

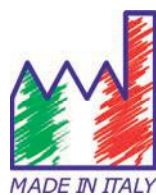
# VioLab

## COND 50

Cond - TDS - Temperature

## COND 60

Cond - TDS - Salinity - Temperature - GLP - Data Logger - RS 232 Printer



### MADE IN ITALY

The first electrochemical instrumentation line completely conceived, designed and produced in Italy is here.

# COND 50 *VioLab*

Cond - TDS - Temperature

## General features

Professional bench meter with **innovative backlit high definition colored LCD display**, with possibility of brightness adjustment.

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

**Automatic conductivity calibration** up to 5 points (84; 147; 1413  $\mu$ S e 12,88; 111,8 mS) and 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.

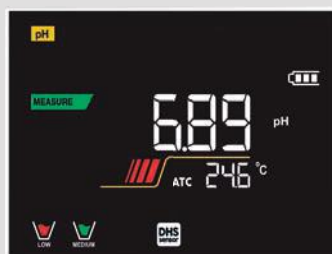
Measurement **stability indication** and possibility to select 3 stability levels.

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



Connections COND 50 VioLab

The LED indicator allows you to keep always under control the state of the measurement



### NEW DISPLAY

The new high-resolution display shows all the useful information, including the buffer used for calibration and the stability icon. Through guided procedures it makes the user experience intuitive and safe, as well as extremely performing.

## How to order:

**COND 50 VIOLAB**

**code**

Complete with conductivity cell 2301T, temperature sensor integrated, cable 1 m

**50103002**

With accessories, without conductivity

**50103012**

Inside the box:

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

# COND 60 *VioLab*

Cond - TDS - Salinity - Temperature - GLP - Data Logger - RS 232 Printer

... only on COND 60 VioLab

- 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).
- RS 232 external printer connection**



Connections COND 60 VioLab



Only **6 buttons** to easily manage all the functions of the instrument.

#	Date	Time	Value	ALU	Temp	ALU	MTC/ATC	DHS
1	16/01/2020	14:53:40	7,00	pH	25,0	°C	MTC	
2	16/01/2020	14:53:40	7,00	pH	25,0	°C	MTC	
3	16/01/2020	14:53:42	7,00	pH	25,0	°C	MTC	
4	16/01/2020	14:53:43	7,00	pH	25,0	°C	MTC	
5	16/01/2020	14:53:44	9,54	pH	25,0	°C	MTC	
6	16/01/2020	14:53:45	10,51	pH	25,0	°C	MTC	
7	16/01/2020	14:53:46	10,51	pH	25,0	°C	MTC	
8	16/01/2020	14:53:47	10,51	pH	25,0	°C	MTC	
9	16/01/2020	14:53:48	10,51	pH	25,0	°C	MTC	
10	16/01/2020	14:53:50	6,40	pH	25,0	°C	MTC	
11	16/01/2020	14:53:51	6,40	pH	25,0	°C	MTC	
12	16/01/2020	14:53:51	6,40	pH	25,0	°C	MTC	

16/01/20 DATE  
14:55 TIME

**7,00** pH

MTC 25,0 °C

**Information**

Serial No. = 00100100

Cal. Coef. pH = 0,0001

Offset = 0,0007

Acid 100,00

Basic 100,00

Bufferes (1) 0,00 (0)

Last Cal. Off = 00100100 = 25,0 °C

Offset = 0,0007

Bufferes: 00

### DATA LINK +

The software allows remote control of the instrument in measure mode, shows all information relating to the instrument and calibrations, data export at the end of the analysis, (also in Excel and PDF format), and the display of measurements in the table and in graphic.

