient for ultrapure water**.

**Compatible with 4-rings and 2-rings cells**, with indication of selected constant.

**Calibration due** warning and/or measurement block.

**Alarm setting** and display functions in analogue format, **"Stop-reading"**, **stability indication**, **self-diagnosis messages**.

**Advanced management of Users (Admin, Manager, User, Guest)** with different permissions.

Different data logger modes (Manual, Automatic, Min/Max, Delta value).

Analysis menu for complete editing of your measurements: you can enter all useful informations about the sample and test.

**Customisable print templates**. Multilanguage Setup Menu (Ita - Eng - Deu - Fra - Esp - Por).

Free **Data-Link+** software at [www.xsinstruments.com](http://www.xsinstruments.com) for PC data management, including **Audit Trail**.

2 USB outputs for external keyboard and PC connection. RS232 port for printer connection.

Independently controlled magnetic stirrer (optional).

## Measuring range:

pH: -2,000...20,000 (0,001 pH)

mV: -2000...+2000 (0,1 - 1 mV)

ORP: -2000...+2000 (0,1 - 1 mV)

ISE: 0.001...19999 ppm

Cond: 0,1  $\mu$ S ...1 S (0,01  $\mu$ S - automatic)

TDS: 0,1 mg/l...500,0 g/l

Salinity: 0,1 ppm...100,0 ppt

Resistivity: 1  $\Omega$  ...10 M $\Omega$

Temperature: -30...130,0 °C (0,1 °C)

## Equipped with:

S7/BNC cable, temperature probe NT 55, electrode holder, buffer solutions, USB cable and power supply.

Name	Description	P/N
<b>PC 80 PRO</b> DHS ELECTRODE + 4 RINGS	Complete with pH XS Standard DHS, EC cell EPT 4 (C=0,55) with integrated temperature sensor, magnetic stirrer with adjustable speed.	50104302
<b>PC 80 PRO</b> DHS ELECTRODE + 2 RINGS	Complete with pH XS Standard DHS, EC cell VPT 1 glass/platinum (C=1) with integrated temperature sensor, magnetic stirrer with adjustable speed.	50104232
<b>PC 80 PRO</b> ELECTRODE + 4 RINGS	Complete with pH XS Standard, EC cell EPT 4 (C=0,55) with integrated temperature sensor, magnetic stirrer with adjustable speed.	50104282
<b>PC 80 PRO</b> ELECTRODE + 2 RINGS	Complete with pH XS Standard, EC cell VPT 1 glass/platinum (C=1) with integrated temperature sensor, magnetic stirrer with adjustable speed.	50104242
<b>PC 80 PRO</b> 4 RINGS CELL	Without pH electrode, EC cell EPT 4 (C=0,55) with integrated temperature sensor, magnetic stirrer with adjustable speed.	50104292
<b>PC 80 PRO</b> 2 RINGS CELL	Without pH electrode, conductivity cell VPT 1 glass/platinum (C=1) with integrated temperature sensor, magnetic stirrer with adjustable speed.	50104252
<b>PC 80+ PRO</b> PH ELECTRODE	With pH electrode XS Standard, without conductivity cell, magnetic stirrer with adjustable speed.	50104262
<b>PC 80 PRO</b> STIRRER	Without pH electrode, without conductivity cell, with magnetic stirrer with adjustable speed.	50104272
<b>KEYBOARD</b>	Soft external keyboard for XS 80 PRO Series	50001462
<b>IQ-OQ MANUAL</b>	Paper manual IQ-OQ for XS 80 PRO Series	50001472



# PC 8 PRO

- Resolution 0,1 / 0,01 / 0,001 pH - 0,01  $\mu$ S
- Backlit coloured high-definition graphic display.
- Automatic and manual temperature compensation
- Data logger auto and manual, up to 1000 savings in GLP

Digital benchtop multiparameter.

**Automatic pH calibration** (5 values) on different standard buffer, or custom (2 values).

**Automatic and manual 1-point ORP calibration.**

Automatic calibration up to 4 conductivity standards (84, 1413  $\mu$ S, 12.88 mS, 111.8 mS) from 1 to 4 points with calculation of different cell constants or 1 point custom. **Recall and printout of calibration data.** Automatic scale, **automatic and manual temperature compensation** (0...100.0 °C).

Reference temperature (15...30 °C). Linear temperature coefficient (0.00...10.00%)

2-rings cell technology with selection and indication of constant (0.1 - 1.0 - 10).

**Calibration due** warning and/or measurement block.

**Alarm setting and analogic view, "Stop-reading", stability indication, self-diagnosis messages**

**Security password** for saved data and calibration management.

**Data logger** for up to 1000 data points in GLP with possibility of printing and data download to PC.

**Multilanguage Setup Menu** (Ita - Eng - Deu - Fra - Esp - Por).

Free **Data-Link+** software at [www.xsinstruments.com](http://www.xsinstruments.com) for PC data management.

USB output for PC connection. RS232 port for printer connection.

Independently controlled magnetic stirrer (optional).



## Measuring range:

pH: -2,000...16,000 (0,001 pH)

mV: -2000...+2000 (0,1 mV - 1 mV)

ORP: -2000...+2000 (0,1 - 1 mV)

Cond: 0,1  $\mu$ S ...500,0 mS (0,01 - automatic)

TDS: 0,1 mg/l...200,0 g/l

Salinity: 0,1 ppm...100,0 ppt

Temperature: -20...120,0 °C (0,1 °C)

## Equipped with:

S7/BNC cable, temperature probe NT 55, electrode holder, buffer solutions, USB cable and power supply.

Name	Description	P/N
<b>PC 8 PRO STIRRER</b>	Complete with pH XS Standard DHS, EC cell VPT 1 glass/platinum (C=1) with integrated temperature sensor, magnetic stirrer with adjustable speed.	50104132
<b>PC 8 PRO STIRRER</b>	Complete with pH XS Standard, EC cell VPT 1 glass/platinum (C=1) with integrated temperature sensor, magnetic stirrer with adjustable speed.	50104142
<b>PC 8 PRO STIRRER</b>	Without pH electrode, conductivity cell VPT 1 glass/platinum (C=1) with integrated temperature sensor, magnetic stirrer with adjustable speed.	50104152
<b>PC 8 PRO STIRRER</b>	With pH electrode polymer, without conductivity cell, Temperature probe NT55, magnetic stirrer with adjustable speed	50104162
<b>PC 8 PRO STIRRER</b>	Without pH electrode, without conductivity cell, Temperature probe NT55, magnetic stirrer with adjustable speed	50104172
<b>IQ-00 MANUAL</b>	Paper manual IQ-00 for XS 8 PRO Series	50001492

## ACCESSORIES 8 / 80

Name	Description	P/N
<b>PRINTER</b>	External printer, normal paper with RS 232 cable	50001502
<b>STIRRER</b>	Magnetic stirrer with adjustable speed for 8 and 80 Series, complete with electrode holder and connecting cable	50001132

# PC 60 *Viola*lab

- Resolution 0,1 / 0,01 pH - 0,01  $\mu$ S
- Automatic and manual **temperature compensation**
- **Data logger** auto and manual , up to 1000 savings in GLP
- PC/Printer connection
- DHS digital sensors management



Professional benchtop multiparameter with innovative **backlit high definition**

**coloured LCD display**, with possibility of brightness adjustment.

Management of DHS digital sensors.

Possibility to select the parameters to show on the display.

The **step by step guide** in setup and calibration allows a simple and immediate use of the device.

**Automatic pH calibration** with USA and NIST buffers, up to 3 points and 2 points defined by the user.

**Automatic ORP calibration** on 1 point.

**Automatic conductivity calibration** up to 4 points (84; 147; 1413  $\mu$ S e 12,88; 111,8 mS) or 1 point custom.

**Automatic resolution**, reference temperature from 15 to 30 °C, and selectable cell constant (C= 0,1; 1; 10).

**Indication of the calibrated points**, with icons.

Measurement **stability indication** and possibility to select 3 stability levels.

All operations are constantly monitored and shown to the operator by the **coloured LED** above the display and self-diagnosis messages.

**GLP function**: Date and time, recall of calibration data and function "Calibration due".

**Data logger up to 1000 savings**, manual and automatic, PC connection via **micro-USB**.

**Data-Link +** software available at [www.xsinstruments.com](http://www.xsinstruments.com).

RS 232 external **printer connection**.



## Measuring range:

**pH**: -2,00...16,00 (0,01 pH)

**mV**: -1000...+1999 mV (0,1 - 1 mV)

**ORP**: -1000...+1900 mV (0,1 - 1 mV)

**Cond**: 0,1  $\mu$ S ...200,0 mS (0,01  $\mu$ S - automatic)

**TDS**: 0,1 mg/l...200 g/l

**Salinity**: 0,1 ppm ... 100 ppt

**Temperature**: -10...110,0 °C (0,1 °C).



## Equipped with:

Electrode holder stand, pH and conductivity buffer solutions, USB cable, power supply and user manual.

Name	Description	P/N
<b>PC 60 VIOLAB</b> DHS ELECTRODE	Complete with digital pH electrode XS 201 T DHS and conductivity cell 2301T (C=1), both with integrated temperature sensor	50103942
<b>PC 60 VIOLAB</b> ANALOG ELECTRODE	Complete with pH electrode XS 201 T and conductivity cell 2301T (C=1), both with integrated temperature sensor	50103952
<b>PC 60 VIOLAB</b> WITHOUT ELECTRODE	With conductivity cell 2301T (C=1) with integrated temperature sensor, accessories, cable S7-BNC and temperature sensor NT 55 Without pH electrode	50103972

# PC 50 *Violab*

- Resolution 0,1 / 0,01 pH - 0,01  $\mu$ S
- Automatic and manual **temperature compensation**
- DHS digital sensors management

Professional benchtop multiparameter with innovative **backlit high definition coloured LCD display**, with possibility of brightness adjustment.

Possibility to select the parameters to show on the display.

The **step by step guide** in setup and calibration allows a simple and immediate use of the device.

**Automatic pH calibration** with USA and NIST buffers, up to 3 points and 2 points defined by the user.

**Automatic ORP calibration** on 1 point.

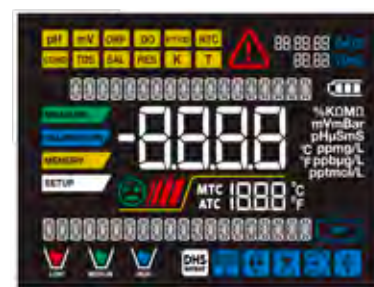
**Automatic conductivity calibration** up to 4 points (84; 147; 1413  $\mu$ S e 12,88; 111,8 mS) or 1 point custom.

Automatic resolution, reference temperature from 15 to 30 °C, and selectable cell constant (C= 0,1; 1; 10).

**Indication of the calibrated points**, with icons.

Measurement stability indication and possibility to select 3 stability levels.

All operations are constantly monitored and shown to the operator by the **coloured LED** above the display and self-diagnosis messages.



Coloured backlit  
LCD display

## Measuring range:

pH: 0,00...14,00 (0,01 pH)

mV: -1000...+1000 (1 mV)

ORP: -1000...+1000 mV (1 mV)

Cond: 0,1  $\mu$ S ...200 mS (0,01  $\mu$ S - automatic)

TDS: 0,1 mg/l...200,0 g/l

Temperature: 0...100,0 °C (0,1 °C).

## Equipped with:

Electrode holder stand, pH and conductivity buffer solutions, power supply and user manual.

Name	Description	P/N
<b>PC 50 VIOLAB</b> DHS ELECTRODE + CELL	Complete with digital pH electrode XS 201 T DHS and conductivity cell 2301T (C=1), both with integrated temperature sensor	50103892
<b>PC 50 VIOLAB</b> ELECTRODE + CELL	Complete with pH electrode XS 201 T and conductivity cell 2301T (C=1), both with integrated temperature sensor	50103902
<b>PC 50 VIOLAB</b> WITHOUT ELECTRODE	With conductivity cell 2301T (C=1) with integrated temperature sensor, accessories, cable S7-BNC and temperature sensor NT 55 Without pH electrode	50103912

# REVIO

WARRANTY  
**3**  
YEARS

- 3 Inputs: pH / ORP / ISE - Cond - 02
- Colour graphic display
- Data logger, manual and automatic, up to 10.000 savings in GLP

Professional portable multiparameter with triple power supply (battery, PC, electric network) with **innovative backlit colour display**, suitable to work excellently in any conditions, thanks to the automatic and manual adjustment of contrast and brightness.

Possibility to measure **pH, mV, ORP, ISE, Conductivity, TDS, Salinity, Resistivity, Dissolved Oxygen and Temperature**.

The **step by step** guide in setup and calibration mode allows a simple and intuitive use of the device.

**Simultaneous display** of multiple parameters defined by the user.

**Automatic pH calibration** with USA and NIST buffers up to 5 points and 5 points defined by the user.

**Automatic ORP** calibration in 1 point.

**Automatic calibration of conductivity** up to 4 points or 1 point defined by the user.

Adjustable reference temperature and selectable cell constant.

**Automatic calibration up to 2 points** (0% - 100%).

**Indication with icons** of the calibrated points.

**GLP functions:** Date and time, recall of calibration data and setting of calibration deadline.

**Manual and automatic data logger** with possibility to download data to PC via micro-USB.

**Data Link+ software** available to download for free at [www.xsinstruments.com](http://www.xsinstruments.com).

**Stability indicator** of measurement and possibility to select 3 stability levels.

All operations are constantly monitored and reported to the user through the **coloured LED** above the display and the self-diagnosis messages.



XS Revio  
connectors

## Measuring range

**pH:** -2,000...20,000 (0,001 pH)

**mV:** -2000...+2000 (0,1 - 1 mV)

**Orp:** -2000...+2000 (0,1 - 1 mV)

**ISE:** 0.001...19999 ppm

**Cond:** 0,1  $\mu$ S ...1000 mS (0,1  $\mu$ S - automatic)

**TDS:** 0,1 mg/l...500,0 g/l

**Salinity:** 0,1 ppm ... 100 ppt

**Resistivity:** 1  $\Omega$  ...10 M $\Omega$

**DO:** 0,0...50 mg/l (0,01 - 0,1 mg/l)

**Saturation:** 0,0...400 % (0,1 %)

**Barometric pressure:** 300...1100 mbar (1 mbar)

**Temperature:** -30...130,0  $^{\circ}$ C (0,1  $^{\circ}$ C)

## Equipped with:

Field support with 3 holes for electrodes, buffer solutions, USB cable, power supply, instructions for use and carrying case





## MODELS

Name	Description	P/N
<b>REVIO</b> DHS KIT	Complete with <b>digital pH electrode 201 T DHS</b> , <b>conductivity cell 2301 T</b> and <b>polarographic sensor</b> , with integrated temperature sensor and fixed cable 3m, in carrying case.	50110952
<b>REVIO</b> KIT IN CARRYING CASE	Complete with <b>pH electrode 201 T</b> , <b>conductivity cell 2301T</b> and <b>polarographic sensor</b> , with integrated temperature sensor and fixed cable 3m, in carrying case.	50110912
<b>REVIO</b> KIT IN SOFT CASE	Complete with <b>pH electrode 201 T</b> , <b>conductivity cell 2301T</b> and <b>polarographic sensor</b> , with integrated temperature sensor and fixed cable 3m, in soft bag.	50110982
<b>REVIO</b> pH ELECTRODE + OXY	Complete with <b>electrode XS 201 T</b> and <b>polarographic sensor</b> , both with integrated temperature sensor and fixed cable 3m, in carrying case.	50110922
<b>REVIO</b> COND + OXY	Complete with <b>conductivity cell 2301T</b> and <b>polarographic sensor</b> , both with integrated temperature sensor and fixed cable 3m, cable S7-BNC and NT55 3m, in carrying case.	50110942
<b>REVIO</b> ONLY INSTRUMENT	Instrument in carrying case with NT55 probe with cable 3m, cable S7-BNC, and accessories	50110932
<b>NEW</b> <b>REVIO</b> ELECTRODE + CELL	Complete with <b>pH electrode 201 T</b> , <b>conductivity cell 2301T</b> , with integrated temperature sensor and fixed cable 3m, in carrying case.	50110992

## ACCESSORIES

## ELECTRODES AND SPARE PARTS

Name	Description	P/N
<b>201 T - DHS</b> pH ELECTRODE - 3 m	<b>Digital</b> pH electrode combined with DHS technology with integrated temperature sensor. Gel filling with porous diaphragm. Maintenance-free. Fixed cable 3m. <b>pH 0...14, temperature 0...60 °C</b> . Dimensions (L x Ø) mm 120x12	32200153
<b>201 T - ATC</b> pH ELECTRODE - 3 m	Plastic body pH electrode with temperature sensor for general applications. Gel filling with porous separator Maintenance-free. Fixed cable 3 m. <b>pH 0...14, temperature 0...60 °C</b> . Dimensions (L x Ø) mm 120x12	50002072
<b>2301 T</b> EC CELL - 3 m	<b>Conductivity cell C=1</b> with built-in temperature sensor, epoxy body, cable 3 m. <b>Working range:</b> 10µS...200 mS	50004092
<b>D07 / 3mt</b> OXY SENSOR - 3 m	<b>Polarographic sensor</b> , cable 3 m, 2 replacement membranes, refill solution (30ml)	50010242
<b>REDOX</b> REDOX SENSOR - 3 m	Combined Redox electrode with plastic body for general applications. Fixed cable 3 m with BNC connector. Gel filling with porous separator. Maintenance-free. <b>Working range:</b> ± 1.000 mV, temperature 0...60 °C	51004132
<b>NT 55</b> T SENSOR - 3 m	Temperature probe NTC 30 KΩ, cable 3 m, <b>for liquids and air</b>	50002082
<b>MEMBRANE</b>	Kit 2 replacement membranes for sensor D07/3MT	50010252
<b>ELECTROLYTE</b>	Refill solution for sensor D07/3MT (30ml)	50010262
<b>0%</b> STANDARD	Zero Oxygen standard - <b>1 bottle</b>	50010292
<b>0%</b> STANDARD	Zero Oxygen standard - <b>5 bottles pack</b>	50010272
<b>POWER SUPPLY</b>	Power supply and cable for XS Revio / 70 Vio	50110172
<b>SUPPORT</b>	Magnetic Support for Vio portable instruments	50110252

# PC 70 Vio

- Resolution 0,1 / 0,01 pH - 0,01  $\mu$ S
- Automatic and manual **temperature compensation**
- **Data logger** auto and manual , **up to 1000 savings in GLP**
- GLP function
- **DHS digital sensors** management.

Professional portable multiparameter with **innovative high-resolution colour display**, suitable to work in any conditions, thanks to the automatic and manual brightness adjustment.

Possibility to select the parameters you want to show.

The **step by step guide** in setup and calibration mode allows a simple and intuitive use of the device.

**Automatic pH calibration** with USA and NIST buffers up to 3 points and 2 points custom defined by the user.

**Automatic ORP calibration** in 1 point.

**Automatic calibration of conductivity** up to 4 points or 1 point custom defined by the user.

Adjustable reference temperature and selectable cell constant.

**Indication with icons of the calibrated points.**

Measurement **stability indicator** and possibility of selecting 3 levels of stability.

All operations and errors are constantly monitored and shown to the operator via the **coloured LED** above the display.

**GLP function:** Date and time, recall of calibration data and function "Calibration due".

**Data logger up to 1000 savings**, manual and automatic, PC connection via micro-USB.

**Data-Link +** software available at [www.xsinstruments.com](http://www.xsinstruments.com).



PC 70 Vio kit

## Measuring range:

**pH:** -2,00...16,00 (0,01 pH)

**mV:** -1000...+1900 (0,1 mV / 1 mV)

**ORP:** -1000...+1900 (0,1 / 1 mV)

**Cond:** 0,1  $\mu$ S ...200,0 mS (0,01  $\mu$ S - automatic)

**TDS:** 0,1 mg/l ... 200 g/l

**Salinity:** 0,1 ppm ... 100 ppt

**Temperature:** -10...110,0 °C (0,1 °C)

## Equipped with:

Field support with 3 holes for electrodes, coloured buffer solutions of pH and conductivity, USB cable and power supply, instructions for use and plastic carrying case.

Name	Description	P/N
<b>PC 70 VIO</b> DHS ELECTRODE + CELL	With digital pH electrode 201 T DHS and conductivity cell 2301T, both with integrated temperature sensor and cable 1 m	50110872
<b>PC 70 VIO</b> ELECTRODE + EC CELL	With pH electrode 201 T and conductivity cell 2301T, both with integrated temperature sensor and cable 1 m	50110812
<b>PC 70 VIO</b> ONLY EC CELL	Without pH electrode. With conductivity cell 2301 T, temperature probe NT55, S7-BNC cable and accessories	50110822
<b>PC 70 VIO</b> WITHOUT SENSORS	Without sensors, with temperature probe NT55, S7-BNC cable and accessories	50110842

# PC 7 $\checkmark$ io

- Resolution 0,1 / 0,01 pH - 0,01  $\mu$ S
- Automatic and manual **temperature compensation**
- DHS digital sensors management.

Professional portable multiparameter with **innovative high-resolution color display**, suitable to work in any conditions, thanks also to the possibility to adjust manually contrast and brightness of the display.

Possibility to select the parameters you want to show.

The **step by step guide** in setup and calibration mode allows a simple and intuitive use of the device.

**Automatic pH calibration** with USA and NIST buffers up to 3 points and 2 points custom defined by the user.

**Automatic ORP calibration** in 1 point.

**Automatic calibration of conductivity** up to 4 points and 1 point custom defined by the user.

Adjustable reference temperature and selectable cell constant.

**Indication with icons of the calibrated points.**

Measurement **stability indicator** and possibility of selecting 3 levels of stability.

All operations and errors are constantly monitored and shown to the operator via the **coloured LED** above the display.



Protected connectors

## Measuring range:

**pH:** 0,00...14,00 (0,01 pH)

**mV:** -1000...+1000 (1 mV)

**ORP:** -1000...+1000 (1 mV)

**Cond:** 0,1  $\mu$ S ... 200 mS (0,01  $\mu$ S - automatic)

**TDS:** 0,1 mg/l ... 200 g/l

**Temperature:** 0...100,0 °C (0,1 °C)

## Equipped with:

Field support with 3 holes for electrodes, coloured buffer solutions of pH and conductivity, instructions manual and plastic carrying case.

Name	Description	P/N
<b>PC 7 VIO</b> DHS ELECTRODE + CELL	With digital pH electrode 201 T DHS and conductivity cell 2301T, both with integrated temperature sensor and cable 1 m	50110752
<b>PC 7 VIO</b> ELECTRODE + EC CELL	With pH electrode 201 T and conductivity cell 2301T, both with integrated temperature sensor and cable 1 m	50110712
<b>PC 7 VIO</b> ONLY EC CELL	Without pH electrode. With conductivity cell 2301 T, temperature probe NT55, S7-BNC cable and accessories	50110722
<b>PC 7 VIO</b> WITHOUT SENSORS	Without sensors, with temperature probe NT55, S7-BNC cable and accessories	50110742

# ACCESSORIES PC

## PH ELECTRODE

Name	Description	P/N
<b>STANDARD T DHS</b> DIGITAL pH ELECTRODE	Digital pH electrode combined with DHS technology. Glass body and cylindrical membrane for general applications. Refillable KCl 3M electrolyte. <b>Excellent chemical resistance and easy to clean. Included with serial number and certificate.</b> Dimensions (LxØ) mm 120x12 - pH 0...14 - Temperature -10...100 °C	32200123
<b>XS STANDARD</b> PH ELECTRODE	pH Electrode combined with S7 head. Glass body, for general use. Refillable KCl 3M Electrolyte. <b>Excellent chemical resistance and easy to clean. With serial number and certificate.</b> Dimensions (LxØ mm) 120x12 - pH 0...14 - Temperature -10...100 °C.	32200363
<b>XS POLYMER</b> S7	Combined pH Electrode <b>S7 head</b> . Glass Body for general use. Cylindrical membrane. Polymer filling, open pore. <b>For a fast response with high accuracy in samples that might contaminate normal diaphragms.</b> Maintenance-free. Dimensions (LxØ) mm 120x12 - pH 0...14 - Temperature -10...80 °C	32200223
<b>201 T DHS</b> DIGITAL pH ELECTRODE	Digital pH electrode combined with DHS technology. Plastic body for general use. Polymer Filling, ceramic diaphragm. Maintenance-free. Dimensions (LxØ) mm 120x12. pH 0...14 - Temperature 0...60 °C	32200103
<b>201 T</b> PH ELECTRODE	Combined pH electrode with NTC temperature sensor integrated. Plastic body for general applications. Polymer filling with ceramic diaphragm. Maintenance-free. Fixed cable 1 mt., BNC + RCA plug. Dimensions (LxØ) mm 120x12 - pH 0...14 - Temperature 0...60 °C	50002002
<b>201 T / 5</b> PH ELECTRODE	Combined pH electrode with NTC temperature sensor integrated. Plastic body for general applications. Polymer filling with ceramic diaphragm. Maintenance-free. Fixed cable 5 mt., BNC + RCA plug. Dimensions (LxØ) mm 120x12 - pH 0...14 - Temperature 0...60 °C	50002022

## CONNECTION CABLE

Connecting cable with **S7 head** and BNC plug for XS meters.

Diameter 3 mm, length 1 m.

Name	Description	P/N
<b>BNC</b>	Cable S7-BNC 	33551733

## CONDUCTIVITY CELLS

Name	Description	P/N
<b>2301 T</b> EC CELL	Cell in epoxy body C=1, with integrated temperature sensor. Fixed cable 1 mt. BNC+RCA cinch plug. Measuring range: 10µS...200 mS - Temperature 0...60 °C	50004002
<b>2301 T / 5</b> EC CELL	Cell in epoxy body C=1, with integrated temperature sensor. Fixed cable 5 mt. BNC+RCA cinch plug. Measuring range: 10µS...200 mS - Temperature 0...60 °C	50004022
<b>VP 1</b> EC CELL	Cell in glass body with platinum plates C=1, fixed cable 1 mt. with BNC plug. Measuring range: 10µS...10 mS - Temperature 0...80 °C	50004062
<b>VPT 1</b> EC CELL	Cell in glass body with platinum plates C=1, with integrated temperature sensor. Fixed cable 1 mt., BNC + RCA Cinch plug. Measuring range: 10µS...100 mS - Temperature 0...80 °C	50003352
<b>VPT 01</b> EC CELL	Steel and PVC cell, C=0,1, with integrated temperature sensor. Fixed cable 1 mt., BNC + RCA plug. Measuring range: 0,1µS...1 mS - Temperature 0...60 °C	50004012
<b>VPT 10</b> EC CELL	Cell in glass body with platinum plates C=10, integrated temperature sensor, fixed cable 1 mt. BNC + RCA Cinch plug. Measuring range: 100µS...200 mS	50004072
<b>VPT 10 H</b> EC CELL	Cell in glass body with platinum plates C=10, integrated temperature sensor, fixed cable 1 mt. BNC + RCA Cinch plug. <b>Measuring range: 100µS...500 mS.</b> Only for XS REVIO an XS COND 80 PRO	50003372



## TEMPERATURE PROBES

Name	Description	P/N
<b>NT 55</b> TEMPERATURE PROBE	Temperature probe NTC 30 KΩ for liquids and air	50002012
<b>NT 7P</b> TEMPERATURE PROBE	Temperature probe NTC 30 KΩ ,penetration tip, diameter 4 mm, fixed cable 1 m	50011122
<b>NT55 + CABLE</b> KIT	Kit Temperature probe NT 55 + cable S7/BNC, 1 m.	50002032

## REDOX SENSORS

Name	Description	P/N
<b>REDOX</b> SENSOR	Electrode in epoxy body. Gel filling, double junction, maintenance-free. Ceramic diaphragm. Cable S7-BNC, 1 m. Dimensions (LxØ) mm 120X12 <b>Measuring range: ± 1.000 mV, temperature 0...60 °C</b>	32105302
<b>REDOX / 5</b> SENSOR	Electrode in epoxy body. Gel filling, double junction, maintenance-free. Ceramic diaphragm. Cable S7-BNC, 5 m. Dimensions (LxØ) mm 120X12 <b>Measuring range: ± 1.000 mV, temperature 0...60 °C</b>	32105102

## CALIBRATION KIT - SACHETS BUFFER SOLUTIONS

Name	Description	P/N
<b>SET CAL pH BIS</b>	It contains 10 x pH 4.01 and 10 x pH 7.00, 25 ml	51102203
<b>SET CAL pH TRIS</b>	It contains 7 x pH 4.01, 7 x pH 7.00, 6 x pH 10.01, 25 ml	51102213
<b>SET CAL COND</b>	It contains 10 x EC 1.413 µS and 10 x EC 12.880 µS , 25 ml	51102223
<b>SET CAL PC</b>	It contains 7 x pH 4.01 and 7.00, 6 x EC 1.413 µS , 25 ml	51102233
<b>REPLACEMENT pH</b>	It contains 6 x pH 4.01, pH 7.00, H2O, and 2 x Storage , 25 ml	51102243
<b>REPLACEMENT COND</b>	It contains 7 x EC 1.413 µS, EC 12.880 µS and 6 x deionized H2O, 25 ml	51102253
<b>REPLACEMENT PC</b>	It contains 5 x pH 4.01, pH 7.00 and 1.413 µS, 3 x H2O, 25 ml and 2 x Storage 10 ml	51102263
<b>STORAGE</b>	Storage solution for electrodes <b>55 ml</b>	32208043
<b>STORAGE</b>	Storage solution for electrodes <b>500 ml</b>	32208053

## ACCESSORIES

Name	Description	P/N
<b>ECOSTIR</b> MAGNETIC STIRRER	Magnetic stirrer, adjustable speed, with magnetic bar and power supply.	22001953
<b>HOLDER</b> MOD: 3900	Flexible electrode holder	50000112
<b>PRINTER</b>	External printer with normal paper for 60 / 8 PRO / 80 PRO Series, power supply and RS 232 cable	50001502
<b>CASE IP67</b>	IP 67 waterproof case for Vio portable instruments	50010972
<b>SOFT CASE</b>	Bag with adjustable shoulder strap in eco-sustainable material for Vio portable instruments	50010962
<b>POWER SUPPLY</b>	Power supply and cable for XS Revio / 70 Vio	50110172
<b>SUPPORT</b>	Magnetic Support for Vio portable instruments	50110252

# Oxy 70 Vio

- High accuracy with **low oxygen level**
- High resolution backlit coloured LCD Display
- **Automatic compensation** of temperature and pressure
- **Data logger auto and manual, up to 1000 savings** in GLP
- **GLP with date and time of the last calibration.**
- **Auto calibration DO 0%-100%**
- **Optical sensor maintenance free**

Professional **portable oxymeter with innovative backlit high-resolution colour display** for excellent data view in all conditions thanks to the possibility of automatically and manually adjusting the contrast and lighting of the display.

The online guide in setup and calibration mode allows a simple and intuitive use of the device.

**Automatic calibration up to two points (0% - 100%).**

**Automatic compensation of temperature and barometric pressure,** manual salinity.

Measurement stability indicator and possibility to select 3 stability levels.

All operations are constantly monitored and reported to the operator via the coloured LED above the display and the self-diagnosis messages.

**GLP function:** Date and time, recall of calibration data and function "Calibration due".

**Data logger up to 1000 savings,** manual and automatic, PC connection via micro-USB.

**Data-Link +** software available at [www.xsinstruments.com](http://www.xsinstruments.com).

## Measuring range:

**DO:** 0,0...50 mg/l (0,01 - 0,1 mg/l)

**Saturation:** 0,0...400 % (0,1 - 1 %)

**Barometric pressure:** 300...1100 mbar (1 mbar)

**Temperature:** -10...+110,0 °C

## Equipped with:

0 Oxygen standard, USB cable and power supply, user manual and plastic carrying case.



Optical sensor

Name	Description	P/N
<b>OXY 70 VIO</b> 2 m	Complete with optical sensor OXY LD070, with integrated temperature sensor. Cable lenght: 2 m	50110302
<b>OXY 70 VIO</b> 10 m	Complete with optical sensor OXY LD070, with integrated temperature sensor. Cable lenght: 10 m	50110312
<b>LD070 / 2m</b> SENSOR	Optical sensor for OXY 70 Vio, with integrated temperature sensor. Cable 2 m	50010342
<b>LD070 / 10m</b> SENSOR	Optical sensor for OXY 70 Vio, with integrated temperature sensor. Cable 10 m	50010352
<b>MEMBRANE</b>	Replacement <b>membrane</b> for LD070	50010362
<b>ARMOR</b> STEEL	Steel armor for LD070 / 10 mt	50010372

# Oxy 7 Vio

- High resolution backlit **coloured LCD Display**
- **Automatic compensation** of temperature and pressure
- **Auto calibration DO 0%-100%**
- **Automatic resolution** of the measure
- **Polarographic sensor**
- **Polarization timer**

Professional portable oxymeter with **innovative backlit high-resolution colour display** for excellent data view in all conditions thanks to the possibility of manually adjusting the contrast and brightness of the display.

The **step by step guide** in setup and calibration mode allows a simple and intuitive use of the device.

