HORIBA
Scientific

LAQUA

LAQUA 1500 Series Benchtop Water Quality Meters

25.0 °C ATC

MEAS

7.00 pH

pH

LAQUA HORIBA

PHI500

CAL MEAS MODE DATA SET ENT

pH	ORP	Temperature	Resistivity
Conductivity	Total Dissolved Solids		Salinity

3 YEAR WARRANTY

www.horiba-laqua.com

Explore the future   Automotive Test Systems | Process & Environmental | Medical | Semiconductor | Scientific

HORIBA

LAQUA

Ideal for student training and routine applications.

Great value for money: no fancy bells and whistles which sounds good but are rarely used.

From a reputed manufacturer—one whose company was started with pH meters back in 1945.

Large Display
The 85 x 104 mm display gives easy viewing and operation.

Small Footprint
Only 160 x 150mm footprint, fits easily on every lab desk.

Stability Indicator
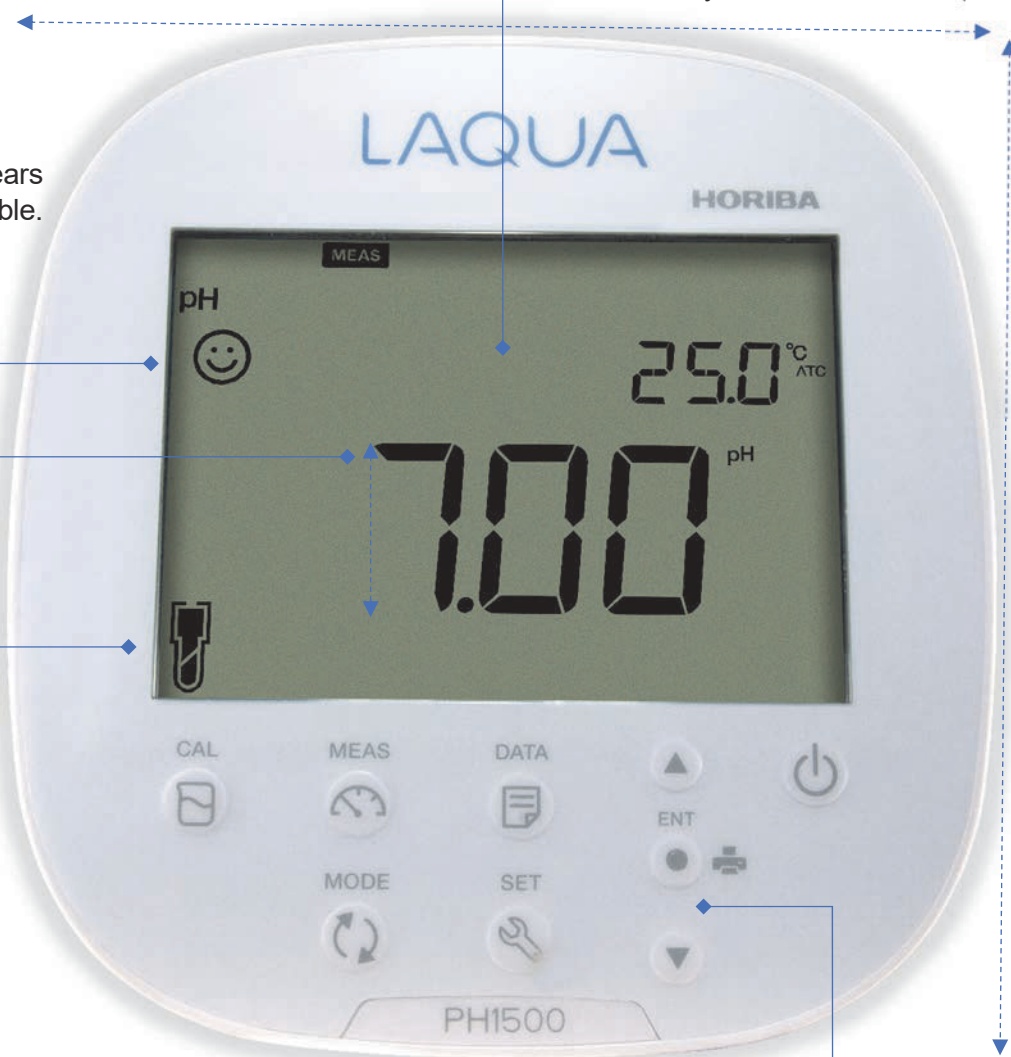The smiley face appears when the value is stable.

