

# Product Catalogue

Water Quality Meters and Laboratory Instruments

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- pH/ORP/Ion/Water Hardness Meters
- Conductivity/TDS/Salinity/Resistivity/Conductivity Ash Meters
- Dissolved Oxygen/BOD/OUR/SOUR Meters
- Turbidity Meters
- Polarimeters
- Magnetic Stirrers
- Electrodes

# PHscan Series Pocket pH Tester



## PHscan10/20 Features

- 2 points push-button calibration with auto-buffer recognition
- Hold function momentarily freezes reading for easy viewing and recording
- Auto-Power Off effectively conserves battery life
- Replaceable electrode module reduces maintenance and replacement cost



## PHscan30 Features

- 1 to 3 points calibration with automatic recognition for USA and NIST buffers
- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Setup menu allows setting the pH buffer set, number of calibration points, temperature unit, auto-power off, etc.
- Reset function automatically resumes all settings back to the factory defaults



## PHscan40 Features

- BNC connector is easy to connect a variety of pH electrodes
- 1 to 3 points calibration with automatic recognition for USA and NIST buffers
- Manual temperature compensation provides a wide range of temperature input
- Auto-Read function senses and locks the measurement endpoint
- Setup menu allows setting the pH buffer set, number of calibration points, temperature unit, auto-power off, etc.
- Reset function automatically resumes all settings back to the factory defaults



## Optional pH Electrodes



**E-PHscan-S**

- Circular pH-sensitive membrane
- Suitable for measuring the liquids



**E-PHscan-F**

- Flat surface pH-sensitive membrane
- Suitable for measuring the semisolids



**E-PHscan-L**

- Flat surface pH-sensitive membrane
- Suitable for measuring the small volume samples

## Specifications

Model	PHscan10	PHscan20	PHscan30	PHscan40	
<b>pH</b>	Range	0.0~14.0pH	0.00~14.00pH	-1.00~15.00pH	-1.00~15.00pH
	Resolution	0.1pH	0.01pH	0.01pH	0.01pH
	Accuracy	±0.1pH	±0.05pH	±0.01pH	±0.01pH
	Calibration Points	2 points	2 points	1 to 3 points	1 to 3 points
	pH Buffer Options	4.01/7.00/10.01	4.01/7.00/10.01	4.01/6.86/7.00/9.18/10.01	4.01/6.86/7.00/9.18/10.01
<b>Temperature</b>	Range	—	0~60°C	0~60°C/32~140°F	0~100°C/32~212°F
	Resolution	—	1°C	0.1°C/0.1°F	0.5°C/0.5°F
	Accuracy	—	±1°C	±1°C/±1.8°F	—
	Offset Calibration	—	—	1 point, reading ±10°C	—
<b>Other Specifications</b>	Temperature Compensation	—	0~60°C, automatic	0~60°C, automatic	0~100°C, manual
	Hold Function	Manual		Manual or auto-endpoint	
	Auto-Off	8 minutes after last key pressed		8 minutes after last key pressed	
	Operating Temperature	0~60°C		0~60°C	
	Display	Single-line LCD (21×21mm)		Dual-line LCD (21×21mm)	
	Power Requirements	3×1.5V LR44 micro alkaline batteries		2×1.5V AAA batteries	
	Battery Life	Approximately 150 hours of continuous use		Approximately 200 hours of continuous use	
	Dimensions	185(L)×40(Dia.)mm		185(L)×40(Dia.)mm	175(L)×40(Dia.)mm
Weight	100g		100g		

## Ordering Information

- PHscan10/20/30-E: Tester, pH buffer sachets and plastic box
- PHscan10/20/30-K: Tester, pH buffer solutions and carrying case
- PHscan40: Tester, E201-BNC plastic body pH electrode, pH buffer solutions and carrying case

# ORPscan Series Pocket ORP Tester



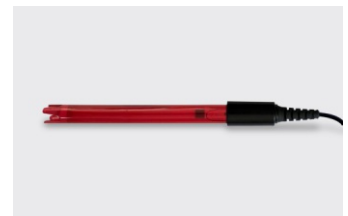
## Features

- 1 point offset calibration allows adjusting the displayed value to a known standard
- Relative and absolute millivolt modes ensure the reliable ORP measurements
- Auto-Read function senses and locks the measurement endpoint
- Auto-Power Off effectively conserves battery life
- Reset function automatically resumes all settings back to the factory defaults



## Ordering Information

- ORPscan10: Tester and plastic box
- ORPscan20: Tester, 501 ORP electrode, solution storage bottles and carrying case



## Optional ORP Electrodes

- 501: Suitable for general purpose applications
- 504: Suitable for high temperature samples (<100°C/212°F)

## Specifications

	Model	ORPscan10	ORPscan20
ORP	mV Range	±999mV	±999mV
	Relative mV Range	±999mV	±999mV
	Resolution	1mV	1mV
	Accuracy	±2mV	±2mV
	Calibration Points	1 point	1 point
Other Specifications	Sensor Type	E-ORPscan-S ORP electrode	5 series ORP electrodes
	Sensor Material	Platinum sheet	Platinum pin or platinum band
	Connector	—	BNC
	Hold Function	Manual or auto-endpoint	Manual or auto-endpoint
	Auto-Off	8 minutes after last key pressed	8 minutes after last key pressed
	Operating Temperature	0-60°C	0-60°C
	Display	Dual-line LCD (21×21mm)	Dual-line LCD (21×21mm)
	Power Requirements	2×1.5V AAA batteries	2×1.5V AAA batteries
	Battery Life	Approximately 200 hours of continuous use	Approximately 200 hours of continuous use
	Dimensions	185(L)×40(Dia.)mm	175(L)×40(Dia.)mm
Weight	100g	100g	



# ECscan Series Pocket Conductivity Tester



## ECscan10 Features

- 1 point push-button calibration allows using the custom calibration solution
- Platinum conductivity cell provides the quick and reliable measurement results
- Automatic temperature compensation corrects conductivity measurement to reference temperature
- Hold function momentarily freezes reading for easy viewing and recording
- Auto-Power Off effectively conserves battery life
- Replaceable electrode module reduces maintenance and replacement cost

## Applications

- ECscan10L : Suitable for measuring the low conductivity liquids
- ECscan10M: Suitable for general purpose applications
- ECscan10H : Suitable for measuring the high conductivity liquids



## ECscan20/30/40 Features

- Multi-range conductivity tester contains the TDS and salinity measurement modes
- 1 to 3 points calibration with automatic recognition for conductivity standards
- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Setup menu allows setting the number of calibration points, TDS conversion factor, temperature unit, auto-power off, etc.
- Reset function automatically resumes all settings back to the factory defaults

## Measurement Parameters

- ECscan20: Conductivity, temperature
- ECscan30: Conductivity, TDS, temperature
- ECscan40: Conductivity, TDS, salinity, temperature



## Ordering Information

- ECscan10L/M/H: Tester and plastic box
- ECscan20/30/40: Tester, conductivity standard solutions and carrying case

## Replaceable Conductivity Electrodes



### E-ECscan-C1-100K

- 2-pole platinum conductivity cell
- Suitable for ECscan10L/M/H testers



### E-ECscan-C1-10K

- 2-pole platinum conductivity cell
- Suitable for ECscan20/30/40 testers

## Specifications

	Model	ECscan10L	ECscan10M	ECscan10H	ECscan20	ECscan30	ECscan40
Conductivity	Range	1.0~199.9 $\mu$ S/cm	10~1999 $\mu$ S/cm	0.1~19.99mS/cm	0~20.00, 200.0, 2000 $\mu$ S/cm, 20.00mS/cm		
	Resolution	0.1 $\mu$ S/cm	1 $\mu$ S/cm	0.01mS/cm	0.01, 0.1, 1		
	Accuracy	$\pm$ 1% F.S.	$\pm$ 1% F.S.	$\pm$ 1% F.S.	$\pm$ 1% F.S.		
	Calibration Points	1 point	1 point	1 point	1 to 3 points		
	Calibration Solutions	146.5 $\mu$ S/cm	1413 $\mu$ S/cm	12.88mS/cm	84 $\mu$ S/cm, 1413 $\mu$ S/cm, 12.88mS/cm		
TDS	Range	—	—	—	—	0~10.00, 100.0, 1000ppm, 20.00ppt	
	Resolution	—	—	—	—	0.01, 0.1, 1	
	Accuracy	—	—	—	—	$\pm$ 1% F.S.	
	TDS Factor	—	—	—	—	0.1~1.0 (default 0.5)	
Salinity	Range	—	—	—	—	—	0.00~10.00ppt
	Resolution	—	—	—	—	—	0.01ppt
	Accuracy	—	—	—	—	—	$\pm$ 1% F.S.
Temperature	Range	0~50°C			0~60°C/32~140°F		
	Resolution	1°C			0.1°C/0.1°F		
	Accuracy	$\pm$ 1°C			$\pm$ 1°C/ $\pm$ 1.8°F		
	Offset Calibration	—			1 point, reading $\pm$ 10°C		
Other Specifications	Temperature Compensation	0~50°C, automatic			0~60°C, automatic		
	Temperature Coefficient	2%/°C			2%/°C		
	Reference Temperature	25°C			25°C		
	Cell Constant	K=1			K=1		
	Hold Function	Manual			Manual or auto-endpoint		
	Auto-Off	8 minutes after last key pressed			8 minutes after last key pressed		
	Operating Temperature	0~60°C			0~60°C		
	Display	Single-line LCD (21×21mm)			Dual-line LCD (21×21mm)		
	Power Requirements	3×1.5V LR44 micro alkaline batteries			2×1.5V AAA batteries		
	Battery Life	Approximately 150 hours of continuous use			Approximately 200 hours of continuous use		
Dimensions	185(L)×40(Dia.)mm			185(L)×40(Dia.)mm			
Weight	100g			100g			

# TDSscan Series Pocket TDS Tester



## TDSscan10 Features

- 1 point push-button calibration allows using the custom calibration solution
- Hold function momentarily freezes reading for easy viewing and recording
- Auto-Power Off effectively conserves battery life
- Replaceable electrode module reduces maintenance and replacement cost

## TDSscan20 Features

- 1 to 3 points calibration with automatic recognition for TDS standards
- Auto-Read function senses and locks the measurement endpoint
- Auto-Power Off effectively conserves battery life
- Setup menu allows setting the number of calibration points, TDS conversion factor, etc.
- Reset function automatically resumes all settings back to the factory defaults



## Ordering Information

- TDSscan10L/M/H: Tester and plastic box
- TDSscan20: Tester, TDS standard solutions and carrying case

