

LAQUA

LAQUA WQ-300 Series Smart Handheld Water Quality Meters



pH | ORP | Dissolved Oxygen | Conductivity | Resistivity | Total Dissolved Solids | Salinity | Ion





www.horiba-laqua.com



LAQUA WQ-300 Series

Smart Handheld Water Quality Meters



Scan code to view LAQUA WQ-300
Series feature video online

VIDEO

Visit the HORIBA LAQUA Singapore Channel on YouTube and subscribe to see more of our videos.



Large Colour Graphic LCD Screen with Backlight

All models have colour graphic digital LCD screen (70 x 52 mm) with white LED backlight for easy viewing.



Built-in Foldable Meter Stand

Collapsible meter stand is builtin at the back of the meter for convenient usage and storage.



IP67 Waterproof and Dustproof

Fully protected from dust and capable of withstanding water immersion up to 1 meter depth for 30 mins.





Eco-friendly, Shock-proof, Scratch Resistant, and Non-slip

Apart from their high impact strength, the polycarbonate and TPE materials are also long-lasting and recyclable. The TPE provides non-slip grip and is not easily damaged by abrasion.



Built-in Sensor Holders

Three grooves on the meter housing serve as sensor holders.

LAQUA WQ-300 Series

Smart Handheld Water Quality Meters





Efficient Sensor Locking Mechanism

The push-pull connectors deliver a simple yet fast and strong method to connect and disconnect sensors. The lock is released only when the outer sleeve of the connector is pulled back so accidental disconnection is prevented.

Compatible with Conventional Electrodes having BNC and Phono Connectors and Long Cables

With 300-BNC sensor head adapter, conventional electrodes with BNC and phono connectors can be connected to the meter. Also, electrodes with up to 10m cable can be used without noise problem.



Sensor's LED Light as Reading Stability Indicator

Blue LED light on the sensor head flashes until the reading is stable.







Hands-free Testing

Hang the meter using a wrist strap or lanyard, place it into the carrying case, or mount it to a wall while in use.

Ergonomic Design

The black meter housing is made of polycarbonate material covered with a layer of thermoplastic elastomer (TPE) material. It is lightweight, comfortable to touch, and suitable for field applications.



Rugged Carrying Case

Keeps all your equipment organized and secure.

Storage Space

Compartment for instruction manual and accessories.

DO Sensor Guard



Cable Space

Bottle Holders

Stores up to 8 x 60ml bottles of Standard Solutions

For sensors with extra long cables

Cable Winder

Organize sensor cables neatly.

Sensor Holders

Holds pH, Conductivity, and DO sensors



Bottle Stand

Secures the bottles upright while doing calibration.



Multi-Language Options

Available in several languages— English, Japanese, French, German, Spanish, Portuguese, and Chinese.

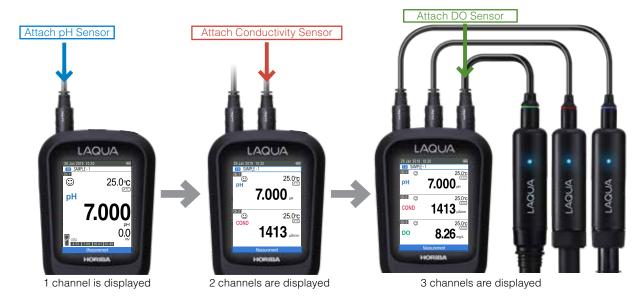


Simultaneous Calibrations and Measurements

Applicable for dual- and triple-channel models.

Versatile Channels & Adaptive Display

Single-, dual-, and triple-channel models are available. Sensors can be connected to any channel in dual- and triple-channel models and the meter screen automatically adjusts.



Automatic Sensor Recognition

Sensor info, calibration data, and measurement setup stored in sensor head are viewable in the meter when sensor is connected.





Meter stores up to 10,000 data with date/time stamp. Transfer data from meter to computer seamlessly via USB cable or wirelessly via Wi-Fi. Each meter comes with a wireless SD card.





Printer Communication

Print data using a printer via 25pin D-sub printer cable.





Sensor Status Indicator

Sensor icon presents the sensor condition after calibration.







Temperature Sensor Indicator

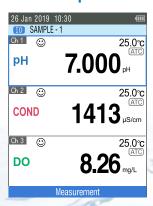


Temperature sensor is connected to meter



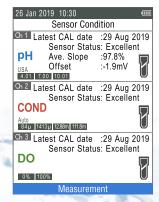
Temperature sensor is not connected to meter

Sample ID



Use up to eight characters for creating Sample ID.