## How to order:

### COND 60 VIOLAB

Complete with conductivity cell2301T, temperature sensor integrated, cable 1 m

With accessories, without conductivity

### code

50103072

50103082

### Inside the box:

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

**Data sheet:**

	<b>COND 50 VioLab</b>	<b>COND 60 VioLab</b>
<b>COND</b> Measuring range	0,00 ... 200 mS	
Resolution	0,01 - 0,1 - 1 µS / 0,01 - 0,1 mS	
Accuracy	± 2% f.s.	
Calibration points	1...5 Auto + 1 Custom	
Buffer recognized	84 µS - 147µS - 1413 µS - 12,88 mS - 111,8 mS	
Reference temperature	15 ... 30 °C	
Temperature coefficient	0,00 ... 10,00 % / °C	
Calibration points indication	Yes	
Calibration report	Yes	Yes, printable
Stability filter	Low - Nor - High	
<b>TDS</b> Measuring range	0,1 mg/l ... 200 g/l	
TDS Factor	0.40 ... 1.00	
<b>Salinity</b> Measuring range	-	0,1 ppm ... 100 ppt
<b>Temperature</b> Measuring range	0,0...100,0 °C	-10,0...110,0 °C
Resolution / Accuracy	0,1 / ± 0,5 °C	
Temperature compensation	0,0...80,0 °C	0,0...100,0 °C
<b>System</b> : GLP	-	Yes
Calibration due	-	Yes
Internal memory	-	1000 Data
Display	high definition backlight colored LCD	
Brightness adjustment	Manual	
IP protection	IP 54	
Output	-	Micro USB and RS 232
Power supply	5 V power adapter	
Electrical tension	100 ... 240 V	
Working conditions	0 ... +45 °C	
Dimensions / Weight	160 x 140 x 45 mm / 380 g	



ST 10 magnetic stirrer



RS 232 printer



Cell 2301 T

<b>Code</b>	<b>Name</b>	<b>Description</b>
50003352	<b>VPT 1</b>	Glass/Platinum conductivity cell C=1, temperature sensor integrated. Cable 1 m
50004012	<b>VPT 01</b>	Glass/Platinum conductivity cell C=0,1, temperature sensor integrated. Cable 1 m
50004072	<b>VPT 10</b>	Glass/Platinum conductivity cell C=10, temperature sensor integrated. Cable 1 m
50004002	<b>2301 T</b>	Plastic body conductivity cell C=1, temperature sensor integrated. Cable 1 m
50002012	<b>NT 55</b>	Temperature sensor NTC 30 K for air and liquid measurement
50000132	<b>ST 10</b>	Variable speed magnetic stirrer, complete with rechargeable batteries, magnetic bar and power supply



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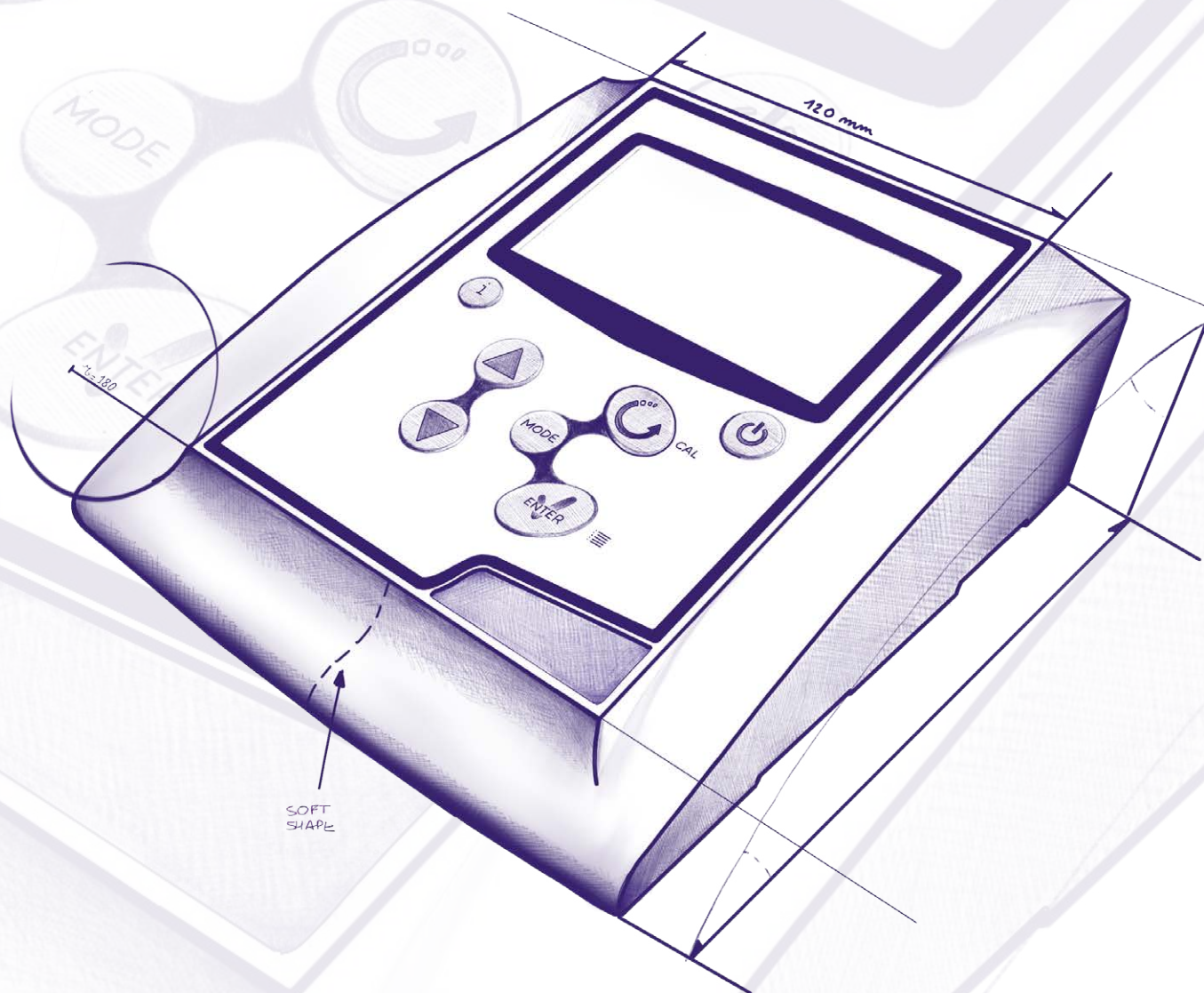