## Specifications

Model		TDSscan10L	TDSscan10M	TDSscan10H	TDSscan20
TDS	Range	0.5~100.0ppm	5~1000ppm	0.05~10.00ppt	0~10.00, 100.0, 1000ppm, 20.00ppt
	Resolution	0.1ppm	1ppm	0.01ppt	0.01, 0.1, 1
	Accuracy	±1% F.S.	±1% F.S.	±1% F.S.	±1% F.S.
	Calibration Points	1 point	1 point	1 point	1 to 3 points
Temperature	Range	0~50°C			0~60°C/32~140°F
	Resolution	1°C			0.1°C/0.1°F
	Accuracy	±1°C			±1°C/±1.8°F
	Offset Calibration	—			1 point, reading ±10°C
Other Specifications	Temperature Compensation	0~50°C, automatic			0~60°C, automatic
	TDS Factor	0.4~1.0 (default 0.5)			0.1~1.0 (default 0.5)
	Hold Function	Manual			Manual or auto-endpoint
	Auto-Off	8 minutes after last key pressed			8 minutes after last key pressed
	Operating Temperature	0~60°C			0~60°C
	Display	Single-line LCD (21×21mm)			Dual-line LCD (21×21mm)
	Power Requirements	3×1.5V LR44 micro alkaline batteries			2×1.5V AAA batteries
	Battery Life	Approximately 150 hours of continuous use			Approximately 200 hours of continuous use
Dimensions	185(L)×40(Dia.)mm			185(L)×40(Dia.)mm	
Weight	100g			100g	

# SALscan Series Pocket Salinity Tester



## Features

- Multi-parameter salinity tester contains the conductivity measurement mode
- Platinum conductivity cell provides the quick and reliable measurement results
- 1 to 3 points calibration with automatic recognition for conductivity standards
- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Setup menu allows setting the number of calibration points, auto-power off, etc.
- Reset function automatically resumes all settings back to the factory defaults



## Ordering Information

SALscan10/20: Tester, conductivity standard solutions and carrying case

## Specifications

	Model	SALscan10	SALscan20
Salinity	Range	0.00~10.00ppt	0.00~80.00ppt
	Resolution	0.01ppt	0.01ppt
	Accuracy	±1% F.S.	±1% F.S.
Conductivity	Range	0~20.00, 200.0, 2000μS/cm, 20.00mS/cm	100.0~2000μS/cm, 20.00, 200.0mS/cm
	Resolution	0.01, 0.1, 1	0.01, 0.1, 1
	Accuracy	±1% F.S.	±1% F.S.
	Calibration Points	1 to 3 points	1 to 3 points
	Calibration Solutions	84μS/cm, 1413μS/cm, 12.88mS/cm	1413μS/cm, 12.88mS/cm, 111.8mS/cm
Temperature	Range	0~60°C/32~140°F	0~60°C/32~140°F
	Resolution	0.1°C/0.1°F	0.1°C/0.1°F
	Accuracy	±1°C/±1.8°F	±1°C/±1.8°F
	Offset Calibration	1 point, reading ±10°C	1 point, reading ±10°C
Other Specifications	Temperature Compensation	0~60°C, automatic	0~60°C, automatic
	Hold Function	Manual or auto-endpoint	Manual or auto-endpoint
	Auto-Off	8 minutes after last key pressed	8 minutes after last key pressed
	Operating Temperature	0~60°C	0~60°C
	Display	Dual-line LCD (21×21mm)	Dual-line LCD (21×21mm)
	Power Requirements	2×1.5V AAA batteries	2×1.5V AAA batteries
	Dimensions	185(L)×40(Dia.)mm	185(L)×40(Dia.)mm
Weight	100g	100g	

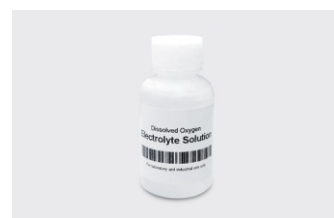


# DOscan10 Pocket Dissolved Oxygen Tester



## Features

- Economical dissolved oxygen tester is supplied with a polarographic electrode
- 1 or 2 points calibration using the air-saturated water or zero oxygen solution
- Salinity and barometric pressure compensations eliminate the measurement error
- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Auto-Power Off effectively conserves battery life
- Setup menu allows setting the number of calibration points, concentration unit, temperature unit, etc.
- Reset function automatically resumes all settings back to the factory defaults



## Ordering Information

DOscan10: Tester, DO100 dissolved oxygen electrode, electrolyte solution, membrane cap and carrying case

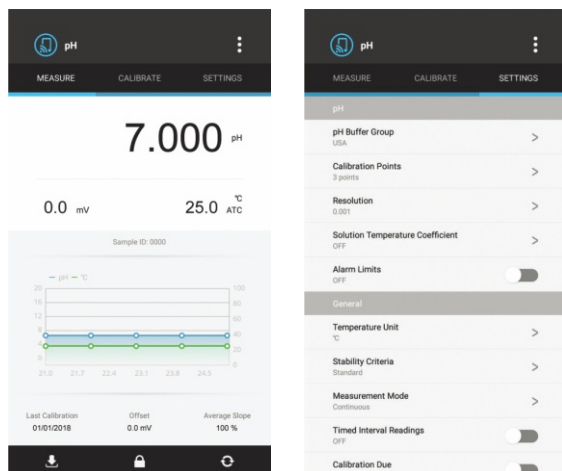
## Specifications

Model		DOscan10
DO	Range	0.0~20.0mg/L or ppm
	Resolution	0.1mg/L
	Accuracy	±0.5mg/L
% saturation	Range	0.0~200.0%
	Resolution	0.1%
	Accuracy	±2.0%
Other Specifications	Calibration Points	1 or 2 points
	Temperature Compensation	0~40°C/32~104°F, automatic
	Barometric Pressure Correction	60.0~112.5kPa/450~850mmHg, manual
	Salinity Correction	0.0~35.0g/L, manual
	Hold Function	Manual or auto-endpoint
	Auto-Off	8 minutes after last key pressed
	Operating Temperature	0~60°C
	Display	Dual-line LCD (21×21mm)
	Power Requirements	2×1.5V AAA batteries
	Battery Life	Approximately 200 hours of continuous use
Dimensions	175(L)×40(Dia.)mm	
Weight	100g	

# S Series Bluetooth Water Quality Tester



High-performance bluetooth water quality testers, including the 6 models. The meters are suitable for Android smartphone or tablet.



## Features

### S10 pH Tester

- 1 to 5 points calibration with automatic recognition for USA, NIST and DIN buffers
- Automatic electrode diagnosis shows the pH slope and offset
- Solution temperature coefficient compensates for the pure water samples and references the pH to 25°C

### S20 ORP Tester

- 1 point offset calibration allows adjusting the displayed value to a known standard
- Relative and absolute millivolt modes ensure the reliable ORP measurements

### S30 Ion Tester

- 2 to 5 points calibration, including the 8 concentration points can be selected
- Electrode management is capable of storing and recalling up to 3 electrode slopes
- Automatic electrode diagnosis shows the calibration points and slopes
- Selectable ion measurement methods (direct reading, known addition, known subtraction, sample addition, sample subtraction) and concentration units (ppm, mg/L, mol/L or mmol/L)

### S40 Water Hardness Tester

- 2 to 5 points calibration from low to high concentrations
- Selectable water hardness units - German degree (°dH), English degree (°e), French degree (°fH), gpg, mg/L and mmol/L

### S50 Conductivity Tester

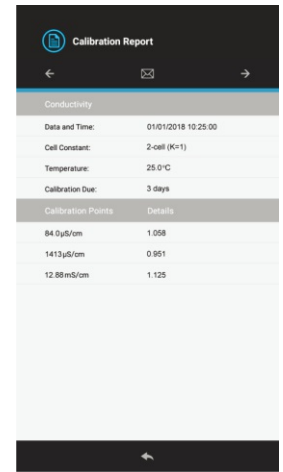
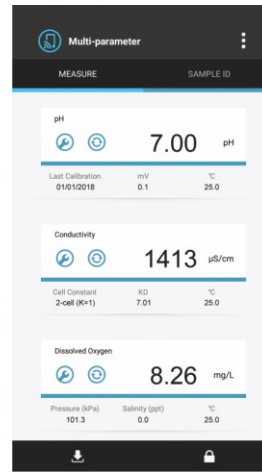
- 1 to 3 points calibration with automatic recognition for conductivity standards
- Automatic electrode diagnosis shows the calibration points and factors
- Selectable cell constant, temperature compensation type (linear/non-linear/EP/USP), temperature compensation coefficient, pure water compensation coefficient, reference temperature (20/25°C) and TDS conversion factor

### S60 Dissolved Oxygen Tester

- 1 or 2 points calibration using the air-saturated water or zero oxygen solution
- Salinity and barometric pressure compensations eliminate the measurement error
- Selectable testing time, beginning/ending DO are used for OUR/SOUR calculations

### General Features

- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Timed Interval Readings sends the measurement data to memory or printer
- Limit Alarm automatically alerts when reading exceeds the specified range
- Calibration due alarm prompts user to calibrate the tester regularly
- Password protection prevents the unauthorized calibration and settings
- Multiparameter measurement allows up to 3 testers connected to device and displays the measured values
- Reset function automatically resumes all settings back to the factory defaults



### Ordering Information

- S10: Tester, pH buffer solutions and carrying case
- S20: Tester, solution storage bottles and carrying case
- S30: Tester, ion selective electrode, standard solutions (100/1000ppm), ionic strength adjuster and carrying case
- S40: Tester, water hardness electrode, standard solutions (0.01/0.1 mol/L) and carrying case
- S50: Tester, conductivity standard solutions and carrying case
- S60: Tester, DO100 dissolved oxygen electrode, electrolyte solution, membrane cap and carrying case



## Specifications

Model		S10
pH	Range	-2.000~20.000pH
	Resolution	0.001, 0.01, 0.1pH, selectable
	Accuracy	±0.002pH
	Calibration Points	1 to 5 points
	pH Buffer Options	USA, NIST, DIN, 5 custom buffers
	Temperature Compensation	0~100°C/32~212°F, automatic
	Solution Temperature Coefficient	25°C
mV	Range	±2000.0mV
	Resolution	0.1, 1mV, selectable
	Accuracy	±0.2mV

Model		S20
ORP	Range	±2000.0mV
	Resolution	0.1, 1mV, selectable
	Accuracy	±0.2mV
	Calibration Points	1 point