Large Digits
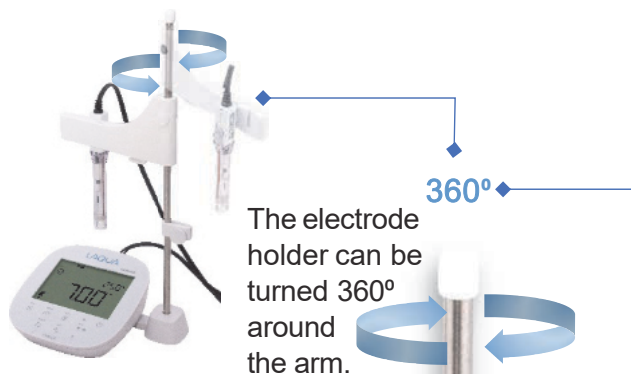Easy to view reading with 28mm high fonts.

Visual Electrode Status Indicator
Shows electrode condition after calibration, giving an accurate indication of the electrode quality.

Clear Keypad
The 9-button operation ensures ease of use. The flat surface makes cleaning easy.

The electrode holder can be turned 360º around the arm.

360º

Auto Shut Off
Set the meter to automatically shut off after up to 30 minutes.

MINS 30

Large Memory
Store up to 1000 data set in the meter.

LOC 1000

Auto Data Log
Automatically store data at intervals between 2 and 999 seconds.

P2.1 LOG

Data Transfer
Export data to a PC using an USB cable and free of charge software.

DAS20

Adustable Height
The electrode holder can be moved up and down to a maximum height of 30cm.

Electrode Holder
Attach up to two electrodes.

Calibration Solutions
Including full standard solution sets.

Conductivity Standard 1413

Conductivity Standard 12.88 mS/cm at 25ºC

Conductivity Standard 1413 µS/cm at 25ºC

pH Buffer 4.01 at 25ºC

pH Buffer 7.00 at 25ºC
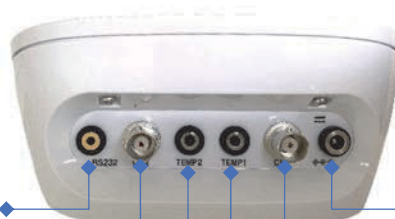
pH Buffer 10.01 at 25ºC

HORIBA LAQUA

Rear View and Connectors

Connection for PC or Printer

Channel 2 : Conductivity

Temperature probe channel 2

Power connector

Channel 1 : pH / ORP

Temperature probe channel 1

03 LAQUA

Available Models

LAQUA PH1500 | pH | ORP | Temperature

- Highly accurate pH and ORP measurements
- Automatic temperature compensation
- Accepts up to 6 pH calibration points
- Auto calibrates USA, NIST, & DIN pH buffers
- Displays offset & average slope
- Allows 1-point ORP calibration and temperature calibration

Model	Description
PH1500 3200891886	• Meter with integrated electrode stand • Universal power adaptor with 6 plugs • Instruction Manual
PH1500-SR 1300095720	• PH1500 • 9625-10D refillable, plastic body pH electrode • pH 4, 7 and 10 buffer solutions & 3.33M KCl (1 x 250ml each)