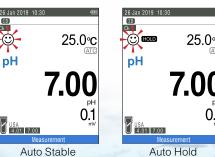
Calibration Data



Right arrow button shows the latest calibration data.



Measurement Modes













Customizable Meter Kit

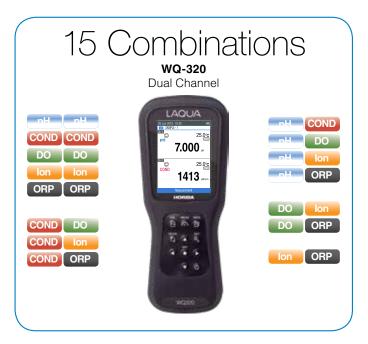
Create a custom meter kit by selecting the meter, sensor, and accessories.





Up to 55 possible meter + sensor combinations







Choose your meter*:

Choose your sensor kit:

Meter only

Sensor (2.0m cable) kit

Sensor (5.0m cable) kit

WQ-310-K

Single Channel 3200832605



WQ 300 PH Kit 2M

pH Sensor Kit with USA pH Buffers - 4000043090 pH Sensor Kit with NIST pH Buffers - 4000043092



4.01, 7.00, 10.01 USA pH Buffers (60ml each)

WQ 300 PH Kit 5M

pH Sensor Kit with USA pH Buffers - 4000043091 pH Sensor Kit with NIST pH Buffers - 4000043093



4.01, 7.00, 10.01 USA pH Buffers (60ml each)

WQ 300 EC Kit 2M

COND Conductivity Sensor Kit with Conductivity Standards - 4000043094



84μS/cm, 1413μS/cm, 12.88mS/cm, & 111.8 mS/cm Conductivity Standards (60ml each)

WQ 300 EC Kit 5M

Conductivity Sensor Kit with Conductivity Standards - 4000043095



84μS/cm, 1413μS/cm, 12.88mS/cm, & 111.8 mS/cm Conductivity Standards (60ml each)

WQ-320-K Dual Channel



WQ 300 DO Kit 2M



Calibration Bottle

WQ 300 DO Kit 5M

DO DO Sensor - 3200780942



WQ-330-K

Triple Channel 3200832607



WQ 300 ION Kit 2M



WQ 300 ORP Kit 2M





Includes carrying case, 4 x AA batteries, wireless SD card, user manual, and quick guide



HORIBA's Smart digital sensor technology

■ Maintenance-free, gel-filled pH sensor

No electrolyte refilling required

- KCl gel electrolyte
- Double junction reference
- Porous sintered polyethylene junction
- Built-in temperature sensor
- Rugged polycarbonate body
- Replaceable pH sensor cartridge
- pH sensor heads with 2m and 5m cables are available

4-Cell conductivity sensor

Wide range of conductivity measurements possible

- From clean water to industrial wastewater, the 4-cell type can measure a variety of samples with different conductivity
- Built-in temperature sensor
- Durable epoxy / carbon body
- · Replaceable conductivity sensor cartridge
- Conductivity sensor heads with 2m and 5m cables are available

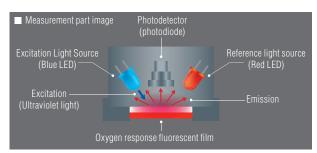




■ Optical dissolved oxygen (DO) sensor

Longer usable life with excellent performance

- Easy to handle not affected with sample flow velocity, not sensitive to hydrogen sulfide, DO sensor cap replacement after 1-2 years*
- Built-in temperature sensor
- Comes with replaceable DO sensor cap, air calibration bottle and Stainless Steel DO Sensor Protective Guard
- DO sensor heads with 2m and 5m cables are available



Ion sensor head

Compatible with conventional ion selective electrodes

- Accepts all combination ion selective electrodes with BNC connector
- · Requires sensor head adapter
- · Comes with 2m cable

ORP sensor head

Compatible with conventional ORP electrodes

- Accepts 9300-10D and other combination ORP electrodes with BNC connector
- Requires sensor head adapter
- Comes with 2m cable



