

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



Meter and electrode shown in actual size



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



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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 built-in 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.



Battery and USB Powered

Four AA batteries or battery pack with micro USB cable can be used to power the meter in the field. USB charger plugged to a power outlet can be used for an uninterrupted operation in the lab.



Impact Resistant

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.

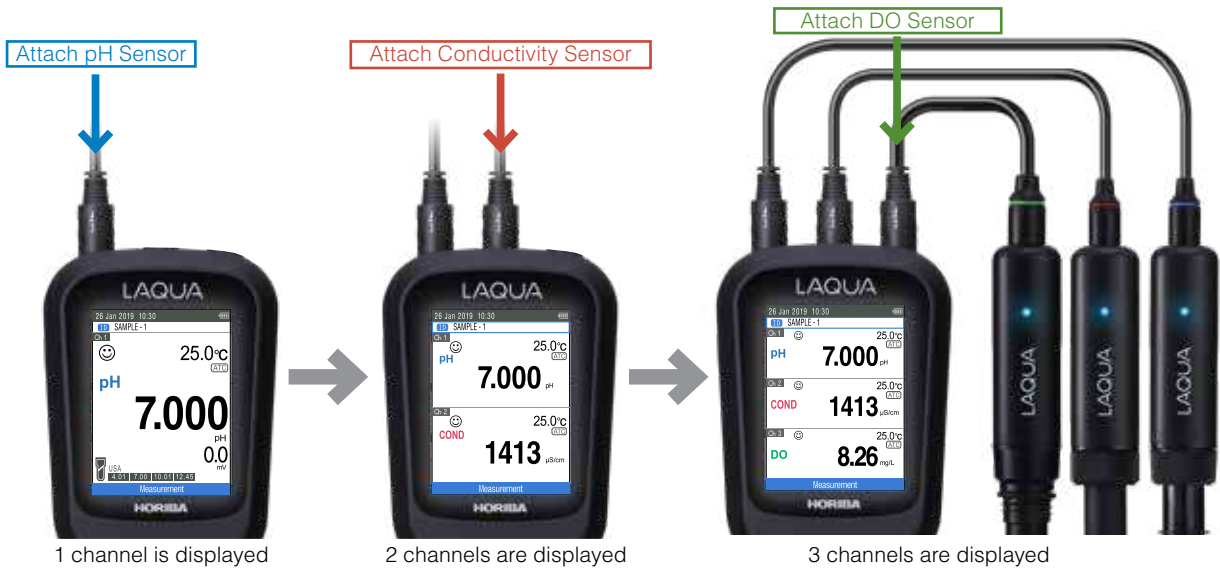


Built-in Sensor Holders

Three grooves on the meter housing serve as sensor holders.

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.

26 Jan 2019 10:30

ID SAMPLE - 1

Ch 1



25.0°C

ATC

pH

7.000

pH

0.0

mV

Measurement

26 Jan 2019 10:30					
Ch1 Calibration Data					
Ch 1					
	Latest CAL Date :29 Aug 2019				
	Sensor Status : Excellent				
	Ave. Slope : 97.8%				
	Offset : -1.9mV				
	USA 4.01 7.00 10.01				
P	Date Time	Cal Value	mV	°C	%
1	29 Aug 2019 14:55	4.00	168.8	23.4	96.9
2	29 Aug 2019 14:53	7.00	-2.1	23.6	98.7
3	29 Aug 2019 14:56	10.03	-177.6	23.3	
4					
5					
Measurement					



26 Jan 2019 10:30	
pH Setup	
pH Resolution	0.01 ▶
Buffer Group	USA ▶
CAL Alarm	OFF ▶
Temp. Type	ATC ▶
CAL Data Clear	▶
Set	

26 Jan 2019 10:30	
Ch1 Sensor Info.	
Sensor	
Model	: 300pH - 2
SN	: ABCD1234
SW Ver.:	0.3.6
Cartridge	
Model	: 300-P-C
SN	: 123456
Set	

Choose your meter*:

Choose your sensor kit:

Meter only

WQ-310-K Single Channel 3200832605



WQ-320-K Dual Channel 3200832606



WQ-330-K Triple Channel 3200832607



Sensor (2.0m cable) kit

WQ 300 PH Kit 2M

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



WQ 300 EC Kit 2M

COND Conductivity Sensor Kit with Conductivity Standards - 4000043094



WQ 300 DO Kit 2M

DO DO Sensor - 3200780940



WQ 300 ION Kit 2M

Ion Ion Sensor Kit - 4000043097



WQ 300 ORP Kit 2M

ORP ORP Sensor Kit - 4000043096



Sensor (5.0m cable) kit

WQ 300 PH Kit 5M

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



WQ 300 EC Kit 5M

COND Conductivity Sensor Kit with Conductivity Standards - 4000043095



WQ 300 DO Kit 5M

DO DO Sensor - 3200780942



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



**Sensor head with
built-in digital circuit**

Retains sensor
and measurement
information



Sensor cartridge

Replaceable,
cost efficient and
environment-friendly



Smart Digital Sensor

HORIBA's Smart digital sensor technology

■ Maintenance-free, gel-filled pH sensor

No electrolyte refilling required

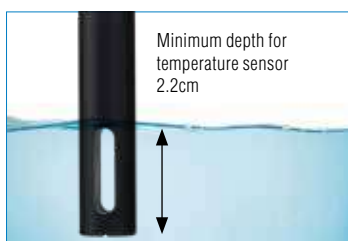
- KCl gel electrolyte
- Double junction reference
- Porous sintered polyethylene junction
- Built-in temperature sensor
- Rugged polycarbonate body
- Replaceable pH sensor cartridge
- pH sensor heads with 2m and 5m cables are available



■ 4-Cell conductivity sensor

Wide range of conductivity measurements possible

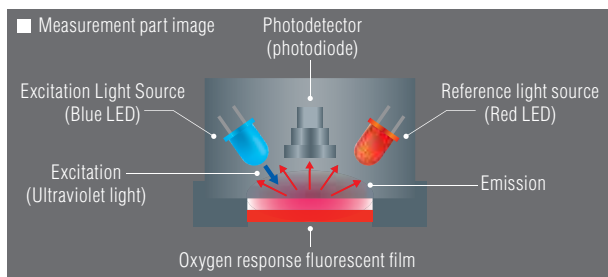
- From clean water to industrial wastewater, the 4-cell type can measure a variety of samples with different conductivity
- Built-in temperature sensor
- Durable epoxy / carbon body
- Replaceable conductivity sensor cartridge
- Conductivity sensor heads with 2m and 5m cables are available



■ 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



*Depending on application, handling, and maintenance

LAQUA WQ-300 Series | Smart Handheld Water Quality Meters

Sensor and Meter Specifications

pH Sensor Head pH / mV / Temp (°C/°F)		
Model	300PH-2	300PH-5
Part No.	3200812206	3200812207
pH Range	-2.00 to 20.00 pH -2.000 to 20.000 pH	
Resolution	-2.00 to 20.00: 0.01 pH -2.000 to 20.000: 0.001 pH	
Accuracy	-2.00 to 20.00: ±0.01 -2.000 to 20.000: ±0.005	
Calibration Points	Up to 5	
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 Sensor Cartridge pH/mV/Temp (°C/°F)	
Model	300-P-C
Part No.	3200786363
pH Range	-2.00 to 20.00 pH -2.000 to 20.000 pH
Temperature Range	0 to 80 °C -32.0 to 176.0 °F
Junction Material	Porous sintered polyethylene
Double Junction	Yes
Temperature Sensor	Built-in
Length and Diameter	110 x 16 mm
Body Material	Polycarbonate, glass bulb

Dissolved Oxygen Sensor DO (mg/L, %) / O ₂ / Temp (°C/°F)		
Model	300-D-2	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	±0.2 mg/L, ±2 %	
Salinity Compensation	Auto: by conductivity sensor / Manual: 0.0 to 40.0 ppt	
Barometric Pressure Compensation	Auto: by built-in barometer / Manual: 10.0 to 199.9 kPa	
Calibration Points	Up to 2	
O ₂ Range	0.0 to 50.0%	
Resolution	0.1%	
Accuracy	±0.5%	
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	200 x 16 mm	
Connector	Push-pull	
Cable Length	2 m	5 m
Sensor cap included	1	