**Automatic calibration** up to two points (0% - 100%).

**Automatic compensation of temperature and barometric pressure**, manual salinity.

Measurement **stability indicator** and possibility to select 3 stability levels.

All operations are constantly monitored and reported to the operator via the **coloured LED** above the display and the self-diagnosis messages.

## Measuring range:

DO: 0,0...50 mg/l (0,01 - 0,1 mg/l)

Saturation: 0,0...400 % (0,1 - 1 %)

Barometric pressure: 300...1100 mbar (1 mbar)

Temperature: 0...+100,0 °C

## Equipped with:





0 Oxygen standard, replacement membrane, user manual and plastic carrying case.

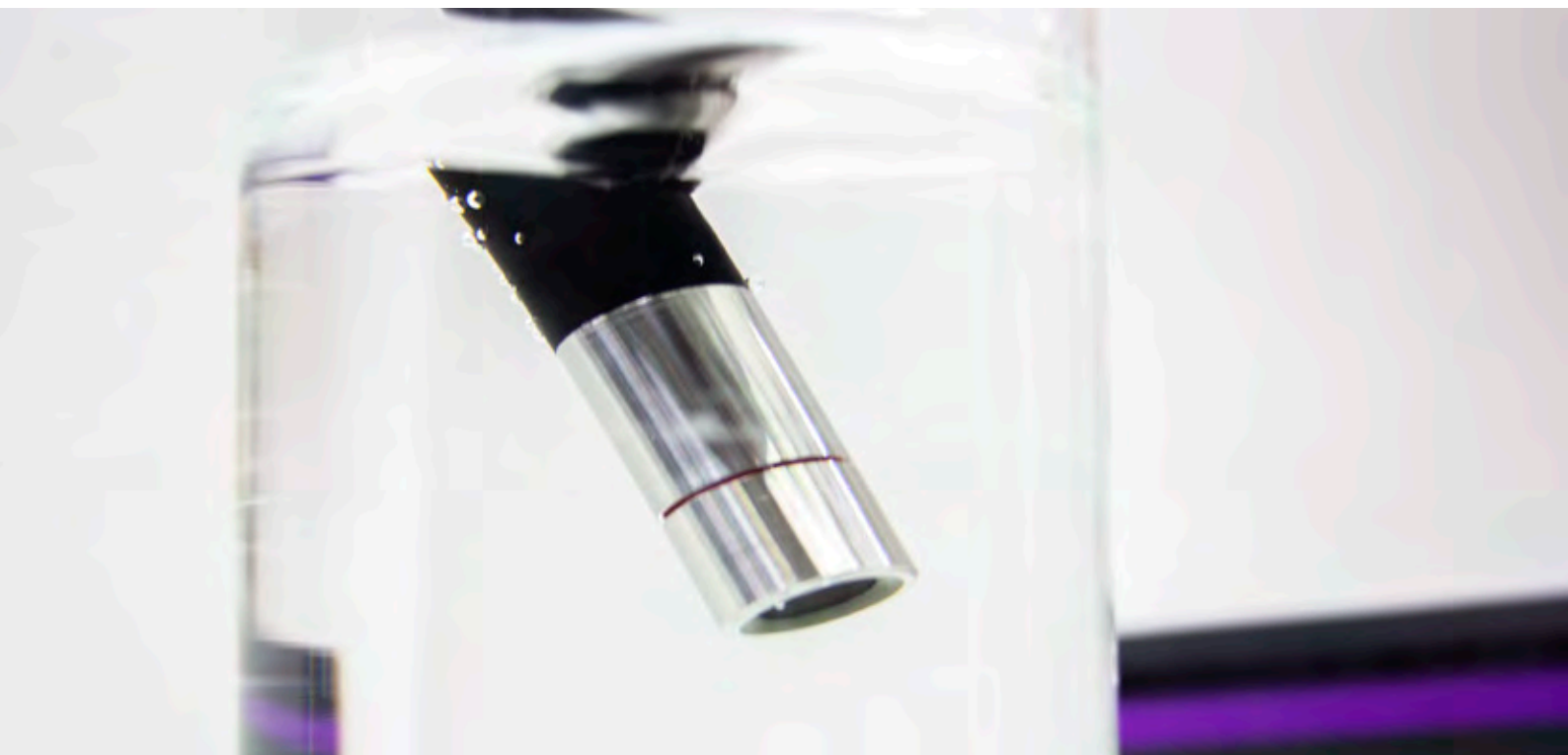


Polarographic sensor

Name	Description	P/N
<b>OXY 7 VIO</b> COMPLETE	Complete with polarographic sensor D07/3M with integrated temperature sensor, cable length 3 m, 1 replacement membranes, refill solution (30ml), 0 Oxygen standard, user manual and carrying case	50110202
<b>OXY 7 VIO</b> ECO	Only instrument without oxygen sensor, in Ecopack with user manual.	50110212
<b>D07 / 3m</b> SENSOR	Polarographic sensor, with integrated temperature sensor. Cable 3m, 2 replacements membranes, refill solution (30ml)	50010242
<b>MEMBRANE</b>	Kit 2 replacement membranes for D07/3M	50010252
<b>ELECTROLYTE</b>	Refill solution for D07/3M (30 ml)	50010262
<b>ARMOR</b> PPE	PPE armor for D07/3M	50010282
<b>0%</b> STANDARD	0 Oxygen standard - 1 bottle	50010292
<b>0%</b> STANDARD	0 Oxygen standard - 5 bottles pack	50010272

## ACCESSORIES

Name	Description		P/N
<b>IP67 CASE</b>	Waterproof carrying case IP 67 for portable meters Vio		50010972
<b>SOFT CASE</b>	Soft case with adjustable shoulder strap in eco-friendly material for portable meters Vio		50010962
<b>POWER SUPPLY</b>	Power supply and cable for XS REVIO / 70 Vio		50110172
<b>SUPPORT</b>	Magnetical support for VIO portable instruments		50110252





# ELECTRODES



WARRANTY  
**6**  
MONTHS



**DHS**  
Digital High Sensor



## QUALITY REPORT

The models XS Standard and XS Flow are supplied with an individual quality report, referring to the electrode serial number on the internal label for proper traceability according to GLP standards of your calibration and pH measurements.



### QUALITY TEST REPORT

Model	<b>Electrode Type:</b> <i>Elektrodentyp / Elettrodo</i>	STANDARD
	<b>Product number:</b> <i>Produktnummer / Codice prodotto</i>	32200373
Batch	<b>Serial number:</b> <i>Seriennummer / Numero seriale</i>	0009
	<b>Batch number:</b> <i>Chargennummer / Numero di lotto</i>	444
Test results	<b>Reading in pH 7 buffer (<math>0 \pm 20\text{mV}</math>):</b> <i>Lesen im pH 7 / Lettura in pH 7*</i>	-5 mV
	<b>Reading in pH 4 buffer (<math>174 \pm 20\text{mV}</math>):</b> <i>Lesen im pH 4 / Lettura in pH 4*</i>	169 mV
Technical features	<b>Measuring range:</b> <i>Messbereich / Range di misura</i>	0...14 pH
	<b>Temperature range:</b> <i>Temperaturbereich / Range di temperatura</i>	-10...80 °C
	<b>Temperature sensor:</b> <i>Temperatursensor / Sensore di temperatura</i>	
	<b>Reference electrolyte:</b> <i>Bezugselektrolyt / Elettrolita di riferimento</i>	KCl 3M
Date	<small>* Measurements are performed in Certified Reference Materials. * Die Messungen werden in zertifizierten Referenzmaterialien durchgeführt. * Le misurazioni sono eseguite in materiali di riferimento certificati</small>	
	<small>A change of the measurement values above during storage and use is a normal behavior of the electrochemical sensors. Eine Änderung der Messwerte oberhalb während der Lagerung und der Verwendung ist ein normales Verhalten der elektrochemischen Sensoren. Una variazione dei valori di misura di cui sopra, durante la conservazione e l'uso, è un comportamento normale dei sensori elettrochimici.</small>	
	<b>Passed Quality Control</b> <i>Bestanden Qualitätskontrolle / Controllo Qualità Effettuato</i>	16/02/2023

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## HOW TO CHOOSE THE RIGHT ELECTRODE

	GEL	POLYMER	POLYMER TIP	STANDARD	201T / POLYMER PLAST	STANDARD HA	FLAT	STANDARD HF	FOOD	2 PORE SLIM	2 PORE	2 PORE F	FOOD SLIM	SEMIMICRO	MICRO	MICRO P	MICRO SPECIAL	FLOW
Waste water		●	●		●	●												●
Deionized water									●									●
Tap water	●	●	●	●	●				●									●
<b>Food</b>									●	●	●	●	●					
<b>Butter</b>									●	●	●	●	●					
Samples with protein		●	●						●		●		●			●		
Alkali samples						●												
High temperature samples				●		●			●									
Samples in tube for NMR																	●	
Small volume samples							●								●	●	●	
Samples with Hydrofluoric acid								●										
Viscous samples		●	●						●									●
<b>Cosmetics</b>		●	●	●		●			●									●
<b>Cream</b>		●	●						●									●
<b>Detergents</b>	●	●	●	●	●	●			●									●
Aqueous emulsions		●	●	●					●									●
<b>Cheese</b>										●	●	●	●					
<b>Fruit and vegetables</b>										●	●	●	●					
<b>Milk</b>		●	●						●	●	●	●	●					
<b>Mayonnaise</b>									●		●							●
<b>Marmalade</b>		●	●						●		●							●
<b>Bread and pasta</b>			●						●	●	●	●	●					
<b>Leather</b>							●											
<b>Brine</b>	●	●	●	●	●				●									●
<b>Soap</b>		●	●	●					●									●
Samples with low ionic strenght																		●
<b>Aqueous suspensions</b>		●	●	●					●									●
<b>Semi Aqueous suspensions</b>									●									●
<b>Fruit juice</b>		●	●	●					●									●
<b>Surfaces</b>							●											
<b>TRIS swab</b>				●														●
<b>Tip</b>			●							●	●	●	●					●
<b>Titulation</b>				●					●									●
<b>Non Aqueous titolation</b>																		●
<b>Galvanic treatment</b>		●	●			●												●
<b>Water-based paints</b>		●	●	●					●									●
<b>Paints</b>				●					●									●
<b>Wine</b>		●	●	●					●									●
<b>Yogurt</b>		●	●						●	●	●	●	●					●

# DHS Electrodes

Digital High Sensor



## Intelligent Sensor management

Digital High Sensors are the new pH sensors with internal chip, that store parameters, date of last calibration, model and production batch of the electrode. After connecting the pH DHS sensor to the instrument, with the same technology, all the data stored in the sensor chip are automatically transferred to the instrument and shown on the display.

After a new calibration of the DHS electrode, the data are automatically stored in the electrode chip. If we move this electrode to another DHS-enabled instrument, we can start working immediately and with extreme security as the data from the last calibration will automatically be transferred and used for pH measurements.

Our DHS electrodes have integrated temperature sensor, fixed cable with BNC and RCA connectors and work without an internal battery, this allows to store them as normal pH electrode and can be connected to any instrument with BNC and RCA connection.



Name	Description	P/N
<b>201 T DHS</b> DIGITAL pH ELECTRODE	Digital pH electrode combined with DHS technology. <b>Plastic body for general use.</b> Gel Filling, ceramic diaphragm. Maintenance-free. Dimensions (LxØ) mm 120x12. pH 0...14 - Temperature 0...60 °C	32200103



Name	Description	P/N
<b>STANDARD T DHS</b> DIGITAL pH ELECTRODE	Digital pH electrode combined with DHS technology. Glass body and cylindrical membrane for general applications. Refillable KCl 3M electrolyte. <b>Excellent chemical resistance and easy to clean.</b> Included with serial number and certificate. Dimensions (LxØ) mm 120x12 - pH 0...14 Temperature -10...100 °C	32200123



Name	Description	P/N
<b>FLOW T DHS</b> DIGITAL pH ELECTRODE	Digital pH electrode combined with DHS technology. Glass body. Refillable KCl 3M electrolyte. With Teflon sleeve diaphragm <b>for measurements in suspensions and samples with low conductivity.</b> With serial number and certificate. Dimensions (LxØ) mm 120x12. pH 0...14 Temperature -10...+80 °C	32200133



Name	Description	P/N
<b>2 PORE T DHS</b> DIGITAL pH ELECTRODE	Digital pH electrode combined with DHS technology. Glass Body. Filled with polymer, maintenance-free. <b>Ideal for meats and cheese samples.</b> Dimensions tip (LxØ) mm 35x6 - pH 0...14, Temperature 0...60 °C	32200113








Name	Description	P/N
<b>2 PORE F T DHS</b> DIGITAL pH ELECTRODE	Digital pH electrode combined with DHS technology. Plastic body (PEEK) and glass membrane. Polymer filling, maintenance-free. <b>Ideal for meat and cheese samples.</b> Dimensions tip (LxØ) mm 35x6 - pH 0...14, Temperature 0...60 °C	32200143

# Laboratory electrodes

A very famous Swiss manufacturer developed a complete line of laboratory pH, ORP and conductivity electrodes with glass and plastic body. XS Sensors are available with S7 head or fixed cable with BNC or DIN connector plug. For food applications many models are equipped with temperature sensor included for a fast temperature compensation. Some models have internal serial number and quality certificate to work in accordance with GLP rules



Name	Description	P/N
<b>STANDARD S7</b>	pH Electrode combined with S7 head. Glass body, for general use. Refillable KCl 3M Electrolyte. <b>Excellent chemical resistance and easy to clean. With serial number and certificate.</b> Dimensions (LxØ mm) 120x 12 - pH 0...14 Temperature -10...100 °C.	32200363
<b>STANDARD BNC</b>	With fixed cable 1 mt - <b>BNC connector</b>	 32200263
<b>STANDARD DIN</b>	With fixed cable 1 mt - <b>DIN connector</b>	 32200273
<b>STANDARD T BNC + RCA</b>	With temperature sensor NTC 30 KΩ, fixed cable <b>BNC+RCA Cinch</b>	 32200473
<b>STANDARD T DIN + BANANA</b>	With temperature sensor NTC 30 KΩ, fixed cable <b>DIN+banana 4 mm</b>	 32200463
<b>G 214 BNC + BANANA</b>	With temperature probe PT 1000, fixed cable <b>BNC+banana 4 mm</b> <b>Without serial number and certificate.</b>	 32200813



Name	Description	P/N
<b>STANDARD HA S7</b>	pH electrode combined for <b>minimal alkali error</b> , S7 head. Glass body and cylindrical membrane. Refillable KCl 3M electrolyte. <b>Excellent chemical resistance and easy to clean. With serial number and certificate.</b> Dimensions (LxØ mm) 120x 12 - pH 0...14 Temperature -10...100 °C.	32200423



Name	Description	P/N
<b>STANDARD HF S7</b>	Combined pH electrode, S7 head. Glass body. With special membrane <b>for measurements in samples containing hydrofluoric acid</b> (0.01 M / 200 mg/l at 20 °C). Refillable KCl 3M electrolyte. Excellent chemical resistance and easy to clean. Dimensions (LxØ mm) 120x 12 - pH 0...14 Temperature -10...100 °C.	32200433





Name	Description	P/N
<b>GEL</b> S7	Combined pH electrode, S7 head. Body in glass for general applications. Cylindrical membrane. Gel filled, maintenance-free. Dimensions (LxØ) mm 120x12 - pH 0...14 Temperature -10...60 °C	32200203



Name	Description	P/N
<b>POLYMER</b> S7	Combined pH Electrode S7 head. Glass Body for general use. Cylindrical membrane. Polymer filled, open pore. <b>For a fast response with high accuracy in samples that might contaminate normal diaphragms.</b> Maintenance-free. Dimensions (LxØ) mm 120x12 - pH 0...14 - Temperature -10...80 °C	32200223



Name	Description	P/N
<b>POLYMER TIP</b> S7	Combined pH electrode with tipped membrane for pH in the soil. S7 head. Glass body. Polymer filled, two open pores. <b>For a fast response with high accuracy in samples may contaminate normal diaphragms.</b> Maintenance-free. Dimensions (LxØ) mm 120x12 - pH 0...14 - Temperature -10...80 °C	32200443



Name	Description	P/N
<b>FLOW</b> S7	Combined pH electrode, S7 screw head. Glass body. Refillable KCl 3M electrolyte. With Teflon sleeve diaphragm <b>for measurements in viscous samples with low conductivity.</b> With serial number and certificate. Dimensions (LxØ) mm 120x12 - pH 0...14 - Temperature -10...80 °C	32200373

**FLOW T**  
BNC

With **integrated temperature sensor** NTC 30 KΩ  
fixed cable 1 mt lenght BNC+RCA Cinch



32200723

**FLOW T**  
DIN

With **integrated temperature sensor** PT 1000  
fixed cable 1 mt lenght DIN+banana 4 mm



32200733

**G 221 T**  
BNC + BANANA

With **integrated temperature sensor** PT 1000  
fixed cable 1 mt lenght BNC+banana 4 mm  
**Without serial number and certificate.**



32200863



Name	Description	P/N
<b>FLAT</b> S7	Combined pH electrode, S7 head. Glass Body. Polymer filled. <b>With flat membrane for surface measurements.</b> Dimensions (LxØ) mm 120x12 - pH 0...14 - Temperature 0...60 °C	32200413



Name	Description	P/N
<b>SEMI MICRO</b> S7	Combined pH electrode, S7 head. Glass body "micro 6". Refillable KCl 3M electrolyte. <b>Suitable for measurements in test tubes.</b> Dimensions tip (LxØ) mm 100 x 6 - pH 0...14 - Temperature 0...100 °C	32200383



Name	Description	P/N
<b>MICRO</b> S7	Combined pH electrode, S7 head. Glass body "micro 3". Refillable KCl 3M electrolyte. <b>For small volume of samples &lt;2 ml.</b> Dimensions tip (LxØ) mm 60 x 3 - pH 0...14 - Temperature 0...100 °C	32200213



Name	Description	P/N
<b>MICRO P</b> S7	Combined pH electrode, S7 head. Glass body "micro 3". Refillable Glycerin KCl electrolyte. <b>Suitable for small volumes in microbiological and biochemical applications.</b> Dimensions tip (LxØ) mm 60 x 3 - pH 0...14 - Temperature 0...100 °C	32200253



Name	Description	P/N
<b>MICRO SPECIAL</b> S7	Combined pH electrode, S7 head, Glass body "micro 3". Refillable KCl 3M electrolyte. <b>For small volume of samples &lt;2 ml. Ideal for NMR tubes.</b> Dimensions tip (LxØ) mm 180x3 - pH 0...14 - Temperature 0...100 °C	32200453

# Electrodes for food applications



Name	Description	p/n
<b>FOOD S7</b>	Combined pH electrode with 3 diaphragm, S7 head. Glass body. Refillable Glycerin KCl electrolyte. <b>For dairy and food applications.</b> Dimensions (LxØ) mm 120x12 - pH 0...14 - Temperature -10...100 °C	32200393
<b>FOOD T BNC + RCA</b>	With NTC temperature sensor, 1 m fixed cable ,plug BNC+RCA	32200753



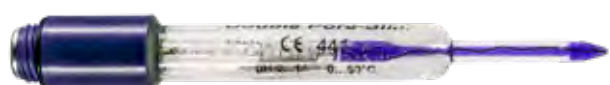
Name	Description	p/n
<b>FOOD SLIM S7</b>	Combined pH electrode,S7 head. Glass body. Refillable Glycerin KCl for sample containing proteins. <b>6 mm tip for penetration measurements.</b> Dimensions tip (LxØ) mm 25x6 - pH 0...14 - Temperature -10...100 °C	32200243



Name	Description	p/n
<b>ZETATRODE S7</b>	Combined pH electrode, S7 head. Glass body. Refillable Glycerin KCl for sample containing proteins. <b>4 mm tip for penetration measurements.</b> Dimensions tip (LxØ) mm 120x4 - pH 0...14 - Temperature 0...60 °C	32200403



Name	Description	p/n
<b>2 PORE S7</b>	Combined pH electrode, S7 head. Glass body. Polymer filling, two open pores, maintenance free. <b>Ideal for meat and cheese applications.</b> Dimensions tip (LxØ) mm 35x6 - pH 0...14 - Temperature 0...60 °C	32200333
<b>2 PORE T BNC + RCA</b>	With integrated temperature sensor NTC 30 KΩ, fixed cable 1 mt length, BNC+RCA Cinch	32200323



Name	Description	p/n
<b>2 PORE SLIM S7</b>	Combined pH electrode, S7 head. Glass body. Polymer filling. Two open pores, maintenance-free. <b>Ideal for meat and cheese applications.</b> Dimensions tip (LxØ) mm 35x4,5 - pH 0...14 - Temperature 0...60 °C	32200283



Name	Description	p/n
<b>2 PORE F</b> S7	Combined pH electrode, S7 head. Plastic body (PEEK) and glass tip. Polymer filling, two open pores, maintenance-free. <b>Ideal for meat and cheese applications.</b> Dimensions tip (LxØ) mm 35x6 - pH 0...14 - Temperature 0...60 °C	32200293
<b>2 PORE F T</b> BNC + RCA	With integrated temperature sensor NTC 30 KΩ fixed cable 1 mt., BNC+RCA.	32200703
<b>2 PORE F T</b> DIN + BANANA	With temperature sensor PT1000, fixed cable 1 mt., plug DIN + banana 4 mm <b>For Knick and WTW instruments.</b>	32200713
<b>G 216 T</b> BNC + BANANA	With temperature sensor PT1000, fixed cable 1 mt., plug BNC + banana 4 mm	32200823



Name	Description	p/n
<b>2 PORE STEEL</b> S7	Combined pH electrode, steel body. Polymer filled, maintenance-free. <b>Ideal for meat and cheese applications or penetration measurements.</b> Dimensions tip (LxØ) mm 50x6 - pH 0...14 - Temperature 0...80 °C	32200653
<b>2 PORE STEEL T</b> BNC + RCA	With integrated temperature sensor NTC 30 KΩ, fixed cable 1 mt., BNC + RCA cinch plug.	32200313
<b>2 PORE STEEL T</b> DIN + BANANA	With temperature sensor NTC 30 KΩ, fixed cable 1 mt., plug DIN + Banana 4mm.	32200643





Name	Description	p/n
<b>2 PORE K</b> S7	Combined pH electrode, S7 head. Steel body with replaceable blade. Polymer filling, two open pores, maintenance-free. <b>Ideal for meat and cheese applications or penetration measurements.</b> Dimensions tip (LxØ) mm 35x6 - pH 0...14 - Temperature 0...60 °C	32200303
<b>2 PORE K</b> WITHOUT BLADE	Only electrode, without knife.	32200343
<b>BLADE</b>	Replaceable knife for 2 Pore K	32200353







# Plastic electrodes for general use



Name	Description	p/n
<b>POLYMER PLAST S7</b>	Combined pH electrode, S7 head, with epoxy body. Good chemical resistant. Polymer filling, one open pore and one ceramic diaphragm, <b>for a fast response in samples that contain substances that might contaminate the diaphragm.</b> Maintenance-free. Dimensions (LxØ) mm 120x12 - pH 0...14 - Temperature 0...60 °C	32200493
<b>POLYMER PLAST BNC</b>	With fixed cable 1 mt., BNC plug 	32200503
<b>POLYMER PLAST DIN</b>	With fixed cable 1 mt., DIN plug 	32200513



Name	Description	p/n
<b>201 T BNC</b>	Combined pH electrode with NTC integrated temperature sensor. <b>Epoxy body for general applications.</b> Polymer filling with ceramic diaphragm. Maintenance-free. Fixed cable 1 mt., BNC + RCA plug. Dimensions (LxØ) mm 120x12 - pH 0...14 - Temperature 0...60 °C 	50002002
<b>201 T /3 BNC</b>	201 T with cable 3 mt long	50002072
<b>201 T /5 BNC</b>	201 T with cable 5 mt long	50002022
<b>201 T DIN</b>	With integrated temperature sensor NTC 30 KΩ, fixed cable 1 mt., DIN+1 Banana 4mm plug 	50002052
<b>201 T DIN + 2 BANANA</b>	With integrated temperature sensor NTC 30 KΩ, fixed cable 1 mt., DIN+ 2 Banana 4mm plug 	50002042
<b>G 210 BNC + BANANA</b>	With integrated temperature sensor PT 1000, fixed cable 1 mt. BNC + 1 Banana 4mm plug 	32200803

## Cleaning and maintenance solutions

Name	Volume	p/n
<b>KCL 3M + AgCl</b> Solution	55 ml	32208113
<b>3M KCL</b> Solution	55 ml	32208003
<b>3M KCL</b> Solution	500 ml	32208013
<b>GLYCERIN-KCl</b> Solution	55 ml	32208023
<b>KN03 1M FOR ELECTRODE XS STANDARD Ag</b> Solution	55 ml	32208033
<b>ELECTRODES STORAGE</b> Solution	55 ml	32208043
<b>ELECTRODES STORAGE</b> Solution	500 ml	32208053
<b>PROTEIN CLEANING SOLUTION (PEPSIN) FOR FOOD INDUSTRY ELECTRODES</b>	55 ml	32208063
<b>PROTEIN CLEANING SOLUTION (PEPSIN) FOR FOOD INDUSTRY ELECTRODES</b>	250 ml	32208093
<b>DIAPHRAGM CLEANING (THIOUREA)</b> Solution	55 ml	32208073
<b>DIAPHRAGM CLEANING (THIOUREA)</b> Solution	250 ml	32208103
<b>REGENERATION SOLUTION (WITH HF) FOR pH ELECTRODES</b>	55 ml	32208083

# ORP Electrodes



Name	Description	P/N
<b>STANDARD ORP</b> S7	Combined pH electrode, S7 head. Glass body. Refillable KCL 3M Electrolyte. <b>Platinum ring</b> for ORP measurements. Dimensions (LxØ) mm 120x12 - Temperature -10...100 °C	32200233



Name	Description	P/N
<b>STANDARD AG</b> S7	Combined electrode, S7 head. Glass body. Refillable KNO <sub>3</sub> 1M Electrolyte. <b>Silver pin</b> for argentometric titrations. Dimensions (LxØ) mm 120x12 - Temperature 0...80 °C	32200483



Name	Description	P/N
<b>FLOW AG</b> S7	Collar diaphragm, S7 head with silver tip for argentometric applications. Dimensions (LxØ) mm 120x12 - Temperature 0...80 °C - mV +/- 2000 mV	32200543



Name	Description	P/N
<b>STANDARD KF</b> S7	Glass Body, S7 head. Maintenance-free. <b>Double platinum pins</b> for KF and SO <sub>2</sub> titrations Dimensions (LxØ) mm 120x12 - Temperature 0...80 °C	32200523



Name	Description	P/N
<b>PLAST ORP</b> S7	S7 head, epoxy body. Gel filling, double junction, maintenance-free. Ceramic diaphragm. Dimensions (LxØ) mm 120x12 - Temperature 0...60 °C	32200663

<b>PLAST ORP</b> BNC	With fixed cable 1mt., BNC Plug	32200673
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# Process electrodes



Name	Description	p/n
<b>BASIC PRO</b> S7 - PG 13,5	Combined pH electrode, S7 head. Length 120 mm. Glass body, ceramic diaphragm. <b>Gel filling</b> , maintenance-free. Withstands pressure of 2 bar - pH 0...14 - Temperature 0...60 °C	32201021



Name	Description	p/n
<b>PLASTIC PRO</b> S7 - PG 13,5	Combined pH electrode, S7 head, with epoxy body. Length 120 mm. Good chemical resistant. <b>Polymer filling</b> , open pore. Maintenance-free. Withstands pressure of 6 bar - pH 0...14 - Temperature -10...60 °C	32201101



Name	Description	p/n
<b>POLYMER PRO</b> S7 - PG 13,5	Combined pH electrode, S7 head, glass body. Length 120 mm. Polymer filling with barrier, open pore. Maintenance-free. Withstands pressure of 6 bar - pH 0...14 - Temperature -10...60 °C	32201111



Name	Description	p/n
<b>POLYMER HA PRO</b> S7 - PG 13,5	Combined pH electrode, S7 head, glass body. Length 120 mm. Polymer filling, open pore. Maintenance-free. <b>Sterilizable</b> . Special membrane with low alkaline error and resistant to the metals present in the sample. Withstands pressure of 6 bar - pH 0...14 - Temperature -10...130 °C	32201061



Name	Description	p/n
<b>POLYMER HF PRO</b> S7 - PG 13,5	Combined pH electrode, S7 head, glass body. Length 120 mm. Polymer filling, open pore. Maintenance-free. Special membrane HF resistant (0,01M 200mg at 20°C and 0,05M 1000mg at 50°C). Withstands pressure of 6 bar - pH 0...14 - Temperature 0...100 °C	32201071



Name	Description	p/n
<b>PURE PRO</b> S7 - PG 13,5	Combined pH electrode, S7 head, glass body. Length 120 mm. Refillable KCl 3M electrolyte. Designed for low conductivity samples (<0,2 µS) pH 0...14 - Temperature 0...40 °C	32201081



Name	Description	p/n
<b>PURE PRO GEL</b> S7 - PG 13,5	Combined pH electrode, S7 head, glass body. Length 120 mm. Gel Filling, maintenance-free. Designed for low conductivity samples (<1 µS) Withstands pressure of 6 bar - pH 0...14 - Temperature 0...60 °C	32201171



Name	Description	p/n
<b>GEL HT PRO</b> S7 - PG 13,5	Combined pH electrode, S7 head. Length 120 mm. Glass body with 3 ceramic diaphragms. Gel Filling, maintenance-free. Withstands pressure of 16 bar - pH 0...14 - Temperature 0...130 °C	32201001
<b>GEL HT PRO 225</b> S7 - PG 13,5	Length 225 mm	32201041



Name	Description	p/n
<b>POLYMER HT PRO</b> S7 - PG 13,5	Combined pH electrode, S7 head, glass body. Length 120 mm. Polymer filling, open pore. Maintenance-free. Withstands pressure of 6 bar - pH 0...14 - Temperature 0...130 °C	32201011
<b>POLYMER HT PRO 225</b> S7 - PG 13,5	Length 225 mm	32201051



Name	Description	p/n
<b>POLYMER PLUS PRO</b> S7 - PG 13,5	Combined pH electrode, S7 head, glass body. Length 120 mm. Special polymer filling and encapsulated reference system. Maintenance-free. Open pore. Withstands pressure of 6 bar - pH 0...14 - Temperature 0...130 °C	32201121
<b>POLYMER PLUS PRO 225</b> S7 - PG 13,5	Length 225 mm	32201211



Name	Description	p/n
<b>GEL BIOTECH</b> S7 - PG 13,5	Combined pH electrode, glass body with 1 ceramic diaphragm. Length 120 mm. Maintenance-free, gel filling, pressurized for biotechnology and fermenters, prevents internal pollution by the sample. For SIP and CIP cycles. Withstands pressure of 6 bar - pH 0... 14 - Temperature 0... 130 °C	32201241
<b>GEL BIOTECH 225</b> S7 - PG 13,5	Length 225 mm	32201251

# VP head electrodes



Name	Description	p/n
<b>POLYMER PLUS VP 120</b> VP HEAD - PT1000	Combined pH electrode, VP Multipin screw head. Glass body. Length 120 mm. Special polymer filling and encapsulated reference system, maintenance-free. Open pore. Complete with PT1000 sensor. Withstands pressure of 6 bar - pH 0... 14 - Temperature 0... 130 °C	32201351
<b>POLYMER PLUS VP 225</b> VP HEAD - PT1000	Lenght 225mm. With PT1000 sensor.	32201361
<b>POLYMER PLUS VP 120</b> VP HEAD - PT100	Length 120 mm. With PT100 sensor.	32201401



Name	Description	p/n
<b>POLYMER HT VP 120</b> VP	Combined pH electrode, VP Multipin screw head. Glass body. Length 120 mm. Polymer filling, maintenance-free. Open pore. Complete with PT1000 sensor. Withstands pressure of 6 bar - pH 0... 14 - Temperature 0... 130 °C	32201301
<b>POLYMER HT VP 225</b> VP	Lenght 225mm	32201311

## Cleaning, maintenance and electrolyte solutions

Name	Volume	p/n
<b>KCL 3M + AgCl</b> Solution	55 ml	32208113
<b>3M KCL</b> Solution	55 ml	32208003
<b>3M KCL</b> Solution	500 ml	32208013
<b>GLYCERIN-KCl</b> Solution	55 ml	32208023
<b>KN03 1M FOR ELECTRODE XS STANDARD Ag</b> Solution	55 ml	32208033
<b>ELECTRODES STORAGE</b> Solution	55 ml	32208043
<b>ELECTRODES STORAGE</b> Solution	500 ml	32208053
<b>PROTEIN CLEANING SOLUTION (PEPSIN) FOR FOOD INDUSTRY ELECTRODES</b>	55 ml	32208063
<b>PROTEIN CLEANING SOLUTION (PEPSIN) FOR FOOD INDUSTRY ELECTRODES</b>	250 ml	32208093
<b>DIAPHRAGM CLEANING (THIOUREA)</b> Solution	55 ml	32208073
<b>DIAPHRAGM CLEANING (THIOUREA)</b> Solution	250 ml	32208103
<b>REGENERATION SOLUTION (WITH HF) FOR pH ELECTRODES</b>	55 ml	32208083



# Redox process electrodes



Name	Description	p/n
<b>BASIC ORP PLATINUM</b> S7 - PG 13,5	Glass electrode for ORP measurements with gel filling. S7 screw head. Length 120 mm. Withstands pressure of 2 bar - Temperature 0... 60 °C	32201031



Name	Description	p/n
<b>PLASTIC PRO ORP</b> S7 - PG 13,5	Unbreakable epoxy body, S7 screw head. Length 120 mm. Polymer filling, ceramic diaphragm + open pore. Maintenance-free. Withstands pressure of 6 bar - Temperature -10... 60 °C	32201141



Name	Description	p/n
<b>POLYMER ORP</b> S7 - PG 13,5	Glass body. S7 screw head. Length 120 mm. Polymer filling. Open pore. Maintenance-free. Withstands pressure of 6 bar - Temperature -10... 60 °C	32201131



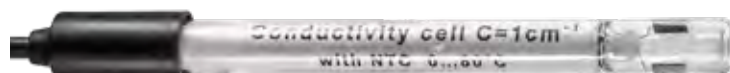
Name	Description	p/n
<b>GEL HT ORP</b> S7 - PG 13,5	S7 screw head. Length 120 mm. Glass body with 3 ceramic diaphragms. Maintenance-free, gel filling. Withstands pressure of 16 bar - Temperature 0... 130 °C	32201091




# Process conductivity probe




Name	Description	p/n
<b>SPT1</b>	Conductivity cell in graphite C = 1 with Pt 100 and 8 m cable. Range 0 mS... 10 mS - Temperature 0 ... 60 °C	32390001

# Laboratory Conductivity probes




Name	Description		P/N
<b>VP 1</b>	Platinum glass cell C = 1, fixed cable 1 m with BNC. Range 10µS... 100 mS		50004062
<b>VPT 1</b>	Platinum glass cell C = 1, with temperature sensor NTC 30KΩ		50003352
<b>EPT 1</b>	Epoxy body cell C = 1, with temperature sensor NTC 30KΩ		50003382




Name	Description		P/N
<b>VPT 01</b>	Steel/PVC cell C = 0.1, with integrated temperature sensor. Fixed cable 1 m BNC-Cinch. Range 0.1µS... 1 mS		50004012




Name	Description		P/N
<b>VPT 10</b>	Platinum glass cell C = 10, with integrated temperature sensor, fixed cable 1 m BNC-Cinch. Range 100µS... 200 mS		50004072



Name	Description		P/N
<b>VPT 10 H</b>	Platinum glass cell C = 10, with integrated temperature sensor, fixed cable 1 m BNC-Cinch. Range 100µS... 500 mS.		50003372




Name	Description		P/N
<b>2301 T</b>	Epoxy cell C = 1 with integrated temperature sensor, fixed cable 1 m. Working range 10µS... 200 mS		50004002
<b>2301 T / 3</b>	Fixed cable 3 m		50004092
<b>2301 T / 5</b>	Fixed cable 5 m		50004022



Name	Description		P/N
<b>EPT 4 FULL RANGE</b>	PVC-Graphite cell 4 rings C=0,5, 1m cable, integrated temperature sensor. Multipin connector. Measuring range 0,01 µS...1 S. Compatible with PC-Cond 80 Pro		50003362



Name	Description		P/N
<b>VPT SOIL SENSORE</b>	PVC-Graphite cell 4 rings C=0,5, 1m cable, integrated temperature sensor. Multipin connector. Measuring range 0,01 µS...1 S. Compatible with PC-Cond 80 Pro		50004082

# Cables and accessories

## LABORATORY

Cables are provided with S7 head to screw at the electrodes head.