LAQUA EC1500 | Conductivity | TDS | Resistivity | Salinity | Temperature

- Accepts up to 5 conductivity calibration points
- Automatic calibration at 84µS/cm, 1413µS/cm, 12.88mS/cm, & 111.8mS/cm standards
- Displays average calibration factor
- Selectable cell constant
- Allows 1-point salinity calibration and temperature calibration
- Pre-programmed TDS and salinity curves for various applications

Model	Description
EC1500 3200899658	• Meter with integrated electrode stand • Universal power adaptor with 6 plugs • Instruction Manual
EC1500-S 1300095721	• EC1500 • 9382-10D plastic body conductivity cell k=1.0 • Conductivity standard, 84µS, 1413µS, 12.88mS (1 x 250ml each)

LAQUA PC1500 | pH | ORP | Conductivity | TDS | Resistivity | Salinity | Temperature

- Measure pH and Conductivity at the same time
- Combination of the PH1500 and EC1500

Model	Description
PC1500 3200899659	• Meter with integrated electrode stand • Universal power adaptor with 6 plugs • Instruction Manual
PC1500-SR 1300095722	• PC1500 • 9625-10D refillable, plastic body pH electrode • 9382-10D plastic body conductivity cell k=1.0 • pH 4, 7 and 10 buffer solutions & 3.33M KCl (1 x 250ml each) • Conductivity standard, 84µS, 1413µS, 12.88mS (1 x 250ml each)

Meter Specifications

Parameters	PH1500	PC1500	EC1500
	pH / ORP		
		Conductivity / Resistivity / TDS / Salinity	
pH			
Range	-2.00 to 16.00 pH		
Resolution	0.01 pH		
Accuracy	± 0.01 pH		
Buffer Groups	USA, NIST, DIN		
Calibration points	Up to 5 (USA, NIST) / Up to 6 (DIN)		
ORP			
Range	± 2000.0 mV		
Resolution	0.1 mV (< ±1000 mV), 1 mV (≥ ±1000mV)		
Accuracy	±0.3 mV (< ±1000 mV), 0.3% of reading (≥ ±1000mV)		
Calibration points	1 (Up to ±200 mV)		
Conductivity			
Range		0.00 µS – 200.0 mS	
Resolution		0.01 / 0.1 / 1 µS ; 0.01 / 0.1 mS	
Accuracy		±0.6% full scale, ±1.5% full scale > 18.0 mS/cm	
Reference Temperature		15.0 to 30.0 °C (adjustable)	
Temperature Coefficient		0.00 to 10.00 % per °C (adjustable)	
Call Constants		0.070 to 13.00 (adjustable)	
Calibration points		Up to 4 (Auto) / Up to 5 (Manual)	
Units		S/cm, S/m (Auto ranging)	
Resistivity			
Range		0.000 Ω•cm to 20.0 MΩ•cm	
Resolution		0.5% full scale	
Accuracy		±0.6% full scale, ±1.5% full scale > 1.80 MΩ•cm	
Total Dissolved Solids (TDS)			
Range		0 ppm – 100 ppt	
Resolution		0.01 / 0.1 / 1 ppm ; 0.01 / 0.1 ppt	
Accuracy		±0.1% full scale	
TDS Curves		EN27888, 442, NaCl, Linear (0.40 to 1.00)	
Salinity			
Range		0.0 to 100.0 ppt / 0.00 to 10.00 %	
Resolution		0.1 ppt / 0.01%	
Accuracy		±0.2% full scale	
Salinity Curves		NaCl / Seawater	
Calibration points		1 point	
Temperature			
Range	-30.0 to 130.0 °C / -22.0 to 266.0 °F		
Resolution	0.1 °C / °F		
Accuracy	± 0.5 °C / ± 0.9 °F		
Calibration points	1 point (± 10.0 °C / ± 18.0 °F range in 0.1 °C increments)		
General Features			
Memory	1000 data sets		
Auto Data Logging	Yes – interval from 2 to 999 seconds		
Measurement modes	Auto Stable / Auto Hold / Real Time		
Offset & Slope display	Yes (Average slope)		
Auto Shut-Off	Yes (programmable: 1 to 30 mins.)		
Electrode status	On screen display		
PC / Printer Communication	Phono jack (USB / RS232)		
Meter Input	1 x BNC, 1 x phono (ATC)	2 x BNC, 2 x phono (ATC)	1 x BNC, 1 x phono (ATC)
Display	Large monochrome 160 segment LCD, 85 x 104 mm		
Electrode Stand	Integrated		
Power Requirement	AC adaptor 100 - 240V, 50 - 60Hz		
Dimensions	160 x 150 x 67 mm (meter) / 410 x 260 x 230 mm (boxed)		
Weight Meter / Boxed	720g / 3700g	740g / 4500g	720g / 3700g