 $^{^{\}star}\mbox{Depending}$ on application, handling, and maintenance

Sensor and Meter Specifications

pH Sensor Head	d pH / mV / Temp (°C/°F)	
Model	300PH-2	300PH-5
Part No.	3200812206	3200812207
pH Range		20.00 pH 20.000 pH
Resolution		00: 0.01 pH 000: 0.001 pH
Accuracy	-2.00 to 20 -2.000 to 20	0.00: ±0.01 .000: ±0.005
Calibration Points	Up	to 6
pH Buffer Groups	USA, DIN, NIST, NIST10, Custom	
mV Range	±1000.0 mV	
Resolution	0.1 mV	
Accuracy	±0.1 mV	
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 Option	Yes	
Body Material	ABS / Polycarbonate	
Length and Diameter	85 x 30 mm	
Connector	Push-pull	
Cable Length	2 m 5 m	

pH/mV/Temp (°C/°F)	
300-P-C	
3200786363	
-2.00 to 20.00 pH -2.000 to 20.000 pH	
0 to 80 °C -32.0 to 176.0 °F	
Porous sintered polyethylene	
Yes	
Built-in	
110 x 16 mm	
Polycarbonate, glass bulb	
	3200786363 -2.00 to 20.00 pH -2.000 to 20.000 pH 0 to 80 °C -32.0 to 176.0 °F Porous sintered polyethylene Yes Built-in 110 x 16 mm

D' 1 0 0 0 0	DO (0/) 0	O / T /00/05)	
Dissolved Oxygen Senso	300-D-2	O ₂ / Temp (°C/°F) 300-D-5	
Part No.	3200780940	3200780942	
Dissolved Oxygen (DO) Range		0.00 to 20.00 mg/L 0.0 to 200.0 %	
Resolution	0.01 mg	/L, 0.1%	
Accuracy		/L, ±2 %	
Salinity Compensation		nsor / Manual: 0.0 to 40.0 pt	
Barometric Pressure Compensation		er / Manual: 10.0 to 199.9 Pa	
Calibration Points	Up	to 2	
Oxygen Range	0.0 to	50.0%	
Resolution	0.	1%	
Accuracy	±0.	.5%	
Temperature Range		130.0 °C 266.0 °F	
Resolution	0.1 °	C/°F	
Accuracy	±0.5 °C	/ ±0.9 °F	
Calibration Option	Yes		
Body Material	ABS / Poly	ycarbonate	
Length and Diameter	200 x	16 mm	
Connector	Push	n-pull	
Cable Length	2 m	5 m	
Sensor cap included		1	

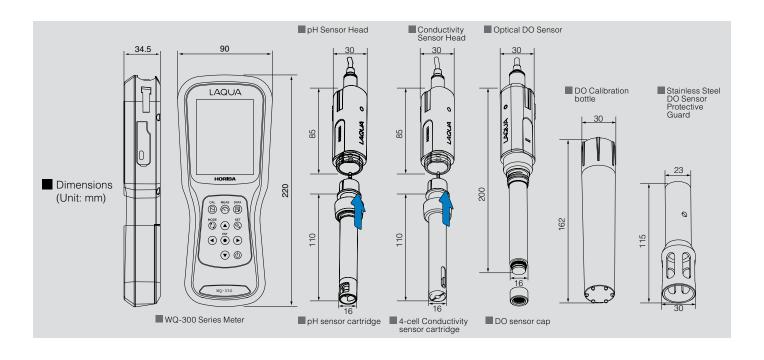
Dissolved Oxygen Sensor Cap		
Model	300-D-M	
Part No.	3200781554	
DO Range	0.00 to 20.00 mg/L 0.0 to 200.0 %	
Temperature Range	0 to 50.0 °C 32.0 to 122.0 °F	
Length and Diameter	10 x 16 mm	
Body Material	PVC, PMMA	