The plug choice is related to the instrument used. Diameter 3 mm, lenght 1 m.

Name	Description	p/n
<b>BNC</b>	Cable S7-BNC	33551733
<b>DIN</b>	Cable S7-DIN	33551743

## PROCESS

Connecting cable for process electrodes. **Diameter 5 mm.**

Plug and lenght of the cable must be chosen based on the application.

Name	Description	p/n
<b>CABLE 5 MM</b>	Coaxial cable with antistatic sheath for electrodes, diameter 5mm	33550533
<b>S7 HEAD</b>	Only S7 head for 5mm cable	33412913
<b>BNC</b>	Only BNC plug for 5 mm cable	33412923
<b>DIN</b>	Only DIN plug for 5 mm cable	33550903

	Lenght	p/n
<b>PRE - ASSEMBLED CABLE WITH S7 HEAD - OPEN WIRES</b>	3 m	33550733
	5 m	33550663
	10 m	33550803
	20m	33550763

<b>PRE- ASSEMBLED CABLE WITH S7 HEAD - BNC PLUG</b>	1 m	33550673
	3 m	33550743
	5 m	33550563
	10 m	33550753
	20 m	33550773

<b>PRE- ASSEMBLED CABLE WITH VP 6 FOR ELECTRODE WITH PT100 - PT1000</b>	3 m	33551091
	5 m	33551101
	10 m	33551111

# BUFFER SOLUTIONS



## ***XS GREEN LINE SOLUTIONS***

### CALIBRATION AND QUALITY

pH and conductivity measurements and redox potential are routine operations in most laboratories and processes. Reliability and accuracy of measurements are essential for the quality control. The XS Green Line Solutions range suits your needs and guarantees an impeccable calibration.



### **XS PROFESSIONAL ASSURANCE AND ACCREDITATION**

The more accurate the pH and conductivity measurements are, the more reliable the calibration solutions are. XS Professional solutions are a guarantee of metrological traceability of your measurement chain and are ideal for regulated areas. Traceability is ensured by the certifications of accredited external calibration laboratories UNI CEI EN ISO/IEC 17025. pH buffer solutions are DKD-DAkkS certified by calibration at the ZMK Zentrum für Messen und Kalibrieren. Conductivity standards are DANAK certified by calibration at the DFM Danish Institute of Fundamental Metrology. Upon request, it is available the Certification Report in accordance to ISO 17034.



### **XS BASIC TRACEABILITY AND RELIABILITY**

XS standard solutions are traceable to the IUPAC pH scale, using an unbroken chain of comparisons directly to NIST Standard Reference materials.

Each solution is provided with the Certificate of Analysis of the GIORGIO BORMAC internal Laboratory, which guarantees quality, traceability and accuracy. XS Basic solutions are your perfect partner to verify your sensors and measurement systems every day.

# XS PROFESSIONAL pH

All solutions are ISO 9001 - DAkkS/DKD certified.  
The Certificate is available on our website: [www.xsinstruments.com](http://www.xsinstruments.com)

## ○ BOTTLE 250 ml

Name	Description	p/n
<b>pH 4.01</b>	±0,02 / 25°C - Red	51300003
<b>pH 7.00</b>	±0,02 / 25°C - Green	51300013
<b>pH 9.21</b>	±0,02 / 25°C - Blue	51300023
<b>pH 10.01</b>	±0,02 / 25°C - Yellow	51300033

## ○ BOTTLE 500 ml

Name	Description	p/n
<b>pH 4.01</b>	±0,02 / 25°C - Red	51300103
<b>pH 7.00</b>	±0,02 / 25°C - Green	51300113
<b>pH 9.21</b>	±0,02 / 25°C - Blue	51300123
<b>pH 10.01</b>	±0,02 / 25°C - Yellow	51300133

# XS PROFESSIONAL COND

With DFM and N.I.S.T traceability,  
The Certificate is available on our website: [www.xsinstruments.com](http://www.xsinstruments.com)



## ○ BOTTLE 280 ml Glass

Name	Description	p/n
<b>1,3 µS/cm (25°C)</b>	DFM. Accuracy ±0,1µS	51300303
<b>5,0 µS/cm (25°C)</b>	DFM. Accuracy ±0,1µS	51300313

## ○ BOTTLE 500 ml with built-in calibration compartment

Name	Description	p/n
<b>84 µS/cm (25°C)</b>	DFM. Accuracy ±1%	51300323
<b>147 µS/cm (25°C)</b>	DFM. Accuracy ±1%	51300333
<b>1413 µS/cm (25°C)</b>	1278 µS/cm (20°C) - DFM. Accuracy ±1%	51300343
<b>12.880 µS/cm (25°C)</b>	11670 µS/cm (20°C) - DFM. Accuracy ±1%	51300353



# XS BASIC

## BUFFER SOLUTIONS IN SACHETS

WITH N.I.S.T. TRACEABILITY.



### ○ SINGLE BUFFER

Name	Description	p/n
<b>pH 4.01</b> (25°C)	Pack of 20 sachets 25 ml, red, with certificate of analysis	51102013
<b>pH 7.00</b> (25°C)	Pack of 20 sachets 25 ml, green, with certificate of analysis	51102023
<b>pH 10.01</b> (25°C)	Pack of 20 sachets 25 ml, with certificate of analysis	51102043
<b>EC 1413 µS/cm</b> (25°C)	Pack of 20 sachets 25 ml, with certificate of analysis	51102053
<b>EC 12880 µS/cm</b> (25°C)	Pack of 20 sachets 25 ml, with certificate of analysis	51102063
<b>STORAGE</b>	Pack of 20 sachets 10 ml, pH/ORP Sensor Storage Solution	51102083
<b>H2O</b>	Pack of 20 sachets 25ml, Distilled water for sensor cleaning	51102093

### ○ CALIBRATION SET

Name	Description	p/n
<b>SET CAL pH BIS</b>	Pack of 20 sachets 25ml (10 x pH 4.01 and 10 x pH 7.00)	51102203
<b>SET CAL pH BIS</b>	Pack of 20 sachets 25ml (7 x pH 4.01, 7 x pH 7.00 and 6 x pH 10.01)	51102213
<b>SET CAL COND</b>	Pack of 20 sachets 25ml (10 x EC 1.413 µS and 10 x EC 12.880 µS)	51102223
<b>SET CAL PC</b>	Pack of 20 sachets 25ml (7 x pH 4.01, 7 x pH 7.00 and 6 x EC 1.413 µS)	51102233
<b>REPLACEMENT pH</b>	Pack of 20 sachets 25ml (6 x pH 4.01, 6 x pH 7.00, 6 x H2O distilled water and 2x Storage 10 ml)	51102243
<b>REPLACEMENT COND</b>	Pack of 20 sachets 25ml (7 x EC 1.413 µS, 7 x EC 12.880 and 6 x H2O distilled water)	51102253
<b>REPLACEMENT PC</b>	Pack of 20 sachets 25ml (5 x pH 4.01, 5 x pH 7.00, 5 x 1.413 µS, 3 x H2O distilled water and 2 x Storage 10 ml)	51102263

## DISPOSABLE BOTTLE 55 ml



Name	Description	p/n
<b>pH 4,01</b>	±0,02 / 25°C - Red	32383123
<b>pH 7,00</b>	±0,02 / 25°C- Green	32383133
<b>pH 9,00</b>	±0,02 / 25°C- Blue	32383143
<b>pH 10,01</b>	±0,02 / 25°C- Uncoloured	32382903
<b>468 mV</b>	± 5mV / 25°C- Yellow	32383163
<b>475 mV</b>	± 5mV / 25°C- Yellow	32383153
<b>EC 84 µS/cm</b>	± 1% / 25°C - Uncoloured	60000613
<b>EC 1413 µS/cm</b>	± 1% / 25°C - Uncoloured	60000423
<b>EC 12880 µS/cm</b>	± 1% / 25°C - Uncoloured	60000433

# pH BUFFERS

With N.I.S.T traceability.

The Certificate is available on our website: [www.xsinstruments.com](http://www.xsinstruments.com)



## ○ BOTTLE 250 ml with built-in calibration compartment

Name	Description	p/n
<b>pH 4,01</b>	±0,02 / 25°C - Red	51100033
<b>pH 7,00</b>	±0,02 / 25°C - Green	51100043
<b>pH 9,00</b>	±0,02 / 25°C - Blue	51100053
<b>pH 9,21</b>	±0,02 / 25°C - Blue	51100073
<b>pH 10,01</b>	±0,02 / 25°C - Uncoloured	51100063

## ○ BOTTLE 500 ml with built-in calibration compartment

Name	Description	p/n
<b>pH 4,01</b>	±0,02 / 25°C - Red	51100133
<b>pH 7,00</b>	±0,02 / 25°C - Green	51100143
<b>pH 9,00</b>	±0,02 / 25°C - Blue	51100153
<b>pH 9,21</b>	±0,02 / 25°C - Blue	51100173
<b>pH 10,01</b>	±0,02 / 25°C - Uncoloured	51100163



## ○ POLITAINER 5000 ml (5 L)

Name	Description	p/n
<b>pH 4,01</b>	±0,02 / 25°C - Red	51100233
<b>pH 7,00</b>	±0,02 / 25°C - Green	51100243
<b>pH 9,00</b>	±0,02 / 25°C - Blue	51100253
<b>pH 9,21</b>	±0,02 / 25°C - Blue	51100273
<b>pH 10,01</b>	±0,02 / 25°C - Uncoloured	51100263

# CONDUCTIVITY STANDARD

With N.I.S.T traceability and certificate downloadable from our website: [www.xsinstruments.com](http://www.xsinstruments.com)

## ○ BOTTLE 280 ml glass

Name	Description	p/n
<b>1,3 µS/cm</b> (25°C)	N.I.S.T. Accuracy ±0,1µS	51100503
<b>5,0 µS/cm</b> (25°C)	N.I.S.T. Accuracy ±0,1µS	51100513



## ○ BOTTLE 500 ml with built-in calibration compartment

Name	Description	p/n
<b>84 µS/cm</b> (25°C)	N.I.S.T. Accuracy ±1%	51100613
<b>147 µS/cm</b> (25°C)	N.I.S.T. Accuracy ±1%	51100623
<b>1413 µS/cm</b> (25°C)	1278 µS/cm (20°C) - N.I.S.T. Accuracy ±1%	51100633
<b>12.880 µS/cm</b> (25°C)	11670 µS/cm (20°C) - N.I.S.T. Accuracy ±1%	51100643



# REDOX / ORP STANDARD

Name	Description	p/n
<b>200 mV</b> (25°C)	± 5mV Bottle 250 ml	51100303
<b>468 mV</b> (25°C)	± 5mV Bottle 55 ml	32383163
<b>475 mV</b> (25°C)	± 5mV Bottle 250 ml	51100313
<b>475 mV</b> (25°C)	± 5mV Bottle 500 ml	51100323
<b>650 mV</b> (25°C)	± 5mV Politainer 5 l	51100333

# CLEANING AND MAINTENANCE SOLUTIONS

Name	Pack	p/n
Solution 3M KCL	55 ml	32208003
Solution 3M KCL	500 ml	32208013
Solution GLYCERIN-KCl	55 ml	32208023
Solution KNO <sub>3</sub> 1M for Electrode STANDARD Ag	55 ml	32208033
Solution STORAGE for Electrodes	55 ml	32208043
Solution STORAGE for Electrodes	500 ml	32208053
Solution PROTEINS CLEANING (PEPSIN) for FOOD application Electrodes	55 ml	32208063
Solution PROTEINS CLEANING (PEPSIN) for FOOD application Electrodes	250 ml	32208093
Solution DIAPHRAGM CLEANING (THIOUREA)	55 ml	32208073
Solution DIAPHRAGM CLEANING (THIOUREA)	250 ml	32208103
Solution REGENERATION (with HF) for pH Electrodes	55 ml	32208083



Brochures **XS Buffer solutions** is available on our website  
[www.xsinstruments.com](http://www.xsinstruments.com)

# TESTER



SENSOR  
**WARRANTY**  
**6**  
MONTHS

ELECTRONIC  
PART  
**WARRANTY**  
**1**  
YEAR



**IP67**  
WATERPROOF



## **APPLICATIONS:**

- FARMING
- WATER AND WASTEWATER TREATMENT
- HYDROPONIC CROPS AND AQUARIUMS
- ENVIRONMENTAL MONITORING
- POOLS AND THERMAL CENTERS
- FOOD AND BEVERAGE
- COOLING TOWER
- GALVANIC
- GRAPHIC INDUSTRY
- SCHOOLS



## SELECTION GUIDE

	PX4	pH5	pH5F00D	COND 5	ORP 5	PC 5	PC 6
pH	●	●	●	○	○	●	●
Redox	●	○	○	○	●	○	●
Conductivity	○	○	○	●	○	●	●
TDS	○	○	○	●	○	●	●
Salinity	○	○	○	●	○	●	●
Temperature	●	●	●	●	●	●	●
pH measuring range	-2 ... 16	-2 ... 16	-2 ... 16	-	-	-2...16	-2...16
Resolution	0.01	0.01	0.01	-	-	0.01	0.01
Calibration points	1...3	1...3	1...3	-	-	1...3	1...3
Stability indications	Yes	Yes	Yes	Yes	Yes	Yes	Yes
mV(pH) measuring range	-1000...+1000 mv	-1000...+1000 mv	-1000...+1000 mv	-	-	-1000 ...+1000mv	-1000...+1000 mv
Resolution	0.1/ 1 mv	0.1/ 1 mv	0.1/ 1 mv	-	-	0.1/ 1 mv	0.1/ 1 mv
mV(ORP) measuring range	-1000...+1000 mv	-	-	-	-1000...+1000 mv	-	-1000...+1000 mv
Resolution	0.1/ 1 mv	-	-	-	0.1/ 1 mv	-	0.1/ 1 mv
Calibration	1 point	-	-	-	1 point	-	1 point
COND measuring range	-	-	-	0,01uS...199,99 mS	-	0,01uS...199,99mS	0,01uS...199,99mS
Resolution	-	-	-	Auto	-	Auto	Auto
Calibratin point	-	-	-	1...3	-	1...3	1...3
Reference T	-	-	-	20 / 25 °C	-	20 / 25 °C	20 / 25 °C
TDS measuring range	-	-	-	0,01ppm...199,9ppt	-	0,01ppm...199,9ppt	0,01ppm...199,9 ppt
TDS factor	-	-	-	0.40 ... 1.00	-	0.40 ... 1.00	0.40 ... 1.00
Salinity measuring range	-	-	-	0,1 mg/l ... 100,0 g/l	-	0,1 mg/l...100,0 g/l	0,1 mg/l...100,0 g/l
Temperature range	0 ... 60 °C	0 ... 60 °C	0 ... 60 °C	0 ... 60 °C	0 ... 60 °C	0 ... 60 °C	0 ... 60 °C
Display	3 colour	3 colour	3 colour	3 colour LCD	3 colour LCD	3 colour	3 colour
IP protection	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67	IP 67
Sensor	Replaceable	Replaceable	Replaceable	Replaceable	Replaceable	Replaceable	Replaceable
Code	50014143	50014063	50014113	50014213	50014313	50014263	50014293



**The KIT includes:** sachets of buffer solutions 25 ml, calibration cap, lanyard, tissues, quick manual and cardboard case.

# pH 1

## ○ pH

**IP67 watertight portable pH meter.** Resolution 0.1 pH with microprocessor and fixed sensor. Push-button calibration on 1 or 2 points (choosing between pH 4, 7, 10). Wide LCD display with indication of the buffers used for calibration and measurement stability. **Automatic temperature compensation.** Auto power off function. **Self-diagnosis messages: low batteries, calibration errors.** Power supply with 2 x 1.5V AAA batteries included, compatible with rechargeable batteries too. 6-month warranty on electronic parts.

**Measuring range:** pH 0,0...14,0 (0,1 pH). Working temperature: 0..50°C

**The KIT includes:** 1 sachet x 25 ml pH 7 and pH 4 buffer solution , 1 sachet of storage solution, calibration cap, lanyard, tissues, quick manual and cardboard case.



Name	Description	p/n
<b>pH 1</b> KIT	pH 1 Kit complete	50014013
<b>pH 1</b> ECOPACK	pH 1, batteries 1,5 V AAA, lanyard, tissues, storage	50014003

# COND 1

## ○ Conductivity - TDS

**IP67 watertight portable conductivity meter for Conductivity and TDS measurement.** Indication of the buffers used for calibration and measurement stability. Auto power off function. Self-diagnosis messages. Power supply with 2 x 1.5V AAA batteries included, compatible with rechargeable batteries too. 6-month warranty on electronic parts.

**Measuring range:** COND 0,01 µS...200 mS; TDS 0,01 ppm...199,9 ppt. Working temperature: 0..50°C

**The KIT includes:** 1 sachet x 25 ml 1413 µS and 12,88 mS buffer solution, lanyard, tissues, quick manual and cardboard case.



Name	Description	p/n
<b>COND 1</b> KIT	COND 1 Kit complete	50014163
<b>COND 1</b> ECOPACK	COND 1, batteries 1,5 V AAA, lanyard, quick manual	50014153

# pH 5

○ pH - mV - T

IP67 watertight portable pH meter. Resolution 0,01 pH, with microprocessor and interchangeable electrode, temperature sensor and open partitions. **Wide 3-colour LCD display with indication of the buffers used for calibration and measurement stability.** Push-button calibration on 3 points with 5 values of USA buffers. mV reading for pH electrode diagnosis or for ORP sensor connection. **Temperature reading.** Auto power off function. **Automatic temperature compensation (0...60 °C).** Self-diagnosis messages: low batteries, calibration errors. Power supply with 2 x 1.5V AAA batteries included, compatible with rechargeable batteries too. 1 year warranty on electronic parts.

**Measuring range:** pH: -2,00...16,00 (Resolution 0,01 pH); mV: -1.000...+1.000 mV; °C: 0,0...60,0 (0,1 °C).

**The KIT includes:** 1 sachet x 25ml pH 7 and pH 4 buffer solutions, 1 sachet of electrode storage solution, calibration cap, lanyard, tissues, quick manual and cardboard case.



Name	Description	p/n
<b>pH 5</b> KIT	pH 5 Kit complete	50014063
<b>pH 5</b> ECOPACK	pH 5, batteries 1,5 V AAA, storage, lanyard and quick manual	50014053
<b>pH 5</b> ONLY BODY	pH 5, without sensor	50014073
<b>ELECTRODE</b> pH	Replacement electrode for pH 5	50014403

# pH 5 Food

○ pH - mV - T

IP67 watertight portable pH meter. Resolution 0,01 pH, with microprocessor and interchangeable polymer-tipped electrode, temperature sensor and open partitions for **measurements in the food industry.** **Wide 3-colour LCD display with indication of the buffers used for calibration and measurement stability.** Push-button calibration on 3 points with 5 values of USA buffers. mV reading for pH electrode diagnosis. **Temperature reading.** Auto power off function. **Automatic temperature compensation (0...60 °C).** Self-diagnosis messages: low batteries, calibration errors. Power supply with 2 x 1.5V AAA batteries included, compatible with rechargeable batteries too. 1 year warranty on electronic parts.

**Measuring range:** pH: -2,00...16,00 (Resolution 0,01 pH); mV: -1.000...+1.000 mV; °C: 0,0...60,0 (0,1 °C).

**The KIT includes:** 1 sachet x 25ml pH 7 and pH 4 buffer solutions, 1 sachet of electrode storage solution, calibration cap, lanyard, tissues, quick manual and cardboard case



Name	Description	p/n
<b>pH 5 Food</b> KIT	pH 5 Food Kit complete	50014113
<b>pH 5 Food</b> ECOPACK	pH 5 Food with batteries 1,5 V AAA, storage, lanyard and quick manual	50014123
<b>ELECTRODE</b> pH	Replacement electrode for pH 5 Food	50014423

# COND 5

## Conductivity - TDS - Salinity - T

IP67 watertight portable conductivity meter for Conductivity, TDS and Salinity measurement. Automatic scale change.

With microprocessor and high-durable interchangeable electrode. **Wide 3-color LCD display** with indication of the buffers used for calibration and measurement stability. Push-button calibration on 3 points with 3 standard values, choosing between 84, 1413  $\mu$ S and 12,88 mS. Reading and automatic temperature compensation with TR= 20/25 °C and adjustable coefficient TC= 0,00...4,00%/°C. TDS Factor: 0,40...1,00. Self-diagnosis messages. Power supply with 2 x 1.5V AAA batteries included, compatible with rechargeable batteries too.

Auto power off function.

1-year warranty on electronic parts.

**Measuring range:** COND 0,01  $\mu$ S...200 mS; TDS 0,01 ppm...199,9 ppt; Salinity 0,1mg/l...100,0 g/l.

**The KIT includes:** 1 sachet x 25ml 1413  $\mu$ S and 12,88 mS buffer solutions, calibration cap, lanyard, tissues, quick manual and cardboard case.



Tester

Name	Description	p/n
<b>COND 5 KIT</b>	COND 5 Kit complete	50014213
<b>COND 5 ECOPACK</b>	COND 5, batteries 1,5 V AAA, lanyard and quick manual	50014203
<b>COND 5 ONLY BODY</b>	COND 5, without sensor	50014223
<b>SENSOR COND</b>	Replacement sensor for COND 5	50014413
<b>VPT SOIL COND 5</b>	Conductivity cell with temperature probe, C = 1, fo ground measurement, working range 10 $\mu$ S ... 50 mS, cable 1.5 m for COND 5	50014713

# ORP 5

## Redox - T

IP67 watertight portable ORP/Redox meter. Resolution 0,1/1 mV. With microprocessor and interchangeable high-durable electrode. ORP calibration on one point decided by the user.

Wide 3-color LCD display with indication of measurement stability. Auto power off function.

**Temperature reading. Self-diagnosis messages.** Power supply with 2 x 1,5V AAA batteries included, compatible with rechargeable batteries too.

1 year warranty on electronic parts.

**Measuring range:** mV: -1.000...+1.000 mV; °C: 0,0...60,0 (0,1 °C).

**The KIT includes:** : 1 bottle x 55ml Redox 475 mV solution, 1 sachet of electrode storage solution, calibration cap, lanyard, tissues, quick manual and carboard case.



Name	Description	p/n
<b>ORP 5 KIT</b>	ORP 5 Kit complete.	50014313
<b>SENSOR REDOX</b>	Replacement sensor for ORP 5	50014443

# PX 4

○ pH - Redox - T

## MAIN FEATURES

IP67 watertight portable pH and ORP/Redox meter. Resolution 0,01 pH and 0,1 / 1 mV. With microprocessor and interchangeable combined electrode. **Wide 3-colour LCD display** with indication of the buffers used for calibration and measurement stability. **pH automatic calibration** on 3 points with 5 values of USA buffers and **ORP calibration** on 1 point decided by user. **mV reading for pH electrode diagnosis** and ORP/Redox measurement. **Temperature reading**. Auto power off function. **Automatic temperature compensation** (0...60 °C). Self-diagnosis messages: low batteries, calibration errors. Power supply with 2 x 1.5V AAA batteries included, compatible with rechargeable batteries too. 1 year warranty on electronic parts.

**Measuring range:** pH: -2,00...16,00 (0,01 pH); mV: -1.000...+1.000 mV; °C: 0,0...60,0 (0,1 °C).

**The KIT includes:** 1 sachet x 25ml pH 7 and pH4 buffer solutions, 1 bottle x 55ml Redox 475 mV, 1 sachet of electrode storage solution, calibration cap, lanyard, tissues, quick manual and cardboard case.



Name	Description	p/n
<b>PX 4</b> KIT	PX 4 Kit complete	50014143
<b>PX 4</b> ECOPACK	PX 4 , batteries 1,5 V AAA, storage, lanyard and quick manual	50014173
<b>ELECTRODE</b> pH + REDOX	Replacement sensor for PX 4	50014463

# PC 5

○ pH - Conductivity- TDS - Salinity -T

## MAIN FEATURES

IP67 watertight portable multiparameter for pH, Conductivity, TDS and Salinity measurement. **Interchangeable combined electrode**. Indication of the buffers used for calibration and measurement stability. Self-diagnosis messages. Power supply with 2 x 1.5V AAA batteries included, compatible with rechargeable batteries too. Auto power off function. 1 year warranty on electronic parts.

**pH:** Resolution 0,01 pH. Push-button calibration on 3 points with 5 values of USA buffers. mV reading for pH electrode diagnosis.

**COND:** Push-button calibration on 3 points with 3 standard values, choosing between 84, 1413 µS e 12,88 mS. Adjustable coefficient TC= 0,00...4,00%/°C.

**TDS** Factor: 0,40...1,00.

**Measuring range:**

**pH:** -2,00...16,00 (0,01 pH);

**mV:** -1.000...+1.000 mV;

**COND** 0,01 µS...200 mS;

**TDS** 0,01 ppm...199,9 ppt;

**Salinity** 0,1mg/l...100,0 g/l;

**T:** 0,0...60,0°C (0,1 °C).

**The KIT includes:** 1 sachet x 25ml pH 7 and pH 4 buffer solutions, 1 sachet of electrode storage, 1 sachet x 25ml 1413 µS buffer solution, calibration cap, lanyard, tissues, quick manual and cardboard case.



Name	Description	p/n
<b>PC 5</b> KIT	PC 5 Kit complete	50014263
<b>PC 5</b> ECOPACK	PC 5 , batteries 1,5 V AAA, storage, lanyard and quick manual	50014253
<b>ELECTRODE</b> PC	Replacement electrode for PC 5	50014433



# PC 6

○ pH -Redox - Conductivity- TDS - Salinity - T

## MAIN FEATURES

IP67 watertight portable multiparameter for pH, ORP, Conductivity, TDS and Salinity measurement. High-durable interchangeable combined electrode. **Wide 3-colour LCD display** with **indication of the buffers used for calibration** and measurement stability. Reading and **automatic temperature compensation** (0...60°C). Auto power off function. Self-diagnosis messages: low batteries, calibration errors. Power supply with 2 x 1.5V AAA batteries included, compatible with rechargeable batteries too.

1 year warranty on electronic parts.

**pH:** Resolution 0,01 pH. Automatic calibration on 3 points with 5 values of USA buffers and . ORP calibration on one point decided by the user.

mV reading for pH electrode diagnosis and ORP/Redox measurement.

**COND:** Automatic calibration on 3 points with 3 standard, choosing between 84, 1413  $\mu\text{S}$  e 12,88 mS.

**Automatic temperature compensation** with TR= 20/25°C and adjustable coefficient

TC= 0,00...4,00%/°C. **TDS** factor: 0,40...1,00.

### Measuring range :

**pH:** -2,00...16,00 (0,01 pH);

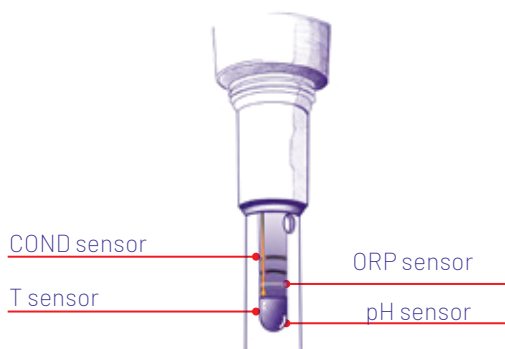
**mV:** -1.000...+1.000 mV;

**COND** 0,01  $\mu\text{S}$ ...200 mS;

**TDS** 0,01 ppm...199,9 ppt;

**Salinity** 0,1mg/l...100,0 g/l;

**°C:** 0,0...60,0°C (0,1 °C).



Tester

**The KIT includes:** 1 sachet x 25 ml pH 7 and pH 4 buffer solutions, 1 sachet x 25 ml storage solution and 1413  $\mu\text{S}$  standard solution, calibration cap, lanyard, tissues, quick manual and cardboard case.