pH, ORP and Conductivity electrodes

Model	pH electrodes	Range	Material	Features
9652-10D 3200786359	General purpose pH electrode	0 to 14 pH 0 to 60 ºC	Plastic body	• Integrated temperature sensor • IP67 waterproof • Porous sintered polyethylene liquid junction • Gel filled electrode • Not refillable • 150 x 16mm, 1 meter cable with BNC
9625-10D 3200360505	General purpose pH electrode	0 to 14 pH 0 to 100 ºC	Plastic body	• Integrated temperature sensor • IP67 waterproof • Ceramic liquid junction • KCL filled electrode • Refillable • 150 x 16mm, 1 meter cable with BNC
9615S-10D 3200585428	Extra strong pH electrode • Special glass makes it 10x stronger	0 to 14 pH 0 to 100 ºC	Glass body	• Integrated temperature sensor • IP67 waterproof • Ceramic liquid junction • KCL filled electrode • Refillable • 198 x 12mm, 1 meter cable with BNC
9681S-10D 3200585463	Sleeve pH electrode • Easy to clean moveable sleeve	0 to 14 pH 0 to 60 ºC	Glass body	• Integrated temperature sensor • IP67 waterproof • Moveable sleeve junction • KCL filled electrode • Refillable • 203 x 12mm, 1 meter cable with BNC
9618S-10D 3200585447	Micro pH electrode • Measure samples as small as 50µL.	0 to 14 pH 0 to 60 ºC	Glass body	• Integrated temperature sensor • IP67 waterproof • Ceramic liquid junction • KCL filled electrode • Refillable • 185 x 3mm, 1 meter cable with BNC

Model	Conductivity probes	Range	Material	Features
9382-10D 3014046709	Conductivity probe • General purpose	1µS/cm-100mS/cm 0 to 80 ºC	Plastic body	• Integrated temperature sensor • IP67 waterproof • Titanium / Platinum Black cell • Cell constant K=1.0 cm $^{-1}$ • 150 x 16mm, 1 meter cable with BNC
3551-10D 3014081712	Conductivity probe • Low conductivity water (DI)	0.1µS/cm-10mS/cm 0 to 60 ºC	Glass body	• Integrated temperature sensor • IP67 waterproof • Platinum / Platinum Black cell • Cell constant K=0.1 cm $^{-1}$ • 175 x 23mm, 1 meter cable with BNC
3553-10D 3014081714	Conductivity probe • High conductivity water	10 µS/cm - 1 S/cm 0 to 60 ºC	Glass body	• Integrated temperature sensor • IP67 waterproof • Platinum / Platinum Black cell • Cell constant K=10.0 cm $^{-1}$ • 175 x 28mm, 1 meter cable with BNC

Model	ORP electrode	Range	Material	Features
9300-10D 3014046710	ORP electrode • General purpose	0 to 60 ºC	Glass body	• Integrated temperature sensor • IP67 waterproof • Platinum glass electrode • flat tip allows for small volume samples • 150 x 12mm, 1 meter cable with BNC

Find out more about our other electrodes at www.horiba-water.com

Premium LAQUA Calibration Solutions

Easy 4-step calibration with no contamination of the solution !!