	sor Head EC/Sal/Ti	
Model Part No.	300-C-2	300-C-5
Conductivity Range	3200784468 µS/cm 0.000 to 0.199 0.200 to 1.999 2.00 to 19.99 20.0 to 199.9 200 to 1999 mS/cm 2.00 to 19.99 20.0 to 19.99 20.0 to 19.99 20.0 to 199.9 20.0 to 2000	3200812202 µS/m 0.0 to 19.9 20.0 to 199.9 200 to 199.9 mS/m 2.00 to 19.99 20.0 to 199.9 20.0 to 199.9 20.0 to 199.9 S/m 2.00 to 19.99
Resolution	Auto ranging, up to	20.0 to 200.0 4 significant digits
	± 0.5% full scal	e of each range
Accuracy	> 200 mS/cm (20.0 S	/m): ± 1.5% full scale
Reference Temperature	15 to	
Temperature Coefficient	0.00 to 10	
Calibration Points	1 , ,	Jp to 5 (Manual)
Units		, S/m
Salinity Range	0.00 to 8 0.000 to	
Resolution	0.01 ppt,	
Accuracy	$\pm 0.5\%$ of reading or $\pm 0.0^{\circ}$	
Salinity Curves	NaCI, Seawater (,
Calibration Option	Yes	
Total Dissolved Solids (TDS) Range	0.01 mg/L to 2	
Resolution	0.01 minimum, 4	•
Accuracy	\pm 0.5% of reading or \pm 0.1 mg/L, whichever is greater	
TDS Curves	Linear (0.40 to 1.00),	
Resistivity Range	Ω•cm 0.1 to 199.9 200 to 1999 kΩ•cm 2.00 to 19.99 20.0 to 19.99 200 to 1999 MΩ•cm 2.00 to 19.99 20.0 to 19.99 20.0 to 19.99 20.0 to 20.00	Ω•m 0.001 to 1.999 2.00 to 19.99 20.0 to 199.9 200 to 1999 kΩ•m 2.00 to 19.99 20.0 to 19.99 20.0 to 19.99 20.0 to 2000
Resolution	Auto ranging, up to	4 significant digits
Accuracy	± 0.5% full scale of each range > 200 mS/cm (20.0 S/m): ± 1.5% full scale	
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 Option	Ye	es
Body Material	ABS / Poly	
Length and Diameter	85 x 30 mm	
Connector	Push	
Cable Length	2 m	5 m

4-Cell Conductivity Sensor Cartridge		
Model	300-4C-C	
Part No.	3200780928	
Cell Constant	0.172 cm ⁻¹	
Conductivity Range	10 μS/cm to 2000 mS/cm	
Temperature Range	0 to 100 °C 32.0 to 212.0 °F	
Temperature Sensor	Built-in	
Length and Diameter	110 x 16 mm	
Body Material	Epoxy, carbon	

Ion Sensor Head Ion / mV / Temp (°C/°F)		
Model	300-I-2	
Part No.	3200812203	
Ion Range	(mg/L, mmol/L) 0.000 to 0.999, 1.00 to 9.99, 10.0 to 99.9, 100 to 999, 1000 to 9990, 10000 to 99900	
Resolution	0.001 minimum, 3 significant digits	
Accuracy	±0.1 mV	
Calibration Points	Up to 5	
mV Range	±1000.0 mV	
Resolution	0.1 mV	
Accuracy	±0.1 mV	
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 Option	Yes	
Body Material	ABS / Polycarbonate	
Length and Diameter	85 x 30 mm	
Connector	Push-pull	
Cable Length	2 m	

ORP Sensor He	ead ORP / Temp (°C/°F)
Model	300-0-2
Part No.	3200812204
ORP Range	-2000 to +2000 mV
Resolution	< ±1000.0 mV: 0.1mV ≥ 1000.0 mV: 1 mV
Accuracy	< ±1000.0 mV: ±0.1 mV ≥ 1000.0 mV: ±1 mV
Calibration Option	Yes
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 Option	Yes
Body Material	ABS / Polycarbonate
Length and Diameter	85 x 30 mm
Connector	Push-pull
Cable Length	2 m



Model	WQ-310-K	WQ-320-K	WQ-330-K
Part No.	3200832605	3200832606	3200832607
Channel	Single	Dual	Triple
Memory		10,000 Data with date and time stamp)
Data Log		Auto / Manual	
Measurement Modes		Auto Stable / Auto Hold / Real Time	
Calibration Alarm		Programmable: 0 to 400 days	
Auto Power Off		Programmable: 0 to 60 minutes	
Real-time Clock		Available	
Sensor Status		On display	
Diagnostics		Error codes	
Language	English, Japanese, French, German, Spanish, Portuguese, Chinese		
PC Communication	Via micro USB cable or wireless		
Printer Communication	Via 25-pin D-sub printer (RS232) cable		
Meter Input	Push-pull connector		
Display	Color graphic TFT-LCD, 3.5 inches		
Housing	IP67, shock & scratch resistant, non-slip (ABS / polycarbonate)		
Power Requirement	4 x AA batteries / battery pack or USB charger with micro USB cable		
Battery Life	> 100 hours (with display brightness 3 and no sensor connected)		
Dimensions	220 (L) x 90 (W) x 34 (H) mm		
Weight	Approx. 400g (batteries included), 320 g (batteries excluded)		
Standard Accessories	Carrying case, 4 x AA batteries, wireless SD card, manual, and quick guide		