Name	Description	p/n
<b>PC 6</b> KIT	PC 6 Kit complete	50014293
<b>ELECTRODE</b> PC	Replacement electrode for PC 6	50014483

## CALIBRATION BUFFER SOLUTIONS

Name	Description	p/n
<b>pH 4,01</b>	1 bottle x 55 ml buffer solution. Accuracy $\pm 0,01$ pH	32383123
<b>pH 7,00</b>	1 bottle x 55 ml buffer solution. Accuracy $\pm 0,01$ pH	32383133
<b>475 mV</b>	1 bottle x 55 ml buffer solution for REDOX	32383153
<b>1413 <math>\mu\text{S}</math></b>	1 bottle x 55 ml buffer solution	60000423
<b>12 880 <math>\mu\text{S}</math></b>	1 bottle x 55 ml buffer solution	60000433
<b>84 <math>\mu\text{S}</math></b>	1 bottle x 55 ml buffer solution	60000613



# BALANCES

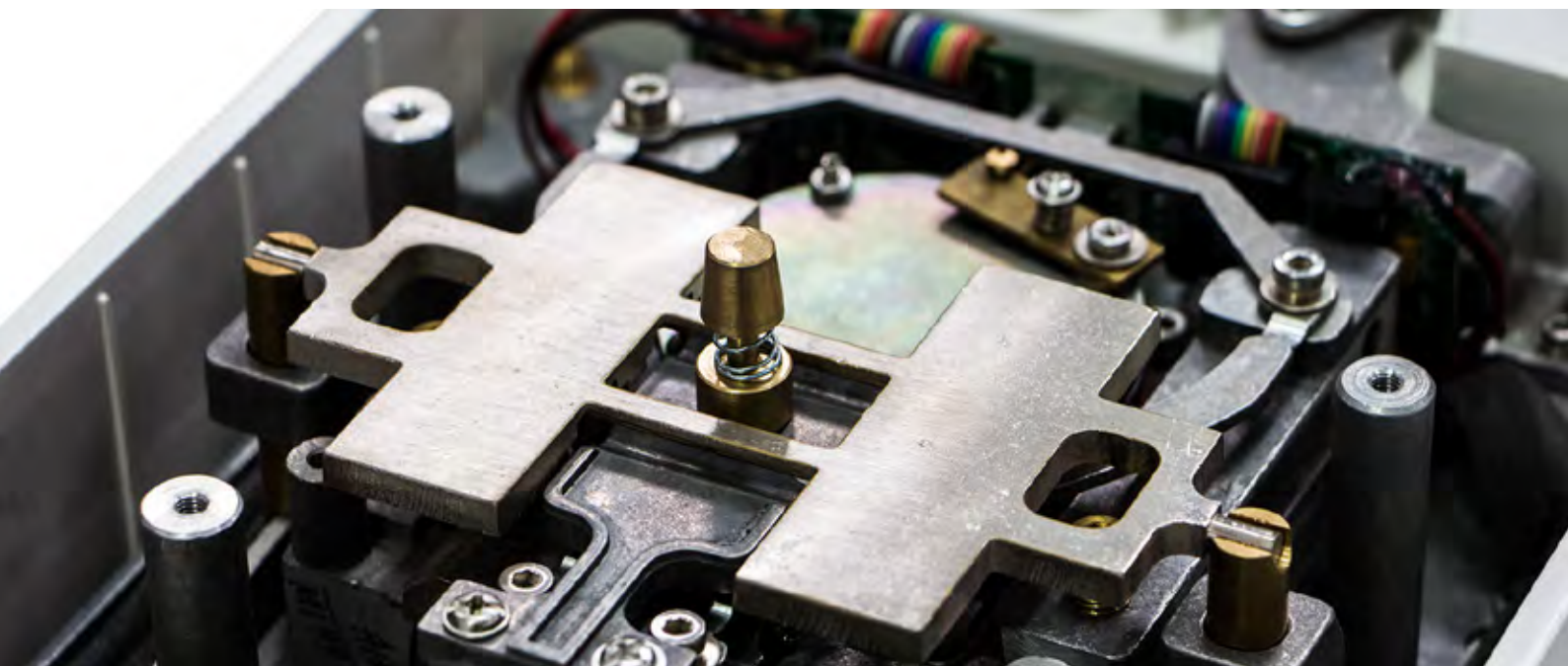


WARRANTY  
**2**  
YEARS



★ ★ ★ ★ ★  
**EU** ★ ★ ★ ★ ★  
Designed

**ISO 9001**  
CERTIFIED



## HOW TO CHOOSE

Resolution (g)	Capacity (g)	Model	Calibration	RS-232	Batteries	p/n
0,0001	220	<b>BL 224 TOUCHSCREEN</b>	Internal + External	●		27006013
0,0001	220	<b>BL 224</b>	Internal + External	●		27006003
0,0001	220	<b>BL 224 BASIC</b>	External	●		27005993
0,001	300	<b>BL 303</b>	External	●	●	27000513
0,001	110	<b>BM 113 MOISTURE ANALIZER</b>	External	●		27001303
0,01	600	<b>BL 602</b>	External	●	●	27000323
0,01	2.000	<b>BL 2002 BASIC</b>	External		●	27000303
0,01	2.000	<b>BL 2002</b>	External	●	●	27000313
0,1	3.000	<b>BL 3001</b>	External	●	●	27000113
0,1	6.000	<b>BL 6001 BASIC</b>	External		●	27000293
0,1	6.000	<b>BL 6001</b>	External	●	●	27000123
0,1	30.000	<b>BL 30K1</b>	External		●	27000133
1	3.000	<b>BW 3000 WATERPROOF</b>	External		●	27001003
1	30.000	<b>BL 30K</b>	External	●	●	27001203
10	100.000	<b>BL 100K</b>	External	●		27001213

## BL 224 TOUCH

- Touchscreen graphic display
- Capacity: 220 g
- Resolution: 0,0001 g (0,1 mg)

Analytical, digital scale of precision. Stainless steel plate. Protection case against air currents in laboratory. Upper opening for pipetting without removing the case.

Standard RS 232 output for connection to PC or printer.

Provided with standard 220V power supply.

Supplied with external standard weight for calibration 200 g - F1 class.

**Supplied with Certificate of calibration made with weights certified Accredia, including test of repeatability, linearity and off-centre load.**



Name	Calibration	Ø Plate (mm)	Repeatability (g)	Linearity (g)	p/n
<b>BL 224</b> TOUCHSCREEN	INTERNAL + EXTERNAL	80	± 0,0002	± 0,0005	27006013

## BL 224

- Capacity: 220 g
- Resolution: 0,0001 g (0,1 mg)

Analytical, digital scale of precision. Backlit display. Stainless-steel plate.

Protection case against air currents in laboratory. Upper opening for pipetting without removing the case. Piece counter mode, determination of %, formulations, pipette calibration function, statistics and density calculation (with optional accessory kit).

Standard RS 232 output for connection to PC or printer.

Provided with standard 220V power supply.

**Supplied with Certificate of calibration made with weights certified Accredia, including test of repeatability, linearity and off-centre load.**



Name	Calibration	Ø Plate (mm)	Repeatability (g)	Linearity (g)	p/n
<b>BL 224</b>	INTERNAL + EXTERNAL	90	± 0,0001	± 0,0002	27006003

## BL 224 BASIC

- Capacity: 220 g
- Resolution: 0,0001 g (0,1 mg)

Analytical, digital scale of precision. Backlit display. Stainless-steel plate. Protection case against air currents in laboratory. Upper opening for pipetting without removing the case. Standard RS 232 output for connection to PC or printer. Standard 220V power supply.

Supplied with external standard weight for calibration 100 g - E2class.

Supplied with **Certificate of calibration made with weights certified Accredia, including test of repeatability, linearity and off-centre load.**



Name	Calibration	Ø Plate (mm)	Repeatability (g)	Linearity (g)	p/n
<b>BL 224</b> BASIC	EXTERNAL	90	± 0,0003	± 0,0003	27005993

## BL 303

- Capacity: 300 g
- Resolution: 0,001 g (1 mg)

Backlit display. Round plate with diameter 118 mm in stainless-steel.

Protection case against air currents in laboratory.

Upper opening for pipetting without removing the case.

Piece counter mode, determination of % and 21 different selectable measurement units.

Scale with dual power supply, AGM rechargeable battery and standard power supply.

Standard RS 232 output for connection to PC or printer.

Supplied with case and a weight of 100 g M1 class.

**Provided with Certificate of calibration with weights Accredia certified, including test of repeatability, linearity and off-centre load.**



Name	Calibration	Ø Plate (mm)	Repeatability (g)	Linearity (g)	p/n
<b>BL 303</b>	EXTERNAL	118	± 0,002	± 0,002	27000513



## BL 602

- Capacity: 600 g
- Resolution: 0,01 g



Technical, digital scale of precision. Backlit Display.  
Round plate with diameter 118 mm in stainless-steel.  
Protection case, easily removable, ideal for counting small pieces, protected from external disturbances.  
Upper opening for pipetting without removing the case.  
Piece counter mode, determination of % and 21 different selectable measurement units. Balance with dual power supply, AGM rechargeable battery standard power supply.  
Standard RS 232 output for connection to PC or printer.  
Supplied with case and 2 standard weights of 100 g M1 class.

Name	Calibration	Ø Plate (mm)	Repeatability (g)	Linearity (g)	p/n
BL 602	EXTERNAL	118	± 0,01	± 0,01	27000323

## BL 2002

- Capacità: 2000 g
- Risoluzione: 0,01 g



Technical, digital scale of precision. Backlit Display.  
Rectangular stainless-steel plate.  
Piece counter mode, determination of % and 21 different selectable measurement units.  
Scale with dual power supply, AGM rechargeable battery and standard power supply.  
Standard RS 232 output for connection to PC or printer.  
Supplied with dust protection cover and a standard weight of 1 Kg M1 class.

Name	Calibration	Ø Plate (mm)	Repeatability (g)	Linearity (g)	p/n
BL 2002	EXTERNAL	188 x 148	± 0,02	± 0,02	27000313

## BL 3001 / 6001

- Capacity: 3 Kg / 6 Kg
- Resolution: 0,1 g



Technical, digital scale of precision. Backlit Display.

Rectangular stainless-steel plate mm 188 x 148.

Piece counter mode, determination of % and 21 different selectable measurement units. Balance with dual power supply, AGM rechargeable battery and standard power supply.

Standard RS 232 output for connection to PC or printer.

Supplied with dust protection cover and a standard weight of 1 Kg M1 class.

Name	Calibration	Ø Plate (mm)	Repeatability (g)	Linearity (g)	p/n
<b>BL 3001</b>	EXTERNAL	188 x 148	± 0,2	± 0,2	27000113
<b>BL 6001</b>	EXTERNAL	188 x 148	± 0,2	± 0,2	27000123

## BL BASIC : 2002 / 6001

- The cheapest
- Capacity: 2000 g / 6000 g
- Resolution: 0,01 g / 0,1 g



Technical, digital scale of precision with backlit Display.

Rectangular stainless-steel weighing plate.

Piece counter mode.

Scale with dual power supply, AGM rechargeable battery and standard power supply.

Name	Calibration	Ø Plate (mm)	Repeatability (g)	Linearity (g)	p/n
<b>BL 2002 BASIC</b>	EXTERNAL	160 x 120	± 0,02	± 0,02	27000303
<b>BL 6001 BASIC</b>	EXTERNAL	143 x 192	± 0,2	± 0,2	27000293

## BL 30K 1

- Capacity: 30 Kg
- Resolution: 0,1 g

Technical, digital scale of precision with backlit Display.  
Rectangular stainless-steel weighing plate.  
Piece counter mode, determination of % and different selectable measurement units.  
Scale with dual power supply, AGM rechargeable battery and standard power supply.



Name	Calibration	Ø Plate (mm)	Repeatability (g)	Linearity (g)	p/n
BL 30K 1	EXTERNAL	330 x 260	± 0,2	± 0,2	27000133

## BL 30K

- Capacity: 30 Kg
- Resolution: 1 g

Technical, digital scale of precision.  
Rectangular stainless-steel weighing plate.  
Piece counter mode, determination of % and different selectable measurement units.  
Scale with dual power supply, AGM rechargeable battery and standard power supply.  
Standard RS 232 output for connection to PC or printer.



Name	Calibration	Ø Plate (mm)	Repeatability (g)	Linearity (g)	p/n
BL 30K	EXTERNAL	255 x 190	± 1	± 3	27001203

## BL 100K

- Capacity: 100 Kg
- Resolution: 10 g

Technical, digital scale of precision.  
Removable backlit Display.  
Rectangular stainless-steel weighing plate.  
Piece counter mode, determination of % and different selectable measurement units.  
Standard 220V power supply.



Name	Calibration	Ø Plate (mm)	Repeatability (g)	Linearity (g)	p/n
BL 100K	EXTERNAL	300 X 400	± 10	± 5 g (0..5 Kg); ± 10 g (5..20 Kg); ± 15 g (20..100 Kg)	27001213

## BM 113 MOISTURE ANALYSER

- Capacity: 110 g
- Resolution: 0,001g



Precision thermoscale. Backlit Display.

Stainless steel round weighing plate with an external diameter of 90 mm.

GLP protocol.

Internal memory for automatic sequence of 15 drying programs.

Three drying methods: Soft, Standard, Fast.

Three switch-off methods: Auto, Manual, Timer.

400W Halogen lamp.

Standard RS 232 output for connection to PC or printer.

Supplied with: standard weight of 100 g for calibration and control, 50 aluminium plates, calibration report, including test of repeatability, linearity, off-centre load and temperature check.

Name	Calibration	Ø Plate (mm)	Repeatability (g)	Linearity (g)	p/n
<b>BM 113</b>	EXTERNAL	90	40 ... 199 °C	1 ... 99 min	27001303
<b>PLATES</b>	Single use aluminium plates with external diam. 90 mm, 1 pack x 50 pieces				27000883

## BW 3000 WATERPROOF

- Capacity: 3000 g
- Resolution: 1 g
- IP67
- Double display



IP67 watertight digital precision technical scale.

Dual display, one on the front and one in the back, very useful for assembly line work.

Stainless steel rectangular weighing plate with dimensions 220 x 180 mm.



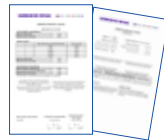
Piece counter mode, determination of %

Metal outer case

Scale with dual power supply, AGM rechargeable battery and standard power supply.

Name	Calibration	Ø Plate (mm)	Repeatability (g)	Linearity (g)	p/n
<b>BW 3000</b>	EXTERNAL	225 x 185	± 1	± 1	27001003

# ACCESSORIES

Name	Description		p/n
<b>COVER</b>	Protective cover for XS BALANCE compatible with the models: BL602, BL2002, BL3001, BL6001.		27000803
<b>PRINTER</b> RS 232	Thermal paper printer for XS BALANCE with RS 232 output.		27000863
<b>CERTIFICATE</b>	Accredited Calibration certificate Accredia for XS BALANCE. To be ordered together with the balance (when not already included)		27000903
<b>WEIGHT 100 g</b>	Weight 100 g in class M1 for XS Balances		27000813
<b>WEIGHT 1 Kg</b>	Weight 1000 g in class M1 for XS Balances		27000823

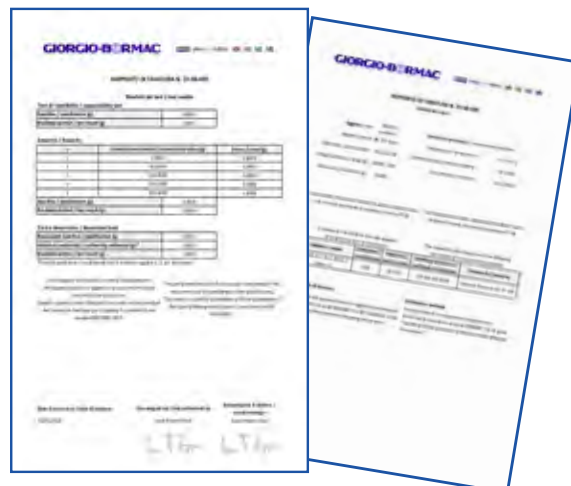
## CALIBRATION REPORT

The certificate is filled in at Giorgio Bormac's company. Certificated Accredia weights are used for testing the scales.

On the Certificate are reported the test results of:

- **REPEATABILITY**
- **LINEARITY**
- **DECENTRED LOAD**
- **TEMPERATURE CHECK** (only BM 113)

According to Accredia guidelines for balance calibration





# CENTRIFUGES



WARRANTY  
**2**  
YEARS



★ ★ ★ ★ ★  
**EU** ★ ★ ★ ★ ★  
Designed

ISO certified  
manufacturer



## HOW TO IDENTIFY THE ACCESSORIES

### FIRST LETTER

**A** = Fixed angle rotor  
**S** = Swing out rotor  
**B** = Bucket  
**SB** = Swing out rotor + Buckets (KIT)  
**L** = Lid of bucket  
**I** = Insert for bucket  
**C** = Cushion  
**RE** = Reductor  
**T** = Tube  
**PCR** = PCR rotor

### CENTRAL NUMBERS\*

**1° NUMBER** = maximum number of tubes  
**2° NUMBER** = capacity of the tube (ml)

Only in the reducers (RE), the central numbers identify the capacity reduction (ml); in case of only one central number, it represents the capacity.  
In the PCR rotor the central numbers identify the number of PCR strips and the number of tubes for each single strip.

### FINAL LETTER

**F** = Falcon® tube or conical bottomed tube included  
**P** = Plastic round-bottomed tube included  
**G** = Glass round-bottomed tube included  
**R** = Suitable for round-bottomed tube  
**X** = Additional bucket (long version)

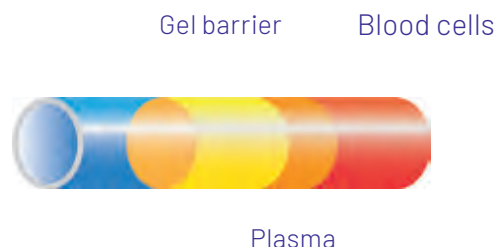
- |                  |   |
|------------------|---|
| <b>A 32-15 N</b> | Fixed-angle rotor for 32 – 15 ml tubes                                |
| <b>S 4-175</b>   | Swing out rotor for 4 buckets of 175 ml                               |
| <b>B 16-5/7</b>  | Aluminium bucket for 16 tubes of 5/7 ml                               |
| <b>SB 4-175</b>  | Kit composed by swing out rotor S 4-175 and 4 glasses B 175 of 175 ml |
| <b>I 4-15R</b>   | Insert for 4 round-bottomed tubes of 15 ml                            |
| <b>RE 50-15F</b> | Conical bottomed reductor from 50 ml to 15 ml                         |
| <b>B 50XF</b>    | Test tube rack extra version with Falcon® test tube 50 ml             |

# CENTRIFUGING

The centrifuges are instruments used in many laboratories to separate particles in liquid solutions or in liquids with a different density, using an artificial centrifugal field. The application of the centrifuges allows to develop a much higher force than the Earth's gravity, speeding-up the separation and sedimentation process.

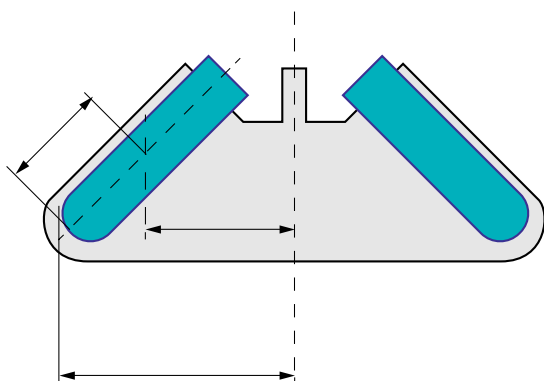
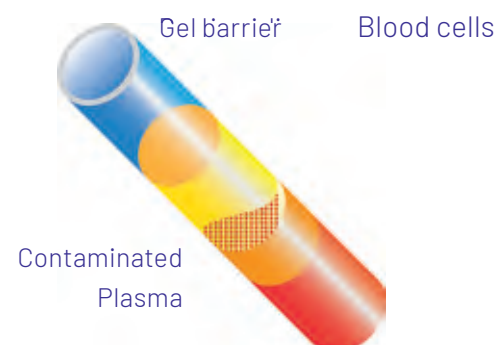
## SWING OUT ROTORS (with variable angle)

During the centrifugation, the tubes turn into a perpendicular position with respect to the rotation axis of the rotor. Therefore, the distance and the time necessary for the sedimentation are higher, but the phases limits develop clearly and perpendicular. The swing out rotors are generally used to centrifuge a bigger quantity of samples at medium speed.



## ANGLE ROTORS (with fixed angle)

The oblique angle of the tubes reduces the sedimentation distance, decreasing the necessary time for the separation of the phases, that are inclined with respect to the tube and less net. The angle rotors are generally used to centrifuge a smaller quantity of samples at high speed.



The simplified formula for the RCF is:

$$RCF = (n/1000)^2 \times r \times 11,18$$

where n = speed (rpm) and r = ray in cm

## CALCULATION OF THE CENTRIFUGAL FORCE

Generally, the performances of a centrifuge are indicated following the maximum achievable speed. However, the speed indicates approximately the real force which developed in the centrifuged sample and which generates the separation. This power expresses as Relative Centrifugation Force (RCF). Its value indicates the multiple of times that the force exceeds the acceleration caused from the gravity "g". Looking at the formula here on the left, the RCF is directly proportional to the ray of the rotor and linked to the square of the speed. This means that the RCF doubles if the ray doubles and quadruples if the speed doubles.

Therefore, the performances of the centrifuges should be compared on values expressed in RCF only.

# NEYA 8 Basic

- Maximum loading capacity: 4x175 ml
- Maximum speed: 6000 rpm
- Automatic rotor detection
- Control of the maximum speed of the rotor
- Safety speed limiter function
- Backlit colour LCD display



Ventilated benchtop centrifuge with **automatic rotor detection**, check of presence of accessories and of allowed max. speed.

**Speed limiter for laboratory safety.** Display of all centrifugation parameters on a single screen.

Low number of keys, adjustment handle with confirming function and guide for an extremely intuitive operativity.

Equipped with brushless motor, maintenance free and silent.

**Programmable speed from 500 to 6000 rpm** (subjected to the placed rotor) with step of 50 rpm.

Centrifugation time from 00:30 to 99:50 (mm:ss) with increases in 10 seconds or constantly function.

Acceleration and deceleration adjustable on 3 levels.

**Automatic locking system of the lid** with possibility to recover the tubes in case of electric power absence.

**Imbalance detection system** with automatic functioning stop.

The centrifuge follows the directives EN61010-1; EN61010-2-020; EN61326-1.

Compact sizes to optimize the space in laboratory

**The room access height of only 27,5 cm makes the loading and unloading operation of the centrifuge easy.**

Power supply: 220V, 50 Hz.

Max. noisiness: 55 dB

Name	Max load	Max speed.	External dimensions (L x W x H)	Weight	p/n
<b>NEYA 8</b> WITHOUT ROTOR	4 x 175 ml	6000 rpm	45 x 59 x 33 cm	40 Kg	40100302

# NEYA 10 Professional

- Maximum loading capacity: 4x175 ml
- Maximum speed: 6000 rpm
- Automatic rotor detection
- Max speed control
- Safety speed limiter function
- Backlit display multicolor LCD



Ventilated benchtop centrifuge with **automatic rotor detection**, check of presence of accessories and of allowed max. speed.

**Speed limiter for laboratory safety.** Display of all centrifugation parameters on a single screen.

Low number of keys, adjustment handle with confirming function and guide for an **extremely intuitive operativity**.

Equipped with brushless motor, maintenance free and silent.

**Programmable speed from 500 to 6000 rpm** (subjected to the placed rotor) with step of 50 rpm. Centrifugation time from 00:30 to 99:50 (mm:ss) with increases in 10 seconds or constantly function.

Acceleration and deceleration adjustable on 3 levels.

**Automatic locking system of the lid** with possibility to recover the tubes in case of electric power absence.

**Imbalance detection system** with automatic functioning stop.

The centrifuge follows the directives **EN61010-1; EN61010-2-020; EN61326-1**.

Compact sizes to optimize the space in laboratory  
The room access height of only 27,5 cm makes the **loading and unloading operation of the centrifuge easy**.

Power supply: 220V, 50 Hz.

Max. noisiness: 55 dB

## NEYA 10 R

### REFRIGERATED VERSION

Adjustable temperature from -10 °C to +40 °C (from +14 to +104 °F) with increases and decreases of 1 °C (or 1 °F).

"Precool" function for the fast cooling of the centrifuge

Power supply: 220V, 50 Hz.

Max. noisiness: 55 dB



Name	Max load	Max speed	External dimensions (L x W x H)	Weight	p/n
<b>NEYA 10</b> WITHOUT ROTOR	4 x 175 ml	6000 rpm	45 x 59 x 33 cm	40 Kg	40100312
<b>NEYA 10 R</b> WITHOUT ROTOR	4 x 175 ml	6000 rpm	73 x 64 x 33 cm	70 Kg	40100332



# NEYA 16 High Speed

- Maximum loading capacity:: 4x175 ml
- Maximum speed: 16000 rpm
- Automatic rotor detection
- Max speed control
- Safety speed limiter function
- Backlit display multicolor LCD



Ventilated or refrigerated centrifuge (CFC-free), with **automatic rotor detection**, check of presence of accessories and of allowed max. speed.

**Speed limiter for laboratory safety.** Display of all centrifugation parameters on a single screen. .

Low number of keys, adjustment handle with confirming function and guide for an extremely intuitive operativity.

Equipped with brushless motor, maintenance free and silent.

**Programmable speed from 500 to 16000 rpm** (subjected to the rotor placed) with step of 50 rpm.  
**RCF adjustable up to 21000 xg** (subjected to the placed rotor).

Centrifugation time from 00:30 to 99:50 (mm:ss) with increases in 10 seconds or constantly function.

Acceleration and deceleration adjustable on 10 levels.

**10 Programs with overwriting security system.**

Centrifugal function **SPIN**.

**Acoustic and lighting** end-of-centrifugation warning.

**Automatic locking system of the lid** with possibility to recover the tubes in case of electric power absence.

Imbalance detection system with automatic functioning stop.

The centrifuge follows the directives **EN61010-1; EN61010-2-020; EN61326-1**.

Compact sizes to optimize the space in laboratory

The room access height of only 27,5 cm makes the **loading and unloading operation of the centrifuge easy**.

Max. noisiness: 55 dB

Power supply: 220V, 50 Hz.

Warranty: 24 months

## NEYA 16 R

### REFRIGERATED VERSION

Adjustable temperature from -10 °C to +40 °C (from +14 to +104 °F) with increases and decreases of 1 °C (or 1 °F).

"Precool" function for the fast cooling of the centrifuge.



Name	Max load	Max speed	External dimensions (L x W x H)	Weight	p/n
<b>NEYA 16</b> WITHOUT ROTOR	4 x 175 ml	16000 rpm	45 x 59 x 33 cm	40 Kg	40100322
<b>NEYA 16R</b> WITHOUT ROTOR	4 x 175 ml	16000 rpm	73 x 64 x 33 cm	70 Kg	40100342











# SWING OUT ROTORS

Name	Description	p/n
<b>SB 4-175</b> KIT	Kit includes : Swing out rotor S 4-175 , maximum capacity 4 x 175 ml. Maximum speed 4.500rpm, RCF max. 3600xg. 4 buckets B 175 4 Biosafe lids L 175	40100502
<b>L 175</b> SPARE PART COVER	Biosafe lid for bucket B 175.	40101522
<b>B 175</b> SPARE PART GLASS	Aluminium bucket of 175 ml for rotor S 4-175.	40101512



## HOW TO CHOOSE THE INSERT CONSIDERING THE TUBE

 I 12-2 Ø ≤ 10,6 mm H ≤ 42 mm	 I 7-5/7 Ø ≤ 13 mm H ≤ 116 mm	 I 7-10 Ø ≤ 16 mm H ≤ 114 mm	 I 4-15F Ø ≤ 17 mm H ≤ 120 mm
 I 4-15R Ø ≤ 17 mm H ≤ 110 mm	 I 1-50 SF Ø ≤ 29 mm H ≤ 116 mm	 I 1-50R Ø ≤ 30 mm H ≤ 110 mm	 I 1-100 Ø ≤ 46 mm H ≤ 102 mm

## INSERTS FOR BUCKETS B 175 – KIT OF 4 PIECES – Tubes not included

Name	Description	Max Tubes	p/n
<b>I 12-2</b>	Kit of inserts (12 tubes each) of 1,5-2 ml type Eppendorf®	48	40100602
<b>I 7-5/7</b>	Kit of inserts (7 tubes each) from levy Vacutainer® of 5-7 ml. (Ø x L) 13x75 and 13x100 mm.	28	40100612
<b>I 7-10</b>	Kit of inserts (7 tubes each) from levy Vacutainer® of 10 ml. (Ø x L) 16x100 mm	28	40100622
<b>I 4-15 F</b>	Kit of inserts (4 tubes each) with conical bottom type Falcon® of 15 ml. (Ø x L) 17x120 mm	16	40100632
<b>I 4-15 R</b>	Kit of inserts (4 tubes each) with round bottom of 15 ml (Ø x L) 17x110 mm	16	40100642
<b>I 1-50 SF</b>	Kit of inserts (1 tube each) with conical bottom type Falcon® of 50 ml (Ø x L) 29x116 mm. The insert is suitable with conical bottomed self-standing tubes.	4	40100682
<b>I 1-50 R</b>	Kit of inserts (1 tube each) with round bottomed of 50 ml. (Ø x L) 30x110 mm	4	40100662
<b>I 1-100</b>	Kit of inserts (1 tube each) with round bottomed of 100 ml. (Ø x L) 46x102 mm	4	40100672

## TUBES

Name	Description	p/n
<b>T 15F</b>	Plastic tube type Falcon® of 15 ml (Ø x L) 17 x 120 mm	40003402
<b>T 15G</b>	Glass round bottomed tube of 15 ml (Ø x L) 17 x 110 mm (max. speed 3000 rpm)	40003412
<b>T 15P</b>	Plastic round bottomed tube of 15 ml (Ø x L) 17 x 102 mm	40003422
<b>T 50F</b>	Plastic tube type Falcon® of 50 ml (Ø x L) 29 x 116 mm	40003432
<b>T 50G</b>	Glass round bottomed tube of 50 ml (Ø x L) 30 x 110 mm (max. speed 3000 rpm)	40003442
<b>T 50P</b>	Plastic round bottomed tube of 50 ml (Ø x L) 30 x 100 mm	40003452
<b>T 100G</b>	Glass round bottomed tube of 100 ml (Ø x L) 46 x 102 mm (max. speed 3000 rpm)	40003462
<b>T 100P</b>	Plastic round bottomed tube of 100 ml (Ø x L) 46 x 100 mm	40003472
<b>T 175</b>	Plastic tube with round bottom of 175 ml with screw lid (Ø x L) 57 x 97 mm	40003492

# SWING OUT ROTORS

Name	Description	p/n
<b>S 4-175</b> ONLY ROTOR	Swing out rotor maximum capacity 4 x 175 ml for aluminium carrier and buckets. Max. speed 4.500rpm, RCF max. 3.600 xg.	40101502
<b>S 6-96 MP</b> PLATES INCLUDED	Swing out rotor for microplates, maximum capacity of 6 plates of 96 wells. Maximum speed 3.200rpm, RCF max. 1.950 xg. Supplied with 2 trays.	40100522

**S 4-175**  
ONLY ROTOR

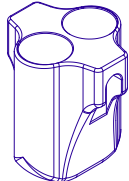
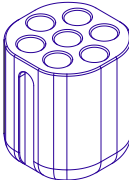
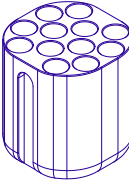
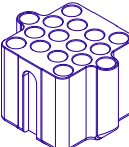


**S 6-96 MP**  
PLATES INCLUDED






## CARRIERS FOR SWING OUT ROTOR S 4-175

Set of 4 pieces.

Name	Description		Max n° of tubes	p/n
<b>B 2-50 F</b>	Carrier for 2 conical bottomed tube type Falcon® of 50 ml (Ø x L) 29x116 mm.		8	40101532
<b>B 2-50 R</b>	Carrier for 2 round bottomed tubes of 50 ml (Ø x L) 30x110 mm .		8	40101582
<b>B 7-15 F</b>	Carrier for 7 conical bottomed tubes type Falcon® of 15 ml (Ø x L) 17x120 mm.		28	40101542
<b>B 7-15 R</b>	Carrier for 7 round bottomed tubes of 15 ml (Ø x L) 17x110 mm.		28	40101592
<b>B 12-10</b>	Carrier for 12 collection tubes Vacutainer® of 10 ml (Ø x L) 16x110 mm.		48	40101552
<b>B 14-5/7</b>	Carrier for 14 collection tubes Vacutainer® of 5-7 ml (Ø x L) 13x100 mm.		56	40101562
<b>B 16-5/7</b>	Carrier for 16 collection tubes Vacutainer® of 5-7 ml (Ø x L) 13x75 mm.		64	40101572

# HIGH CAPACITY FIXED ROTORS

Name	Description	Max. speed.	RCF max (xg)	n° of tubes max	p/n
<b>A 32-15 N</b>	 37° fixed angle rotor for 15 ml tubes	5200	4020	32	40100802
<b>A 8-50</b>	 37° fixed angle rotor for 50 ml tubes	6000	4800	8	40100812
<b>A 6-100</b>	 37° fixed angle rotor for 100 ml tubes	5000	3330	6	40100822






All the rotors are supplied without buckets.