## COND 8+

COND - TDS - Salinity - Temperature  
GLP - USB Data Logger - RS232 printer

## COND 80+

COND - TDS - Salinity - Resistivity - Temperature  
GLP - GMP - USB Data Logger - RS232 printer



**XS** *makes Conductivity easy*

# Easy is the name of the game

GiorgioBormac company, expert in electrochemistry, has developed this new line of bench meters, finding the correct equilibrium between design and simplicity of use. **Simple to use.**

The wide color display, **simple to read**, shows all the necessary informations, like the measure, the buffer solutions used in the last calibration, the cell constant, GLP informations and the memorized data.

Multilanguage interface that supports English, Spanish, French, German, Italian, Czech... up to 8 languages.

Using only 5 keys, the user has the complete control of all the functions. **Simple to understand.**

Up to 4 conductivity calibration points, with automatic recognition of the buffer solutions, standards or defined by the user.

Support to calibration through icons with an advance diagnosis of the conditions of the cell. Saving calibration for each cell constant. **Simple to calibrate.**

## COND 8+

COND - TDS - Salinity - Temperature - GLP - Data Logger

### Main features

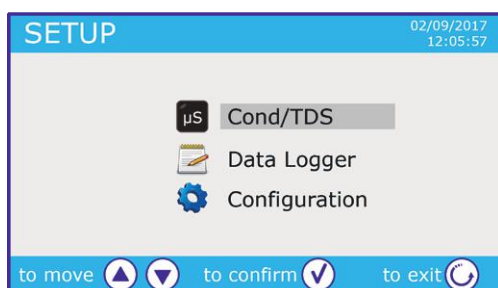
- **Automatic calibration 1 to 4 points, between 4 conductivity standard values**
- Simultaneous display of COND/TDS/Salinity and temperature
- Resolution: automatic scale
- Selectable cell constant allows for use with 2 plates cell
- Saving and recall calibration for each cell constant
- **Numeric password for calibration management and data memory delete**
- Manual calibration on 1 point (User defined)
- Automatic and Manual temperature compensation, reference values 15...30 °C
- Large color display with indication of calibration standard solutions used and measurement's stability
- Stability indication, with icon
- Memory recall of last calibration, date and time, and informations about the cell constant
- Calibration Timer: set frequency of the calibration for high quality of measurements
- Non-volatile memory holds up to 1000 data , with date and time, automatically (Data logger) or manually, and downloadable on PC with free software "DataLink" or printable
- Stirrer plate included (in stirrer version)
- Multilanguage menu setup
- 3 years warranty