Step 1:
Prepare the electrode and open the standard solution bottle.

Step 2:
Gently squeeze the bottle to fill the calibration chamber with standard solution.

Step 3:
Insert the electrode into the calibration chamber of the standard solution bottle.

Step 4:
Dispose off the used solution from the calibration chamber.

pH Buffer Solutions

Part No.	Model	Description
1300045600	250-PH-4	pH 4,01, 250 ml *, NIST Traceable with certificate, accuracy ± 0,01 at 25°C
1300045607	250-PH-7	pH 7,00, 250 ml *, NIST Traceable with certificate, accuracy ± 0,01 at 25°C
1300045604	250-PH-10	pH 10,01, 250 ml *, NIST Traceable with certificate, accuracy ± 0,02 at 25°C
1300045602	500-PH-4	pH 4,01, 500 ml *, NIST Traceable with certificate, accuracy ± 0,01 at 25°C
1300045608	500-PH-7	pH 7,00, 500 ml *, NIST Traceable with certificate, accuracy ± 0,01 at 25°C
1300045605	500-PH-10	pH 10,01, 500 ml *, NIST Traceable with certificate, accuracy ± 0,02 at 25°C
1300045599	1000-PH-4	pH 4,01, 1 ltr *, NIST Traceable with certificate, accuracy ± 0,01 at 25°C
1300045606	1000-PH-7	pH 7,00, 1 ltr *, NIST Traceable with certificate, accuracy ± 0,01 at 25°C
1300045603	1000-PH-10	pH 10,01, 1 ltr *, NIST Traceable with certificate, accuracy ± 0,02 at 25°C

ORP / Redox Standard Solutions

1300045637	250-ORP-200	200 mV Redox/ORP solution, 250 ml round bottle, accuracy ± 5mV / 25°C
1300045636	250-ORP-475	475 mV Redox/ORP solution, accuracy ± 5mV / 25°C, 250 ml *
1300045635	500-ORP-475	475 mV Redox/ORP solution, 500 ml *, accuracy ± 5mV at 25°C
1300045634	500-ORP-650	650 mV Redox/ORP solution, 500 ml *, accuracy ± 5mV at 25°C

Conductivity Standard Solutions

1300045609	250-EC-84	84 uS/cm, 250 ml * with certificate, accuracy±1%, KCl
1300045632	500-EC-84	84 uS/cm, 500 ml * with certificate, accuracy±1%, KCl
1300045633	1000-EC-84	84 uS/cm, 1 ltr * with certificate, accuracy±1%, KCl
1300051602	250-EC-147	147 uS/cm, 250 ml * with certificate, accuracy±1%, KCl
1300045595	250-EC-1413	1,413 uS/cm, 250 ml * with certificate, accuracy±1%, (25°C)=0.01M KCl
1300045638	500-EC-1413	1,413 uS/cm, 500 ml * with certificate, accuracy±1%, (25°C)=0.01M KCl
1300045591	1000-EC-1413	1,413 uS/cm, 1 ltr * with certificate, accuracy±1%, (25°C)=0.01M KCl
1300045590	250-EC-1288	12,88 mS/cm, 250 ml * with certificate, accuracy ±1%, (25°C)=0.1M KCl
1300045639	500-EC-1288	12,88 mS/cm, 500 ml * with certificate, accuracy ±1%, (25°C)=0.1M KCl
1300045588	1000-EC-1288	12,88 mS/cm, 1 ltr * with certificate, accuracy ±1%, (25°C)=0.1M KCl
1300045630	250-EC-1118	111,8 mS/cm, 250 ml * with certificate, accuracy ±1% (25°C)= 1M KCl
1300045660	500-EC-1118	111,8 mS/cm, 500 ml * with certificate, accuracy ±1% (25°C)= 1M KCl
1300045631	1000-EC-1118	111,8 mS/cm, 1 ltr * with certificate, accuracy ±1% (25°C)= 1M KCl