## BUCKETS- FOR HIGH CAPACITY ROTORS - TUBES INCLUDED

For rotor	Name	Description	p/n
<b>A 32-15</b> MIN. 32 PCS	<b>B 15 F</b>	For conical bottomed tubes of 15 ml. Complete with Falcon® tube of 15 ml. (Ø x L) 17x120 mm	40101002
	<b>B 15 G</b>	For round bottomed tubes of 15 ml. Complete with glass tube of 15 ml. (Ø x L) 17x110 mm	40101012
	<b>B 15 P</b>	For round bottomed tubes of 15 ml. Complete with plastic tube of 15 ml. (Ø x L) 17x102 mm	40101022
<b>A 6-50</b> MIN. 6 PCS	<b>B 50 XF</b>	for conical bottomed tubes of 50 ml. Complete with Falcon® tube of 50 ml (Ø x L) 29x116 mm	40101032
	<b>B 50 XG</b>	for round bottomed tube of 50 ml. Complete with glass tube of 50 ml (Ø x L) 30x110 mm	40101042
<b>A 8-50</b> MIN. 8 PCS	<b>B 50 XP</b>	for round bottomed tubes of 50 ml. Complete with plastic tube of 50 ml. (Ø x L) 30x100 mm	40101052
<b>A 6-100</b> MIN. 6 PCS	<b>B 100 G</b>	for round bottomed tubes of 100 ml. Complete with glass tube of 100 ml. (Ø x L) 46x102 mm	40101092
	<b>B 100 P</b>	for round bottomed tubes of 100 ml. Complete with plastic tube of 100 ml. (Ø x L) 46x110 mm	40101102

# HIGH SPEED ROTORS

FOR NEYA 16 AND NEYA 16 R

Name	Description	Max speed (rpm)	RCF max (xg)	n° of tubes max	p/n
<b>A 6-50</b> HIGH SPEED	 34° fixed angle rotor for 50 ml tubes. With BIOSAFE lid It is supplied without buckets.	9500	10050	6	40100862
<b>A 12-5</b>	 45° fixed angle rotor for 5 ml Eppendorf® tubes With BIOSAFE lid	14000	20380	12	40100832
<b>A 24-2</b>	 45° Fixed angle rotor for 1,5-2 ml Eppendorf® tubes With BIOSAFE lid	15000	21000	24	40100842
<b>A 36-05</b>	 37° fixed angle rotor for 0,5 ml Eppendorf® tubes With BIOSAFE lid	15000	21.000	36	40100852
<b>PCR 4-8</b>	 45° fixed angle rotor for PCR strip of 8 tubes With BIOSAFE lid	15000	21000	4	40100872

## REDUCTORS – COMPLETE WITH BUCKETS – TUBES NOT INCLUDED

Name	Description	p/n
<b>RE 15-5/7</b>	Reductor for round bottomed tubes of 5/7 ml (Ø x L) 13x75 and 13x100 mm for rotor A32-15N	40101292
<b>RE 50-15 F</b>	Reductor for conical bottomed tubes type Falcon® of 15 ml. (Ø x L) 17x120 mm for rotor A 8-50 e A 6-50	40101322
<b>RE 50-15 R</b>	Reductor for round bottomed tubes of 15ml (Ø x L) 17x110 mm for rotor A 8-50 and A 6-50	40101332
<b>RE 50-10</b>	Reductor for round bottomed tubes of 10 ml (Ø x L) 16x100 mm for rotor A 8-50 and A 6-50	40101342
<b>RE 100-50 F</b>	Reductor for conical bottomed tubes of 50 ml type Falcon®. (Ø x L) 29x116 mm for rotor A 6-100	40101352
<b>RE 100-50 R</b>	Reductor for round bottomed tubes of 50 ml (Ø x L) 30x110 mm for rotor A 6-100	40101362
<b>RE 100-15 F</b>	Reductor for conical bottomed tubes of 15 ml type Falcon®. (Ø x L) 17x120 mm for rotor A 6-100	40101372
<b>RE 100-15 R</b>	Reductor for round bottomed tubes of 15 ml (Ø x L) 17x110 mm for rotor A 6-100	40101382

## REDUCTORS – TUBES NOT INCLUDED

Name	Description	p/n
<b>RE 2-05</b>	Reductor for microtubes of 0,5 ml for rotor A 24-2. Kit of 24 pieces	40101262
<b>RE 2-02</b>	Reductor for microtubes of 0,2 ml for rotor A 24-2. Kit of 24 pieces.	40101272
<b>RE 05-02</b>	Reductor for microtubes 0,2 ml for rotor A 36-05. Kit of 36 pieces	40101282

NEW **NEYA 5**

- Fixed and swing-out **hybrid rotor**
- Reduced dimensions
- Bright LCD Display
- Motorized Lid opening
- 5 storable programs
- 1 direct access programme
- Acceleration and deceleration ramps
- Speed limiter for laboratory safety
- Automatic lid locking
- Structure and lid in ABS
- Load imbalance detection system



Laboratory centrifuge designed for high performance, maximum reliability and versatile use in different scientific and medical contexts.

Thanks to the **fixed and swing-out hybrid rotor**, it is suitable for several applications, ensuring accurate and repeatable results.

The compact design optimizes the working space, while the bright LCD display allows all parameters to be monitored clearly and intuitively.

Equipped with a maintenance-free brushless induction motor, the centrifuge ensures silent operation, lasting and deposit-free. Cycle management is made simple and customizable thanks to **5 storable programs and 1 direct access program**, with the possibility to digitally adjust the acceleration/deceleration ramps and braking. End-cycle acoustic signal.

Designed to ensure maximum safety, equipped with a speed limiter, an unbalancing control system with automatic stopping and an automatic lid locking system during operation.

In the event of power failures, the **safe opening of the lid protects the operator**.

The inner ABS chamber is designed for easy loading and unloading of the samples and the entire ABS structure assures durability and easy cleaning.

Compatible with blood and urine test tubes, it offers a full range of accessories to meet every need.

Built according to European directives, this centrifuge is the perfect combination of advanced technology, operational efficiency and attention to safety, making it an essential instrument for any modern laboratory.

Power supply: 220V, 50 Hz, 375 W.

Noise level: 55 dB.



hybrid rotor

Name	Description	p/n
<b>NEW NEYA 5</b>	Centrifuge	40100202
<b>NEW HYBRID ROTOR FIXED</b>	Fixed-angle rotor with 15 ml and 50 ml carrier, tube-holder included	40110102
<b>NEW HYBRID ROTOR SWING OUT</b>	Swing-out rotor with 15 ml and 50 ml carrier, tube-holder included	40110112
<b>NEW HYBRID ROTOR BLOOD KIT</b>	Fixed and swing-out angle rotor with 10 ml carrier and 5,7 ml reducer vacutainer tubes, tube holder and reducers included	40110122
<b>NEW FIXED KIT 15 ml - 50 ml</b>	Fixed angle kit equipped with 15 ml carrier (set of 4 pcs) and 50 ml carrier (set of 4 pcs) complete with tube holder	40110302
<b>NEW SWING OUT KIT 15 ml - 50 ml</b>	Swing-out kit equipped with 15 ml carrier (set of 4 pcs) and 50 ml carrier (set of 4 pcs) complete with tube holder	40110312
<b>NEW BLOOD KIT</b>	Fixed and swing-out angle kit equipped with: One fixed-angle carrier for 10 and 5-7 ml Vacutainer tubes (set of 4 pcs) Complete with RE15-5.7S and RE15-7L reducers, tubes-holder included	40110322



## FIXED ANGLE HYBRID ROTOR CONFIGURATION

Complete with 15 ml and 50 ml carrier

Maximum RPM: 4700 – Maximum RCF 3350g

15 ml fixed angle carrier  
(set of 4) included



50 ml fixed-angle carrier  
(set of 4) included



Tubes capacity (ml)

2 x 15 ml

1 x 50 ml

Total tubes per rotor

8 x 15 ml

4 x 50 ml

Dimensions (Ø × L mm).

17x120

17x110  
Glass

17x102  
Plastic

29x116

30x110  
Glass

30x100  
Plastic

Compatible test tubes not included and not providable



Bottom shape included

15 ml  
conical

15 ml  
spherical

50 ml  
conical

50 ml  
spherical



p/n: 40110102

## SWING-OUT HYBRID ROTOR CONFIGURATION

Complete with 15 ml and 50 ml carrier.

Maximum RPM: 4700 – Maximum RCF 3560g

15 ml Swing-out carrier  
(set of 4) included



50 ml Swing-out carrier  
(set of 4) included



Tubes capacity (ml)

2 x 15 ml

1 x 50 ml

Total tubes per rotor

8 x 15 ml

4 x 50 ml

Dimensions (Ø × L mm).

17x120

17x110  
Glass

17x102  
Plastic

29x116

30x110  
Glass

30x100  
Plastic

Compatible test tubes not included and not providable



Bottom shape included

15 ml  
conical

15 ml  
spherical

50 ml  
conical

50 ml  
spherical



p/n: 40110112

## FIXED AND SWING-OUT HYBRID ROTOR CONFIGURATION (BLOOD KIT)

Complete with 10 – 5.7 ml carrier for fixed angle and  
10 – 5.7 mm carrier for swing-out

RPM max: 4700 fixed angle

RCF msx: 3350 fixed angle

3560 swing-out rotor

10 – 5.7 ml  
Fixed-angle carrier  
(set of 4) included



10 – 5.7 ml swing-out carrier  
(set of 4) included



Tubes capacity (ml)

2 x 10 ml / 5.7 ml

2 x 10 ml / 5.7 ml

Total tubes per rotor

8 x 10 ml / 5.7 ml

8 x 10 ml / 5.7 ml

Dimensions (Ø × L mm).

16x100

13x75  
Glass

13x100  
Plastic

16x100

13x75  
Glass

13x100  
Plastic

Vacutainer tubes not included and not providable



Reducer included

-

RE15-5.7S

RE15-5.7L

-

RE15-5.7S

RE15-5.7L



p/n: 40110122

**NEW R-5D**

- Maximum loading capacity 12X15 ml
- Max speed 5250 rpm
- Max RCF 4280xg
- Timer from 1 to 60 min or continuous

Ventilated benchtop centrifuge ,  
with LCD display to set the speed and time of centrifugation.  
Reduced number of buttons and adjustment knob for an extremely intuitive use.  
Equipped with free-maintenance and silent induction motor.

Adjustable speed from 500 to 5250 rpm with step of 50 rpm.  
Centrifugation time from 1 to 99 minutes with increases of 1 minute or  
Continuous function.

Reduced breaking time thanks to the function **BREAK**  
**Maximum safety** thanks to the automatic imbalance detection  
Automatic lid locking system with possibility to recover the test tubes in case of power failure.  
Reduced dimensions to optimize the space in laboratory  
Power supply: 220V, 50 Hz, 250W.  
Maximum noise level: 53 dB

**R-83 A****Supplied with:**

Aluminium rotor R-83A, 12x15 ml fixed-angle, steel carrier B 15 P and 15 ml plastic round bottomed tubes T 15-P 17x100 mm.

Name	Load capacity	Max speed	External dimensions (L x W x H)	Weight	p/n
<b>NEW R-5D</b> CENTRIFUGE	12 X 15 ml	5250 rpm	290 x 320 x 440	18,5 Kg	40000022

**ACCESSORIES - FOR R-5D**

Name	Description	p/n
<b>R-83 A</b> ROTOR	Spare rotor complete with test tubes and carriers B 15-P	40000272
<b>B 15-P</b> CANISTER	Spare carriers complete with 15 ml plastic tube	40101022
<b>B 15-F</b> CANISTER	Spare carriers complete with 15 ml Falcon tube	40101002
<b>RE 15-5/7</b>	Reducer for 5/7 ml round-bottomed tubes (Ø x L) 13x75 and 13x100 mm for rotor R 83-A	40101292

# MULTISPIN 12

ULTRACOMPACT

- Maximum loading capacity 6 X2 ml
- Max speed 12000 rpm
- Timer from 30 sec to 99 min

Ultra-compact minicentrifuge, equipped with silent induction motor and maintenance free; speed: adjustable from 1000 to 12,000 rpm with steps of 1000 in 1000 rpm.

Power supply: 220V, 50-60 Hz. Max. consumption: 30 W.

Max. noisiness: 45 dB.



## Supplied with 2 rotors:

model A 6-2 able to hold simultaneously no. 6 tubes of 2 ml, no. 6 tubes of 0,5 ml, nr. 6 tubes of 0,2 ml;

model PCR 2-8 for no. 2 strips of 8 PCD tubes of 0,2 ml.

Name	Load capacity	Max speed	External dimensions (L x W x H)	Weight	p/n
<b>MULTISPIN 12</b> MINICENTRIFUGE	6 x 2 ml	12000 rpm	122 x 176 x 196 mm.	1,5 Kg	40005012





# STIRRERS

**ARGO LAB**

WARRANTY  
**2**  
YEARS



★ ★ ★ ★ ★  
**EU** ★ ★ ★ ★ ★  
Designed

**ISO 9001**  
CERTIFIED



All these instruments have passed the rigorous quality and reliability tests that Giorgio Bormac prepares on each new product.

The manufacturer, ISO 9001-certified and based in P.R.C., agreed to make the improvement changes we requested. With this in mind, we decided to use our trademark: **ARGO LAB**

Argo is the name of our dog, a black Labrador mix, whose strength and loyalty cheers our days at the office and at home.. That is why we want these tools to become faithful and reliable companions for your laboratory over time.





## MS-D

Digital magnetic stirrer

LED display with continuous indication of the stirring speed.

Plate diam. 135 mm in Nylon + GF for excellent chemical resistance.

Maintenance-free induction motor. Degree of protection: IP 42.

Dimensions (LxWxH): 260x150x80mm.



Name	Volume	Speed	p/n
MS-D	3 L	200...1500 rpm	22002003

## M2-A

Analogic magnetic stirrer with **heating plate**.

Stainless steel plate with diameter of 135 mm.

Induction motor without maintenance. Degree of protection: IP 42.

Dimensions (LxWxH): 280x160x65mm.



Name	Volume	Speed	T Max heating	Power heating	p/n
M2-A	20 L	0...1500 rpm	340 °C	500 W	22002013

## M2-D Pro

Digital magnetic stirrer microprocessor with **heating plate**.

Multifunction LCD display with continuous indication of speed and temperature.

Control and maximum temperature protection with visual alarm on the display,

"Stirring" function control. Stainless steel plate with diameter of 135 mm.

**Input for external temperature probe PT 1000**, RS 232 interface for remote control.

Induction motor without maintenance.

Degree of protection: IP 42. Dimensions (LxWxH): 280x160x65mm.



Name	Volume	Speed	T Max heating	Power heating	p/n
M2-D Pro	20 L	0...1500 rpm	340 °C	500 W	22002063

## M3-D

Digital magnetic stirrer microprocessor with ceramic glass plate.

LED display with continuous indication of temperature.

Accuracy  $\pm 1^\circ\text{C}$  with internal sensor,  $\pm 0,2^\circ\text{C}$  with external sensor.

Plate size 184 x 184 mm. **Input for external temperature probe PT 1000**.











Induction motor without maintenance. Degree of protection: IP 21.

Dimensions (LxWxH): 215x360x112mm.



Name	Volume	Speed	T Max heating	Power heating	p/n
M3-D	10 L	0...1500 rpm	550 °C	1000 W	22003013

# ACCESSORIES FOR MAGNETIC STIRRERS

Description		p/n
Adjustable support for PT 1000		22002523
PT 1000 probe, length 230 mm for stirrer M2-D Pro, M3-D		22002513
Reaction block for 100 ml round bottom flask		22002663
Reaction block for 250 ml round bottom flask		22002673
Reaction block for 500 ml round bottom flask		22002683
Black test tube block 4 holes 40ml Ø 28 mm		22002623
Blue test tube block 4 holes 30ml Ø 28 mm		22002613
Violet test tube block 4 holes 20ml Ø 28 mm		22002603
Gold test tube block 4 holes 16ml Ø 21,6 mm		22002643
Green test tube block 6 holes 8ml Ø 17,8 mm		22002633
Red test tube block 11 holes 4ml Ø 15,2 mm		22002593
Base for insertion of heating blocks		22002583
Plastic protective cover for stirrer M2-A, M2-D Pro		22002533



Example of using the test tube holder

## AM 20-D

Mechanical shaft stirrer with LED display.

Safe stop function with indicator light for overheating motor.

Upper passage hole for stirring shafts.

Supplied with automatic spindle (Ø shaft max 10 mm).

Protection degree IP 42. Power supply 220V. Warranty: 24 months.

Supplied without universal reaction block (check part no. 22005153).



Name	Stirring Volume	Speed	Power	p/n
AM 20-D	20 L	50...2.200 rpm	50 W	22005013

## AM 40-D Pro

Mechanical shaft stirrer with LCD display.

Effort control with speed auto-adjustment.

Torque trend display.

Safe stop function with indicator light for overheating motor.

Upper passage hole for stirring shafts.

Supplied with automatic spindle (Ø shaft max 10 mm).

Protection degree IP 21. Power supply 220V.

Supplied without universal reaction block (check part no. 22005153).



Name	Stirring Volume	Speed	Power	p/n
AM 40-D PRO	40 L	50...2.200 rpm	100 W	22005043

Universal  
stand



Becker holder



## ACCESSORIES for AM 20-D and AM 40-D PRO

Description	L	Ø	Breadth	Material	p/n
<b>TYPE 1:</b> Stirring shaft with floating blade	400 mm	8 mm	90 mm	Stainless steel 316L	22005193
	350 mm	8 mm	89 mm	PTFE	22005333
<b>TYPE 2:</b> Stirring shaft with fixed blade.	400 mm	8 mm	60 mm	Stainless steel 316L	22005173
	350 mm	8 mm	70 mm	PTFE	22005313
<b>TYPE 3:</b> Stirring shaft with propeller blade.	400 mm	8 mm	50 mm	Stainless steel 316L	22005163
	350 mm	8 mm	65 mm	PTFE	22005303
<b>TYPE 4:</b> Stirring shaft with 3 holes blade.	400 mm	8 mm	68 mm	Stainless steel 316L	22005183
	350 mm	8 mm	68 mm	PTFE	22005323
<b>TYPE 5:</b> Anchor stirrer rod shaft.	600 mm	8 mm	100 mm	Stainless steel 316L	22005203
<b>TYPE 6:</b> Gear wheel stirrer, rod shaft.	600 mm	8 mm	100 mm	Stainless steel 316L	22005213
<b>UNIVERSAL STAND.</b> Complete with clamp Dimensions: base 200 x 315 mm, height 800 mm, diameter 18 mm					22005153
<b>BECKER STAND</b> with velcro strap and overgear chuck.					22005423
<b>CLAMP</b>					22005413



Type 1



Type 2



Type 3



Type 4



Type 5



Type 6

## MIX

Mixer for test tubes, speed regulation from 0... 2,500 rpm.

Operation by touch or continuously.

Orbital shaking movement.

Eccentric motor with oil-free gears.

Degree of protection IP 21.

Dimensions (L x W x H): 127 x 160 x 130 mm. Weight: 3.5 kg.

220V power supply.



Name	Description	p/n
<b>MIX</b>	Vortex mixer	22008013

## ACCESSORIES

Description	p/n
Universal support for Argolab MIX - REQUIRED TO INSTALL THE ADAPTERS	22008103
Adapter for 6 mm tubes - 48 places	22008113
Adapter for 10 mm tubes - 15 places	22008153
Adapter for 12 mm tubes - 16 places	22008123
Adapter for 16 mm tubes - 8 places	22008133
Standard top cup	22008143
Platform pad	22008163

# SKO-D XL

Shaking stirrer.

Double LCD display with indication of speed and time.

Stirring time adjustment from 1min. ...20 hours or continuous.

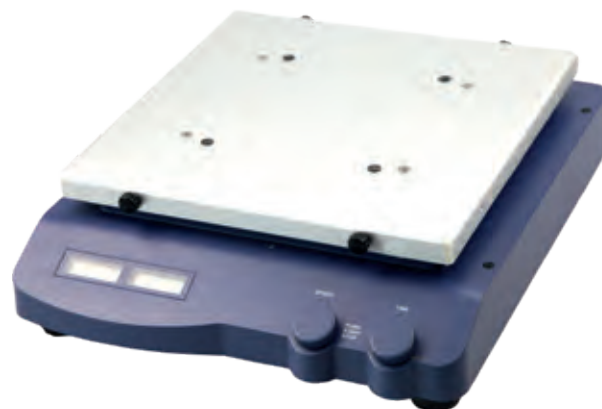
Exit RS 232 for remote control.

Maintenance-free brushless DC motor.

Plate dimensions: 320 x 320mm.

Overall dimensions (L x W x H): 370 x 420 x 100 mm. Weight: 13,5 Kg.

Protection degree IP 21. Power supply 220V.



Supplied without any support.

Name	Movement	Max load	Speed	p/n
<b>SKO-D XL</b> ORBITAL	Orbital clockwise and counterwise	7,5 Kg	100...500 hit/min	22006013
<b>SKO-D XL</b> LINEAR	Linear amplitude 10 mm	7,5 Kg	100...350 hit/min	22006033
<b>SKO-D XL</b> 3D	3D clockwise and counterwise	5,0 Kg	10...70 hit/min	22006023

## ACCESSORIES

Description	p/n
Support with anti-slip film	22006223
Universal support with 4 adjustable rollers	22006233
Additional bars for universal support	22006553
Drilled support for clips fixing	22006243
Fixing clip for flask volume 25 ml for fixing clip attachment. Max 28 clips	22006453
Fixing clip for flask volume 50 ml for fixing clip attachment. Max 16 clips	22006463
Fixing clip for flask volume 100 ml for fixing clip attachment. Max 16 clips	22006473
Fixing clip for flask volume 200/250 ml for fixing clip attachment. Max 9 clips	22006483
Fixing clip for flask volume 500 ml for fixing clip attachment. Max 9 clips	22006493



Dish attachment with non-slip mat



Universal attachment with 4 bars



Fixing clip attachment





# SKI Shaking Incubators

Bench-top instrument that combines stirring and thermostating functions in a single instrument used for mixing liquids and incubating biological cultures.

The microprocessor control guarantees constant and optimal temperature control within the chamber, the heating pre-chamber (and cooling pre-chamber in the refrigerated model SKI 8-R), together with the forced air circulation ensure the optimal temperature distribution throughout working area.

The easy and intuitive digital display allows to adjust:

- orbital shaking speed with increase of 1 rpm (40 ... 300 rpm);
- operating temperature with sensitivity to one-tenth of a degree (SKI 4 / SKI 8: +5°C Ta...+ 60°C / SKI 8 R : +4°C ...+ 60°C);
- time of use with sensitivity per minute (from 1 min to 99.99 hours or continuous).

The gradually increasing stirring function up to the set speed ensures **maximum sample safety**.

The **various platforms** available allow maximum versatility of ArgoLab orbital shaking incubators in its SKI 4, SKI 8 and SKI 8-R models.

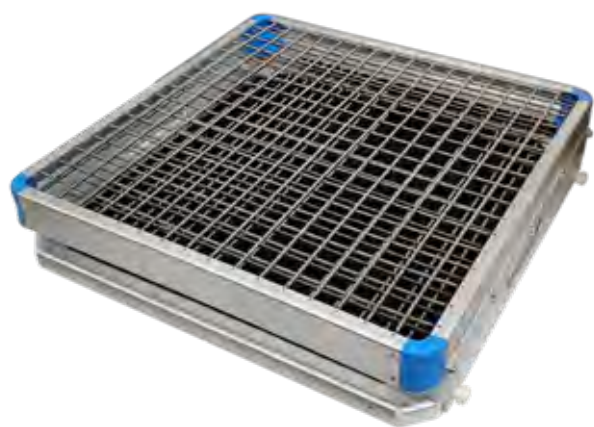
The SKI 4, SKI 8 and SKI 8-R instruments are supplied as standard with a flexible spring platform capable of housing different types of flasks, beakers and test tubes with different capacities; other platforms are also available: perforated for clips, with non-slip film with rubber bands and universal bar platforms.



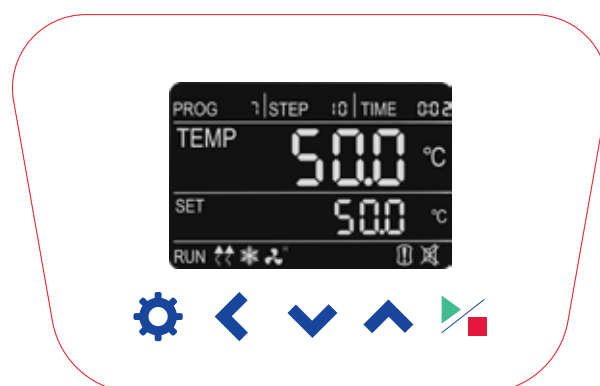
## APPLICATIONS

- Bacterial cultures and yeasts
- Solubility studies
- Extraction procedures
- Mixing
- Coloration and decolorizations
- Hybridisation
- Diagnostic tests
- Washing procedures
- Protein production
- Plasma production
- Biological shaker

Stirrers



Flexible spring platform as standard



Controller

# NEW SKI 4

- **Stirring speed:** 40...300 rpm
- **Temperature range:** +5°C RT...60 °C
- **Stirring time:** 1...9999 min ( or continuous)
- **Safety class 3.1 (DIN 12880)**

Incubator with orbital stirring movement.

**Wide backlit LCD display** with simultaneous indication of set and actual temperature, stirring speed and time.

Temperature range over time at 37 °C of  $\pm 0.1$  °C,  
temperature uniformity in space at 37 °C of  $\pm 0.5$  °C.  
Maximum stirring width of 20 mm.

The instrument can be used as incubator only (stirring =0), and in stirring mode only (incubation= room temperature).

Universal platform with spring support and useful dimensions 320 x 320 mm suitable for holding beakers, flasks, test tubes and containers of different sizes and shapes, supplied as standard.

Possibility of housing holed support for beaker/flask clips.  
Large 8 mm thick plexiglass dome for optimal viewing of samples without heat loss, equipped with gas springs for an easy opening.

Stirring and heating blocking system for dome opening with automatic restart after closing.

Safety systems for overheating protection and adjustable fluid expansion safety thermostat. Safety class 3.1 (DIN 12880).  
Maintenance-free induction motor.

Overall dimensions (W x D x H): 500 x 610 x 470 mm. Weight: 40 kg.  
Power supply 220V, rated power 500 W.

Supplied with universal support and platform.



Holed support fixing clips

Name	Max capacity	Temperature range	Plate dimensions	p/n
<b>NEW SKI 4</b>	4 L	+ 5 RT... + 60 °C	320 x 320mm	41202012

## ACCESSORIES

Description	p/n
Anti-slip film support for SKI 4 (fixing rubbers included)	41102052
Universal platform with nr. 4 adjustable bars for SKI 4	41102042
Additional bar for universal platform for SKI 4	41102062
Holed platform for fixing clips for SKI 4	41102112
Spring clips for 100 ml flasks for SKI 4 holed platform. Max. 23 clips	41102132
Spring clips for 200 / 250 ml flasks for SKI 4 holed platform. Max. 13 clips	41102142
Spring clips for 500 ml flasks for SKI 4 holed platform. Max. 8 clips	41102152
Spring clips for 1000 ml flasks for SKI 4 holed platform. Max 4 clips	41102162
Spring clips for 2000 ml flasks for SKI 4 holed platform. Max. 1 clip	41102172

## NEW SKI 8 - SKI 8 R



- Stirring speed: 40...300 rpm
- Stirring time: 1...99:59 min (or continuous)
- Safety class 3.1 (DIN 12880)
- Plate dimension 450 x 450 mm

Ventilated (SKI 8) or refrigerated biological incubator (SKI 8R), with orbital stirring.

**Wide backlit LCD display** with simultaneous indication of set and actual temperature, stirring speed and time.

**Temperature variation over time at 37 °C of  $\pm 0.1^{\circ}\text{C}$ ,  
temperature uniformity in space at 37 °C of  $\pm 0.5^{\circ}\text{C}$ .**

Maximum stirring width of 20 mm.

The instrument can handle both stirring and temperature independently.

**Universal spring-loaded platform with useful dimensions 450 x 450 mm suitable for holding beakers, flasks, test tubes and containers of different sizes and shapes, supplied as standard.**

Possibility of housing holed support for beaker/flask clips.

Large 8 mm thick plexiglass dome for optimal viewing of samples without heat loss, equipped with gas springs for easy opening.

Stirring and thermostating blocking system for dome opening, with automatic restart after closing.

**Safety systems for overheating protection and safety thermostat.**

**Safety Class 3.1 (DIN 12880).**

Maintenance-free induction motor.

Height with open lid 990 mm.

Power supply 220V.

Supplied with universal stand and platform.

Name	Max capacity	Temperature range	Power	Dimensions L x W x H (mm)	Weight Kg	p/n
<b>NEW SKI 8</b>	8 L	+ 5 Rt ... 60 °C	1000 W	610 x 840 x 540 mm	55	41202022
<b>NEW SKI 8 R COOLED</b>	8 L	+ 4 ... + 60 °C	1.300 W	610 x 950 x 540 mm	95	41202032

## ACCESSORIES

Description	p/n
Universal platform 4 adjustable bars for SKI 8 R	41102072
Platform with anti-slip film (rubber bands included) for SKI 8 R	41102082
Holed platform for fixing clips for SKI 8 R	41102122
Spring clips for 100 ml flasks for SKI 8 R holed platform. Max. 36 clips	41102132
Spring clips for 200 / 250 ml flasks for holed platform SKI 8 R. Max. 18 clips	41102142
Spring clips for 500 ml flasks holed platform SKI 8 R. Max 16 clips	41102152
Spring clips for 1000 ml flasks for holed platform SKI 8 R. Max. 9 clips	41102162
Spring clips for 2000 ml flasks for holed platform SKI 8 R. Max. 4 clips	41102172

# ARGO FILLER 3

Battery pipette filler, compatible with most of the plastic and glass pipettes from 1 to 100 ml, volumetric or graduated.

Exceptional aspiration and dispensing control thanks to compact and light design.

Ergonomic design of the handle providing easy usability.

Eight different speeds of selection and large LCD display showing low battery warning.

**The knurled handle, the ambidextrous design, the concave buttons and an easy control assure an easy and comfortable use of the operator's hands for many hours.**

The fully autoclavable mouth includes a silicone adapter and a 0,45 µm hydrophobic membrane filter.

The kit includes the power supply for the rechargeable batteries and nr. 1 filter.



Name	Description	p/n
<b>ARGO FILLER 3</b>	Pipette filler	15100053
<b>MEMBRANE FILTER</b> SPARE PARTS	Membrane filters, hydrophobic 0,45µm. Kit of 10 pieces	15100573

## OZ - OZONE GENERATORS

High power portable air / air Argolab ozonizers for home and professional use, equipped **with multifunction digital timer**, for daily/ weekly programs.

Ozone guarantee the natural inactivation of viruses, bacteria, mites, molds, spores, fungi, parasites and bad smells thanks to his hyper-oxidizing capacity.

Ozone react in a short time, returning O<sub>2</sub> without leaving traces of toxins.



Name	Ozone production	Operation Area	Weight	Dimensions (LxWxH)	p/n
<b>OZ 10</b>	10 g/h	150 m³/h	4 Kg	380 x 170 x 260 mm	41400103
<b>OZ 30</b>	30 g/h	230 m³/h	4 Kg	380 x 170 x 260 mm	41400203



# THERMOSTATATION

**ARGO LAB**

WARRANTY  
**2**  
YEARS



The ArgoLab instrument line offers advanced solutions for temperature control, combining precision, reliability and ease of use.

Designed to meet the needs of the most demanding laboratories, these instruments incorporate modern features such as intuitive displays, integrated data storage and fast transfer via USB.

Compliance with the strictest regulations, such as Safety Class DIN 12880, ensures the highest level of safety for samples and operators.

Every detail has been developed to simplify daily work: from high quality materials such as stainless steel with rounded corners for easy cleaning, to multi-step programs that allow complex cycles to be handled with great flexibility. Whether it be ovens, incubators or climatic chambers, ArgoLab offers complete and versatile solutions, ideal for scientific, industrial and research applications.

Choosing ArgoLab means investing in instruments that combine technological innovation and environmental sustainability, guaranteeing high performance and reduced environmental impact thanks to latest generation compressors and refrigeration systems.

ArgoLab: the reliable partner for your daily laboratory challenges.





## 4" touchscreen for intuitive and precise management

New touchscreen display of latest generation, designed for intuitive and precise setting management, with smooth navigation and full control of all operating functions.

## Graphic display of parameters in real time

Continuous and detailed temperature monitoring, time and program status, with clear graphs for complete data control.



## Complete logging and alarm management

Advanced memory that automatically records data and events, with alarm function and operation history for flawless and precise control.

## Multi-user access with three security levels

Three authorization levels, all password-protected, to ensure security and control of sensitive parameters and device use in shared environments.

## Temperature ramps for complex cycles

Advanced heat cycle management with adjustable temperature ramps, perfect for applications requiring precision and variability.

## Internal Storage and Data Transfer via USB

The integrated storage unit ensures continuous storage of operating parameters and over 200,000 process data. The USB port increases the storage capacity and enables fast transfer of the entire archive, including the alarm and operation log, facilitating complete and immediate documentation of activities.



# SERIE **Plus**

## New LCD screen for clear and immediate view

Modern and intuitive display of all essential parameters on one screen: actual and set temperature, fan speed and program status.

## Multi-step programming for every need

Managing support up to 64 multi-step programs, offering advanced solutions for any laboratory sequence.

## Door switch for safe operations

Door switch for secure loading and unloading operation of samples integrated on all ovens, also perfect for forced-ventilated incubators

## Internal memory and USB download for data management

The integrated storage unit ensures continuous storage of operating parameters and process data. The USB port increases the memory and enables fast transfer of the entire data archive, facilitating complete and immediate documentation of activities.



Thermostatisation



## NEW TCN<sup>super</sup>

- Working range: +5 °C RT ... +300 °C
- 4" colour **touchscreen display**
- Real-time **graphic monitoring**
- 10 storable **programs**
- 3-level **multi-user management with password**
- Alarms, operations and **data Logging**
- Direct download on **USB**
- Adjustable **temperature ramps**

It offers a 4-inch **touchscreen display** with simultaneous viewing of all parameters, including real-time graphic monitoring of temperature and program status.

Equipped with visual and acoustic alarms system that can be easily silenced, the oven also includes **advanced user management** with three authorization levels, each password protected, to improve the operating parameters security.