Accessories & Solutions

pH Buffers	S	
Part No.	Model	Description
3999960015	501-S	NIST pH Buffers Kit (pH 4.01, 6.86, 9.18 buffers & 3.33M KCl, 250ml each)
3999960016	502-S	USA pH Buffers Kit (pH 4.01, 7.00, 10.01 buffers & 3.33M KCl, 250ml each)
3999960028	500-2	pH 1.68 Buffer at 25°C, 500ml
3999960029	500-4	pH 4.01 Buffer at 25°C, 500ml
3999960030	500-686	pH 6.86 Buffer at 25°C, 500ml
3999960031	500-7	pH 7.00 Buffer at 25°C, 500ml
3999960032	500-9	pH 9.18 Buffer at 25°C, 500ml
3999960033	500-10	pH 10.01 Buffer at 25°C, 500ml
3999960034	500-12	pH 12.46 Buffer at 25°C, 500ml

ORP Powders			
Part No.	Model	Description	
3200043618	160-51	89 mV at 25°C for 250ml (10 sachets/pack)	\$
3200043617	160-22	258 mV at 25°C for 250ml (10 sachets/pack)	\$

Conductivity Standards		
Part No.	Model	Description
3999960017	503-S	Conductivity Standards Kit (84µS/cm, 1413µS/cm, 12.88mS/cm & 111.8mS/cm, 250ml each)
3999960035	500-21	84µS/cm Conductivity Standard at 25°C, 500ml
3999960036	500-22	1413µS/cm Conductivity Standard at 25°C, 500ml
3999960037	500-23	12.88mS/cm Conductivity Standard at 25°C, 500ml
3999960038	500-24	111.8mS/cm Conductivity Standard at 25°C, 500ml

Ion Standard Solutions		
Part No.	Model	Description
3200697172	500-NH4-SL	100 mg/L Ammonium Ion Standard Solution
3200697171	500-NH4-SH	1000 mg/L Ammonium Ion Standard Solution
3200697176	500-CA-SL	100 mg/L Calcium Ion Standard Solution
3200697175	500-CA-SH	1000 mg/L Calcium Ion Standard Solution
3200697168	500-CL-SL	100 mg/L Chloride Ion Standard Solution
3200697167	500-CL-SH	1000 mg/L Chloride Ion Standard Solution
3200697164	500-F-SL	100 mg/L Fluoride Ion Standard Solution
3200697163	500-F-SH	1000 mg/L Fluoride Ion Standard Solution
3200697180	500-NO3-SL	100 mg/L Nitrate Ion Standard Solution
3200697179	500-NO3-SH	1000 mg/L Nitrate Ion Standard Solution
3200697180	500-K-SL	100 mg/L Potassium Ion Standard Solution
3200697179	500-K-SH	1000 mg/L Potassium Ion Standard Solution

Ionic Strength Adjustors			
3200697174	500-NH3-ISA	Ammonia Ionic Strength Adjustor	\rangle
3200697178	500-CA-ISA	Calcium Ionic Strength Adjustor	
3200697170	500-CL-ISA	Chloride Ionic Strength Adjustor	
3200697166	500-F-TISAB	Fluoride Ionic Strength Adjustor	
3200697182	500-NO3-ISA	Nitrate Ionic Strength Adjustor	
3200697182	500-K-ISA	Potassium Ionic Strength Adjustor	

Ion Select	ive Electro	ode Filling Solutions
3200697173	500-NH3-IFS	Ammonia Electrode Filling Solution
3200697177	500-CA-IFS	Calcium Electrode Filling Solution
3200697169	500-CL-IFS	Chloride Electrode Filling Solution
3200697165	500-F-IFS	Fluoride Electrode Filling Solution
3200697181	500-NO3-IFS	Nitrate Electrode Filling Solution
3200697181	500-K-IFS	Potassium Electrode Filling Solution