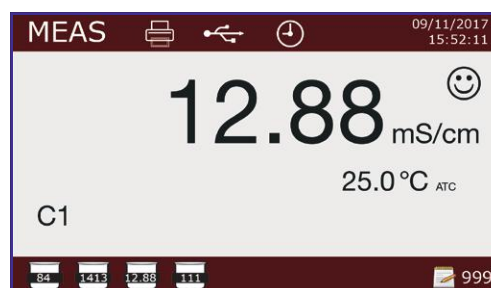




COND 8+ Stirrer



Setup menu



Measurement screen

### How to order COND 8+

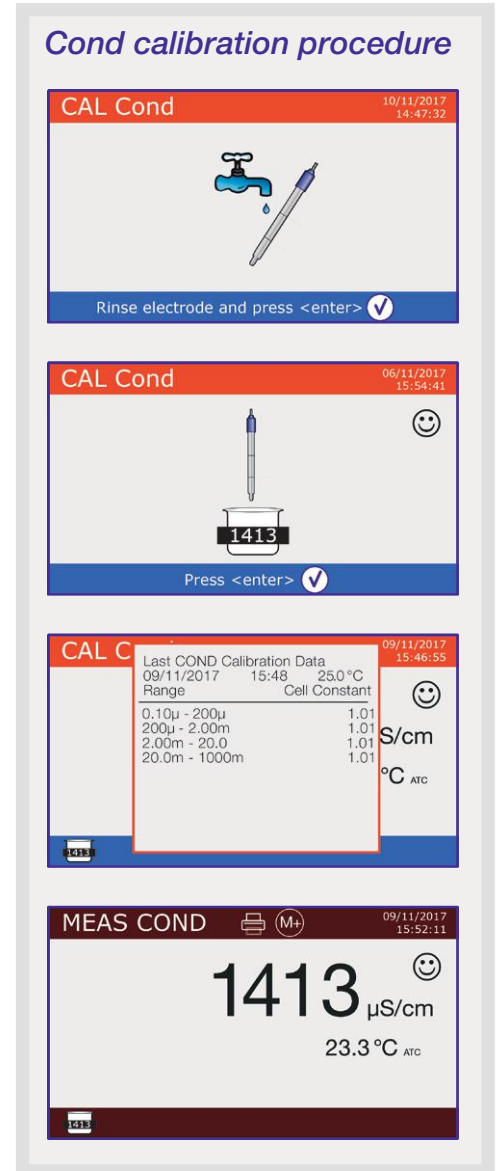
Code	Description
50003232	COND 8+ kit STIRRER with conductivity cell 2301T, conductivity standards 1413 $\mu\text{S}$ and 12,88 mS, 2 beakers with magnetic bar, electrode holder and accessories. <b>With stirrer</b>
50003242	COND 8+ kit STIRRER without conductivity cell, includes conductivity standards 1413 $\mu\text{S}$ and 12,88 mS, electrode holder and accessories. <b>With stirrer</b>
50003202	COND 8+ kit BASIC with conductivity cell 2301T, conductivity standards 1413 $\mu\text{S}$ and 12,88 mS, electrode holder and accessories. <b>Without stirrer</b>
50003212	COND 8+ kit BASIC without conductivity cell, includes conductivity standards 1413 $\mu\text{S}$ and 12,88 mS, electrode holder and accessories. <b>Without stirrer</b>
50001132	Magnetic stirrer, controlled by the meter
50003352	VPT80/1 conductivity cell C=1 with ATC, glass body, platinum plate, cable length 1m. Measuring range 10 $\mu\text{S}$ ...100 mS, 0...80°C
50004002	2301T conductivity cell with ATC, C=1, range 10 $\mu\text{S}$ ...100 mS, 0...60°C
50004012	VPT51/01 conductivity cell C=0,1 with ATC, PVC/ steel, cable length 1m. Measuring range 0,1 $\mu\text{S}$ ...1 mS, 0...60°C
50004072	VPT 80/10 conductivity cell, C=10, with ATC, cable length 1m, measuring range 100 $\mu\text{S}$ ...200 mS
50002012	NT 55 temperature probe
50001502	RS232 printer, normal paper, for series 8+ - 80+
50001512	Power supply AC/DC 12 V/1A for series 8+ - 80+

# COND 80+

COND - TDS - Salinity - Resistivity - Temperature - GLP - GMP - Data Logger

## Main features

- Simultaneous display of COND/TDS/Salinity/Resistivity and temperature
- Resolution: automatic scale - Selectable cell constant allows to use with 2 plates cell
- **Alphanumeric password for calibration management and data memory delete with soft keypad included**
- GLP and IQ-OQ manual available
- Saving and recall calibration for each cell constant
- Automatic calibration from 1 to 4 calibration points, between 4 standard buffer solutions
- Manual calibration on 1 point (defined by the user)
- Wide colored display with indication of calibration standards solutions used and measurement's stability
- Automatic and manual temperature compensation, reference values 15...30°C
- **Compensation for Ultrapure water for low conductivity measurement**
- Memory recall of last calibration, date, time and informations about the cell constant
- Calibration Timer: set frequency of the calibration for high quality of measurements
- Indication of stability
- Non-volatile memory holds up to 1000 data , with date and time, automatically (Data logger) or manually, and downloadable on PC with free software "DataLink" or printable
- Stirrer plate included (in stirrer version)
- 2 USB ports, for PC connection, and for external keyboard included
- RS232 port for printer connection
- Multilanguage menu setup
- Quick on-line manual
- 3 years warranty