The **programmable digital timer** allows cycles of up to 99 hours and 59 minutes, with the option for continuous operation and delayed start.

A **door switch** facilitates safe loading and unloading of samples, and the '**safe temperature**' function automatically limits the maximum temperature to protect samples at each stage of the cycle.

The oven supports adjustable temperature ramps, ideal for managing complex heat cycles, and offers a complete archiving system that includes alarm, operation and data logs.

**All information can be downloaded directly on a USB drive**, ensuring advanced documentation and traceability.



**Compliant with Safety Class 3.1 (DIN 12880)**, the oven includes a fluid-expansion maximum temperature controller and an integrated hole (Ø 5 mm) to insert external sensors, ensuring internal temperature control and certification.

A versatile and safe solution, perfect for the most demanding applications.

**Stainless steel chamber** with rounded corners, fully removable anti-tip supports and shelves for easy and thorough cleaning. Power supply 220±10% V - 50/60 Hz.

**Supplied with** steel wire shelves (2 shelves for models up to 50 liters, 3 shelves for larger models), calibration report at 150°C performed with an Accredia-referable instrument, and a USB drive for data recording and transfer.

### TCN SUPER MODELS

	Name	Volume (l)	Stability at 150 °C	Homogeneity a 150 (°C)	External dim. LxWxH (mm)	Weight (kg)	Power (W)	p/n
NEW	TCN 50 SUPER	50	± 0,5	± 3,5	690 x 540 x 635	53	1000	41200502
NEW	TCN 115 SUPER	115	± 0,5	± 3,5	815 x 670 x 750	74	1900	41200512
NEW	TCN 200 SUPER	200	± 0,7	± 4,0	940 x 730 x 905	103	2100	41200522

### TCN PLUS MODELS

	Name	Volume (l)	Stability at 150 °C	Homogeneity a 150 (°C)	External dim. LxWxH (mm)	Weight (kg)	Power (W)	p/n
NEW	TCN 30* PLUS	30	± 0,5	± 3,5	460 x 600 x 685	40	700	41200062
NEW	TCN 50 PLUS	50	± 0,5	± 3,5	690 x 540 x 635	53	1000	41200002
NEW	TCN 115 PLUS	115	± 0,5	± 3,5	815 x 670 x 750	74	1900	41200012
NEW	TCN 200 PLUS	200	± 0,7	± 4,0	940 x 730 x 905	103	2100	41200022

\* Working range TCN 30: +5°C T RT. ... +200 °C

## NEW TCN Plus

- Working range: +5 °C RT ... +300 °C
- Backlit LED display
- 10 storable programs
- Data Logging
- Direct download on USB

The ArgoLab PLUS version oven offers a black **backlit LCD display** that allows simultaneous viewing of all main parameters, including actual and set temperature.

Equipped with a visual and acoustic alarm system that can be easily silenced, the oven also includes a USB\* port for data download.

The programmable digital timer allows cycles of up to 99 hours and 59 minutes, with options for continuous operation and delayed start.




A door switch\* facilitates safe loading and unloading of samples, and the 'safe temperature' function automatically limits the maximum temperature to protect samples at each stage of the cycle.

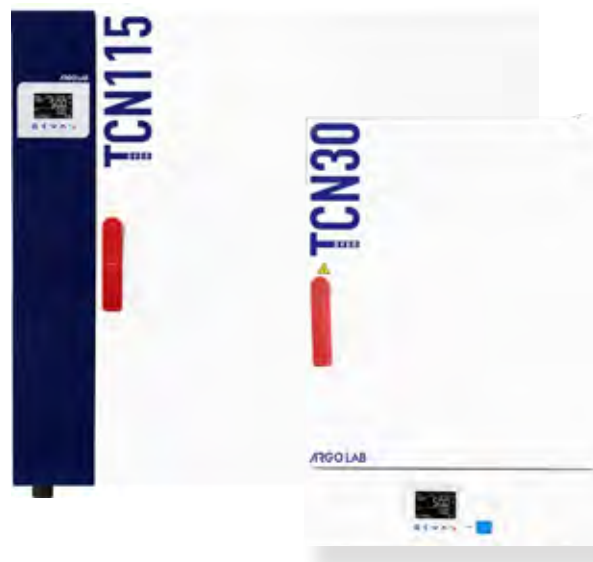
The data storage system\* is complete and supports direct download to a USB drive, ensuring simple and secure data management.

**Compliant with Safety Class 3.1 (DIN 12880)**, the oven includes a fluid-expansion maximum temperature controller and an **integrated hole (Ø 5 mm)** to insert external sensors, ensuring internal temperature control and certification.

\*not available on TCN 30

### TCN ACCESSORIES (SUPER and PLUS)

Description	Picture	p/n
Steel wire shelf for TCN 30		41100142
Steel wire shelf for TCN 50		41100102
Steel wire shelf for TCN 115		41100112
Steel wire shelf for TCN 200		41100122
Steel holed platform TCN 30		41100192
Steel holed platform TCN 50		41100152
Steel holed platform TCN 115		41100162
Steel holed platform TCN 200		41100172
Ø 25 mm internal hole complete with end caps (only on walls highlighted in figure - specify position)		41110152
Ø 50 mm internal hole complete with end caps (only on walls highlighted in figure - specify position)		41110142
Wheels for TCN 200. Set of 4 pieces		41101172
ArgoLab IQ-OQ manual		41119002



A versatile and safe solution, perfect for the most demanding applications.

Stainless steel chamber with rounded corners, fully removable anti-tip supports and shelves for easy and thorough cleaning.  
Power supply 220± 10% V - 50/60 Hz.

**Supplied with:**  
steel wire shelves (2 shelves for models up to 50 liters, 3 shelves for larger models), calibration report at 150°C performed with an Accredia-referable instrument, and USB drive for data recording and transfer..

## NEW TCF super

- Working range: +10 °C RT ... +300 °C
- 4" colour **touchscreen display**
- Real-time **graphic monitoring**
- 10 storable **programs**
- 3-level **multi-user management with password**
- Alarms, operations and **data Logging**
- Direct download on **USB**
- Adjustable **temperature ramps**

It offers a 4-inch touchscreen display with simultaneous viewing of all parameters, including **real-time graphic monitoring** of temperature and program status.

Equipped with **visual and acoustic alarms** system that can be easily silenced, the oven also includes **advanced user management** with three authorization levels, each password protected, to improve the operating parameters security.

**Ventilation adjustable at 3 intensity levels:** High, Medium, Low.

The programmable digital timer allows cycles of up to 99 hours and 59 minutes, with options for continuous operation and delayed start.

A **door switch** facilitates safe loading and unloading of samples, and the '**safe temperature**' function automatically limits the maximum temperature to protect samples at each stage of the cycle.

The oven supports adjustable **temperature ramps**, ideal for managing complex heat cycles, and offers a complete archiving system that includes alarm, operation and data logs.

All information can be **downloaded directly on a USB drive**, ensuring advanced documentation and traceability.



Compliant with **Safety Class 3.1 (DIN 12880)**, the oven includes a fluid-expansion maximum temperature controller and an **integrated hole (Ø 5 mm)** to insert external sensors, ensuring internal temperature control and certification. A versatile and safe solution, perfect for the most demanding applications

**Stainless steel chamber** with rounded corners, fully removable anti-tip supports and shelves for easy and thorough cleaning. Power supply 220± 10% V - 50/60 Hz.

### Supplied with

steel wire shelves (2 shelves for models up to 50 liters, 3 shelves for larger models), calibration report at 150°C performed with an Accredia-referable instrument, and a USB drive for data recording and transfer.

## TCF SUPER MODELS

Name	Volume (l)	Stability at 150 °C	Homogeneity at 150 (°C)	External dim. LxWxH (mm)	Weight (kg)	Power (W)	p/n
<b>NEW</b> TCF 50 SUPER	50	± 0,3	± 2 %	690 x 640 x 635	54	980	41200602
<b>NEW</b> TCF 120 SUPER	120	± 0,3	± 2 %	810 x 760 x 750	74	1900	41200612
<b>NEW</b> TCF 200 SUPER	200	± 0,4	± 2 %	945 x 825 x 870	103	2400	41200622
<b>NEW</b> TCF 400 SUPER	400	± 0,5	± 2 %	1285 x 820 x 1060	160	3200	41200632

## TCF PLUS MODELS

Name	Volume (l)	Stability at 150 °C	Homogeneity at 150 (°C)	External dim. LxWxH (mm)	Weight (kg)	Power (W)	p/n
<b>NEW</b> TCF 50 PLUS	50	± 0,3	± 2 %	690 x 640 x 635	54	980	41200202
<b>NEW</b> TCF 120 PLUS	120	± 0,3	± 2 %	810 x 760 x 750	74	1900	41200212
<b>NEW</b> TCF 200 PLUS	200	± 0,4	± 2 %	945 x 825 x 870	103	2400	41200222
<b>NEW</b> TCF 400 PLUS	400	± 0,5	± 2 %	1285 x 820 x 1060	160	3200	41200232



## NEW TCF Plus

- Working range: +10 °C RT ... +300 °C
- Backlit LED display
- 10 storable programs
- Data Logging
- Direct download on USB

The ArgoLab PLUS version oven offers a **black backlit LCD display** that allows simultaneous viewing of all main parameters, including actual and set temperature.

Equipped with a **visual and acoustic alarm** system that can be easily silenced, the oven also includes a **USB port for data download**

**Ventilation adjustable at 3 intensity levels:** High, Medium, Low.

The programmable digital timer allows cycles of up to 99 hours and 59 minutes, with options for continuous operation and delayed start. A **door switch** facilitates safe loading and unloading of samples, and the **'safe temperature' function** automatically limits the maximum temperature to protect samples at each stage of the cycle.

The data storage system is complete and supports direct **download to a USB drive**, ensuring simple and secure data management.

**Compliant with Safety Class 3.1 (DIN 12880)**, the oven includes a fluid-expansion maximum temperature controller and an **integrated hole (Ø 5 mm)** to insert external sensors, ensuring internal temperature control and certification.

A versatile and safe solution, perfect for the most demanding applications.



**Stainless steel chamber** with rounded corners, fully removable anti-tip supports and shelves for easy and thorough cleaning.

Power supply 220± 10% V - 50/60 Hz.

### Supplied with:

steel wire shelves (2 shelves for models up to 50 liters, 3 shelves for larger models), calibration report at 150°C performed with an Accredia-referable instrument, and USB drive for data recording and transfer

## TCF ACCESSORIES (SUPER and PLUS)

Description	Picture	p/n
Steel wire shelf for TCF 50		41100102
Steel wire shelf for TCF 120		41100112
Steel wire shelf for TCF 200		41100122
Steel wire shelf for TCF 400		41100132
Steel holed platform TCF 50		41100152
Steel holed platform TCF 120		41100162
Steel holed platform TCF 200		41100172
Steel holed platform TCF 400		41100182
Ø 25 mm internal hole complete with end caps (only on walls highlighted in figure - specify position)		41110152
Ø 50 mm internal hole complete with end caps (only on walls highlighted in figure - specify position)		41110142
Wheels for TCF 200 and TCF 400. Set of 4 pieces		41101172
ArgoLab IQ-OQ manual		41119002

## NEW ICN super

- Working range: +5 °C RT ... +70 °C
- 4" colour touchscreen display
- Real-time graphic monitoring
- 10 storable programs
- 3-level multi-user management with password
- Alarms, operations and data Logging
- Direct download on USB
- Adjustable temperature ramps

The ArgoLab natural convection incubator SUPER version is equipped with a 4-inch touchscreen display that allows simultaneous viewing of all operating parameters, including **real-time graphic monitoring** of temperature and program status.

The visual and acoustic alarm system can be easily silenced, while **advanced user management** provides three password-protected authorization levels to ensure maximum security on operating parameters.

The instrument meets safety class 2 (DIN 12880).

The incubator supports adjustable **temperature ramps**, ideal for managing complex heat cycles, and offers a complete archiving system that includes alarm, operation and data logs. **All information can be downloaded directly on a USB drive**, ensuring advanced documentation and traceability.

For greater versatility, the incubator includes an **integrated hole (Ø 5 mm)** to insert external sensors, ensuring internal temperature control and certification.



The chamber is made of stainless steel with rounded corners, fully removable anti-tip supports and shelves for easy and thorough cleaning.

To observe the samples without heat loss, the ICN 16 and ICN 35 models are equipped with a large glass window on the door, while the remaining models include a double door (with an internal glass door).

Power supply: 220± 10% V - 50/60 Hz.

### Supplied with:

steel wire shelves (2 shelves for models up to 50 liters, 3 shelves for higher models), calibration report at 37 °C performed with an Accredia-referable instrument and USB drive for data recording and transfer.

## ICN SUPER MODELS

	Name	Volume (l)	Stability at 37 °C	Homogeneity at 37 °C	External dim. LxWxH (mm)	Weight (kg)	Power (W)	p/n
NEW	ICN 16 SUPER	16	± 0,3	± 0,4	530 x 450 x 370	23	85	41201302
NEW	ICN 35 SUPER	35	± 0,3	± 0,4	620 x 510 x 440	33	125	41201312
NEW	ICN 55 SUPER	55	± 0,3	± 0,5	660 x 600 x 500	42	250	41201322
NEW	ICN 120 SUPER	120	± 0,3	± 0,5	780 x 700 x 610	61	350	41201332
NEW	ICN 200 SUPER	200	± 0,3	± 0,5	875 x 760 x 755	77	600	41201342

## ICN PLUS MODELS

	Name	Volume (l)	Stability at 37 °C	Homogeneity at 37 °C	External dim. LxWxH (mm)	Weight (kg)	Power (W)	p/n
NEW	ICN 16 PLUS	16	± 0,3	± 0,4	530 x 450 x 370	23	85	41201002
NEW	ICN 35 PLUS	35	± 0,3	± 0,4	620 x 510 x 440	33	125	41201012
NEW	ICN 55 PLUS	55	± 0,3	± 0,5	660 x 600 x 500	42	250	41201022
NEW	ICN 120 PLUS	120	± 0,3	± 0,5	780 x 700 x 610	61	350	41201032
NEW	ICN 200 PLUS	200	± 0,3	± 0,5	875 x 760 x 755	77	600	41201042

**NEW ICN Plus**

- Working range: +5 °C RT... +70 °C
- Backlit LED display
- 10 storable programs
- Data Logging
- Direct download on USB



The ArgoLab PLUS version incubator offers a **black backlit LCD** display that allows simultaneous viewing of all main parameters, including actual and set temperature.

Equipped with a **visual and acoustic alarm** system that can be easily silenced, the incubator also includes a **USB port for data download**.

The programmable digital timer allows cycles of up to 99 hours and 59 minutes, with options for continuous operation and delayed start.

A **door switch** facilitates safe loading and unloading of samples, and the '**safe temperature**' function automatically limits the maximum temperature to protect samples at each stage of the cycle.

The data storage system is complete and supports **direct download to a USB drive**, ensuring simple and secure data management.

**Compliant with Safety Class 2 (DIN 12880)**, the incubator includes an **integrated hole (Ø 5 mm)** to insert external sensors, ensuring internal temperature control and certification.

**Observation of samples without heat loss:** the ICN 16 and ICN 35 models are equipped with a large glass window on the door to monitor samples without affecting the internal temperature. The remaining models are equipped with a double door (with an internal glass door) for the same purpose.

**The chamber is made of stainless steel** with rounded corners, and the anti-tip supports and shelves are fully removable for easy and thorough cleaning.

Power supply: 220± 10% V - 50/60 Hz.

**Supplied with:**

steel wire shelves (2 shelves for models up to 50 liters, 3 shelves for larger models), calibration report at 150°C performed with an Accredia-referable instrument, and USB drive for data recording and transfer

**ICN ACCESSORIES (SUPER and PLUS)**

Description	Picture	p/n
Steel wire shelves for ICN 16	A rectangular metal wire mesh shelf.	41101112
Steel wire shelves for ICN 35		41101122
Steel wire shelves for ICN 55		41101132
Steel wire shelves for ICN 120		41101142
Steel wire shelves for ICN 200		41101152
Wheels for ICN 200. Kit of 4 pieces		41101172
ArgoLab IQ-OQ manual		41119002

## NEW ICF super

- Working range: +5 °C RT ... +80 °C
- Sterilization program at 130 °C
- 4" colour touchscreen display
- Real-time graphic monitoring
- 10 storable programs
- 3-level multi-user management with password
- Alarms, operations and data Logging
- Direct download on USB
- Adjustable temperature ramps

The ArgoLab forced air convection incubator SUPER version is equipped with a 4-inch touchscreen display that allows simultaneous viewing of all operating parameters, including **real-time graphic monitoring** of temperature and program status.

The visual and acoustic alarm system is easily silenced, while **advanced user management** provides three password-protected authorization levels to ensure maximum security on operating parameters.

Ventilation adjustable at 3 levels: High, Medium, Low.

The programmable digital timer allows cycles of up to 99 hours and 59 minutes, with options for continuous operation and delayed start, and the 'safe temperature' function automatically limits the maximum temperature to protect samples at each stage of the cycle.

Compliant with Safety Class 3.1 (DIN 12880), the incubator includes a fluid-expansion maximum temperature controller and an **integrated hole** (Ø 5 mm) to insert external sensors, ensuring internal temperature control and certification.

A versatile and safe solution, perfect for the most demanding applications.



The incubator supports adjustable **temperature ramps**, ideal for managing complex heat cycles, and offers a complete archiving system that includes alarm, operations and data logs.

**All information can be downloaded directly on a USB drive**, ensuring documentation and advanced traceability.

The chamber is made of **stainless steel** with rounded corners, fully removable anti-tip supports and shelves for easy and thorough cleaning.

To observe the samples without heat loss, the models have a **double door** (with an internal glass door).

Power supply: 220±10% V - 50/60 Hz

**Supplied with:**

steel wire shelves (2 shelves for models up to 50 liters, 3 shelves for higher models), calibration report at 37 °C performed with an Accredia-referable instrument and a USB drive for data recording and download.

### ICF SUPER MODELS

	Name	Volume (l)	Stability at 37 °C	Homogeneity at 37 °C	External dim. LxWxH (mm)	Weight (kg)	Power (W)	p/n
NEW	ICF 55 SUPER	57	± 0,1	± 0,3	690 x 620 x 650	56	350	41200902
NEW	ICF 120 SUPER	120	± 0,1	± 0,4	810 x 760 x 750	74	600	41200912
NEW	ICF 200 SUPER	200	± 0,2	± 0,4	945 x 825 x 870	103	700	41200922
NEW	ICF 400 SUPER	400	± 0,3	± 0,5	1285 x 820 x 1060	160	1500	41200932

### ICF PLUS MODELS

	Name	Volume (l)	Stability at 37 °C	Homogeneity at 37 °C	External dim. LxWxH (mm)	Weight (kg)	Power (W)	p/n
NEW	ICF 55 PLUS	57	± 0,1	± 0,3	690 x 620 x 650	56	350	41200802
NEW	ICF 120 PLUS	120	± 0,1	± 0,4	810 x 760 x 750	74	600	41200812
NEW	ICF 200 PLUS	200	± 0,2	± 0,4	945 x 825 x 870	103	700	41200822
NEW	ICF 400 PLUS	400	± 0,3	± 0,5	1285 x 820 x 1060	160	1500	41200832

## NEW ICF Plus

- Working range: +5 °C RT... +80 °C
- Sterilization program at 130 °C
- Backlit LED display
- 10 storable programs
- Data recording
- Direct download on USB

The ArgoLab PLUS version incubator is equipped with a black backlit LCD display that allows simultaneous viewing of all main parameters, including actual and set temperature. The visual and acoustic alarm system is easily silenced, and the incubator includes a USB port for data download.



Ventilation adjustable at 3 levels: High, Medium, Low.

The programmable digital timer allows cycles of up to 99 hours and 59 minutes, with options for continuous operation and delayed start.

A door switch facilitates safe loading and unloading of samples, and the 'safe temperature' function automatically limits the maximum temperature to protect samples at each stage of the cycle.

Compliant with Safety Class 3.1 (DIN 12880), the incubator includes a fluid-expansion maximum temperature controller and an integrated hole (Ø 5 mm) to insert external sensors, ensuring internal temperature control and certification.

### ICF ACCESSORIES (SUPER and PLUS)

Description		p/n
Steel wire shelves for ICF 55		41100102
Steel wire shelves for ICF 120		41100112
Steel wire shelves for ICF 200		41100122
Steel wire shelves for ICF 400		41100132
Holed platform for ICF 55		41100152
Holed platform for ICF 120		41100162
Holed platform for ICF 200		41100172
Holed platform for ICF 400		41100182
Ø 25 mm internal hole complete with end caps (only on walls highlighted in figure - specify position)		41110152
Ø 50 mm internal hole complete with end caps (only on walls highlighted in figure - specify position)		41110142
Wheels for ICF 200 and ICF 400. Kit of 4 pieces		41101172
ArgoLab IQ-OQ manual		41119002



A versatile and safe solution, perfect for the most demanding applications.

The data storage system is complete and supports direct download on a USB drive for simple and secure data management.

To observe the samples without heat loss, the models have a double door (with an internal glass door).

The chamber is made of stainless steel with rounded corners, fully removable anti-tip supports and shelves for easy and thorough cleaning.

Power supply: 220± 10% V - 50/60 Hz.

Supplied with:

steel wire shelves (2 shelves for models up to 50 liters, 3 shelves for larger models), calibration report at 37 °C performed with an Accredia-referable instrument, and USB drive for data recording and download.



## NEW IC 150-R

- Working range: 0 ... +60 °C
- Usable Volume 150 litres
- Large 7" high-contrast touchscreen display
- Real-time graphic display
- Data, alarms and operations logging
- Downloading data on USB in CSV/PDF
- 3-level user management with safe access
- 25 mm side through-hole

The ArgoLab IC 150-R refrigerated incubator is equipped with a steel external door with a large glass window and interior light, ideal to observe the samples without heat loss.

Thanks to the redesigned user interface and high-contrast 7-inch touchscreen display, the user can count on optimal view in all conditions and precise, intuitive control of all parameters.

The incubator supports data logging of up to 200,000 events, downloadable via USB drive in CSV or PDF format, ensuring easy analysis. The display and download function includes a 'search' command for quick access to historical data, while an advanced logging and alarm/operation history system allows to monitor and record critical events and operations.

Thanks to the graphic display directly on the screen, changes in temperature and other parameters can be monitored in real time, supported by the multi-step program, which allows up to 64 consecutive steps to be stored, ideal for complex processes.

For greater flexibility, the incubator allows the configuration of temperature ramps and offers the possibility to choose the unit of measurement between °C and °F.

Operational safety is guaranteed by Safety Class 3.1 (DIN 12880), which includes a fluid expansion maximum temperature controller. The incubator is also equipped with a lateral 25 mm passage hole to insert one or more external sensors, useful for monitoring and certifying the internal temperature.

User management is multi-level, with three configurable access levels (user, manager, admin), for safe customization of operating parameters.



The incubator offers a digital timer programmable from 1 minute up to 99 hours and 59 minutes, with the option for continuous operation and delayed start.

The 'safe temperature' function automatically limits the maximum temperature to protect samples during all working operations. The inner chamber is made of stainless steel with rounded corners, equipped with anti-tip shelves and fully removable supports for easy and thorough cleaning.

The power supply is 220±10% V at 50 Hz.

### Supplied with:

Three steel wire shelves, a calibration report at 25°C performed with an Accredia-referable instrument and a USB drive for data.

Name	Volume (l)	Stability at 150 °C	Homogeneity at 150 (°C)	External dim. LxWxH (mm)	Weight (kg)	Power (W)	p/n
NEW IC 150-R PLUS	150	± 0,1	± 0,5	650 x 620 x 1350	100	1100	41201512

## ACCESSORIES IC 150-R

Description	p/n
Steel wire shelves for IC 150-R	41101562
Manual IQ-00	41190002

## NEW IC 50-P PELTIER INCUBATOR

- Working range: 0 ... +60 °C - (\* at least 20°C below room T)
- Peltier technology
- Usable Volume 50 litres
- Large 7" high-contrast touchscreen display
- Real-time graphic display
- Data, alarms and operations logging
- Downloading data on USB in CSV/PDF
- 3-level user management with safe access

The refrigerated incubator with Peltier cell technology ArgoLab IC 50-P is equipped with a double door, with an internal glass door, ideal for observing samples without heat loss.

Thanks to the redesigned user interface and high-contrast 7-inch touchscreen display, the user can count on optimal view in all conditions and precise, intuitive control of all parameters.

The incubator supports data logging of up to 200,000 events, downloadable via USB drive in CSV or PDF format, ensuring easy analysis.

The display and download function include a 'search' command for quick access to historical data, while an advanced logging and alarm/operation history system allows to monitor and record critical events and operations. Thanks to the graphic display directly on the screen, changes in temperature and other parameters can be monitored in real time, supported by the multi-step program, which allows up to 64 consecutive steps to be stored, ideal for complex processes.

For greater flexibility, the incubator allows the configuration of temperature ramps and offers the possibility to choose the unit of measurement between °C and °F.

Operational safety are guaranteed by Safety Class 3.1 (DIN 12880), which includes a fluid-expansion maximum temperature controller.



User management is multi-level, with three configurable access levels (user, manager, admin), for safe customization of operating parameters. The incubator is equipped with a door switch, which facilitates the loading and unloading of samples.

The 'safe temperature' function automatically limits the maximum temperature to protect samples during all working operations. The inner chamber is made of stainless steel with rounded corners, equipped with two anti-tip shelves and fully removable supports for easy and thorough cleaning.

The power supply is 220±10% V at 50 Hz.

### Supplied with:

two steel wire shelves, calibration report at 25°C performed with an Accredia-referable instrument and a USB stick for recording and data download.

Name	Volume (l)	Stability at 150 °C	Homogeneity at 150 (°C)	External dim. LxWxH (mm)	Weight (kg)	Power (W)	p/n
NEW IC 50-P	50	± 0,1	± 0,5	550 x 600 x 700	58	500	41202402

## ACCESSORIES IC 50-P

Description	p/n
Steel wire shelves for IC 50-P	41101572
Manual IQ-00	41119002

## NEW CH 150 CLIMATIC CHAMBERS

- Working range RH: +45... +95 % RH
- Working range with humidity: +10 ... 70 °C
- Working range without humidity: 0 ... +85 °C
- 7" high-contrast touchscreen display
- Real-time graphic display
- Data, alarms and operations logging
- Data download on USB in CSV/PDF
- 5 access-level user management

The ArgoLab climatic chamber is equipped with a large, high-contrast 7-inch touchscreen display, which ensures a modern and always clearly visible interface. The new, completely redesigned user interface makes operation intuitive and immediate, allowing quick access to all operating parameters.

The extended operating range of 45% RH to 95% RH allows a wide range of application requirements to be met. Parameters monitoring is made more effective by the real-time graphic display directly on the screen.

Data management is simple and advanced: the data logging system can store up to 200,000 events, with optional download via USB port in CSV or PDF format for in-depth analysis. The smart data-downloading function with 'search' command allows targeted access to stored data, while the new program configuration includes the option to create multi-step sequences and temperature/humidity ramps, optimal for advanced applications.

**Multi-level user management** includes 5 authorization levels, ensuring safe and customized control for each operator.

The interior of the chamber is made of **stainless steel** with rounded corners, ensuring easy cleaning and maintaining high resistance to wear.

The **optimized ventilation system** ensures an even distribution of temperature and humidity, providing stability and accuracy in every part of the chamber.

The external steel door, equipped with a large glass window and manually activated **LED light**, allows the samples to be monitored without altering the internal environment.



The chamber meets **Safety Class 3.1 (DIN 12880)** thanks to a fluid-expansion maximum temperature controller, ensuring maximum protection of samples.

The chamber is equipped with a compact **external water tank** that is easily accessible through an ergonomic screw cap. In addition, a lateral 25 mm hole with a **silicone plug** has been added to facilitate the passage of probes or cables, increasing the versatility of the instrument.

The power supply is 220± 10% V at 50 Hz.

**Supplied with:**  
three steel wire shelves, feed tray.

Climatic chambers are delivered after being thoroughly tested.

Name	Volume (l)	External dimensions LxWxH (mm)	Weight (kg)	p/n
NEW CH 150	150	690 x 790 x 1520	145	41201412

### ACCESSORIES CH 150

Description	p/n
Steel wire shelves for CH 150	41101462
Manual IQ-00	41119002

## NEW CH 250 CLIMATIC CHAMBERS

- Working range RH: +45... +95 % RH
- Working range with humidity: +10 ... 70 °C
- Working range without humidity: 0 ... +85 °C
- 7" high-contrast touchscreen display
- Real-time graphic display
- Data, alarms and operations logging
- Data download on USB in CSV/PDF
- 5 access-level user management

The ArgoLab climatic chamber is equipped with a large, high-contrast 7-inch touchscreen display, which ensures a modern and always clearly visible interface. The new, completely redesigned user interface makes operation intuitive and immediate, allowing quick access to all operating parameters.

The extended operating range of 45% RH to 95% RH allows a wide range of application requirements to be met. Parameters monitoring is made more effective by the real-time graphic display directly on the screen.

Data management is simple and advanced: the data logging system can store up to 200,000 events, with optional download via USB port in CSV or PDF format for in-depth analysis. The smart data-downloading function with 'search' command allows targeted access to stored data, while the new program configuration includes the option to create multi-step sequences and temperature/humidity ramps, optimal for advanced applications.

Multi-level user management includes 5 authorization levels, ensuring safe and customized control for each operator.

The interior of the chamber is made of stainless steel with rounded corners, ensuring easy cleaning and maintaining high resistance to wear.

The optimized ventilation system ensures an even distribution of temperature and humidity, providing stability and accuracy in every part of the chamber.

The external steel door, equipped with a large glass window and manually activated LED light, allows the samples to be monitored without altering the internal environment.



Menu setup



Screen



The chamber meets Safety Class 3.1 (DIN 12880) thanks to a fluid-expansion maximum temperature controller, ensuring maximum protection of samples.

The chamber is equipped with a compact external water tank that is easily accessible through an ergonomic screw cap. In addition, a lateral 25 mm hole with a silicone plug has been added to facilitate the passage of probes or cables, increasing the versatility of the instrument.

The power supply is 220± 10% V at 50 Hz.

Supplied with:  
three steel wire shelves, feed tray.

Climatic chambers are delivered after being thoroughly tested.

Name	Volume (l)	External dimensions LxWxH (mm)	Weight (kg)	p/n
NEW CH 250	250	740 x 885 x 1680	185	41201422

### ACCESSORIES CH 250

Description	p/n
Steel wire shelves for CH 250	41101472
Manual IQ-00	41119002

## NEW **CB SERIES 5** CIRCULATING WATERBATH

- Working range: -30 / -20 / -10 ... +100 °C
- Usable volume: 5 litres
- PT100 Probe for external circuit temperature control
- Backlit LED display

Argolab circulating waterbath. Simultaneous display of set temperature, actual temperature and all other operating parameters.

Visual and acoustic alarms that can be silenced by the operator. Digital timer with programming range 1 min - 99 h 59 min. and continuous operation.

**Safe temperature function:** working temperature limitation for sample protection.

**Safety Class 3 (DIN 12880).**

Simultaneous circulation of the fluid inside and outside the tank for better conditions of stability and thermal inertia.

Automatic reading of the external circuit temperature by connecting the supplied PT100 probe.

**Functional tap to exclude external circulation for an easy cleaning and maintenance.**

Safety system for lack of liquid inside. Stainless steel inner tank with lid, easily accessible.

Power supply: 220± 10% V - 50 Hz.



### Supplied with:

PT100 probe for external temperature control.  
Set of two 2-meter hoses with insulating material (working range -40...+60 °C), metal clamps, tap and hose connector.

## MODELS

	Name	Volume (l)	Working range (°C)	Dimensions LxWxH (mm)	Weight (kg)	Power (W)	p/n
NEW	CB 5-10	5	-10 ... +100	290 x 570 x 710	34	2300	41202202
NEW	CB 5-20	5	-20 ... +100	380 x 670 x 840	54	2600	41202212
NEW	CB 5-30	5	-30 ... +100	380 x 670 x 840	54	2600	41202222

## ACCESSORIES FOR CB

	Description	p/n
<b>HOSES</b>	Set of two 2 meters hoses with insulating material (working range -40...+60 °C) complete with metal clamps for attachment to hose connector	41102302
<b>WHEELS</b>	Kit of 4 swivel wheels, two of which can be braked	41102312
<b>THERMAL FLUID</b>	Ready-to-use pre-mixed thermal fluid, working range -30...+80 °C. 5 litres barrel.	41102322
<b>PT 56 TFE</b>	PT100 external temperature probe with Teflon cable	51000252



# NEW WB SERIES

- Working range : +5°C RT ... +85 / +100 °C
- Usable volume 5 / 12 / 22 / 40 litres
- Backlit LED display



Waterbath Argolab.

Safety Class 2 (DIN 12880).

Visual and acoustic alarms that can be silenced by the operator. Digital timer with programming range 1 min - 99 h 59 min. and continuous operation.

Delayed start function of the heating cycle. Safe temperature function: working temperature limitation for sample protection. High-quality stainless steel inner chamber and holed bottom plate (removable). Side handle knob included (WB 5 - WB 12).