Model		S30
Ion	Range	0.001~30000 (depending on the range of ISE)
	Resolution	0.001, 0.01, 0.1, 1
	Accuracy	±0.5% F.S. (monovalent), ±1% F.S. (divalent)
	Measurement Units	ppm, mg/L, mol/L, mmol/L
	Calibration Points	2 to 5 points
	Calibration Solutions	0.001, 0.01, 0.1, 1, 10, 100, 1000, 10000
	Temperature Compensation	0~100°C/32~212°F, manual
	Measurement Methods	Direct reading, known addition, known subtraction, sample addition, sample subtraction
mV	Electrode Management	1 to 3 electrodes
	Range	±2000.0mV
	Resolution	0.1, 1mV, selectable
Accuracy	±0.2mV	

Model		S40
Water Hardness	Range	0.05~200mmol/L, 0~1122°dH, 0~1404°e, 0~2000°fH, 0~1170gpg, 0~8020mg/L (Ca <sup>2+</sup> ), 0~20000mg/L (CaCO <sub>3</sub> ), 0~11220mg/L (CaO)
	Resolution	0.001, 0.01, 0.1, 1
	Accuracy	±1% F.S.
	Measurement Units	mmol/L, °dH, °e, °fH, gpg, mg/L (Ca <sup>2+</sup> ), mg/L (CaCO <sub>3</sub> ), mg/L (CaO)
	Calibration Points	2 to 5 points
	Calibration Solutions	0.01, 0.1, 1, 10, 100mmol/L
	Temperature Compensation	0~50°C/32~122°F, manual
mV	Range	±2000.0mV
	Resolution	0.1, 1mV, selectable
	Accuracy	±0.2mV

Model		S50-M	S50-H
Conductivity	Range	0~20.00, 200.0, 2000µS/cm, 20.00mS/cm	100.0~2000µS/cm, 20.00, 200.0mS/cm
	Resolution	0.01, 0.1, 1	0.01, 0.1, 1
	Accuracy	±0.5% F.S.	±0.5% F.S.
	Calibration Points	1 to 3 points	1 to 3 points
	Calibration Solutions	84µS/cm, 1413µS/cm, 12.88mS/cm	1413µS/cm, 12.88mS/cm, 111.8mS/cm
	Temperature Compensation	0~100°C/32~212°F, automatic	0~100°C/32~212°F, automatic
	Temperature Coefficient	Linear (0.0~10.0%/°C), non-linear, USP, EP	Linear (0.0~10.0%/°C), non-linear, USP, EP
	Pure Water Compensation	Yes	Yes
	Reference Temperature	20/25°C	20/25°C
	Cell Constant	K=1	K=10
TDS	Range	0~10.00, 100.0, 1000mg/L, 20.00g/L	0~100.0, 1000mg/L, 10.00, 200.0g/L
	Resolution	0.01, 0.1, 1	0.01, 0.1, 1
	Accuracy	±1% F.S.	±1% F.S.
	TDS Factor	0.01~1.00 (default 0.5)	0.01~1.00 (default 0.5)
Salinity	Range	0.00~10.00psu, 0.00~10.00ppt, 0.00~1.00%	0.00~42.00psu, 0.00~80.00ppt, 0.00~8.00%
	Resolution	0.01	0.01
	Accuracy	±1% F.S.	±1% F.S.
Resistivity	Range	0.00~10.00MΩ	0.00~1.00MΩ
	Resolution	0.01, 0.1, 1	0.01, 0.1, 1
	Accuracy	±1% F.S.	±1% F.S.
Conductivity Ash	Range	0~100%	0~100%
	Resolution	0.01, 0.1, 1	0.01, 0.1, 1
	Accuracy	±1% F.S.	±1% F.S.
	Measurement Modes	Refined sugar or raw sugar	Refined sugar or raw sugar

Model		S60
Dissolved Oxygen	Range	0.00~20.00mg/L, 0.0~200.0% saturation
	Resolution	0.01mg/L, 0.1%
	Accuracy	±0.2mg/L, ±2.0%
	Calibration Points	1 or 2 points
	Temperature Compensation	0~50°C/32~122°F, automatic
	Barometric Pressure Correction	60.0~113.3kPa/450~850mmHg, manual
	Salinity Correction	0.0~50.0g/L, manual
	Measurement Modes	Dissolved oxygen, BOD, oxygen uptake rate, specific oxygen uptake rate

For all S series testers		
General Specifications	Stability Criteria	Fast, standard, slow
	Measurement Modes	Continuous or auto-read
	Timed Interval Readings	10, 30, 60, 300 seconds or off
	Calibration Due Alarm	1 to 99 days or off
	Data Transfer	Send to memory or printer
	Power Requirements	2×1.2V lithium batteries or AAA batteries



# Bante 2 Series Portable pH/ORP Meter



## Measurement Parameters

- Bante 220: pH, mV, temperature
- Bante 221: pH, mV, relative mV, temperature

## Bante 220 Features

- 1 to 3 points calibration with automatic recognition for USA and NIST buffers
- Automatic electrode diagnosis helps user decide whether to replace the pH electrode
- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Setup menu allows setting the pH buffer set, number of calibration points, temperature unit, auto-power off, etc.
- Reset function automatically resumes all settings back to the factory defaults
- Expanded memory stores or recalls up to 100 data sets
- USB communication interface for data transfer or connecting a power adapter to meter



## Bante 221 Features

### pH

- 1 to 5 points calibration with automatic recognition for USA, NIST and DIN buffers
- Automatic electrode diagnosis shows the pH slope and offset
- Automatic temperature compensation ensures accurate readings over the entire range
- Calibration due alarm prompts user to calibrate the meter regularly

### ORP

- 1 point offset calibration allows adjusting the displayed value to a known standard
- Relative and absolute millivolt modes ensure the reliable ORP measurements

### General Features

- Auto-Read function senses and locks the measurement endpoint
- Auto-Power Off effectively conserves battery life
- Setup menu allows setting the pH buffer set, number of calibration points, resolution, stability criteria, temperature unit, date and time, etc.
- Reset function automatically resumes all settings back to the factory defaults
- Expanded memory stores or recalls up to 500 data sets
- USB communication interface is easy to transfer data to PC
- Multi-mode power scheme (batteries, power adapter and USB port) ensures that using the meter smoothly



## Specifications

Model		Bante 220	Bante 221
pH	Range	-2.00~20.00pH	-2.000~20.000pH
	Resolution	0.01pH	0.001, 0.01, 0.1pH, selectable
	Accuracy	±0.01pH	±0.002pH
	Calibration Points	1 to 3 points	1 to 5 points
	pH Buffer Options	USA (4.01/7.00/10.01), NIST (4.01/6.86/9.18)	USA, NIST, DIN, 2 custom buffers
ORP	mV Range	±1999mV	±1999.9mV
	Relative mV Range	—	±1999.9mV
	Resolution	1mV	0.1, 1mV, selectable
	Accuracy	±1mV	±0.2mV
	Calibration Points	—	1 point
Temperature	Range	0~105°C/32~221°F	0~105°C/32~221°F
	Resolution	0.1°C/0.1°F	0.1°C/0.1°F
	Accuracy	±0.5°C/±0.9°F	±0.5°C/±0.9°F
	Offset Calibration	1 point, reading ±10°C	1 point, reading ±10°C
Other Specifications	Temperature Compensation	0~100°C, manual or automatic	0~100°C, manual or automatic
	Stability Criteria	—	Low or high
	Calibration Due Alarm	—	1 to 31 days or off
	Slope/Offset Display	Yes	Yes
	Hold Function	Manual or auto-endpoint	Manual or auto-endpoint
	Auto-Off	30 minutes after last key pressed	10, 20 or 30 minutes after last key pressed
	Memory	100 data sets	500 data sets
	Communication Interface	USB	USB
	Connector	BNC, 3.5 mm jack socket	BNC, 3.5 mm jack socket
	Display	Custom LCD (80×60 mm)	Custom LCD (80×60 mm)
	Power Requirements	3×1.5V AA batteries or DC5V power adapter	3×1.5V AA batteries or DC5V power adapter
	Battery Life	Approximately 150 hours (Turn off the backlight)	Approximately 150 hours (Turn off the backlight)
	Dimensions	170(L)×85(W)×30(H) mm	170(L)×85(W)×30(H) mm
Weight	300g	300g	

## Ordering Information

- Bante 220/221-**CN**: Meter, E201-BNC plastic body pH electrode, temperature probe, pH buffer solutions and carrying case
- Bante 220/221-**UK**: Meter, P11 glass pH electrode, temperature probe, pH buffer solutions and carrying case
- Bante 221-**ORP**: Meter, E201-BNC plastic body pH electrode, 501 ORP electrode, temperature probe, pH buffer solutions and carrying case

# Bante 3 Series Portable pH/Ion Meter



## Measurement Parameters

- Bante 320: pH, mV, relative mV, ion concentration, temperature
- Bante 321: Ion concentration, mV, temperature

## Features

### pH

- 1 to 5 points calibration with automatic recognition for USA, NIST and DIN buffers
- Automatic electrode diagnosis shows the pH slope and offset

### ORP

- 1 point offset calibration allows adjusting the displayed value to a known standard
- Relative and absolute millivolt modes ensure the reliable ORP measurements

### Ion Concentration

- 2 to 5 points calibration, including the 8 concentration points can be selected
- Direct ion concentration readout simplifies the measurement process
- Automatic electrode diagnosis shows the calibration points and slopes
- Selectable concentration units (ppm, mg/L, mol/L, mmol/L) and ionic valency



## General Features

- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Calibration due alarm prompts user to calibrate the meter regularly
- Auto-Power Off effectively conserves battery life
- Setup menu allows setting the number of calibration points, resolution, stability criteria, temperature unit, date and time, etc.
- Reset function automatically resumes all settings back to the factory defaults
- Expanded memory stores or recalls up to 500 data sets
- USB communication interface is easy to transfer data to PC
- Multi-mode power scheme (batteries, power adapter and USB port) ensures that using the meter smoothly

## Optional Ion Selective Electrodes

Ammonium (NH<sub>4</sub><sup>+</sup>), bromide (Br<sup>-</sup>), cadmium (Cd<sup>2+</sup>), calcium (Ca<sup>2+</sup>), chloride (Cl<sup>-</sup>), cupric (Cu<sup>2+</sup>), cyanide (CN<sup>-</sup>), fluoride (F<sup>-</sup>), iodide (I<sup>-</sup>), lead (Pb<sup>2+</sup>), nitrate (NO<sub>3</sub><sup>-</sup>), potassium (K<sup>+</sup>), silver (Ag<sup>+</sup>), sodium (Na<sup>+</sup>), sulphide (S<sup>2-</sup>) and ammonia (NH<sub>3</sub>)