Back panel COND 80+

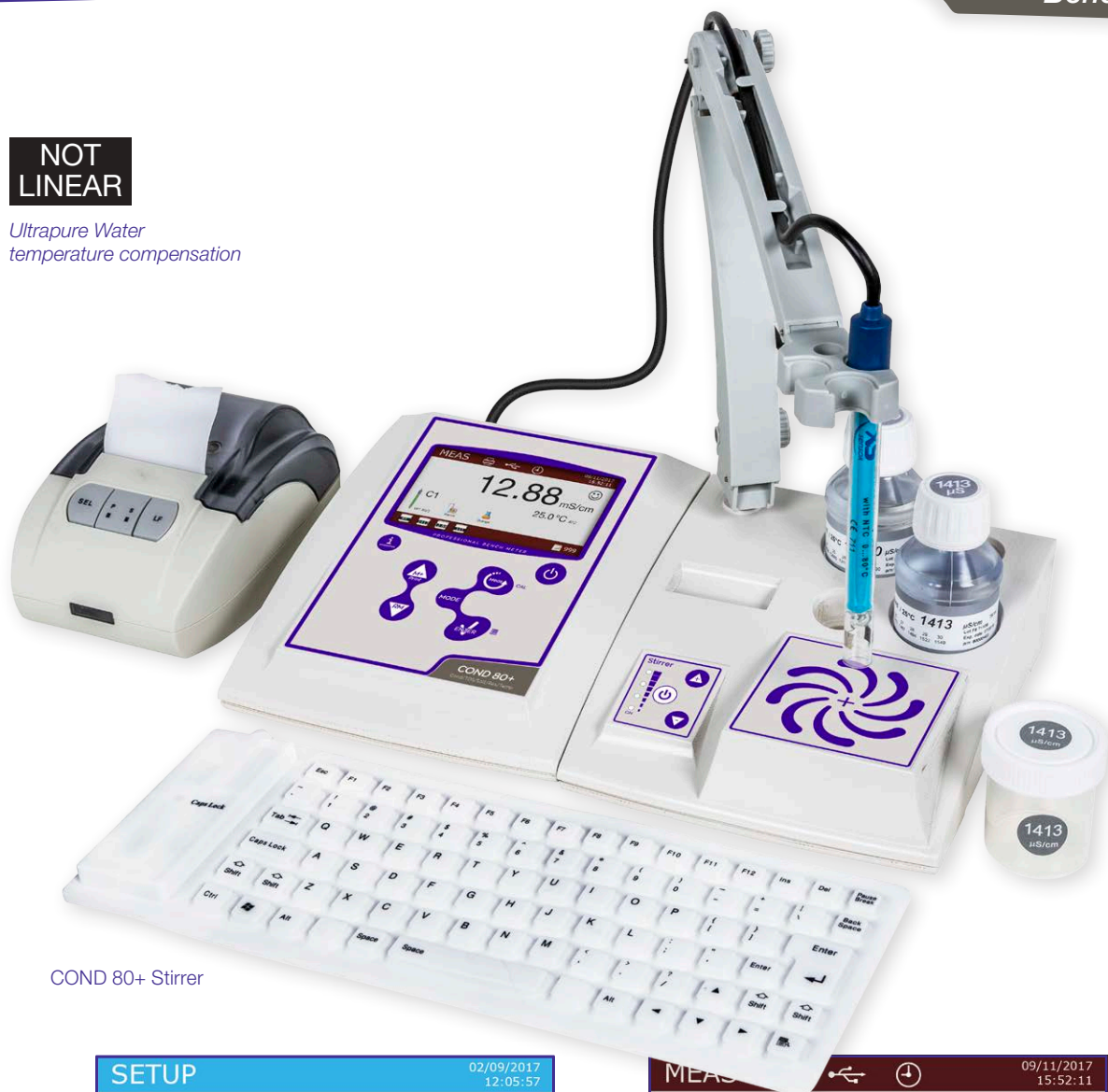


RS232 printer for COND 8+ e COND 80+

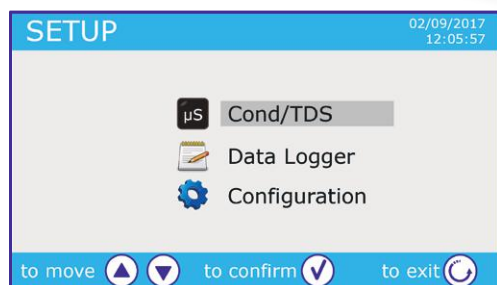


VPT 51/01 for ultra pure water

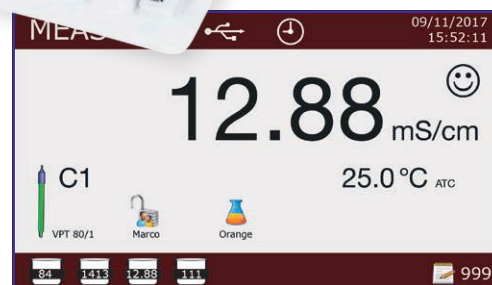


**NOT  
LINEAR**Ultrapure Water  
temperature compensation

COND 80+ Stirrer



Setup menu



Measurement screen

**How to order COND 80+**

Code	Description
50003402	COND 80+ kit STIRRER with glass conductivity cell VPT 80/1, conductivity standard solutions 1413 µS and 12,88 mS, soft keypad, power supply and accessories. <b>With stirrer</b>
50003412	COND 80+ kit STIRRER without conductivity cell, includes conductivity standard solutions 1413 µS and 12,88 mS, soft keypad, power supply and accessories. <b>With stirrer</b>
50003422	COND 80+ kit BASIC with glass conductivity cell VPT 80/1, conductivity standard solutions 1413 µS and 12,88 mS, soft keypad, power supply and accessories. <b>Without stirrer</b>
50003432	COND 80+ kit BASIC without conductivity cell, includes conductivity standard solutions 1413 µS and 12,88 mS, soft keypad, power supply and accessories. <b>Without stirrer</b>
50003352	VPT 80/1 conductivity cell C=1 with ATC, glass body, platinum plates, cable length 1m. Measuring range 10 µS...100 mS, 0...80°C
50004072	VPT 80/10 conductivity cell C=10 with ATC, cable length 1m. Measuring range 100 µS...200 mS
50004012	VPT 51/01 conductivity cell C=0,1 with ATC, PVC/ steel, cable length 1m. Measuring range 0,1 µS...1 mS, 0...60°C
50002012	NT 55 temperature probe
50001462	External USB keyboard
50001502	RS232 Printer, normal paper for series 8+ - 80+
50001512	Power supply AC/DC 12 V/1A for series 8+ - 80+
50001472	IQ-OQ Manual

# XS Conductivity Cells

Shaft Material:	Glass