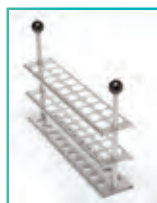
The WB 22 Pump and WB 40 Pump models have a recirculation pump for perfect uniform temperature distribution. Power supply: 220± 10% V - 50/60 Hz.

Supplied with: Stainless steel lid with 5 mm hole for external sensor passage, holed bottom plate, pipe for the drainage of the tank and quick-acting valve for periodic liquid replacement.

	Name	Volume (l)	Working range (°C)	Stability at 37 °C	Tank dimensions LxWxH (mm)	Disposition rack	p/n
NEW	WB 5	5	+5 RT ... +100 * <i>* 100 °C reachable with thermal fluid</i>	± 0,1	300 x 155 x 150		41201592
NEW	WB 12	12	+5 RT ... +100 * <i>* 100 °C reachable with thermal fluid</i>	± 0,1	300 x 240 x 200		41201602
NEW	WB 22	22	+5 RT ... +100 * <i>* 100 °C reachable with thermal fluid</i>	± 0,1	500 x 295 x 200		41201712
NEW	WB 22 PUMP	22	+5 RT ... +85	± 0,1	500 x 295 x 200		41201612
NEW	WB 40 PUMP	40	+5 RT ... +85	± 0,2	645 x 395 x 200		41201622

## ACCESSORIES FOR WB

	Modules	p/n
<b>RACK 1</b> for pipes Ø13mm / 20 places	1	41101802
<b>RACK 2</b> for pipes Ø18mm / 20 places	1	41101812
<b>RACK 3</b> for pipes Ø31mm / 5 places	1	41101822
<b>RACK 4</b> for pipes Ø56mm / 8 places (biberon)	3	41101842
<b>RACK 5</b> for blood sachets / 5 places	3	41101852
<b>BECKER SUPPORT FOR WB 12</b> / 4 places		41101952
<b>BECKER SUPPORT FOR WB 22</b> / 8 places		41101962



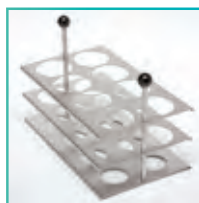
**RACK 1**  
Ø13mm



**RACK 2**  
Ø18mm



**RACK 3**  
Ø31mm



**RACK 4**  
Ø56mm



**RACK 5**  
for blood sachets



**BECKER  
SUPPORT**

## NEW SB 35 SHAKING BATH

- Working range : +5°C RT ... +100 °C
- Tank capacity: 35 litres
- Backlit LED display



Horizontal shaking bath (Dubnoff) Argolab.  
Visual and acoustic alarms that can be muted by the operator.

Digital timer with programming range 1 min – 99 h 59 min. and continuous operation.  
Delayed start function of the heating cycle.

Safe temperature function: working temperature limitation for sample protection.  
Safety class 2 (DIN 12880).

Power supply: 230V/50Hz, weight: 28kg.

Supplied with:

Stainless steel LID with a 5 mm hole for external sensor passage;

Universal basket with stainless steel spring support;

pipe for the drainage of the tank and quick-acting valve for periodic liquid replacement..

### MODEL

Name	Volume (l)	Working range (°C)	Stability at 37 (°C)	Homogeneity at 37 (°C)	Basket dimensions LxWxH (mm)	p/n
NEW SB 35	35	+5 RT ... +100	±0,5	±1	320 x 200 x 115	41201732



# DRY BATH

- Working range : +25 ... +120 °C
- Accurate and uniform temperature control
- Backlit LED display
- Calibration on 1 point



ArgoLab dry bath with 1-point calibration function.  
 Settable temperature range between +25 and +120°C.  
 Calibration on 1 point by a simple operation.  
 Accurate and uniform temperature control ( $\pm 0.5^{\circ}\text{C}$  @  $37^{\circ}\text{C}$ ).  
 "Hot" function for user safety Overheating function ( $140^{\circ}\text{C}$ ).  
 Several types of hostable blocks compatible with most common  $\varnothing$  cuvettes (9 types).  
 LED display with "real time" temperature display and remaining heating time.  
 Supplied as standard with lid for better heat preservation and safety.

The Argolab HB 120-C dry bath can accommodate up to 10 different test tube blocks, differing in number and volume.  
 Each block has a central thread for extraction (via dedicated rod) and at least 2 holes for temperature control (hole  $\varnothing$  3 mm).  
 Each block is supplied without an extraction rod.













**Supplied with**  
 Power cable  
 Plastic cover  
 Extracting rod heating block  
**BLOCK NOT INCLUDED**



Name	Working range (°C)	Accuracy a 37 (°C)	p/n
HB 120-C	+25 ... +120	$\pm 0,5$	22010013

# HEATING BLOCKS

The Argolab HB 120-C dry bath can accommodate up to 10 different test tube blocks, differing in number and volume. Each block has a central thread for extraction (via dedicated rod) and at least 2 holes for temperature control (hole Ø 3 mm). Blocks are supplied without the extraction rod.

Name	Description	p/n
<b>Microplates</b>		22010203
<b>8 places x 50 ml</b>		22010193
<b>28 places x 5/15 ml</b>		22010173
<b>45 places x 5 ml</b>		22010183
<b>40 places x 0,5 ml</b>		22010133
<b>40 places x 1,5 ml</b>		22010143
<b>40 places x 2,0 ml</b>		22010153
<b>54 places x 0,2 ml</b>		22010123
<b>18 places x 0,2 / 0,5 / 1,5 / 2 [ml]</b>		22010163
<b>BATHTUB + SPHERES KIT</b>		22010103
<b>BATHTUB</b>		22010113
<b>ALUMINUM SPHERES 1 KG</b>		22010213

## DU - DIGITAL ULTRASONIC BATHS

- Working range: +5°C RT ... +60 °C
- Backlit LED display
- Ultrasonic frequency 40/28 KHz.
- Timer from 1 to 99 minutes.
- Sweep, Pulse and Degas functions



Argolab digital ultrasonic bath with integrated Sweep technology and equipped with Pulse and Degas functions. Digital illuminated displays showing current and set temperature, timer, ultrasonic power level and operating frequency. Separate control of ultrasound, heating and Pulse and Degas functions. Temperature control up to 60°C. Timer can be set from 1 to 99 minutes.

On models DU-100S / DU-220S / DU-450S there is a tap for emptying the tank.

Supplied as standard: stainless steel basket and lid.



### MODEL

Name	Volume (l)	Heating power (W)	Ultrasonic power (W)	Tank dimensions LxWxH (mm)	Weight (kg)	p/n
DU-06	0,6	Not heating	50	150 x 85 x 65	1,35	41300323
DU-32S	3,2	100	120	240 x 135 x 100	3,80	41300333
DU-45S	4,5	200	180	300 x 150 x 100	4,40	41300343
DU-65S	6,5	200	180	300 x 150 x 150	5,40	41300353
DU-100S	10	500	240	300 x 240 x 150	8,20	41300363
DU-220S	22	500	480	500 x 300 x 150	13,20	41300373
DU-450S	45	1000	720	500 x 300 x 300	17	41300383

## NEW CE-6200 A

No-heating digital ultrasonic bath with volume: 1,4 L.  
Particularly recommended for jewellers.

Digital display, touch screen panel,  
Adjustable timer 90-180-280-380-480 Sec.  
Ultrasonic frequency 42 KHz.

Supplied with: basket and lid.



Name	Volume (l)	Ultrasonic power (W)	Tank dimensions LxWxH (mm)	Weight (Kg)	p/n
NEW CE-6200 A	1,4	70	175 x 135 x 70	1,55	41300313



# AU - ANALOGIC ULTRASONIC BATHS

- Working range : +5°C RT ... +80 °C
- Ultrasonic frequency: 40 KHz.
- Timer from 1 to 30 minutes, or in continuous..

Analogic ultrasonic bath.

Temperature adjustment up to 80°C .

Adjustable timer from 1 to 30 minutes and limitless.

Ultrasonic frequency 40 KHz.

Supplied with: basket and stainless steel lid.

On AU 220 and AU 450 models, there is a tap for emptying the tank.



## MODELS

Name	Volume (l)	Heating power (W)	Ultrasonic power (W)	Tank dimensions LxWxH (mm)	Weight (kg)	p/n
<b>AU-32</b>	3,2	100	120	240 x 135 x100	3,80	41300403
<b>AU-65</b>	6,5	200	180	300 x 150 x150	5,40	41300413
<b>AU-220</b>	22	500	480	500 x 300 x 150	13,20	41300433
<b>AU-450</b>	45	1000	750	500 x 300 x 300	17,00	41300423

## ACCESSORIES

Name	Description	p/n
<b>CLEANER</b>	Universal cleaning solution. Bottle of 30 ml	41300253
<b>CLEANER</b>	Universal cleaning solution. Bottle of 500 ml	41300263
<b>BECKER SUPPORT</b>	For DU-45 DU-65 e AU-65, with 2 holes	41300513
<b>BECKER SUPPORT</b>	For DU-100, with 4 holes	41300533
<b>SS-200 SIEVE HOLDER</b>	Sieve holder. Compatible with AU-450 model only. Holder for no. 5 sieves of 80 mm or no. 6 sieves of 60 mm thick.	41300203

# ARGO FREDDO

**ARGO LAB**

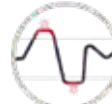
WARRANTY  
**3**  
YEARS



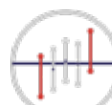
RESOLUTION 0,1°C



MIN-MAX ALARM



HOMOGENEITY  
EN 60068-3



VENTILATION  
(FR series)



DEFROST



OPEN DOOR  
ALARM



KEY LOCK



PLASTIFIED STEEL  
SHELVES



REMOTE ALARM  
CONTACT



LED  
LIGHTS



REVERSIBLE  
DOOR



ECO FRIENDLY  
GAS



THROUGH-HOLE  
10 mm



WHEELS  
(260 L)



CALIBRATION  
REPORT



## FR REFRIGERATORS

- Temperature range: +2 ... +8 °C
- Internal volume: 110 - 260 L
- LED display

Professional laboratory refrigerators with digital display and electronic control, automatic defrosting, temperature and open-door alarms. Smart and easy-to-use refrigerated instruments; the internal parameters can be adjusted according to the most restrictive needs.

The internal dynamic ventilation system ensures the **best conditions** to store even the most sensitive materials, in accordance with EN 60068-3.

Highly efficient compressors use environmentally friendly, CFC-free and HCFC-free refrigerant gases in compliance with European environmental regulations, such as F-Gas Regulation (EU) 517/2014.

**Three alarm levels:** audible, visual and remote with 0 potential contact.

The small-sized models (110 litres) are suitable for laboratories with limited spaces and can be placed under the counter.

All models are equipped with an internal Full-LED light and reversible door, blind or glass (G versions), with key lock.



Microprocessor controller with simple and intuitive interface; tenth of degree resolution for accurate control using NTC-type probes.

Measurement unit: °C or °F.

260 L models are supplied with wheels (frontally lockable).

Name	Volume (liters)	Temperature range (°C)	External dim. LxWxH (mm)	Weight (kg)	Power (W)	p/n
FR 110	110	+2 ... +8 °C	600 x 560 x 805	50	120	41500012
FR 110 G	110	+2 ... +8 °C	600 x 560 x 805	50	120	41500022
FR 260	260	+2 ... +8 °C	600 x 560 x 1525	75	160	41500032
FR 260 G	260	+2 ... +8 °C	600 x 560 x 1525	75	160	41500042



## NEW FRZ 300 COMBINED FRIDGE-FREEZER

- Working range: +2 ... +8 °C (refrigerator) / -25 ... -10 °C (freezer)
- Usable volume 300 L : 200 (refrigerator) + 100 (freezer)
- Dual LED display

The combined refrigerator-freezer FRZ 300 is the ideal solution for laboratories requiring a reliable and versatile combined instrument designed to provide **maximum control** for the storage of sensitive materials.

With a **total capacity of 300 litres**, divided into 200 litres for the refrigerator and 100 litres for the freezer, the FRZ 300 offers ample space and storage flexibility for different laboratory needs.

The digital display and electronic control, with a resolution of 0.1°C, allows to precisely adjust the temperature, ensuring accurate control of indoor conditions.

The advanced customizable alarm system with audible and visual alerts warns about critical changes, while the 0 potential contact offers remote monitoring to be safer.

The highly efficient compressors use environmentally friendly, **CFC-free and HCFC-free refrigerant gases in compliance with European environmental regulations**, such as F-Gas Regulation (EU) 517/2014.

Calibration parameters are easily accessible through a dedicated submenu, making the FRZ 300 easy to handle even in maintenance operations.

The design is developed to guarantee **comfort and accessibility**: the internal LED lighting (refrigeration compartment) ensures a clear view of the samples, while the reversible door opening allows to easily place it within the laboratory.

The combined fridge-freezer is also available with a glass door (for the refrigerator side), to monitor the samples without opening the door.

The swiveling and braking wheels allow to position the instrument, even in limited spaces.

The FRZ 300 is equipped with a 10 mm through-hole on both refrigerator and freezer chambers, and resistant plastic-coated steel shelves designed for heavy use and easy cleaning.

The open-door alarm function, with a user-adjustable delay, provides additional protection against heat loss.

The combined fridge-freezer FRZ 300 is the ideal choice for any laboratory requiring a high quality, reliable and safe combined instrument with specific focus on sample protection and environmental sustainability.

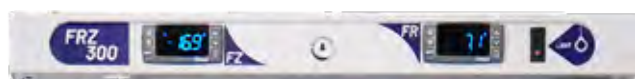
The combined fridge-freezer FRZ 300 is supplied with a double calibration report at +5.0°C and -20.0°C performed with an ACCREDIA-referable instrument.



Versione G



Thermostatisation



Dual display

	Name	Volume (liters)	Temperature range (°C)	External dim. LxWxH (mm)	Weight (kg)	Power (W)	p/n
NEW	FRZ 300	300	-25 ... -10 °C   +2 ... +8 °C	600 x 6100 x 1770	75	340	41500102
NEW	FRZ 300 G	300	-25 ... -10 °C   +2 ... +8 °C	600 x 6100 x 1770	75	340	41500112

## NEW FZ 300-P FREEZER CHEST

- Working range: -25 ... -10 °C
- Usable volume 300 L
- Dual LED display

The FZ 300-P freezer chest is the ideal choice for laboratories requiring a reliable and versatile instrument designed to provide maximum control for the storage of sensitive materials.

With a capacity of 300 litres, the FZ 300-P offers ample space and efficient organization, ideal for different storage needs in the laboratory.

The digital display and electronic control via NTC probes ensure precise temperature control, with resolution at 0.1°C, offering accurate control of indoor conditions.

The advanced customized alarm system with audible and visual alarms warns about critical changes from the set temperature, ensuring the safety of the samples.

**The highly efficient compressors use eco-friendly, CFC-free and HCFC-free refrigerant gases in compliance with European environmental regulations, such as F-Gas Regulation (EU) 517/2014.**

Calibration parameters are easily accessible through a dedicated submenu, making the FZ 300-P easy to handle even in maintenance operations.

The design of the FZ 300-P is developed to guarantee comfort and accessibility: the lockable handle ensures the protection of samples, while the practical internal drain valve facilitates the handling and maintenance of the instrument.



The swiveling and braking wheels allow to position the instrument, even in limited spaces. The instrument includes two plastic-coated steel drawers, designed for heavy use and easy cleaning.

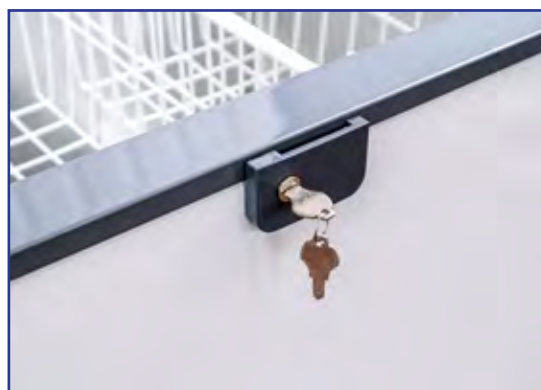
FZ 300-P is equipped with a 10 mm through-hole for a even more versatile use.

The FZ 300-P freezer is an ideal choice for any laboratory that requires a high-quality, safe and reliable instrument with specific focus on sample protection and environmental sustainability.

The FZ 300-P freezer is supplied with a calibration report at -20.0°C, performed with an ACCREDIA- referable instrument.



Side hole  
and drain valve



Key lock

Name	Volume (litres)	Working range (°C)	External dimensions L x W x H (mm)	Weight (kg)	Power (w)	p/n
NEW FZ 300-P	300	-25 ... -10 °C	1280 x 770 x 890	69	300	41500302



# FZ FREEZER

- Working range: -25 ... -10 °C
- Usable volume: 110 - 260 L
- LED display

Professional laboratory freezer with digital display and electronic control, defrost function, temperature and open-door alarms.

Smart refrigerated instruments, the internal parameters can be adjusted according to even the most restrictive needs.

Highly efficient compressors contain "eco-friendly" gases CFC-free and HCFC-free, in accordance with Directive 2014/68/EU.

Three alarm levels: acoustic, visual and remote with 0 potential contact.

Smaller models (110 litres) are suitable for environments with reduced space and can be placed under the counter.

All models are equipped with an internal Full-LED light and reversible door, with key lock.

260 L models are supplied with wheels.  
(Front wheels are lockable).

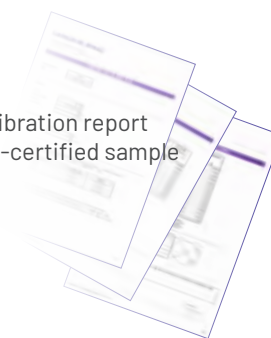


## CALIBRATION REPORT

All ARGO Freddo FR and FZ models come with calibration report included in the price, performed with an Accredia-certified sample instrument.

Reference temperatures:

- + 5 °C FR SERIES
- 20 °C FZ SERIES



Name	Volume (liters)	Temperature range (°C)	External dim. LxWxH (mm)	Weight (kg)	Power (W)	p/n
<b>FZ 110</b>	110	-25 ... -10 °C	600 x 560 x 805	50	150	41500212
<b>FZ 260</b>	260	-25 ... -10 °C	600 x 560 x 1525	75	190	41500232

## ACCESSORIES

	p/n
Standard shelf compatible with all models	41500702
Bottom shelf compatible with all models	41500712
Overlay kit for 110lt	41500722

## DATA SHEET



FR 110

FR 110 G

FR 260

FR 260 G

FZ 110

FZ 260

FRZ 300

FRZ 300G

FZ 300-P

Usable Volume [Liters]		110		260		110	260	300 (200 FR + 100 FZ)		285			
Temperature range / resolution				+2,0 ... +8,0 °C / 0,1 °C		-25,0 ... -10,0 °C / 0,1 °C		FR: +2.0 ... +8.0 °C; FZ: -25.0 ... -10.0 °C		-25.0 ... -10.0 °C			
Defrost function				Auto and manual		Manual		Manual (FZ) Automatic(FR)		Manual			
Temperature room variation	1,3 °C (at 5°C)	1,7 °C (at 5°C)	1,9 °C (at 5°C)	2,2 °C (at 5°C)	2,5 °C (at -20°C)	2,1 °C (at -20°C)	1,0 °C (at 5°C)	1,2 °C (at 5°C)	±1.0°C (at -20°C)				
							1,0 °C (at 20°C)	1,0 °C (at 20°C)					
Gradient	1,3 °C (at 5°C)	1,7 °C (at 5°C)	1,9 °C (at 5°C)	2,6 °C (at 5°C)	2,5 °C (at -20°C)	2,1 °C (at -20°C)	1,0 °C (at 5°C)	1,3 °C (at 5°C)	±1.0°C (at -20°C)				
							1,8 °C (at 20°C)	1,8 °C (at 20°C)					
Recovery time	12 min (at 5°C)	9 min (at 5°C)	18 min (at 5°C)	18 min (at 5°C)	22 min (at -20°C)	30 min (at -20°C)	19 min (FR) - 26 min (FZ)			30 min			
Refrigeration				Dynamic (forced ventilation)		Static (natural convection)		FR: Dynamic - FZ: Static (forced ventilation - natural convection)			Static (natural convection)		
Controller / display											microprocessor / digital		
Power supply											220 - 240 V		
Internal dimensions (L x W x H)			500 x 420 x 570		500 x 450 x 1290		500 x 420 x 570	500 x 450 x 1290	FR: 510 x 490 x 730 FZ: 450 x 460 x 440		1080 x 480 x 590		
External dimensions (L x W x H)			600 x 560 x 805		600 x 560 x 1525		600 x 560 x 805	600 x 560 x 1525	600 x 610 x1770		1280 x 770 x 890		
Weight			50 Kg		75 Kg		50 Kg	75 Kg	75 Kg		69 Kg		
Number of shelves (supplied / max.)			3 / 3		6 / 7		3 / 3	6 / 7	FR: 3/ 5 FZ: 2/ 3		2		
Min. distance between shelves							13 mm			13 mm		Not applicable	
Maximum shelves loading capacity							15 Kg			15 Kg		15 Kg	
Door	Blind	Glass	Blind	Glass	Blind			Blind	Blind + Glass		Blind		
Light											LED		
Hole diameter for probe passage											10 mm		
Power			120 W		160 W		150 W	190 W	340 W		300 W		
p/n	41500012	41500022	41500032	41500042	41500212	41500232	41500102	41500112	41500302				

\* In compliance with the directive EN 60068-3

\*\* In compliance with the technical directive DIN 12880

# THERMOMETERS



## DATA SHEET

Sensor	Measuring range	Max tolerance	Class
THERMOCOUPLE K	-60...+1200 °C	±1,5 °C or 0,4% T*	1
THERMOCOUPLE T	-40...+350 °C	±0,5 °C or 0,4% T*	1
THERMISTOR NTC	+25...+85 °C -40...+125 °C	±0,5 °C ±1 °C	-
PT 100	-100 °C +0 °C +100 °C +200 °C	±0,35 °C ±0,15 °C ±0,35 °C ±0,55 °C	Class A
PT 100	-100 °C +0 °C +100 °C +200 °C	±0,16 °C ±0,06 °C ±0,16 °C ±0,26 °C	Class 1/5 DIN

T\*=Measured temperature. Take the worst condition.

# TEMP 74

WARRANTY  
**3**  
YEARS

- 4 PT100 inputs
- Resolution 0,01 °C
- Measuring range: -200,0 ... +999,9 °C
- 4" color and high-definition display
- Data logger up to 190.000 data with date and time
- Three saving modes

GLP portable thermometer, with 4 channels for PT100 probes.  
Innovative high-resolution color display, excellent data display in all light conditions.

Possibility to select Light or Dark Theme to meet every need.  
"Stop-reading" functions, recording of Min and Max values.  
Protected calibration on 1 point for each channel independently, with indication of correction made.  
"Align all" function to align all channels to the reference measurement.

Ability to enter an ID for each channel. Alarms function: enable a minimum threshold and a maximum threshold.

If the temperature trespasses you will be alerted immediately by an audible and visual signal. 4-digit numeric password for data protection and calibrations.  
Manual, automatic and programmed data logger, up to 190,000 records with date and time.  
DataLink+ software can be downloaded free of charge from [www.xsinstruments.com](http://www.xsinstruments.com).  
Led and self-diagnostic messages indicate measurement status to the operator.

Powered by battery, PC, mains power supply. Auto power off.



DataLink+ software



## Supplied with:

Carrying case, USB power supply, USB cable for connection to PC, batteries and operating instructions.

Name	Measuring range	Resolution	Accuracy T	p/n
<b>TEMP 74</b> WITHOUT PROBE	-200 ... +999 °C	0,1 °C (-99,9 ... +199,9 °C)	±0,2 °C (-99,9 ... +99,9 °C)	50111212
<b>TEMP 74</b> + 4 PT56 TFE		1 °C in the rest of the scale	±2 °C in the rest of the scale	50111252



# TEMP 70 *vio* PT100

- Resolution 0,01 °C
- Measuring range -200,0...+999,9 °C
- Dual channel PT100
- High definition backlit coloured LCD Display
- Data logger up to 1000 data
- Certifiable

GLP portable thermometer, with double channel for PT 100 probes.  
Innovative high resolution color display, excellent readability in all light conditions.

"Hold" functions and recording of Min and Max values.

Protected calibration on 1 point with indication of the correction made.

Manual and automatic data logger, up to 1,000 records with date and time.

Data-Link free software downloadable on the website [www.xsinstruments.com](http://www.xsinstruments.com).

Guided procedures on the display for a simple and intuitive use.

LED and self-diagnosis messages indicate the status of the measurement to the operator.

Powered by battery, PC, or USB power supply. Auto shutdown.

Supplied with:

Transport case, USB power supply, USB cable for PC connection, batteries and user manual.



Model	Measuring range	Resolution	T Accuracy	p/n
<b>TEMP 70 Vio PT100</b> WITHOUT PROBE	-200,0 ... +999,9 °C	0,01 °C (-99,99 ... +99,99 °C) 0,1 °C in the rest of the scale	±0,03 °C (-99,99 ... +99,99 °C) ±0,1 °C in the rest of the scale	50111082
<b>SUPPORT</b>	Magnetic holder for Vio series portables			50110252

# TEMP 7 *vio* PT100

- Resolution 0,1 °C
- Measuring range: -200 ... +999 °C
- High definition backlit coloured LCD Display
- Certifiable

Portable thermometer, for PT100 probes, with backlit color display.

Recording of Min and Max values, measure stability indicator.

Protected calibration on 1 point with indication of the correction made.

Hold function and auto-off after 20 minutes (can be disabled).

Guided procedures on the display for a simple and intuitive use.

LED and self-diagnosis messages indicate the status of the measurement to the operator.

Supplied with:

Transport case, batteries and user manual.



Model	Measuring range	Resolution	T Accuracy	p/n
<b>TEMP 7 VIO PT100</b> WITHOUT PROBE	-200 ... +999 °C	0,1 °C (-99,9 ... +199,9 °C) 1 °C in the rest of the scale	±0,2 °C (-99,9 ... +99,9 °C) ±2 °C in the rest of the scale	50111012
<b>SUPPORT</b>	Magnetic holder for Vio series portables			50110252



# TEMP 7 *vio* NTC

- Resolution 0,1 °C
- Measuring range: -50,0 ... +150,0 °C
- High definition backlit coloured LCD Display

Portable thermometer, for NTC 30KΩ probes, with backlit color display.  
Recording of Min and Max values, measure stability indicator.  
Protected calibration on 1 point with indication of the correction made.  
Hold function and auto-off after 20 minutes (can be disabled).  
Guided procedures on the display for a simple and intuitive use.  
LED and self-diagnosis messages indicate the status of the measurement to the operator.

Certifiable range 0 ... 150 °C

## Supplied with:



Transport case, batteries and user manual.



Models	Description	p/n
<b>TEMP 7 Vio NTC</b> WITHOUT PROBE	Portable thermometer	50111052
<b>TEMP 7 Vio NTC</b> WITH PROBE FOR AIR AND LIQUID	Portable thermometer with NT7L probe for air and liquid	50111062
<b>TEMP 7 Vio NTC</b> WITH PENETRATION PROBE	Portable thermometer with NT7P probe with penetration tip	50111092
<b>SUPPORT</b>	Magnetic holder for Vio series portables	50110252

## NTC PROBES



Name	Stem length	Stem diameter	Tip	Measuring range °C	Certification range °C	t <sub>90</sub> min	p/n
<b>NT7L</b> LIQUIDS AND AIR	200 mm	Ø= 3 mm		- 50 ... +150	0 ... +150	3	50011142
<b>NT7P</b> PENETRATION	150 mm	Ø= 4 mm		- 50 ... +150	0 ... +150	3	50011122

# TEMP 7 Vio K/T

- Resolution 0,1 °C
- Measuring range: -250,0...+1.350 °C
- Certifiable
- High definition backlit coloured LCD Display

Portable thermometer, for thermocouple K/T probes, with backlit color display.  
 Recording of Min and Max values, measure stability indicator.  
 Protected calibration on 1 point with indication of the correction made.  
 Hold function and auto-off after 20 minutes (can be disabled).  
 Guided procedures on the display for a simple and intuitive use.  
 LED and self-diagnosis messages indicate the status of the measurement to the operator.



## Supplied with:

Transport case, batteries and user manual.

Model	Measuring range	Resolution	T Accuracy	p/n
<b>TEMP 7 Vio K/T</b> WITHOUT PROBE	K = -200,0 ... +1.350 °C T = -250,0 ... +400 °C	0,1 °C (-99,9...+199,9 °C) 1 °C in the rest of the scale	±0,1 % / ±0,4 °C reading > -150 °C ±0,25 % / ±1 °C reading < -150 °C	50111032
<b>SUPPORT</b>	Magnetic holder for Vio series portables			50110252



**XS Portable thermometers** brochures are available  
 on our website [www.xsinstruments.com](http://www.xsinstruments.com)

# PT100 PROBES



## PROBES WITH HANDLE



Name	Stem lenght	Stem diameter	Tip	Measuring range °C	Certification range °C	t <sub>90</sub> min	Precision class	p/n
<b>PT56 L</b> LIQUID AND AIR	200 mm	Ø= 3 mm		-50 ... +400	-50 ... +250	2	A	51000202
<b>PT56 C</b> CONTACT	200 mm	Ø= 5 mm		-50 ... +400	0 ... +250	3	A	51000212
<b>PT56 P</b> PENETRATION	150 mm	Ø= 4 mm		-50 ... +400	-50 ... +250	2	A	51000222
<b>PT56 A</b> AIR	200 mm	Ø= 4 mm		-50 ... +250	-50 ... +150	2	A	51000232
<b>PT56 L</b> 1/5 DIN	200 mm	Ø= 3 mm		-50 ... +400	-50 ... +300	2	1/5 DIN	51000242
<b>PT56 /500</b> LIQUIDS AND AIR	500 mm	Ø= 6 mm		-50 ... +400	-50 ... +300	5	A	51000262
<b>PT56 /1000</b> LIQUIDS AND AIR	1000 mm	Ø= 6 mm		-50 ... +400	-50 ... +300	5	A	51000272

## PROBES WITHOUT HANDLE- PERFECT FOR OVEN AND INCUBATORS



Name	Stem lenght	Stem diameter	Tip	Measuring range °C	Certification range °C	t <sub>90</sub> min	Precision class	p/n
<b>PT56 TFE</b> LIQUIDS AND AIR	100 mm	Ø= 4 mm		-200... +300 cable included	-200 ... +200	3	A	51000252
<b>PT56 TFE</b> 1/5 DIN LIQUIDS AND AIR	100 mm	Ø= 4 mm		-200... +300 cable included	-200 ... +200	3	1/5 DIN	51000292

# TERMOCOUPLE PROBES K


## PROBES WITH HANDLE



Name	Stem lenght	Stem diameter	Tip	Measuring range °C	Certification range °C	t <sub>90</sub> min	Precision class	p/n
<b>3K 220</b> LIQUIDS AND AIR	200 mm	Ø= 2 mm		-60 ... +600	0 ... +400	2	1	51000752
<b>3K 320</b>	200 mm	Ø= 3 mm		-60 ... +800	0 ... +550	3	1	51000762
<b>3K 350</b>	500 mm	Ø= 3 mm		-60 ... +800	0 ... +800	2	1	51000772
<b>3K 6100</b>	1000 mm FOLDING	Ø= 6 mm		-60 ... +1100	0 ... +1100	4	1	51000782
<b>3K 6120</b>	1200 mm FOLDING	Ø= 6 mm		-60 ... +1100	0 ... +1100	6	1	51000822
<b>3K 650</b>	500 mm FOLDING	Ø= 6 mm		-60 ... +1100	0 ... +1100	7	1	51000792
<b>3K 415 P</b> PENETRATION	150 mm	Ø= 4 mm		-50 ... +600	0 ... +550	2	1	51000832
<b>3K 520 C</b> CONTACT	200 mm	Ø= 5 mm		-60 ... +600	0 ... +250	2	1	51000802

## PROBES WITHOUT HANDLE - PERFECT FOR TUBES AND HARD PLACES TO REACH








Name	Stem lenght	Stem diameter	Tip	Measuring range °C	Certification range °C	t <sub>90</sub> min	Precision class	p/n
<b>3K 1200</b> MANIPULABLE WIRE	2000 mm	Ø= 2 mm		-60 ... +400	0 ... +300	1	1	51000812

# TERMOCOUPLE PROBES T


**PROBES WITH HANDLE** SUGGESTED FOR FOOD AND PHARMACEUTICAL INDUSTRY



Name	Stem lenght	Stem diameter	Tip	Measuring range °C	Certification range °C	t <sub>90</sub> min	Precision class	p/n
<b>3T 320</b> LIQUIDS AND AIR	200 mm	Ø= 3 mm		-50 ... +350	0 ... +300	3	1	51000902
<b>3T 415</b> PENETRATION	150 mm	Ø= 4 mm		-50 ... +350	0 ... +300	2	1	51000912
<b>3T 215</b> PENETRATION	150 mm	Ø= 2 mm		-50 ... +350	0 ... +300	1	1	51000942
<b>3T 520 C</b> CONTACT	200 mm	Ø= 5 mm		-50 ... +350	0 ... +250	2	1	51000922
<b>3T 420 A</b> AIR	200 mm	Ø= 4 mm		-50 ... +250	0 ... +200	2	1	51000932

**PROBES WITHOUT HANDLE - PERFECT FOR OVEN AND INCUBATORS**



Name	Stem lenght	Stem diameter	Tip	Measuring range °C	Certification range °C	t <sub>90</sub> min	Precision class	p/n
<b>3T 210</b>	100 mm	Ø= 2,5 mm		-50 ... +300	-40 ... +250	2	1	51000952



# MINI 1 WAY

- Single Trip Data logger - 1 trip
- Working range : -40...+80 °C

1-channel data logger with internal temperature sensor and IP67 protection. START button to turn it on. Marking of an event on the logger via Start button.