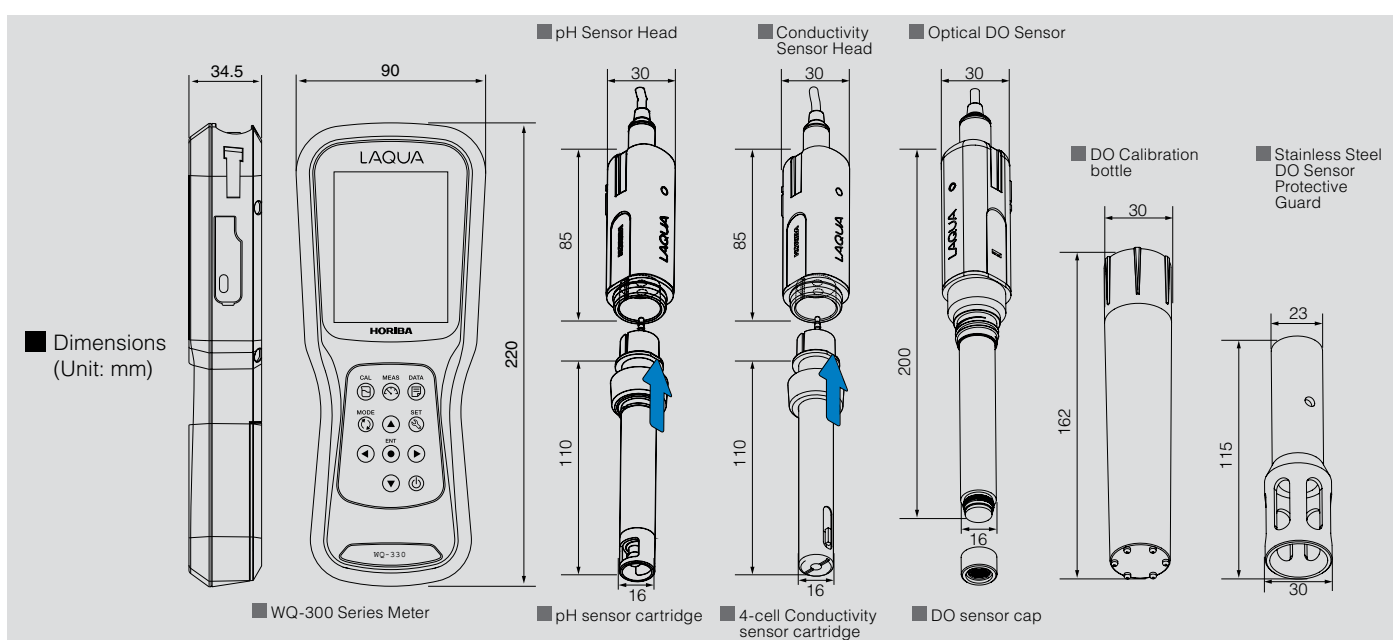
Dissolved Oxygen Sensor Cap	
Model	300-D-M
Part No.	3200781554
DO Range	0.00 to 20.00 mg/L 0.0 to 200.0 %
Temperature Range	0 to 50.0 °C 32.0 to 122.0 °F
Length and Diameter	10 x 16 mm
Body Material	PVC, PMMA

Conductivity Sensor Head EC / Sal / TDS / Res / Temp (°C/°F)		
Model	300-C-2	300-C-5
Part No.	3200784468	3200812202
Conductivity Range	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 199.9 200 to 2000	µS/m 0.0 to 19.9 20.0 to 199.9 200 to 1999 mS/m 2.00 to 19.99 20.0 to 199.9 200 to 1999 S/m 2.00 to 19.99 20.0 to 200.0
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	
Reference Temperature	15 to 30 °C	
Temperature Coefficient	0.00 to 10.00 %/°C	
Calibration Points	Up to 4 (Auto) / Up to 5 (Manual)	
Units	S/cm, S/m	
Salinity Range	0.00 to 80.00 ppt 0.000 to 8.000 %	
Resolution	0.01 ppt, 0.001 %	
Accuracy	± 0.5% of reading or ± 0.01 ppt, whichever is greater	
Salinity Curves	NaCl, Seawater (UNESCO 1978)	
Calibration Option	Yes	
Total Dissolved Solids (TDS) Range	0.01 mg/L to 200,000 mg/L	
Resolution	0.01 minimum, 4 significant digits	
Accuracy	± 0.5% of reading or ± 0.1 mg/L, whichever is greater	
TDS Curves	Linear (0.40 to 1.00), EN27888, 442, NaCl	
Resistivity Range	Ω•cm 0.1 to 199.9 200 to 1999 kΩ•cm 2.00 to 19.99 20.0 to 199.9 200 to 1999 MΩ•cm 2.00 to 19.99 20.0 to 200.0	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 199.9 200 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	Yes	
Body Material	ABS / Polycarbonate	
Length and Diameter	85 x 30 mm	
Connector	Push-pull	
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 Head ORP / Temp (°C/°F)	
Model	300-O-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		

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Accessories & Solutions

pH Buffers

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



NIST pH Buffers Kit 501-S



USA pH Buffers Kit 502-S



ORP Powders



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

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
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 Selective Electrode 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

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



220

250



230

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 Adapter

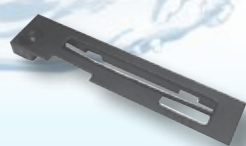
Cartridges, Ion Selective Electrodes, and Tips

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	Ammonia 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.



Printer ink ribbon



pH sensor protective tube



Printer paper



25-pin D-sub printer cable



Printer



X-51 Digital Simulator