Temperature probe:	No/Yes (on VPT 80/1)
Plates:	Platinum
Length:	120 mm
Diameter:	12 mm

BNC Plug



RCA Cinch Plug



Model	Range COND	Temp. °C	Connection	Note	Code
VP 8	10 $\mu$ S...10 mS	0...+80 °C	Fix cable / BNC	Cell constant C=1	50004062
VPT 80/1	10 $\mu$ S...10 mS	0...+80 °C	Fix cable / BNC	Cell constant C=1 temperature probe NTC 30K $\Omega$ RCA Cinch plug	50003352



Shaft Materiale:	PVC / Steel
Temperature probe	Yes
Plates:	Steel
Length:	120 mm
Diameter:	12 mm



Model	Range COND	Temp. °C	Head	Note	Code
VPT 51/01	0,1 $\mu$ S...1mS	0...+60 °C	Fix cable / BNC	Cell constant C=0,1 , Temp. probe NTC 30K $\Omega$ plug RCA Cinch <b>for ultra pure water</b>	50004012



Shaft Material:	Glass
Temperature probe:	Yes
Plates:	Platinum
Length:	120 mm
Diameter:	12 mm



Model	Range COND	Temp. °C	Head	Note	Code
VPT 80/10	100 $\mu$ S...200 mS	0...+80 °C	Fix cable / BNC	Cell constant C=10 , temp. probe NTC 30K $\Omega$ plug RCA Cinch <b>for sea water</b>	50004072



Shaft Material:	Epoxy
Temperature probe:	Yes
Plates:	Platinum
Length:	120 mm
Diameter:	12 mm



Model	Range COND	Temp. °C	Head	Note	Code
2301T	10 $\mu$ S...100 mS	0...+60 °C	Fix cable / BNC	Cell constant C=1 , Temp. probe NTC 30K $\Omega$ plug RCA Cinch	50004002



Conductivity standards 5 µS/cm certified DANAK/DFM



Conductivity standard 5 µS/cm NIST traceability



Certificated DANAK/DFM



Calibration solutions NIST traceability certificate

## Conductivity standards

- Ergonomic bottle, 500 ml, with calibration compartment incorporated, with table of conductivity variation as a function of temperature, for an accurate calibration
- 1,3 e 5,0 µS/cm in glass bottle, 300 ml
- Cheaper, just use the necessary for calibration