## Specifications

Model		Bante 320	Bante 321
pH	Range	-2.000~20.000pH	• —
	Resolution	0.001, 0.01, 0.1pH, selectable	• —
	Accuracy	±0.002pH	• —
	Calibration Points	1 to 5 points	• —
	pH Buffer Options	USA, NIST, DIN, 2 custom buffers	• —
Ion	Range	0.001~19999 (depending on the range of ISE)	• •
	Resolution	0.001, 0.01, 0.1, 1	• •
	Accuracy	±0.5% F.S. (monovalent), ±1% F.S. (divalent)	• •
	Measurement Units	ppm, mg/L, mol/L, mmol/L	• •
	Calibration Points	2 to 5 points	• •
	Calibration Solutions	0.001, 0.01, 0.1, 1, 10, 100, 1000, 10000	• •
ORP	mV Range	±1999.9mV	• •
	Relative mV Range	±1999.9mV	• —
	Resolution	0.1, 1mV, selectable	• •
	Accuracy	±0.2mV	• •
	Calibration Points	1 point	• —
Temperature	Range	0~105°C/32~221°F	• •
	Resolution	0.1°C/0.1°F	• •
	Accuracy	±0.5°C/±0.9°F	• •
	Offset Calibration	1 point, reading ±10°C	• •
Other Specifications	Temperature Compensation	0~100°C, manual or automatic	• •
	Stability Criteria	Low or high	• •
	Calibration Due Alarm	1 to 31 days or off	• •
	Slope/Offset Display	Yes	• •
	Hold Function	Manual or auto-endpoint	• •
	Auto-Off	10, 20 or 30 minutes after last key pressed	• •
	Memory	500 data sets	• •
	Communication Interface	USB	• •
	Connector	BNC, 3.5 mm jack socket	• •
	Display	Custom LCD (80×60 mm)	• •
	Power Requirements	3×1.5V AA batteries or DC5V power adapter	• •
	Battery Life	Approximately 150 hours (Turn off the backlight)	• •
	Dimensions	170(L)×85(W)×30(H) mm	• •
Weight	300g	• •	

## Ordering Information

- Bante320-**CN**: Meter, E201-BNC plastic body pH electrode, temperature probe, pH buffer solutions and carrying case
- Bante320-**UK**: Meter, P11 glass pH electrode, temperature probe, pH buffer solutions and carrying case
- Bante321: Meter, ion selective electrode, temperature probe, standard solutions (100/1000ppm), ionic strength adjuster and carrying case

# Bante 322 Portable Water Hardness Meter



## Features

- 2 to 5 points calibration from low to high concentrations
- Selectable water hardness units - mmol/L, mg/L, German degree (°dH), English degree (°e) and French degree (°f)
- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Calibration due alarm prompts user to calibrate the meter regularly
- Auto-Power Off effectively conserves battery life
- Setup menu allows setting the number of calibration points, stability criteria, etc.
- Reset function automatically resumes all settings back to the factory defaults
- Expanded memory stores or recalls up to 500 data sets
- USB communication interface for data transfer or connecting a power adapter to meter



## Ordering Information

Bante322: Meter, water hardness electrode, temperature probe, standard solutions (0.01/0.1 mol/L), ionic strength adjuster and carrying case

## Specifications

	Model	Bante322
Water Hardness	Range	0.05–200mmol/L, 0–1122°dH, 0–2000°fH, 0–1404°e, 0–8020mg/L (Ca <sup>2+</sup> ), 0–19999mg/L (CaCO <sub>3</sub> ), 0–11220mg/L (CaO)
	Resolution	0.001, 0.01, 0.1, 1
	Accuracy	±1% F.S.
	Calibration Points	2 to 5 points (0.01, 0.1, 1, 10, 100mmol/L)
Temperature	Range	0.0–105.0°C
	Resolution	0.1°C
	Accuracy	±0.5°C
	Offset Calibration	1 point, reading ±10°C
Other Specifications	Temperature Compensation	0–50°C, manual or automatic
	Hold Function	Manual or auto-endpoint
	Auto-Off	10, 20 or 30 minutes after last key pressed
	Memory	500 data sets
	Communication Interface	USB
	Connector	BNC, 3.5 mm jack socket
	Display	Custom LCD (80×60 mm)
	Power Requirements	3×1.5V AA batteries or DC5V power adapter
Dimensions	170(L)×85(W)×30(H) mm	
Weight	300g	





## Specifications

Model		Bante 520	Bante 530	Bante 531	Bante 540	
Conductivity	Range	0.01~20.00, 200.0, 2000 $\mu$ S/cm, 20.00, 200.0mS/cm	•	•	•	•
	Resolution	0.001, 0.01, 0.1, 1	•	•	•	•
	Accuracy	$\pm$ 0.5% F.S.	•	•	•	•
	Calibration Points	1 to 3 points (Bante 520), 1 to 5 points (Bante 530/531/540)	•	•	•	•
	Calibration Solutions	10 $\mu$ S/cm, 84 $\mu$ S/cm, 1413 $\mu$ S/cm, 12.88mS/cm, 111.8mS/cm	•	•	•	•
TDS	Range	0~10.00, 100.0, 1000ppm, 10.00, 200.0ppt	—	•	—	•
	Resolution	0.01, 0.1, 1	—	•	—	•
	Accuracy	$\pm$ 1% F.S.	—	•	—	•
	TDS Factor	0.1~1.0 (default 0.5)	—	•	—	•
Salinity	Range	0.00~42.00psu, 0.00~80.00ppt	—	—	•	•
	Resolution	0.01	—	—	•	•
	Accuracy	$\pm$ 1% F.S.	—	—	•	•
Resistivity	Range	0.00~20.00M $\Omega$	—	—	—	•
	Resolution	0.01	—	—	—	•
	Accuracy	$\pm$ 1% F.S.	—	—	—	•
Temperature	Range	0~105 $^{\circ}$ C/32~221 $^{\circ}$ F	•	•	•	•
	Resolution	0.1 $^{\circ}$ C/0.1 $^{\circ}$ F	•	•	•	•
	Accuracy	$\pm$ 0.5 $^{\circ}$ C/ $\pm$ 0.9 $^{\circ}$ F	•	•	•	•
	Offset Calibration	1 point, reading $\pm$ 10 $^{\circ}$ C	•	•	•	•
Other Specifications	Temperature Compensation	0~100 $^{\circ}$ C, manual or automatic	•	•	•	•
	Temperature Coefficient	Linear (0.0~10.0%/ $^{\circ}$ C), non-linear, pure water	•	•	•	•
	Reference Temperature	20/25 $^{\circ}$ C	•	•	•	•
	Cell Constant	K=0.1, 1, 10	•	•	•	•
	Stability Criteria	Low or high	—	•	•	•
	Calibration Due Alarm	1 to 31 days or off	—	•	•	•
	Hold Function	Manual or auto-endpoint	•	•	•	•
	Auto-Off	30 minutes after last key pressed (Bante 520)	•	—	—	—
		10, 20 or 30 minutes after last key pressed (Bante 530/531/540)	—	•	•	•
	Memory	100 data sets (Bante 520), 500 data sets (Bante 530/531/540)	•	•	•	•
	Communication Interface	USB	•	•	•	•
	Connector	6-pin nemi-DIN, 3.5mm jack socket	•	•	•	•
	Display	Custom LCD (80 $\times$ 60 mm)	•	•	•	•
	Power Requirements	3 $\times$ 1.5V AA batteries or DC5V power adapter	•	•	•	•
	Battery Life	Approximately 150 hours (Turn off the backlight)	•	•	•	•
Dimensions	170(L) $\times$ 85(W) $\times$ 30(H)mm	•	•	•	•	
Weight	300g	•	•	•	•	

## Ordering Information

- Bante 520/530/531/540-**S** (for general purpose applications): Meter, CON-1 conductivity electrode, temperature probe, standard solutions and carrying case
- Bante 520/530/531/540-**DL** (for low conductivity measurements): Meter, CON-0.1 and CON-1 conductivity electrodes, temperature probe, standard solutions, carrying case
- Bante 520/530/531/540-**DH** (for high conductivity measurements): Meter, CON-1 and CON-10 conductivity electrodes, temperature probe, standard solutions, carrying case

# Bante 8 Series Portable Dissolved Oxygen Meter



## Features

- 1 or 2 points calibration using the air-saturated water or zero oxygen solution
- Salinity and barometric pressure compensations eliminate the measurement error
- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Auto-Power Off effectively conserves battery life.
- Setup menu allows setting the number of calibration points, resolution, temperature unit, concentration unit, stability criteria, date and time, etc.
- Reset function automatically resumes all settings back to the factory defaults
- Expanded memory stores or recalls up to 500 data sets
- USB communication interface for data transfer or connecting a power adapter to meter



## Ordering Information

Bante820/821: Meter, DO100 dissolved oxygen electrode, electrolyte solution, membrane cap and carrying case

## Specifications

	Model	Bante 820	Bante 821
DO	Range	0.00~20.00mg/L, 0.0~200.0% saturation	0.00~20.00mg/L, 0.0~200.0% saturation
	Resolution	0.01mg/L, 0.1%	0.01mg/L, 0.1%
	Accuracy	±0.5mg/L, ±2.0%	±0.2mg/L, ±2.0%
Other Specifications	Calibration Points	1 or 2 points	1 or 2 points
	Temperature Compensation	0~50°C/32~122°F, automatic	0~50°C/32~122°F, automatic
	Barometric Pressure Correction	60.0~112.5kPa/450~850mmHg, manual	60.0~112.5kPa/450~850mmHg, manual
	Salinity Correction	0.0~50.0g/L, manual	0.0~50.0g/L, manual
	Stability Criteria	—	Low or high
	Calibration Due Alarm	—	1 to 31 days or off
	Hold Function	Manual or auto-endpoint	Manual or auto-endpoint
	Auto-Off	30 minutes after last key pressed	10, 20 or 30 minutes after last key pressed
	Memory	100 data sets	500 data sets
	Communication Interface	USB	USB
	Connector	6-pin nimi-DIN	6-pin nimi-DIN
	Display	Custom LCD (80×60 mm)	Custom LCD (80×60 mm)
	Power Requirements	3×1.5V AA batteries or DC5V power adapter	3×1.5V AA batteries or DC5V power adapter
Dimensions	170(L)×85(W)×30(H)mm	170(L)×85(W)×30(H)mm	
Weight	300g	300g	

# Bante 9 Series Portable Multiparameter Water Quality Meter



## Features

### pH

- Multiparameter water quality meter is equipped with a 3.5 inches backlit LCD display
- 1 to 5 points calibration with automatic recognition for USA, NIST and DIN buffers
- Automatic electrode diagnosis shows the pH slope and offset