NIST pH Buffers Kit 501-



USA pH Buffers Kit 502-



ORP Powder



Conductivity Standards Kit 503-S



Calcium Ion Electrode Solutions



Chloride Ion Electrode Solutions



Fluoride Ion Electrode Solutions



Potassium Ion Electrode Solutions



Ammonia Ion Electrode Solutions



Nitrate Ion Electrode Solutions

Cleaning Solutions		
Part No.	Model	Description
3014028653	220	Cleaning solution for removing inorganic sample residues, 50ml x 2pcs 💠 🗘
3200530494	230	Cleaning solution for removing inorganic and organic sample residues, Solution A (30ml) & Solution B (100ml)
3200366771	250	Cleaning solution for removing proteins, 400ml

Cartridges, Ion Selective Electrodes, and Tips		
Part No.	Model	Description
3200786363	300-P-C	pH sensor cartridge
3200780928	300-4C-C	4-cell conductivity sensor cartridge
3200781554	300-D-M	Optical DO sensor cap
3014046710	9300-10D	ORP electrode with flat platinum tip and temperature sensor
3200698386	5002S-10C	Amonia electrode (combination)
3200697410	6583S-10C	Calcium ion selective electrode (combination)
3200697407	6560S-10C	Chloride ion selective electrode (combination)
3200693774	6561S-10C	Fluoride ion electrode (combination)
3200697408	6581S-10C	Nitrate ion selective electrode (combination)
3200697409	6582S-10C	Potassium ion selective electrode (combination)
3200705774	-	Ammonia electrode membrane caps (3 pcs.)
3200697414	7683S	Calcium electrode tip
3200697411	7660S	Chloride electrode tip
3200693606	7661S	Fluoride electrode tip
3200697412	7681S	Nitrate electrode tip
3200697413	7682S	Potassium electrode tip

Accessories		
Part No.	Model	Description
3200821465	300-BNC	Sensor head adapter
3014028368	X-51	Digital simulator (300-BNC is required for pH, ORP, and Ion sensor heads)
3014030146	_	Printer for GLP / GMP compliance, 120V US version (printer cable is sold separately)
3014030147	_	Printer for GLP / GMP compliance, 230V EU version (printer cable is sold separately)
3200779638	_	25-pin D-sub printer (RS232) cable, 1.5m
3014030149	_	Printer paper, 20 rolls
3014030150	_	Printer ink ribbon, 5pcs/pack
3200828646	_	pH sensor protective tube, 3pcs/pack (for 200 series, 300 series)

*Sensors carry 6-month warranty against manufacturing defects.







Cleaning Solutions



Ammonia electrode membrane caps



Calcium electrode tip



Chloride electrode tip



Fluoride electrode tip



Nitrate electrode tip



Potassium electrode tip



300-BNC Sensor Head Adapte













measuring up

Printer ink ribbon

With over 60 years of engineering excellence, HORIBA's diverse range of water quality analyzers and electrodes are ideal for everyday laboratory needs 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 meters deliver the best solution for water quality analysis. Our LAQUA website features an online 'Selection Guide' to enable you to find the perfect LAQUA meter and electrode for your need.



Handheld Meters

In the lab, in the field or anywhere you need it. LAQUA Handheld meters are designed for use with one hand and 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.



Pocket Meters

Analyzing water quality is simplified when using our LAQUAtwin range of meters. Designed to produce accurate and reliable results. Anyone, anywhere, at any time can measure samples easily with a LAQUAtwin meter. See just how good they are at our website.



Electrodes

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





Application Notes

LAQUAtwin pocket meters offer 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. Additional application notes will be added when available.









RoHS

- The contents of this catalog are subject to change without prior notice, and without any subsequent liability to this company.
- The color of the actual products may differ from the color pictured in this catalog due to printing limitations.
- It is strictly forbidden to copy the content of this catalog in part or in full.
 All brand names, product names and service names in this catalog are trademarks or registered trademarks
- Windows is a registered trademark of Microsoft Corporation in the United States and other countries

Asia Pacific

HORIBA Instruments (Singapore) Pte. Ltd. 83 Science Park Drive, #02-02A.

The Curie, Singapore 118258 Phone: 65 6908-9660 Fax: 65 6745-8155 e-mail: <u>laqua@horiba.com</u>

■ Europe, Middle East, & Africa

HORIBA UK Limited Kyoto Close Moulton Park

Northampton NN3 6FL Phone: +44 1604 642500 e-mail: waterquality@horiba.com



HORIBA Instruments Incorporated

9755 Research Drive Irvine California 92618 USA Phone: +1 949 250 4811 Fax: +1 949 250 0924, +1 949 468 1890 e-mail: labinfo@horiba.com

Brochure WQSM-08-2019A