- 24 months guaranteed lifetime
- **1,3 and 5,0 µS/cm 12 months** guaranteed lifetime
- On the certificate are reported real value and expiry date
- Certificates of analysis downloadable on website

### XS Professional with DANAK/DFM certificate

CONDUCTIVITY STANDARDS			
Code	Packaging	Value µS/cm (20°C / 25°C)	Accuracy
51300303	300 ml	1,3	± 0.1 µS/cm
51300313	300 ml	5,0	± 0.1 µS/cm
51300323	500 ml	76 / 84	± 1%
51300333	500 ml	133 / 147	± 1%
51300343	500 ml	1278 / 1413	± 1%
51300353	500 ml	11670 / 12880	± 1%

### XS Basic with NIST traceability

CONDUCTIVITY STANDARDS			
Code	Packaging	Value µS/cm (20°C / 25°C)	Accuracy
51100503	300 ml	1,3	± 0.1 µS/cm
51100513	300 ml	5,0	± 0.1 µS/cm
51100613	500 ml	76 / 84	± 1%
51100623	500 ml	133 / 147	± 1%
51100633	500 ml	1278 / 1413	± 1%
51100643	500 ml	11670 / 12880	± 1%



Fill compartment with a simple press



Calibrate the electrode



Empty the calibration compartment

## Datasheet

### COND 80+

### COND 8+

<b>COND</b> measuring range	0,00...20,00 - 200,0 - 2000 $\mu$ S / 2,00 - 20,00 - 200,0 - 1000 mS	0,00...20,00 - 200,0 - 2000 $\mu$ S / 2,00 - 20,00 - 200,0 mS
Resolution	Automatic scale	
Accuracy	$\pm 1$ % full scale	
COND calibration points	1...4	
Buffer auto recognition	84, 1413 $\mu$ S, 12.88, 111.8 mS, 1 defined by the user	
Indication of calibration points	Yes	
Temperature coefficient	Ultrapure Water and 0,00...10,00 %/°C	0,00...10,00 %/°C
Reference temperature	15...30°C	
GLP calibration	Yes, with date and time	
Indication of conditions of the cell	Yes, with icon	
Indication of cell constant	Yes	
Calibration timer with alarm	Yes	
Cell type	2 poles	
Cell constant	0,1 - 1 - 10	
<b>TDS</b> measuring range	0,1 mg/l...500g/l	0,1 mg/l...100g/l
TDS Factor/ Accuracy	0.40 ... 1.00 / $\pm 1$ % full scale	
<b>Salinity</b> measuring range / Accuracy	0,01...100 ppt / $\pm 1$ % full scale	
<b>Resistivity</b> measuring range / Accuracy	1...10 M $\Omega$ / $\pm 1$ % full scale	—
<b>Temperature</b> °C measuring range / Accuracy	-20,0...120,0 / $\pm 0,5$ °C	-10...110,0 / $\pm 0,5$ °C
Temperature compensation	Automatic or Manual 0...100°C (NTC 30K $\Omega$ )	
Temperature calibration	Yes	
<b>GLP system</b>	Yes	
Password	Yes, alphanumeric	Yes, numeric
Memory	MAN/AUTO 1000 data, with date and time	
Display	Multicolor dot matrix, with icons, digital view	
Input	BNC, Cinch/RCA (ATC), RS232 for printer, USB for PC and USB for external keyboard	BNC, Cinch/RCA (ATC), RS232 for printer, USB for PC connection
Selectable languages	8 languages	
On-line manual	Yes	—
Magnetic stirrer	Yes	
Speed control	0...3000 rpm	
IP protection	IP 54	
Power supply	AC/DC adaptor 12V / 1000mA	
Dimensions	165 x 195 x 68 mm	
Weight	1050 g (without stirrer)	

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# Vio

## COND 7

Cond - TDS - Temperature

## COND 70

Cond - TDS - Salinity  
Temperature - GLP - Data Logger



**MADE IN ITALY**

The first electrochemical instrumentation line completely conceived, designed and produced in Italy is here.

# COND 7 *Vio*

Cond - TDS - Temperature

## General features

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

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

**Automatic calibration of conductivity** up to 5 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 **colored LED** above the display.



### NEW DISPLAY

The new high-resolution display shows all the useful information, including the buffer used for calibration and the stability icon. Through guided procedures it makes the user experience intuitive and safe, as well as extremely performing.