### ORP

- 1 point offset calibration allows adjusting the displayed value to a known standard
- Relative and absolute millivolt modes ensure the reliable ORP measurements

### Ion Concentration

- 2 to 5 points calibration, including the 8 concentration points can be selected
- Direct ion concentration readout simplifies the measurement process
- Automatic electrode diagnosis shows the calibration points and slopes
- Selectable concentration units (ppm, mg/L, mol/L, mmol/L) and ionic valency

### Conductivity/TDS/Salinity/Resistivity

- 1 to 5 points calibration with automatic recognition for conductivity standards
- Selectable cell constant, reference temperature, TDS factor, linear and pure water compensations, seawater and practical salinity measurement modes
- Automatic electrode diagnosis shows the calibration points and factors

### Dissolved Oxygen

- 1 or 2 points calibration using the air-saturated water or zero oxygen solution
- Salinity and barometric pressure compensations eliminate the measurement error



## General Features

- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Calibration due alarm prompts user to calibrate the meter regularly
- Auto-Power Off effectively conserves battery life
- Setup menu allows setting the number of calibration points, resolution, stability criteria, temperature unit, date and time, etc.
- Reset function automatically resumes all settings back to the factory defaults
- Expanded memory stores or recalls up to 500 data sets
- USB communication interface is easy to transfer data to PC
- Multi-mode power scheme (batteries, power adapter and USB port) ensures that using the meter smoothly



## Measurement Parameters

- Bante 900P: pH, mV, relative mV, ion concentration, conductivity, TDS, salinity, resistivity, DO, temperature
- Bante 901P: pH, mV, conductivity, TDS, temperature
- Bante 902P: pH, mV, relative mV, conductivity, TDS, salinity, resistivity, temperature
- Bante 903P: pH, mV, relative mV, DO, temperature
- Bante 904P: Conductivity, TDS, salinity, resistivity, DO, temperature

## Specifications

Model		Bante 900P	Bante 901P	Bante 902P	Bante 903P	Bante 904P	
pH	Range	-2.000~20.000pH	•	•	•	•	—
	Resolution	0.001, 0.01, 0.1pH, selectable	•	•	•	•	—
	Accuracy	±0.002pH	•	•	•	•	—
	Calibration Points	1 to 5 points	•	•	•	•	—
	pH Buffer Options	USA, NIST, DIN, 2 custom buffers	•	•	•	•	—
ORP	Range	±1999.9mV	•	•	•	•	—
	Resolution	0.1, 1mV, selectable	•	•	•	•	—
	Accuracy	±0.2mV	•	•	•	•	—
	Calibration Points	1 point	•	—	•	•	—
Ion	Range	0.001~19999 (depending on the range of ISE)	•	—	—	—	—
	Resolution	0.001, 0.01, 0.1, 1	•	—	—	—	—
	Accuracy	±0.5% F.S. (monovalent), ±1% F.S. (divalent)	•	—	—	—	—
	Measurement Units	ppm, mg/L, mol/L, mmol/L	•	—	—	—	—
	Calibration Points	2 to 5 points (0.001, 0.01, 0.1, 1, 10, 100, 1000, 10000)	•	—	—	—	—
Conductivity	Range	0.01~20.00, 200.0, 2000µS/cm, 20.00, 200.0mS/cm	•	•	•	—	•
	Resolution	0.001, 0.01, 0.1, 1	•	•	•	—	•
	Accuracy	±0.5% F.S.	•	•	•	—	•
	Calibration Points	1 to 5 points	•	•	•	—	•
	Calibration Solutions	10µS/cm, 84µS/cm, 1413µS/cm, 12.88mS/cm, 111.8mS/cm	•	•	•	—	•
	Temperature Coefficient	Linear (0.0~10.0%/°C), pure water	•	•	•	—	•
	Reference Temperature	20/25°C	•	•	•	—	•
TDS	Range	0~10.00, 100.0, 1000ppm, 10.00, 200.0ppt	•	•	•	—	•
	Resolution	0.01, 0.1, 1	•	•	•	—	•
	Accuracy	±1% F.S.	•	•	•	—	•
	TDS Factor	0.1~1.0 (default 0.5)	•	•	•	—	•
Salinity	Range	0.00~42.00psu, 0.00~80.00ppt	•	—	•	—	•
	Resolution	0.01	•	—	•	—	•
	Accuracy	±1% F.S.	•	—	•	—	•
Resistivity	Range	0.00~20.00MΩ	•	—	•	—	•
	Resolution	0.01	•	—	•	—	•
	Accuracy	±1% F.S.	•	—	•	—	•
DO	Range	0.00~20.00mg/L, 0.0~200.0% saturation	•	—	—	•	•
	Resolution	0.01mg/L, 0.1%	•	—	—	•	•
	Accuracy	±0.2mg/L, ±2.0%	•	—	—	•	•
	Calibration Points	1 or 2 points	•	—	—	•	•
	Barometric Pressure Correction	60.0~112.5kPa/450~850mmHg, manual	•	—	—	•	•
Salinity Correction	0.0~50.0g/L, manual	•	—	—	•	•	
General Spec.	Temperature Compensation	0~100°C/32~212°F, manual or automatic	•	•	•	•	•
	Memory	500 data sets, USB communication interface	•	•	•	•	•
	Power Requirements	3×1.5V AA batteries or DC5V power adapter	•	•	•	•	•
	Dimensions and Weight	170(L)×85(W)×30(H)mm, 300g	•	•	•	•	•



# A120/130/131 Laboratory pH/ORP/Ion Meter



## Measurement Parameters

- A120: pH, mV, relative mV, temperature
- A130: pH, mV, relative mV, ion concentration, water hardness, temperature
- A131: Ion concentration, water hardness, mV, temperature

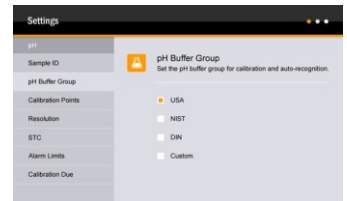
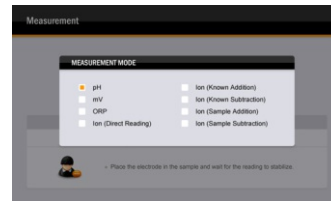
## Features

### pH

- 1 to 5 points calibration with automatic recognition for USA, NIST and DIN buffers
- Automatic electrode diagnosis shows the pH slope and offset
- Solution temperature coefficient compensates for the pure water samples and references the pH to 25°C

### ORP

- 1 point offset calibration allows adjusting the displayed value to a known standard
- Relative and absolute millivolt modes ensure the reliable ORP measurements



### Ion Concentration

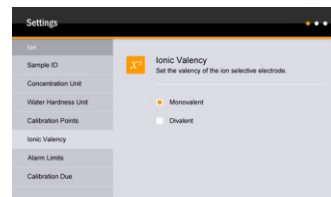
- 2 to 5 points calibration, including the 8 concentration points can be selected
- Electrode management is capable of storing and recalling up to 3 electrode slopes
- Automatic electrode diagnosis shows the calibration points and slopes
- Selectable ion measurement methods (direct reading, known subtraction, sample addition, sample subtraction) and concentration units (ppm, mg/L, mol/L or mmol/L)

### Water Hardness

- 2 to 5 points calibration from low to high concentrations
- Selectable measurement units (German degree, English degree, French degree, mmol/L and mg/L) are used for professional water hardness measurements

### General Features

- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Timed Interval Readings sends the measurement data to a PC or printer
- Limit Alarm automatically alerts when reading exceeds the specified range
- Calibration due alarm prompts user to calibrate the meter regularly
- Password protection prevents the unauthorized calibration and settings
- Expanded memory stores or recalls up to 1000 data sets
- Reset function automatically resumes all settings back to the factory defaults



## Specifications

Model		A120	A130	A131	
pH	Range	-2.000~20.000pH	•	•	—
	Resolution	0.001, 0.01, selectable	•	•	—
	Accuracy	±0.002pH	•	•	—
	Calibration Points	1 to 5 points	•	•	—
	pH Buffer Options	USA, NIST, DIN, 5 custom buffers	•	•	—
ORP	mV Range	±2000.0mV	•	•	•
	Relative mV Range	±2000.0mV	•	•	—
	Resolution	0.1mV	•	•	•
	Accuracy	±0.2mV	•	•	•
	Calibration Points	1 point	•	•	—
Ion	Range	0.001~30000 (depending on the range of ISE)	—	•	•
	Resolution	0.001, 0.01, 0.1, 1	—	•	•
	Accuracy	±0.5% F.S. (monovalent), ±1% F.S. (divalent)	—	•	•
	Measurement Units	ppm, mg/L, mol/L, mmol/L	—	•	•
	Calibration Points	2 to 5 points (0.001, 0.01, 0.1, 1, 10, 100, 1000, 10000)	—	•	•
	Measurement Methods	Direct reading, known addition, known subtraction, sample addition, sample subtraction	—	•	•
Water Hardness	Electrode Management	1 to 3 electrodes	—	•	•
	Range	0.05~200mmol/L, 0~1122°dH, 0~1404°e, 0~2000°FH, 0~8000mg/L (Ca <sup>2+</sup> )	—	•	•
	Resolution	0.001, 0.01, 0.1, 1	—	•	•
	Accuracy	±1% F.S.	—	•	•
Temperature	Calibration Points	2 to 5 points (0.01, 0.1, 1, 10, 100mmol/L)	—	•	•
	Range	0~105°C/32~221°F	•	•	•
	Resolution	0.1°C/0.1°F	•	•	•
	Accuracy	±0.5°C/±0.9°F	•	•	•
Other Specifications	Offset Calibration	1 point, reading ±10°C	•	•	•
	Temperature Compensation	0~100°C, manual or automatic	•	•	•
	Solution Temperature Coefficient	25°C	•	•	—
	Stability Criteria	Standard or high-accuracy	•	•	•
	Calibration Due Alarm	1 to 31 days or off	•	•	•
	Interval Readings	10, 30, 60 seconds, 10, 30 minutes or off	•	•	•
	Password Protection	4 digits	•	•	•
	Memory	1000 data sets	•	•	•
	Communication Interface	USB	•	•	•
	Connector	BNC, 3.5 mm jack socket	•	•	•
	Display	7 inches TFT LCD	•	•	•
	Power Requirements	DC12V, using AC power adapter, 220V/50Hz	•	•	•
Dimensions	240(L)×220(W)×80(H)mm	•	•	•	
Weight	1.7kg	•	•	•	