Memory.

1 WAY: 45,000 records (Interval 5 sec...24 hours),

1 WAY LCD: 20,000 records. Internal battery (life 1 year).

Working range: -40...+80 °C.

Resolution 0,01°C.

Temperature accuracy  $\pm 0,3^{\circ}\text{C}$  (-10...+80°C),  $\pm 0,5^{\circ}\text{C}$  (-40...-10°C).

Humidity accuracy  $\pm 3\%$  RH (+15...+25°C),  $\pm 5\%$  elsewhere.



Name	Description	Qty	p/n
<b>MINI 1 WAY PREPROGRAMMED</b>	Preprogrammed with alarm thresholds (LL = 0 °C, L = 2 °C, H = 8 °C, HH = 10 °C), 5 minute acquisition interval, STOP button not activated.	10 pcs	70101013
<b>MINI 1 WAY PROGRAMMABLE ON REQUEST</b>	Provide Giorgio Bormac with alarm thresholds with delays, acquisition interval, acquisition, possible activation of STOP button.	10 pcs	70101003
<b>MINI 1 WAY LCD WITH DISPLAY</b>	Provide Giorgio Bormac with alarm thresholds with delays, acquisition interval, possible activation of acquisition, possible activation of STOP button.	10 pcs	70101043

## NEW MINI T - T1 - TH - TB

- Memory : 48000 records
- Resolution : 0,01 °C
- Recording interval: from 5 seconds to 24 hours
- Automatic file storage: ZLG, TXT, CSV, PDF



XS mini loggers are programmable with zLogg Manager software, and automatically generate a report in PDF format.

They have a multi-function display:

(date/time, sampling interval, start and stop recording mode, minimum, maximum, average value and average kinetic temperature).

They are supplied with a buzzer sounds when thresholds are exceeded.

All at the click of a button. The logger works like a normal USB stick and automatically generates report files.

No software is required to download data.

It has 4 alarm thresholds programmable via software.

When connected to a PC USB port, XS mini loggers automatically generate a PDF report in graphical format.

Each model is built with high quality materials to ensure precision and reliability.

	Name	Range	Resolution	Accuracy	p/n
<b>NEW</b>	<b>MINI T</b> EXTERNAL PROBE	T: - 40 ...+80 °C	0,01 °C	T: $\pm 0,2^{\circ}\text{C}$ (-10...+80°C) / $\pm 0,5^{\circ}\text{C}$ (-40...-10°C)	70100503
<b>NEW</b>	<b>MINI T1</b> EXTERNAL PROBE	T: - 40 ...+80 °C	0,01 °C	T: $\pm 0,3^{\circ}\text{C}$ (-10...+80°C) / $\pm 0,5^{\circ}\text{C}$ (-40...-10°C)	70100513
<b>NEW</b>	<b>MINI TH</b> TEMPERATURE + HUMIDITY	T: - 40 ...+80 °C H: 10...90 % RH	0,01 °C 0,01 % RH	T: $\pm 0,2^{\circ}\text{C}$ (-10...+80°C) / $\pm 0,5^{\circ}\text{C}$ (-40...-10°C) H: $\pm 3\%$ RH (+15 ... 25 °C) / $\pm 5\%$ elsewhere	70100523
<b>NEW</b>	<b>MINI TB</b> WITH PROBE	T: - 200 ...+200 °C	0,01 °C	T: $0,3^{\circ}\text{C}$ (-30...+120°C), $\pm 0,5^{\circ}\text{C}$ (elsewhere), $\pm 1^{\circ}\text{C}$ (+120 ...+200°C)	70100533
	<b>DBAT MINI BATTERY</b>	DBAT Mini replacement batteries for Mini XS			70109993

**NEW UR 100**

- Working range T: 0 ... +60,0 °C
- Working range RH: 0 ... +95,0 %
- Resolution 0,1 °C / 0,1 %
- ACCREDIA certifiable

Digital thermos-hygrometer with backlight display.

Simultaneous reading of temperature and humidity.

Temperature display in °C/°F, relative humidity and dew point.

Maximum and minimum U.R. value recording. Accredia certifiable.

Equipped with:

Suitcase, temperature/humidity probe and user's manual.



Name	Working range	Resolution	p/n
<b>NEW UR 100</b> WITH PROBE	T: 0 ... 60 °C RH: 0 ... 95 %	T: 0,1 °C RH: 0,1 %	52000302

## Humidity certification



LAT center n. 123

Measurement uncertainty: 0.6...2.3 %UR

### For digital thermos-hygrometers complete with probe

Range	p/n
1 temperature <b>point</b> + 3 humidity <b>points</b> for each temperature point (max. difference 50%)	21006299
1 temperature <b>point</b> + 4 humidity <b>points</b> from 10 % to 90 %UR	21006309
2 temperature <b>points</b> + 4 humidity <b>points</b> for each temperature point	21006319
3 temperature <b>points</b> + 4 humidity <b>points</b> for each temperature point	21006329
3 temperature <b>points</b> + 3 humidity <b>points</b> for each temperature point	21006339

- Calibration temperature (+5 °C...+75°C) and details of the customer to be mentioned on the certificate must be communicated to grant fast delivery time.

# SPECTROPHOTOMETERS

## VIS *AND* UV/VIS



### Touchscreen

A 5" TFT high definition color display for a new level of experience.  
Easy user interface, built-in features (photometry, quantitation, spectrum scan).  
In addition: File management, System Utility and Performance verification.



### Connectivity and Storage

USB Flash Drive connection for data and methods storage.  
PC remote control, RS-232 port for printer connection.  
Internal memory to save methods and data.



### Access and maintenance

Removable front panel, anticorrosive material cell holder, drain hole inside the sample compartment: designed to protect the instrument from accidental spills, time wear and damages.



### Lamp compartment

Removable top panel for an easier and faster access to the sources compartment, for a rapid inspection of the lamps, check of alignment and lamp replacement.



### Multi-language user interface

Select your preferred language to improve the interactivity with Onda Touch instruments. Available languages: English, German, Spanish, French, Italian and Portuguese.

# UV-31 SCAN

- UV / VISIBLE
- Coloured Display 5" TOUCH SCREEN
- Range 190 - 1100 nm
- Bandwidth 2 nm



Single beam UV/VISIBLE spectrophotometer. 2 nm bandwidth, single beam, Tungsten/Deuterium lamps. USB flash memory, operating system multi-language.

**Functions:** photometry, quantitative, spectrum scan, file management, performance verification

External dimensions (LxWxH) 456x360x185mm. Weight 10.7 kg.  
Power supply 100 - 240 V AC - 50/60 Hz - Power: 120 W

**Supplied as standard:** 4 optical glass cuvettes o.p. 10 mm, 2 quartz cuvettes o.p. 10 mm, 4-position cell holder (10 mm), power cable, dust cover, USB flash memory, calibration report and Easy UV Basic software (allowing Quantitative, Single  $\lambda$  Photometric, Kinetic analysis).

Name	Range	Bandwidth	Beam	Source	p/n
UV-31 SCAN	190 - 1100 nm	2 nm	Single	Tungsten/Deuterium	11000082

# V-11 SCAN

- VISIBLE
- Coloured Display 5" TOUCH SCREEN
- Range 320 - 1100 nm
- Bandwidth 4 nm



VISIBLE single beam spectrophotometer. 4 nm bandwidth, single beam, Tungsten lamp, USB flash memory, operating system multi-language.

**Functions:** photometry, quantitative, spectrum scan, file management, performance verification.

External dimensions (LxWxH) 456x360x185mm. Weight 10.5 kg.  
Power supply 100 - 240 V AC, 50/60 Hz - Power 75 W.

**Supplied as standard:** 4 o.p. 10 mm optical glass cuvettes, 4-position cell holder (10 mm), power cable, dust cover, USB flash memory, calibration report and Easy UV Basic software (allowing Quantitative, Single  $\lambda$  Photometric, Kinetic analysis).

Name	Range	Bandwidth	Beam	Source	p/n
V-11 SCAN	320 - 1100 nm	4 nm	Single	Tungsten	11000062

# UV-21

- UV / VISIBLE
- Coloured Display 5" TOUCH SCREEN
- Range 195 - 1050 nm
- Bandwidth 4 nm



Single beam UV/VISIBLE spectrophotometer. 4 nm bandwidth, single beam, Tungsten/Deuterium lamps. USB flash memory, operating system multi-language.

**Functions:** photometry, quantitative, file management, performance verification

External dimensions (LxWxH) 456x360x185mm. Weight 10.7 kg  
Power supply 100 - 240 V AC - 50/60 Hz - Power: 120 W

**Supplied as standard:** 4 optical glass cuvettes o.p. 10 mm, 2 quartz cuvettes o.p. 10 mm, 4-position cell holder (10 mm), power cable, dust cover, USB flash memory, calibration report and Easy UV Basic software (allowing Quantitative, Single  $\lambda$  Photometric, Kinetic analysis)

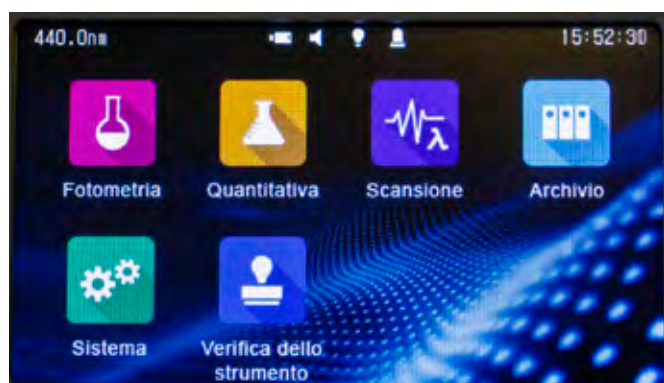
Name	Range	Bandwidth	Beam	Source	p/n
UV-21	195 - 1050 nm	4 nm	Single	Tungsten/Deuterium	11000072

## SOFTWARE EASY UV FOR ONDA TOUCH SERIES

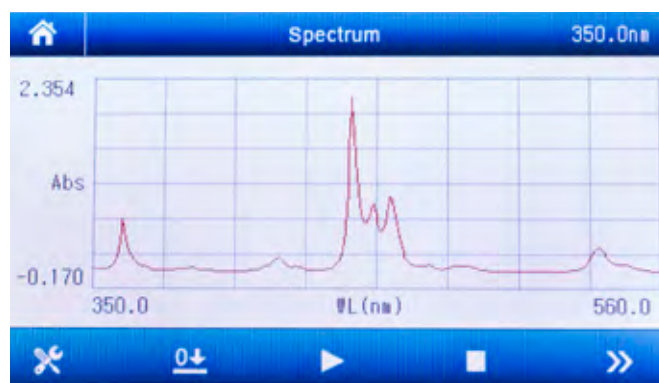
Easy UV is the application software based on Windows operating systems for the remote control of ONDA touch Series instruments. The application range, data analysis and file management function are greatly expanded, for example to clinical applications (hemoglobin oxygen saturation) and basic biotechnology research (UV methods for DNA/proteins, range DNA 0,2-70  $\mu\text{g/ml}$ ).

**Functions:**

Photometry, Quantitative, Kinetics, Multi-wavelength, Spectrum scan, DNA/protein (UV methods), Wine color analysis.



Main Menu  
Onda TOUCH












Graphic visualization of a spectrum scan



# ACCESSORIES

Name	Description	p/n
<b>EASY UV SOFTWARE</b>	For OS Windows, includes the functions: <b>Photometry, Quantitative, Kinetics, Multi-wavelength, Spectrum scan, DNA/protein (UV methods), Wine color analysis.</b> Includes USB installation key, USB cable, USB dongle user license, user manual	11000972
<b>MICRO PRINTER RS 232</b>	Supplied with power supply, RS232 connection cable, roll of normal paper	11000442
<b>IQ-OQ MANUAL</b>	IQ-OQ paper manual for ONDA spectrophotometers. Filled in by Giorgio Bormac staff to order separately (cod. 11000959)	11000192
<b>VISIBLE SOURCE REPLACEMENT LAMP</b>	VISIBLE range source. Tungsten-halogen lamp. <b>Vertical</b> filament. <b>Compatible with V-10 Plus , UV-20 and UV-30 SCAN models.</b>	11000912
<b>VISIBLE SOURCE REPLACEMENT LAMP</b>	VISIBLE range source. Tungsten-halogen lamp. <b>Horizontal</b> filament. <b>Compatible with V-11 SCAN, UV-21 and UV-31 SCAN models.</b>	11000942
<b>UV SOURCE REPLACEMENT LAMP</b>	UV range source. Deuterium lamp. <b>Compatible with all ONDA models.</b>	11000922
<b>ADAPTOR TUBES 1 mm</b>	Adaptor 10x10 for optical path tubes 1 mm <b>Min. quantity order: 2 pcs</b>	11000582
<b>DUST COVER</b>	for ONDA spectrophotometer	11000932

## SUPPORTS

Description		p/n
4 position cell holder for up to <b>10 mm</b> square cuvettes		11000202
4 position cell holder for up to <b>50 mm</b> square cuvettes		11000212
4 position cell holder for up to <b>100 mm</b> square cuvettes		11000222
Single position cell holder for micro-cells ,central beam height: <b>15 mm</b>		11000232
<b>5° Reflectance measurements Support</b> (minimum sample: 20mmx20mmx4mm, central beam height: 50mm)		11000412
<b>Single position</b> Solid sample holder (dimensions 50x30x2mm)		11000422
8 position automatic cell holder for up to <b>10 mm</b> optical path square cuvettes		11000242
5 position automatic cell holder for <b>10mm-100mm</b> optical path cuvettes		11000432
Test tube holder <b>Ø 16mm</b> , max height: 90mm, central beam height: 45mm		11000532

## OPTICAL GLASS CELLS FOR VISIBLE - RANGE 320 - 1400 nm

Description	Dimensions (L x W x H) mm	Volume ml	p/n
Special <b>optical</b> glass cuvettes, <b>1 mm</b> optical path. 2-piece set	12,5 x 3,5 x 45	0,4	11000382
Special <b>optical</b> glass cuvettes, <b>10 mm</b> optical path. 4-piece set	12,5 x 12,5 x 45	3,5	11000252
Special <b>optical</b> glass cuvettes, <b>20 mm</b> optical path. 4-piece set	12,5 x 22,5 x 45	7	11000262
Special <b>optical</b> glass cuvettes, <b>30 mm</b> optical path. 4-piece set	12,5 x 32,5 x 45	10,5	11000272
Special <b>optical</b> glass cuvettes, <b>50 mm</b> optical path. 4-piece set	12,5 x 52,5 x 45	17,5	11000282
Special <b>optical</b> glass cuvettes, <b>100 mm</b> optical path. 4-piece set	12,5 x 102,5 x 45	35	11000292
Flow cuvette made of special <b>optical</b> glass, optical path <b>10 mm</b> Beam height at 15 mm. <b>Micro-cell holder required cod.11000232</b>	12,5 x 12,5 x 45	0,7	11000492

## QUARTZ CELLS FOR UV - RANGE 190 - 1400 nm

Description	Dimensions (L x W x H) mm	Volume ml	p/n
<b>Quartz</b> glass cuvettes, <b>1 mm</b> optical path. 2 pieces	12,5 x 3,5 x 45	0,4	11000522
Square <b>quartz</b> glass cuvettes, <b>10 mm</b> optical path. 2-piece set	12,5 x 12,5 x 45	3,5	11000302
<b>Quartz</b> glass cuvettes, <b>20 mm</b> optical path. 2-piece set	12,5 x 22,5 x 45	7	11000312
<b>Quartz</b> glass cuvettes, <b>30 mm</b> optical path. 2-piece set	12,5 x 32,5 x 45	10,5	11000322
<b>Quartz</b> glass cuvettes, <b>50 mm</b> optical path. 2-piece set	12,5 x 52,5 x 45	17,5	11000332
<b>Quartz</b> glass cuvettes, <b>100 mm</b> optical path. 2-piece set	12,5 x 102,5 x 45	35	11000342



## SPECIAL CELLS- MICRO-CELLS HOLDER REQUIRED Part. No.11000232

Description	Dimensions (L x W x H) mm	Volume μl	p/n
<b>MICRO</b> quartz glass cuvette, optical path <b>10 mm</b>	12,5 x 12,5 x 45	100	11000352
<b>MICRO</b> quartz glass cuvette, optical path <b>10 mm</b>	12,5 x 12,5 x 45	200	11000362
<b>MICRO</b> quartz glass cuvette, optical path <b>10 mm</b>	12,5 x 12,5 x 45	500	11000372
<b>MICRO</b> quartz glass cuvette, optical path <b>10 mm</b>	12,5 x 12,5 x 45	1000	11000392
<b>Flow</b> cuvette made of <b>special optical glass</b> , optical path <b>10 mm</b> (beam height 15 mm)	12,5 x 12,5 x 45	700	11000492
<b>Quartz glass flow</b> cuvette, optical path <b>10 mm</b> (beam height 15 mm)	12,5 x 12,5 x 45	700	11000502

Quartz  
100-200 μlQuartz  
500-1000 μl

Flow cuvette

# SIPPER and PELTIER SYSTEM



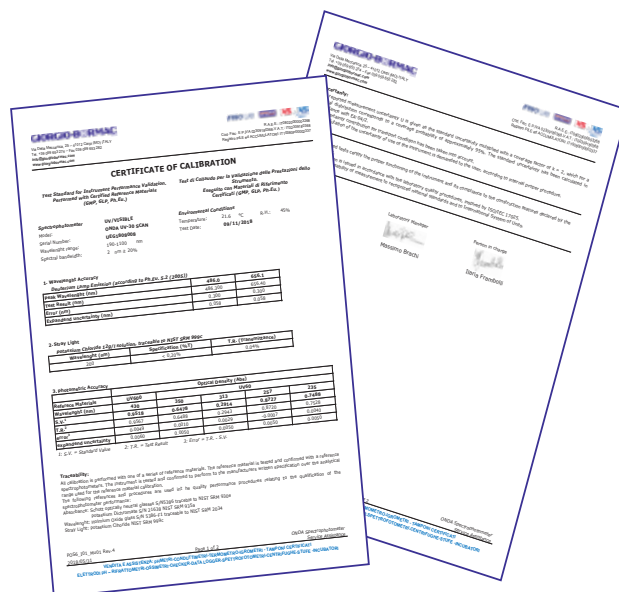
Name	Description	p/n
<b>SIPPER A-1101</b> FLOWING SYSTEM	Flow cell system, complete with external unit, power cable, connection cable, micro-cell holder, quartz flow cell, silicone flow tubes, adjustable <b>flow rate from 1 to 8 ml/min</b> . External dimensions (LxWxH) 170x270x115mm. Weight 3 kg. Power 240 V AC, 50/60 Hz	11000552
<b>PELTIER A-1201</b> THERMOSTATIC SYSTEM	System for selectable constant temperature range <b>10-60°C</b> , complete with outdoor unit, power cable, connection cable, special micro-cell thermostatic stand. External dimensions (LxWxH) 170x270x115mm. Weight 3kg. Power 240 V AC, 50/60 Hz <b>NO CUVETTE INCLUDED.</b>	11000562
<b>SIPPER / PELTIER A-1001</b> COMBINED SYSTEM	Selectable constant temperature and flow cell system. <b>Range 10-60°C, flow rate adjustable from 1 to 8 ml/min.</b> Complete with external unit, power cord, connection cable, special thermostatically finned micro-cell holder, quartz flow cell, silicone flux tubes. External dimensions (LxWxH) 170x270x115mm. Weight 3 kg. Power supply 240 V AC, 50/60 Hz	11000572

## CALIBRATION REPORT

All Onda spectrophotometers are supplied with a calibration report performed according to ISO 17025 requirements, to measure with traceability.

On the calibration report are reported:

- **WAVELENGTH ACCURACY**
- **PHOTOMETRIC ACCURACY**
- **STRAY LIGHT TEST**
- **MEASUREMENT UNCERTAINTY**
- **TRACEABILITY STATEMENT**



# V-10 PLUS

- VISIBLE Single beam
- Range 325 - 1000 nm
- Bandwidth 4 nm



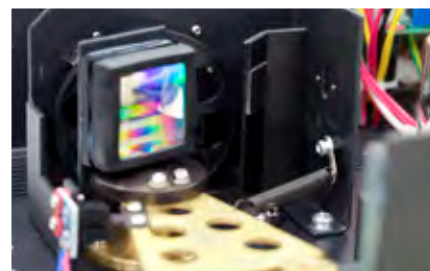
**VISIBLE** single beam spectrophotometer.

Single beam optical system, 4 nm bandwidth, Tungsten lamp.  
LCD display, membrane keypad.

Spectral resolution 0.1 nm,  
Photometric accuracy  $\pm 0.5\%T$ ,  
Photometric accuracy  $\pm 0.3\%T$ .  
Photometric range 0...200%T, -0.3...3Abs, 0...1999Conc.

**Functions:** Transmittance, Absorbance, Concentration, Coefficients

External dimensions (LxWxH) 490x360x210mm. Weight 12 kg.  
Power 100 - 240 V AC, 50/60 Hz. Power 75 W.



Monochromator:  
1200 lines/mm reticle

**Supplied as standard:**

Complete with slide cell holder for 4 x 10 mm o.p. cuvettes, 4 x 10 mm special optical glass square cuvettes, EU power cord, MWave Basic Software (allowing Quantitative, Single  $\lambda$  Photometric, Kinetic analysis), dust cover, calibration report.

Name	Range	Bandwidth	Beam	Source	p/n
<b>V-10 PLUS</b>	325 - 1000 nm	4 nm	Single	Tungsten	11000052

## ACCESSORIES FOR V-10 PLUS

Name	Description	p/n
<b>PRO-WINE SOFTWARE</b>	Software for V-10 PLUS (Includes the installer CD, USB cable, USB dongle usage license key, User manual). Necessary PC with Windows operating system and two USB ports.	11000962
<b>MICRO PRINTER RS 232</b>	Thermal paper, supplied with power supply, connection cable, paper roll	11000452
<b>MANUAL IQ-OQ</b>	Paper manual IQ-OQ for ONDA spectrophotometer. Filled in by Giorgio Bormac staff to order separately (part no. 11000959)	11000192
<b>VISIBLE SOURCE REPLACEMENT LAMP</b>	VISIBLE range Source. Tungsten-Halogen Lamp. <b>Horizontal filament.</b> <b>Compatible with V-10 Plus, UV-20 and UV-30 Scan models</b>	11000912
<b>ADAPTOR TUBES 1mm</b>	Adaptor 10x10 for optical path tubes 1 mm <b>Min. quantity order: 2 pcs</b>	11000582

## SUPPORTS

Description	p/n
Cell support <b>4 positions</b> , optical path cuvettes up to <b>10 mm</b>	11000202
Cell support <b>4 positions</b> , optical path cuvettes up to <b>50 mm</b>	11000212
Cell support <b>4 positions</b> , optical path cuvettes up to <b>100 mm</b>	11000222
<b>Microcell</b> holder, <b>15 mm</b> beam height, one position	11000232
Cell holder for test tubes ( <b>Ø 8 to 24 mm</b> , <b>max. height 100 mm</b> , <b>radius height 45 mm</b> ) only for V-10 PLUS	11000402
Support for <b>5° reflectance measurements</b> (20 x 20 x 4 mm sample)	11000412
Stand for <b>solid sample</b> (size 50 x 30 x 2 mm), one position	11000422

## CUVETTES FOR VISIBLE - RANGE 320 - 1400 nm

Description	Dimensions (W x L x H) mm	Volume ml	p/n
Special <b>optical</b> glass cuvettes, <b>1 mm</b> optical path. 2-piece set	12,5 x 3,5 x 45	0,4	11000382
Square cuvettes made of special <b>optical</b> glass, optical path <b>10 mm</b> . 4-piece set	12,5 x 12,5 x 45	3,5	11000252
Special <b>optical</b> glass cuvettes, <b>20 mm</b> optical path. 4-piece set	12,5 x 22,5 x 45	7	11000262
Special <b>optical</b> glass cuvettes, <b>30 mm</b> optical path. 4-piece set	12,5 x 32,5 x 45	10,5	11000272
Special <b>optical</b> glass cuvettes, <b>50 mm</b> optical path. 4-piece set	12,5 x 52,5 x 45	17,5	11000282
Special <b>optical</b> glass cuvettes, <b>100 mm</b> optical path. 4-piece set	12,5 x 102,5 x 45	35	11000292
<b>Flow</b> cuvette made of special optical glass, optical path <b>10 mm</b> (beam height at 15 mm). <b>Micro-cell holder required cod.11000232</b>	12,5 x 12,5 x 45	0,7	11000492



1 mm



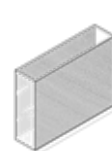
10 mm



20 mm



30 mm



50 mm



100 mm



**ONDA** brochure is available on our website  
[www.giorgiobormac.com](http://www.giorgiobormac.com)



# REFRACTOMETERS

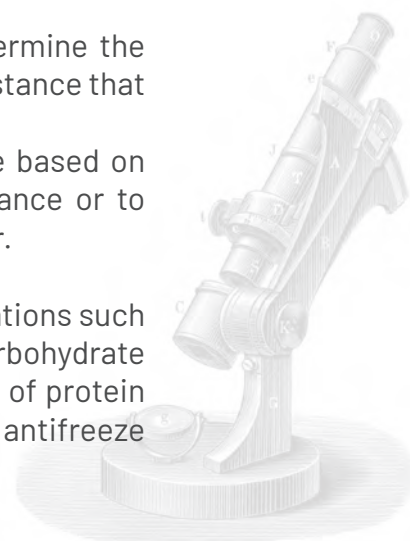
WARRANTY  
**2**  
YEARS



A refractometer is an optical measuring instrument used to determine the refractive index of a substance, or some physical property of a substance that is directly related to its refractive index.

It can be used to establish the identity of an unknown substance based on its refractive index, to establish the purity of a particular substance or to determine the concentration of one substance dissolved in another.

Commonly the refractometers are used to measure fluid concentrations such as the sugar content (Brix level) of fruits, vegetables, juices and carbohydrate drinks or for cutting fluids, specific gravity of urine, concentration of protein in the blood, degree of moisture in the honey (myelometer), salinity, antifreeze properties, industrial fluids.



## DBR 95

- Measuring range 0,0..95,0 % Brix
- Simultaneous display of brix, temperature and refractive index

Portable and benchtop digital refractometer.

**Automatic temperature compensation.**

Self-calibrating system with distilled water.

Sample volume 1ml.

Programmable MIN/MAX alarm threshold.

Powered by 3,7 V rechargeable battery.

**Working range**

**BRIX**= 0,0..95,0 % Brix ( $\pm 0,3$  %),

**Refractive index** = 1,3330...1,5318 nD,

**Temperature** = 0..40 °C ( $\pm 0,1$  °C).



**Always equipped with:**

Carrying case, power supply and USB cable, user manual.

Name	Description	Measuring range	Accuracy	p/n
DBR 95	Benchtop digital refractometer	0,0 - 95,0 % Brix	$\pm 0,3$ %	44000063

## DBR 55 / DBR SAL

- Measuring range: 0,0..55,0 % Brix
- Salinity measuring range: 0,0..28,0 % NaCl

Portable and bench-top waterproof digital refractometer.

Backlit display.

**Automatic temperature compensation** 10,0..60,0 °C.

**Self-calibrating** with water. 0.5 ml sample volume.

**Stores up to 20 data**, with cyclic memory.

Rubber shell and hard case.

Power supply 2 x 1.5 V (AAA Alkaline).

Dimensions 58 x 36 x 122 mm. Weight 150 g.



Name	Description	Measuring range	Accuracy	p/n
DBR 55	Benchtop digital refractometer	0,0..55,0 % Brix	$\pm 0,2$ %	44000073
DBR SAL	Salinity digital refractometer	0,0..28,0 % NaCl	$\pm 0,2$ %	44000053

# DBR WINE

Measuring range 0,0..55,0 % Brix

Portable and bench-top waterproof digital refractometer. Backlit display.

Automatic temperature compensation 10.0..60.0 °C.

Self-calibrating with water.

Sample volume 0.5 ml. Rubber shell and hard case.

Power supply 2 x 1.5 V (AAA Alkaline). Dimensions 58 x 36 x 122 mm. Weight 150 g.

RANGE	Measuring range	Resolution
Brix	0.0 ~ 55.0%	0,1 %
Temperature	0°C ~ 70°C	0,1°
Bé (Baumé)	0.0° ~ 29.8°	0,1°
Babo	0.0° ~ 46.4°	0,1°
Oe (Oechsle)	0° ~ 256°	1°
TAVP *	0.0% ~ 37,9%	0,1 %

\* ALCOHOL CONTENT BY VOLUME

Name	Description	Measuring range	Accuracy	p/n
DBR WINE	Benchtop digital refractometer	0,0..55,0 % Brix	±0,2 %	44000093



# DBR COFFEE

App HMCoffee



Measuring range 0,00..26,00 % Brix

Bluetooth connection: downloadable App for data storage.

Portable and bench-top waterproof digital refractometer. Backlit display.

Automatic temperature compensation 10.0..60.0 °C.

Self-calibrating with water. Sample volume 0.5 ml.

Rubber shell and hard case. Power supply 2 x 1.5 V (AAA Alkaline).

Dimensions 58 x 36 x 122 mm. Weight 150 g.

## Measuring range

BRIX= 0,00..26,00 % Brix (±0,20 %),

TDS= 0,00..23,00 % TDS (±0,1 %),

Temperature = 0..70 °C (±0,1 °C).



Name	Description	Measuring range	Accuracy	p/n
DBR COFFEE	Benchtop digital refractometer	0,00..26,00 % Brix	±0,20 %	44000083

# OPTICAL REFRACTOMETERS



Lid with led



mod. 110 - ABBE

All refractometers are supplied with hard case and calibration screwdriver.

Model	Measuring range	Features	p/n
<b>110 ABBE</b>	Brix: 0,0 - 95,0 % ( $\pm 0,25\%$ ) nD: 1,3000 - 1,7000 ( $\pm 0,0002$ )	Bench refractometer with thermostatable prism. Complete with digital thermometer and calibration prism	43000133
<b>THERMOMETER DIGITAL FOR ABBE</b>	Replacement thermometer for Abbe 110		43000153

Model	Measuring range (% BRIX)	Features	p/n
<b>101</b>	Brix: 0-32 % ( $\pm 0,2\%$ )		43000013
<b>101 ATC</b>	Brix: 0-32 % ( $\pm 0,2\%$ )	Automatic temperature compensation	43000103
<b>101 ATC LED</b>	Brix: 0-32 % ( $\pm 0,2\%$ )	Automatic temperature compensation	43000203
<b>102</b>	Brix: 28-62% ( $\pm 0,2\%$ )		43000023
<b>103</b>	Brix: 0-80 % ( $\pm 0,5\%$ )		43000033
<b>103 LED</b>	Brix: 0-80 % ( $\pm 0,5\%$ )		43000223
<b>104 HONEY</b>	Brix : 58-92% Water : 12-27% Be : 38-43°	Triple scale	43000043
<b>105 CLINIC</b>	Serum : 0-12 g/dL Urine specific gravity: 1000 - 1050 nD Refraction index: 1,3330 - 1,3600	Triple scale	43000053
<b>106 SALINITY</b>	Sodium Chloride: 0-28% ( $\pm 0,2\%$ )		43000063
<b>106 ATC SALINITY</b>	Sodium Chloride: 0-100 ‰ Specific gravity: 1000-1070	Double scale Automatic temperature compensation	43000113
<b>107 ATC WINE</b>	Brix: 0-35 % Babo: 0-28%	Double scale Automatic temperature compensation	43000123
<b>107 ATC LED WINE</b>	Brix: 0-35 % Babo: 0-28%	Double scale Automatic temperature compensation	43000233
<b>414 ATC ANTIFREEZE BATTERIES</b>	Ethylene glycol: -50 °C / 0 °C Propylene glycol: -50 °C / 0 °C Cleaner: -40 °C / 0 °C Batteries fluid: 1.10 / 1.40 sg.	Automatic temperature compensation	43000173
<b>UREA</b>	Brix: 0-40 %	Signal mark at 32,5% Brix	43000193

Accessories		p/n
<b>LID</b>	Spare part lid for telescope refractometers without lighting	43000163
<b>LID WITH LED</b>	Spare part lid with LED lighting It allows a perfect reading even if there's low or no lighting The cover is interchangeable and can be installed on all the optical refractometers models.	43000003

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