Connections on COND Vio

## How to order:

### COND 7 VIO

code

Complete with conductivity cell 2301T cwith temperature sensor integrated. Cable 1 m

50110412





With temperature sensor NT55, cable S7-BNC and accessories, **without conductivity cell**

50110422

# COND 70 *Vio*

Cond - TDS - Salinity - Temperature

## ...only on COND 70 Vio

-  **GLP functions:** Date and time, recall of calibration data and function "Calibration due".
-  **Data logger up to 1000 datas**, automatic and manual, PC connect via micro-USB
-  **Data Link +** software available from [www.xsinstruments.com](http://www.xsinstruments.com).
-  **Automatic brightness regulation**, for long battery life.

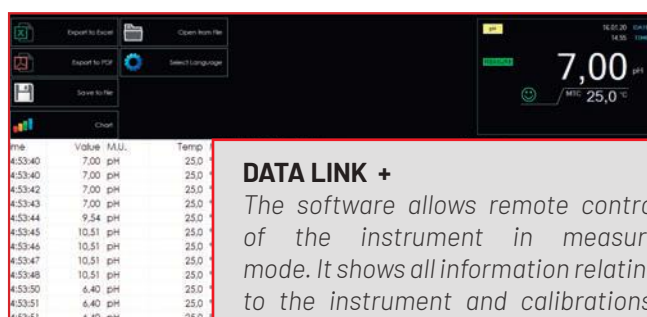


### A comfortable portable laboratory.

The instrument is supplied in a practical kit which includes:  
buffer solutions of conductivity, USB cable and power supply (70 Vio series only), instructions for use and plastic carrying case.



Only **6 buttons** to easily manage all the functions of the instrument.



### DATA LINK +

The software allows remote control of the instrument in measure mode. It shows all information relating to the instrument and calibrations, data export at the end of the analysis (also in Excel and PDF format) and the display of measurements in the table and in graphic.

## How to order:

### COND 70 VIO

code

Complete with conductivity cell 2301T cwith temperature sensor integrated. Cable 1 m

50110512

With temperature sensor NT55, cable S7-BNC and accessories, **without conductivity cell**

50110522

**Data sheet**

	COND 7 Vio	COND 70 Vio
<b>COND</b> Measuring range	0,00 ... 200 mS	
Resolution	0,01 - 0,1 - 1 $\mu$ S / mS (automatic)	
Accuracy	$\pm$ 2% f.s.	
Calibration points	1...5 automatic + 1 custom	
Recognized buffers	84 $\mu$ S - 147 $\mu$ S - 1413 $\mu$ S - 12,88 mS - 111,8 mS	
Reference temperature	15 ... 30 °C	
Temperature coefficient	0,00 ... 10,00 % / °C	
Buffer indication	Yes	
<b>TDS</b> Measuring range	0,1 mg/l ... 200 g/l	
TDS factor	0.40 ... 1.00	
<b>Salinity</b> Measuring range	-	0,1 ppm ... 100 ppt
<b>Temperature</b> Measuring range	0,0...100,0 °C	-10,0...110,0 °C
Resolution / Accuracy	0,1 / $\pm$ 0,5 °C	
Temperature compensation	0,0...80,0 °C	0,0...100,0 °C
<b>System</b> : GLP	-	Yes
Calibration due	-	Yes
Buffer indication	Yes	
Calibration report	Yes	
Stability filter	Low - Nor - High	
Internal memory	-	1000 Data
Display	High definition backlit colored LCD	
Brightness adjustment	Manual	Automatic / Manual
IP protection	IP 57	
Output	-	Micro USB
Power	3 batteries AA 1,5 V	
Working conditions	T= 0 ... +45 °C / H = < 95 %	
Dimensions / Weight	185 x 85 x 45 mm / 400 g	



**VPT SOIL**  
for direct measures on soil  
cod: 50004082



**2301 T**  
Conductivity cell,  
Temperature sensor integrated  
Cable 1 m  
Measuring range: 10 $\mu$ S...200 mS  
cod: 50004002



**Buffer solutions**  
Certified standard solution of pH,  
Conductivity and Redox.  
Different formats available.

Code	Name	Description
50003352	<b>VPT 1</b>	Glass/Platinum conductivity cell C=1, temperature sensor integrated. Cable 1 m
50004012	<b>VPT 01</b>	Glass/Platinum conductivity cell C=0,1, temperature sensor integrated. Cable 1 m
50004072	<b>VPT 10</b>	Glass/Platinum conductivity cell C=10, temperature sensor integrated. Cable 1 m
50004002	<b>2301 T</b>	Plastic body conductivity cell C=1, temperature sensor integrated. Cable 1 m
50002012	<b>NT 55</b>	Temperature sensor NTC 30 K for air and liquid measurement
50000132	<b>ST 10</b>	Variable speed magnetic stirrer, complete with rechargeable batteries, magnetic bar and power supply



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