## Ordering Information

- A120/130-**CN**: Meter, E201-BNC plastic body pH electrode, temperature probe, pH buffer sachets, electrode holder and power adapter
- A120/130-**UK**: Meter, P11 glass pH electrode, temperature probe, pH buffer sachets, electrode holder and power adapter
- A131: Meter, ion selective electrode, temperature probe, standard solutions (100/1000ppm), ionic strength adjuster, electrode holder and power adapter

# A150/151 Laboratory Conductivity/TDS/Salinity/Resistivity Meter

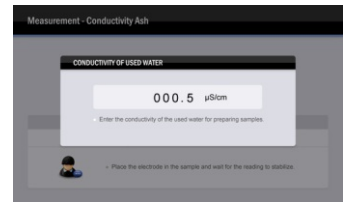
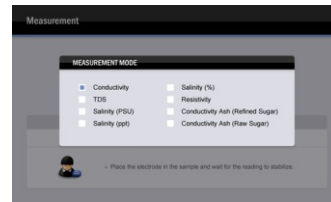


## Measurement Parameters

- A150: Conductivity, TDS, salinity, resistivity, conductivity ash, temperature
- A151: Conductivity, TDS, salinity, resistivity, temperature

## Features

- 1 to 3 points calibration with automatic recognition for conductivity standards
- Selectable cell constant for matching the connected conductivity electrode or recalling the calibration factor
- Selectable reference temperature, TDS conversion factor, linear/non-linear/pure water compensations, seawater and practical salinity measurement modes
- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Timed Interval Readings sends the measurement data to a PC or printer
- Limit Alarm automatically alerts when reading exceeds the specified range
- Calibration due alarm prompts user to calibrate the meter regularly
- Calibration report provides the detailed information for checking the meter and sensor
- Password protection prevents the unauthorized calibration and settings
- Expanded memory stores or recalls up to 1000 data sets
- Reset function automatically resumes all settings back to the factory defaults

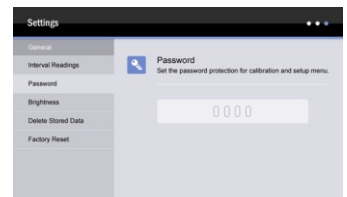
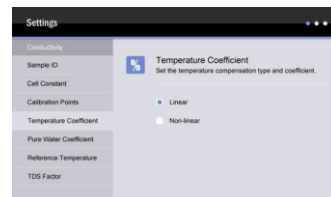


## Optional Conductivity Electrodes

- CON-0.1: Suitable for measuring the low conductivity liquids (<10µS/cm)
- CON-1 : Suitable for general purpose applications
- CON-10 : Suitable for measuring the high conductivity liquids (>20mS/cm)

## Ordering Information

- A150/151-**S**: Meter, CON-1 conductivity electrode, temperature probe, conductivity standard solutions, electrode holder and power adapter
- A150/151-**DL**: Meter, CON-0.1 and CON-1 conductivity electrodes, temperature probe, conductivity standard solutions, electrode holder, power adapter
- A150/151-**DH**: Meter, CON-1 and CON-10 conductivity electrodes, temperature probe, conductivity standard solutions, electrode holder, power adapter



## Specifications

Model		A150	A151	
Conductivity	Range	0.01~20.00, 200.0, 2000 $\mu$ S/cm, 20.00, 200.0mS/cm	•	•
	Resolution	0.001, 0.01, 0.1, 1	•	•
	Accuracy	$\pm$ 0.5% F.S.	•	•
	Calibration Points	1 to 3 points	•	•
	Calibration Solutions	10 $\mu$ S/cm, 84 $\mu$ S/cm, 1413 $\mu$ S/cm, 12.88mS/cm, 111.8mS/cm	•	•
TDS	Range	0~10.00, 100.0, 1000mg/L, 10.00, 200.0g/L	•	•
	Resolution	0.01, 0.1, 1	•	•
	Accuracy	$\pm$ 1% F.S.	•	•
	TDS Factor	0.1~1.0 (default 0.5)	•	•
Salinity	Range	0.00~80.00ppt, 0.00~42.00psu, 0.00~8.00%	•	•
	Resolution	0.01, 0.1, 1	•	•
	Accuracy	$\pm$ 1% F.S.	•	•
Resistivity	Range	0.00~30.00M $\Omega$	•	•
	Resolution	0.01, 0.1, 1	•	•
	Accuracy	$\pm$ 1% F.S.	•	•
Conductivity Ash	Range	0~100%	•	—
	Resolution	0.01, 0.1, 1	•	—
	Accuracy	$\pm$ 1% F.S.	•	—
	Measurement Modes	Refined sugar or raw sugar	•	—
Temperature	Range	0~105°C/32~221°F	•	•
	Resolution	0.1°C/0.1°F	•	•
	Accuracy	$\pm$ 0.5°C/ $\pm$ 0.9°F	•	•
	Offset Calibration	1 point, reading $\pm$ 10°C	•	•
Other Specifications	Temperature Compensation	0~100°C, manual or automatic	•	•
	Temperature Coefficient	Linear (0.0~10.0%/°C), non-linear, pure water	•	•
	Reference Temperature	20/25°C	•	•
	Cell Constant	2-pole electrodes (K=0.1, 1, 10) or 4-pole electrode	•	•
	Stability Criteria	Standard or high-accuracy	•	•
	Calibration Due Alarm	1 to 31 days or off	•	•
	Interval Readings	10, 30, 60 seconds, 10, 30 minutes or off	•	•
	Password Protection	4 digits	•	•
	Memory	1000 data sets	•	•
	Communication Interface	USB	•	•
	Connector	6-pin nimi-DIN, 3.5mm jack socket	•	•
	Display	7 inches TFT LCD	•	•
	Power Requirements	DC12V, using AC power adapter, 220V/50Hz	•	•
	Dimensions	240(L) $\times$ 220(W) $\times$ 80(H)mm	•	•
Weight	1.7kg	•	•	

# A180/181 Laboratory DO/BOD/OUR/SOUR Meter

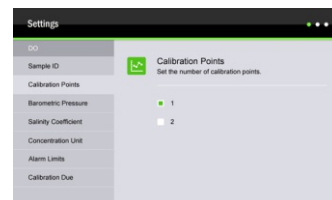
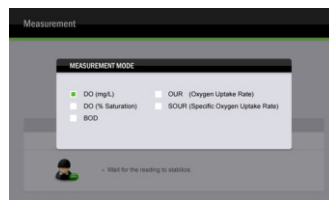


## Measurement Parameters

- A180: Dissolved oxygen, BOD, oxygen uptake rate, specific oxygen uptake rate
- A181: Dissolved oxygen

## Features

- 1 or 2 points calibration using the air-saturated water or zero oxygen solution
- Salinity and barometric pressure compensations eliminate the measurement error
- Selectable testing time, beginning/ending DO are used for the OUR/SOUR calculations
- Auto-Read function senses and locks the measurement endpoint
- Timed Interval Readings sends the measurement data to a PC or printer
- Limit Alarm automatically alerts when reading exceeds the specified range
- Calibration due alarm prompts user to calibrate the meter regularly
- Password protection prevents the unauthorized calibration and settings
- Expanded memory stores or recalls up to 1000 data sets
- Reset function automatically resumes all settings back to the factory defaults



## Ordering Information

A180/181: Meter, DO100 dissolved oxygen electrode, electrolyte solution, membrane cap, electrode holder and power adapter

## Specifications

Model		A180	A181
DO	Range	0.00~20.00mg/L, 0.0~200.0% saturation	•
	Resolution	0.01mg/L, 0.1%	•
	Accuracy	±0.2mg/L, ±2.0%	•
Other Specifications	Calibration Points	1 or 2 points	•
	Temperature Compensation	0~50°C/32~122°F, automatic	•
	Barometric Pressure Correction	60.0~113.3kPa/450~850mmHg, manual	•
	Salinity Correction	0.0~50.0g/L, manual	•
	BOD/OUR/SOUR Measurement	A180 meter only	•
	Stability Criteria	Standard or high-accuracy	•
	Calibration Due Alarm	1 to 31 days or off	•
	Interval Readings	10, 30, 60 seconds, 10, 30 minutes or off	•
	Memory	1000 data sets	•
	Communication Interface	USB	•
	Connector	6-pin nimi-DIN	•
	Display	7 inches TFT LCD	•
	Power Requirements	DC12V, using AC power adapter, 220V/50Hz	•
	Dimensions	240(L)×220(W)×80(H)mm	•
Weight	1.7kg	•	

## Bante 210/920 Benchtop pH/ORP Meter



### Measurement Parameters

- Bante 210: pH, mV, temperature
- Bante 920: pH, mV, relative mV, temperature

### Bante 210 Features

- 1 to 3 points calibration with automatic recognition for USA and NIST buffers
- Automatic electrode diagnosis helps user decide whether to replace the pH electrode
- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Setup menu allows setting the pH buffer set, number of calibration points, temperature unit, etc.
- Reset function automatically resumes all settings back to the factory defaults



### Bante 920 Features

#### pH

- 1 to 5 points calibration with automatic recognition for USA, NIST and DIN buffers
- Automatic electrode diagnosis shows the pH slope and offset
- Automatic temperature compensation ensures accurate readings over the entire range
- Calibration due alarm prompts user to calibrate the meter regularly

#### ORP

- 1 point offset calibration allows adjusting the displayed value to a known standard
- Relative and absolute millivolt modes ensure the reliable ORP measurements

#### General Features

- Auto-Read function senses and locks the measurement endpoint
- Setup menu allows setting the pH buffer set, number of calibration points, resolution, stability criteria, temperature unit, date and time, etc.
- Reset function automatically resumes all settings back to the factory defaults
- Expanded memory stores or recalls up to 500 data sets
- USB communication interface for data transfer and timed interval readings