pH Electrode Cleaning & Filling Solutions

1300094981	250-KCL-333M	3.33M KCL Internal Filling Solution, 250ml dosing bottle for pH electrodes
3014028653	220	Cleaner for pH Electrode (50mlx2pcs) for removing inorganic sample residues from glass electrodes and cleaning liquid junctions
3200530494	230	Cleaning solution for removing inorganic and organic sample residues, Solution A (30ml) & Solution B (100ml)
3200366771	250	Cleaner for pH Sensor (400ml) for removing protein containing sample residues from glass electrodes and cleaning liquid junctions

* supplied in a dosing bottle with a certificate of analysis.

Accessories

3014030147	Printer for GLP / GMP compliance, 230V EU version, plain paper included (printer cable is sold separately)
3200779638	25-pin D-sub printer (RS232) cable (meter to printer), 1.5m
3014030149	Printer paper, 20 rolls
3200779639	PC (USB) cable (meter to PC), 1.5m; comes with free data acquisition software in USB stick

With over 75 years of engineering excellence, HORIBA's innovative and diverse range of water quality analyzers, electrodes and solutions are ideal for everyday needs in the laboratory and field through to the most demanding of applications.

Visit our website for a wealth of useful information and water quality measurement tips to help you obtain the best results in your work.
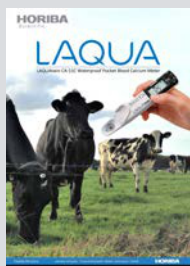
Benchtop Meters

Developed using extensive feedback from users, our new LAQUA bench top meters deliver the best solution for water quality analysis. The complete solution for every lab, whether it is at school, quality assurance lab or pharmaceutical industry, we have the right instrument at the right budget for you.

Consult our website or electrode brochure to select the electrode most suitable for your application.

Handheld Meters

In the field, in the lab or anywhere you need it. From easy to use, single parameter to highly sophisticated digital multi parameter to Sonde type instruments, we are able to meet your needs.

The LAQUA Handheld meters are designed for one hand use with an IP67 waterproof rating and shock-resistant casing. Meters can be used for long periods, even in dark places, making it ideal for field measurements in rivers and lakes.

LAQUAtwin meters and Kits

Analyzing water quality is simplified when using our LAQUAtwin range of meters. An unique flat surface sensor technology enables to measure even the smallest samples.

Designed to produce accurate and reliable results. Anyone, anywhere, at any time can measure samples easily with a LAQUAtwin meter. Use the LAQUAtwin 4M carrying case to conveniently store and transport up to 7 meters, a true lab on the go. See just how good they are at our website.

Electrodes

Various electrodes to match any application. A wide range for both benchtop and portable systems are available, including easy and reliable standard models, application-focused models for small samples or large containers, and special electrodes for specific sample characteristics.

Solutions

A complete range of high quality calibration, buffer, filling and cleaning solutions is available for pH, conductivity, ORP and ion selective measurements.

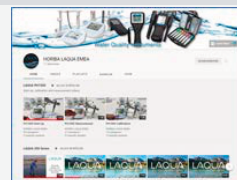Free of charge Certificates of Analysis are available on selected items.

Application Notes

LAQUAtwin pocket meters offer a quick and convenient alternative to analyze important parameters with high accuracy. Several application notes are available at (http://goo.gl/znwE6j) detailing the use of LAQUAtwin and the results achieved for the respective applications

HORIBA UK YouTube

View product instruction videos, get technical tips, learn about applications and more.

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IMS
HORIBA Group is operating Integrated Management System
ISO9001 ISO14001 OHSAS18001

Explore the future   Automotive Test Systems | Process & Environmental | Medical | Semiconductor | Scientific   **HORIBA**