## Specifications

Model		Bante 210	Bante 920
pH	Range	-1.00~15.00pH	-2.000~20.000pH
	Resolution	0.01pH	0.001, 0.01, 0.1pH, selectable
	Accuracy	±0.01pH	±0.002pH
	Calibration Points	1 to 3 points	1 to 5 points
	pH Buffer Options	USA (4.01/7.00/10.01), NIST (4.01/6.86/9.18)	USA, NIST, DIN, 2 custom buffers
ORP	mV Range	±1999mV	±1999.9mV
	Relative mV Range	—	±1999.9mV
	Resolution	1mV	0.1, 1mV, selectable
	Accuracy	±1mV	±0.2mV
	Calibration Points	—	1 point
Temperature	Range	0~105°C/32~221°F	0~105°C/32~221°F
	Resolution	0.1°C/0.1°F	0.1°C/0.1°F
	Accuracy	±1°C/±1.8°F	±0.5°C/±0.9°F
	Offset Calibration	1 point, reading ±10°C	1 point, reading ±10°C
Other Specifications	Temperature Compensation	0~100°C, manual or automatic	0~100°C, manual or automatic
	Stability Criteria	—	Low or high
	Calibration Due Alarm	—	1 to 31 days or off
	Slope/Offset Display	—	Yes
	Hold Function	Manual or auto-endpoint	Manual or auto-endpoint
	Memory	—	500 data sets
	Communication Interface	—	USB
	Connector	BNC, 3.5mm jack socket	BNC, 3.5mm jack socket
	Display	Custom LCD (120×60mm)	Custom LCD (125×100mm)
	Power Requirements	DC9V, using AC power adapter, 220V/50Hz	DC5V, using AC power adapter, 220V/50Hz
	Dimensions	210(L)×205(W)×75(H)mm	210(L)×188(W)×60(H)mm
Weight	1.5kg	1.5kg	

## Ordering Information

- Bante 210/920-**CN**: Meter, E201-BNC plastic body pH electrode, temperature probe, pH buffer sachets, electrode holder, USB cable (for Bante920 only) and power adapter
- Bante 210/920-**UK**: Meter, P11 glass pH electrode, temperature probe, pH buffer sachets, electrode holder, USB cable (for Bante920 only) and power adapter
- Bante 920-**ORP**: Meter, E201-BNC plastic body pH electrode, 501 ORP electrode, temperature probe, pH buffer sachets, electrode holder, USB cable and power adapter

# Bante 930/931 Benchtop pH/Ion Meter



## Measurement Parameters

- Bante 930: pH, mV, relative mV, ion concentration, temperature
- Bante 931: Ion concentration, mV, temperature

## Features

### pH

- 1 to 5 points calibration with automatic recognition for USA, NIST and DIN buffers
- Automatic electrode diagnosis shows the pH slope and offset

### ORP

- 1 point offset calibration allows adjusting the displayed value to a known standard
- Relative and absolute millivolt modes ensure the reliable ORP measurements

### Ion Concentration

- 2 to 5 points calibration, including the 8 concentration points can be selected
- Direct ion concentration readout simplifies the measurement process
- Automatic electrode diagnosis shows the calibration points and slopes
- Selectable concentration units (ppm, mg/L, mol/L, mmol/L) and ionic valency



## General Features

- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Calibration due alarm prompts user to calibrate the meter regularly
- Setup menu allows setting the number of calibration points, resolution, stability criteria, temperature unit, date and time, etc.
- Reset function automatically resumes all settings back to the factory defaults
- Expanded memory stores or recalls up to 500 data sets
- USB communication interface for data transfer and timed interval readings

## Optional Ion Selective Electrodes

Ammonium ( $\text{NH}_4^+$ ), bromide ( $\text{Br}^-$ ), cadmium ( $\text{Cd}^{2+}$ ), calcium ( $\text{Ca}^{2+}$ ), chloride ( $\text{Cl}^-$ ), cupric ( $\text{Cu}^{2+}$ ), cyanide ( $\text{CN}^-$ ), fluoride ( $\text{F}^-$ ), iodide ( $\text{I}^-$ ), lead ( $\text{Pb}^{2+}$ ), nitrate ( $\text{NO}_3^-$ ), potassium ( $\text{K}^+$ ), silver ( $\text{Ag}^+$ ), sodium ( $\text{Na}^+$ ), sulphide ( $\text{S}^{2-}$ ) and ammonia ( $\text{NH}_3$ )



## Specifications

Model		Bante 930	Bante 931
pH	Range	-2.000~20.000pH	• —
	Resolution	0.001, 0.01, 0.1pH, selectable	• —
	Accuracy	±0.002pH	• —
	Calibration Points	1 to 5 points	• —
	pH Buffer Options	USA, NIST, DIN, 2 custom buffers	• —
Ion	Range	0.001~19999 (depending on the range of ISE)	• •
	Resolution	0.001, 0.01, 0.1, 1	• •
	Accuracy	±0.5% F.S. (monovalent), ±1% F.S. (divalent)	• •
	Measurement Units	ppm, mg/L, mol/L, mmol/L	• •
	Calibration Points	2 to 5 points	• •
	Calibration Solutions	0.001, 0.01, 0.1, 1, 10, 100, 1000, 10000	• •
ORP	mV Range	±1999.9mV	• •
	Relative mV Range	±1999.9mV	• —
	Resolution	0.1, 1mV, selectable	• •
	Accuracy	±0.2mV	• •
	Calibration Points	1 point	• —
Temperature	Range	0~105°C/32~221°F	• •
	Resolution	0.1°C/0.1°F	• •
	Accuracy	±0.5°C/±0.9°F	• •
	Offset Calibration	1 point, reading ±10°C	• •
Other Specifications	Temperature Compensation	0~100°C, manual or automatic	• •
	Stability Criteria	Low or high	• •
	Calibration Due Alarm	1 to 31 days or off	• •
	Slope/Offset Display	Yes	• •
	Hold Function	Manual or auto-endpoint	• •
	Memory	500 data sets	• •
	Communication Interface	USB	• •
	Connector	BNC, 3.5 mm jack socket	• •
	Display	Custom LCD (125×100 mm)	• •
	Power Requirements	DC5V, using AC power adapter, 220V/50Hz	• •
	Dimensions	210(L)×188(W)×60(H)mm	• •
Weight	1.5kg	• •	

## Ordering Information

- Bante930-**CN**: Meter, E201-BNC plastic body pH electrode, temperature probe, pH buffer sachets, electrode holder, USB cable and power adapter
- Bante930-**UK**: Meter, P11 glass pH electrode, temperature probe, pH buffer sachets, electrode holder, USB cable and power adapter
- Bante931: Meter, ion selective electrode, temperature probe, standard solutions (100/1000ppm), ionic strength adjuster, electrode holder, USB cable and power adapter

# Bante 932 Benchtop Water Hardness Meter



## Features

- 2 to 5 points calibration from low to high concentrations
- Selectable water hardness units - mmol/L, mg/L, German degree (°dH), English degree (°e) and French degree (°f)
- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Calibration due alarm prompts user to calibrate the meter regularly
- Setup menu allows setting the number of calibration points, stability criteria, etc.
- Reset function automatically resumes all settings back to the factory defaults
- Expanded memory stores or recalls up to 500 data sets
- USB communication interface is easy to transfer data to PC



## Ordering Information

Bante932: Meter, water hardness electrode, temperature probe, standard solutions (0.01/0.1 mol/L), ionic strength adjuster, electrode holder, USB cable and power adapter

## Specifications

	Model	Bante 932
Water Hardness	Range	0.05~200mmol/L, 0~1122°dH, 0~2000°fH, 0~1404°e, 0~8020mg/L (Ca <sup>2+</sup> ), 0~19999mg/L (CaCO <sub>3</sub> ), 0~11220mg/L (CaO)
	Resolution	0.001, 0.01, 0.1, 1
	Accuracy	±1% F.S.
	Calibration Points	2 to 5 points (0.01, 0.1, 1, 10, 100mmol/L)
Temperature	Range	0.0~105.0°C
	Resolution	0.1°C
	Accuracy	±0.5°C
	Offset Calibration	1 point, reading ±10°C
Other Specifications	Temperature Compensation	0~50°C, manual or automatic
	Stability Criteria	Low or high
	Calibration Due Alarm	1 to 31 days or off
	Memory	500 data sets
	Communication Interface	USB
	Connector	BNC, 3.5 mm jack socket
	Display	Custom LCD (125×100 mm)
	Power Requirements	DC5V, using AC power adapter, 220V/50Hz
Dimensions	210(L)×188(W)×60(H)mm	
Weight	1.5kg	

# Bante 510/950 Benchtop Conductivity Meter



## Measurement Parameters

- Bante 510: Conductivity, TDS, temperature
- Bante 950: Conductivity, TDS, salinity, resistivity, temperature

## Bante 510 Features

- 1 to 3 points calibration with automatic recognition for conductivity standards
- Selectable cell constant, temperature coefficient and TDS conversion factor
- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Setup menu allows setting the number of calibration points, temperature unit, etc.
- Reset function automatically resumes all settings back to the factory defaults



## Bante 950 Features

- 1 to 5 points calibration with automatic recognition for conductivity standards
- Automatic electrode diagnosis shows the calibration points and factors
- Selectable cell constant, reference temperature, TDS factor, linear and pure water compensations, seawater and practical salinity measurement modes
- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Calibration due alarm prompts user to calibrate the meter regularly
- Setup menu allows setting the number of calibration points, stability criteria, temperature unit, date and time, etc.
- Reset function automatically resumes all settings back to the factory defaults
- Expanded memory stores or recalls up to 500 data sets
- USB communication interface for data transfer and timed interval readings

## Optional Conductivity Electrodes

- CON-0.1: Suitable for measuring the low conductivity liquids (<10 $\mu$ S/cm)
- CON-1 : Suitable for general purpose applications
- CON-10 : Suitable for measuring the high conductivity liquids (>20mS/cm)



## Specifications

Model	Bante 510	Bante 950	
Conductivity	Range	0.01~20.00, 200.0, 2000 $\mu$ S/cm, 20.00, 200.0mS/cm	0.01~20.00, 200.0, 2000 $\mu$ S/cm, 20.00, 200.0mS/cm
	Resolution	0.001, 0.01, 0.1, 1	0.001, 0.01, 0.1, 1
	Accuracy	$\pm 1\%$ F.S.	$\pm 0.5\%$ F.S.
	Calibration Points	1 to 3 points	1 to 5 points
	Calibration Solutions	10 $\mu$ S/cm, 84 $\mu$ S/cm, 1413 $\mu$ S/cm, 12.88mS/cm, 111.8mS/cm	10 $\mu$ S/cm, 84 $\mu$ S/cm, 1413 $\mu$ S/cm, 12.88mS/cm, 111.8mS/cm
TDS	Range	0~10.00, 100.0, 1000ppm, 10.00, 200.0ppt	0~10.00, 100.0, 1000ppm, 10.00, 200.0ppt
	Resolution	0.01, 0.1, 1	0.01, 0.1, 1
	Accuracy	$\pm 1\%$ F.S.	$\pm 1\%$ F.S.
	TDS Factor	0.1~1.0 (default 0.5)	0.1~1.0 (default 0.5)
Salinity	Range	—	0.00~42.00psu, 0.00~80.00ppt
	Resolution	—	0.01
	Accuracy	—	$\pm 1\%$ F.S.
Resistivity	Range	—	0.00~20.00M $\Omega$
	Resolution	—	0.01
	Accuracy	—	$\pm 1\%$ F.S.
Temperature	Range	0~105 $^{\circ}$ C/32~221 $^{\circ}$ F	0~105 $^{\circ}$ C/32~221 $^{\circ}$ F
	Resolution	0.1 $^{\circ}$ C/0.1 $^{\circ}$ F	0.1 $^{\circ}$ C/0.1 $^{\circ}$ F
	Accuracy	$\pm 1^{\circ}$ C/ $\pm 1.8^{\circ}$ F	$\pm 0.5^{\circ}$ C/ $\pm 0.9^{\circ}$ F
	Offset Calibration	1 point, reading $\pm 10^{\circ}$ C	1 point, reading $\pm 10^{\circ}$ C
Other Specifications	Temperature Compensation	0~100 $^{\circ}$ C, manual or automatic	0~100 $^{\circ}$ C, manual or automatic
	Temperature Coefficient	Linear (0.0~10.0%/ $^{\circ}$ C)	Linear (0.0~10.0%/ $^{\circ}$ C), pure water
	Reference Temperature	25 $^{\circ}$ C	20/25 $^{\circ}$ C
	Cell Constant	K=0.1, 1, 10 or custom	K=0.1, 1, 10 or custom
	Stability Criteria	—	Low or high
	Calibration Due Alarm	—	1 to 31 days or off
	Calibration Factor Display	—	Yes
	Hold Function	Manual or auto-endpoint	Manual or auto-endpoint
	Memory	—	500 data sets
	Communication Interface	—	USB
	Connector	6-pin nimi-DIN, 3.5mm jack socket	6-pin nimi-DIN, 3.5mm jack socket
	Display	Custom LCD (120 $\times$ 60mm)	Custom LCD (125 $\times$ 100mm)
	Power Requirements	DC9V, using AC power adapter, 220V/50Hz	DC5V, using AC power adapter, 220V/50Hz
	Dimensions	210(L) $\times$ 205(W) $\times$ 75(H)mm	210(L) $\times$ 188(W) $\times$ 60(H)mm
	Weight	1.5kg	1.5kg

## Ordering Information

- Bante 510/950-S: Meter, CON-1 conductivity electrode, temperature probe, standard solutions, electrode holder, USB cable (for Bante950 only) and power adapter
- Bante 510/950-DL: Meter, CON-0.1 and CON-1 conductivity electrodes, temperature probe, standard solutions, electrode holder, USB cable (for Bante950 only) and power adapter
- Bante 510/950-DH: Meter, CON-1 and CON-10 conductivity electrodes, temperature probe, standard solutions, electrode holder, USB cable (for Bante950 only) and power adapter



## Bante 810/980 Benchtop Dissolved Oxygen Meter

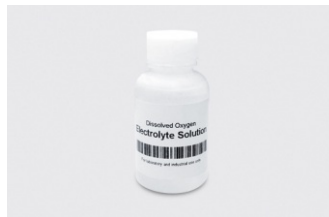


### Bante 810 Features

- 1 or 2 points calibration using the air-saturated water or zero oxygen solution
- Salinity and barometric pressure compensations eliminate the measurement error
- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Setup menu allows setting the number of calibration points, concentration unit, temperature unit, etc.
- Reset function automatically resumes all settings back to the factory defaults

### Ordering Information

Bante 810: Meter, DO100 dissolved oxygen electrode, electrolyte solution, membrane cap, electrode holder and power adapter



### Bante 980 Features

- 1 or 2 points calibration using the air-saturated water or zero oxygen solution
- Salinity and barometric pressure compensations eliminate the measurement error
- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Calibration due alarm prompts user to calibrate the meter regularly
- Setup menu allows setting the number of calibration points, resolution, stability criteria, temperature unit, concentration unit, date and time, etc.
- Reset function automatically resumes all settings back to the factory defaults
- Expanded memory stores or recalls up to 500 data sets
- USB communication interface for data transfer and timed interval readings

### Ordering Information

Bante 980: Meter, DO100 dissolved oxygen electrode, electrolyte solution, membrane cap, electrode holder, USB cable and power adapter



## Specifications

Model	Bante 810	Bante 980	
DO	Range	0.0–20.0mg/L or ppm	0.00–20.00mg/L or ppm
	Resolution	0.1mg/L	0.01, 0.1mg/L, selectable
	Accuracy	±0.5mg/L	±0.2mg/L
% saturation	Range	0.0–200.0%	0.0–200.0%
	Resolution	0.1%	0.1, 1%, selectable
	Accuracy	±2.0%	±2.0%
Temperature	Range	0–60°C/32–140°F	0–60°C/32–140°F
	Resolution	0.1°C/0.1°F	0.1°C/0.1°F
	Accuracy	±1°C/±1.8°F	±0.5°C/±0.9°F
	Offset Calibration	1 point, reading ±10°C	1 point, reading ±10°C
Other Specifications	Dissolved Oxygen Calibration	1 or 2 points	1 or 2 points
	Temperature Compensation	0–40°C, automatic	0–50°C, automatic
	Barometric Pressure Correction	60.0–112.5kPa/450–850mmHg, manual	60.0–112.5kPa/450–850mmHg, manual
	Salinity Correction	0.0–35.0g/L, manual	0.0–50.0g/L, manual
	Stability Criteria	—	Low or high
	Calibration Due Alarm	—	1 to 31 days or off
	Hold Function	Manual or auto-endpoint	Manual or auto-endpoint
	Memory	—	500 data sets
	Communication Interface	—	USB
	Connector	6-pin nemi-DIN	6-pin nemi-DIN
	Display	Custom LCD (120×60mm)	Custom LCD (125×100mm)
	Power Requirements	DC9V, using AC power adapter, 220V/50Hz	DC5V, using AC power adapter, 220V/50Hz
	Dimensions	210(L)×205(W)×75(H)mm	210(L)×188(W)×60(H)mm
Weight	1.5kg	1.5kg	

# Bante 9 Series Benchtop Multiparameter Water Quality Meter



## Features

### pH

- Multiparameter water quality meter is equipped with a 6.5 inches backlit LCD display
- 1 to 5 points calibration with automatic recognition for USA, NIST and DIN buffers
- Automatic electrode diagnosis shows the pH slope and offset

### ORP

- 1 point offset calibration allows adjusting the displayed value to a known standard
- Relative and absolute millivolt modes ensure the reliable ORP measurements

### Ion Concentration

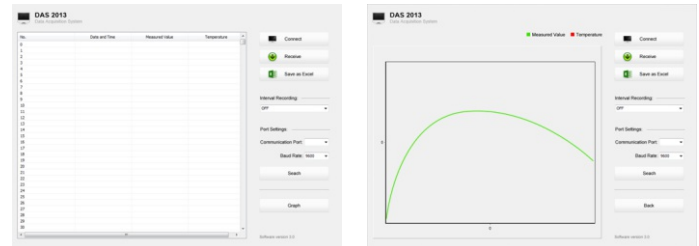
- 2 to 5 points calibration, including the 8 concentration points can be selected
- Direct ion concentration readout simplifies the measurement process
- Automatic electrode diagnosis shows the calibration points and slopes
- Selectable concentration units (ppm, mg/L, mol/L, mmol/L) and ionic valency

### Conductivity/TDS/Salinity/Resistivity

- 1 to 5 points calibration with automatic recognition for conductivity standards
- Selectable cell constant, reference temperature, TDS factor, linear and pure water compensations, seawater and practical salinity measurement modes
- Automatic electrode diagnosis shows the calibration points and factors

### Dissolved Oxygen

- 1 or 2 points calibration using the air-saturated water or zero oxygen solution
- Salinity and barometric pressure compensations eliminate the measurement error



## General Features

- Automatic temperature compensation ensures accurate readings over the entire range
- Auto-Read function senses and locks the measurement endpoint
- Calibration due alarm prompts user to calibrate the meter regularly
- Setup menu allows setting the number of calibration points, resolution, stability criteria, temperature unit, date and time, etc.
- Reset function automatically resumes all settings back to the factory defaults
- Expanded memory stores or recalls up to 500 data sets
- USB communication interface for data transfer and timed interval readings

## Ordering Information

- Bante 900: pH/conductivity/dissolved oxygen electrodes, temperature probe, pH buffer sachets, conductivity standard solutions, DO electrolyte solution, membrane cap, electrode holder, USB cable and power adapter
- Bante 901/902: pH/conductivity electrodes, temperature probe, pH buffer sachets, conductivity standard solutions, electrode holder, USB cable and power adapter
- Bante 903: pH/dissolved oxygen electrodes, temperature probe, pH buffer sachets, DO electrolyte solution, membrane cap, electrode holder, USB cable and power adapter
- Bante 904: Conductivity/dissolved oxygen electrodes, temperature probe, conductivity standard solutions, DO electrolyte solution, membrane cap, electrode holder, USB cable and power adapter

## Measurement Parameters

- Bante 900: pH, mV, relative mV, ion concentration, conductivity, TDS, salinity, resistivity, DO, temperature
- Bante 901: pH, mV, conductivity, TDS, temperature
- Bante 902: pH, mV, relative mV, conductivity, TDS, salinity, resistivity, temperature
- Bante 903: pH, mV, relative mV, DO, temperature
- Bante 904: Conductivity, TDS, salinity, resistivity, DO, temperature

## Specifications

Model		Bante 900	Bante 901	Bante 902	Bante 903	Bante 904
pH	Range	-2.000~20.000pH	•	•	•	—
	Resolution	0.001, 0.01, 0.1pH, selectable	•	•	•	—
	Accuracy	±0.002pH	•	•	•	—
	Calibration Points	1 to 5 points	•	•	•	—
	pH Buffer Options	USA, NIST, DIN, 2 custom buffers	•	•	•	—
ORP	Range	±1999.9mV	•	•	•	—
	Resolution	0.1, 1mV, selectable	•	•	•	—
	Accuracy	±0.2mV	•	•	•	—
	Calibration Points	1 point	•	—	•	—
Ion	Range	0.001~19999 (depending on the range of ISE)	•	—	—	—
	Resolution	0.001, 0.01, 0.1, 1	•	—	—	—
	Accuracy	±0.5% F.S. (monovalent), ±1% F.S. (divalent)	•	—	—	—
	Measurement Units	ppm, mg/L, mol/L, mmol/L	•	—	—	—
	Calibration Points	2 to 5 points (0.001, 0.01, 0.1, 1, 10, 100, 1000, 10000)	•	—	—	—
Conductivity	Range	0.01~20.00, 200.0, 2000µS/cm, 20.00, 200.0mS/cm	•	•	•	—
	Resolution	0.001, 0.01, 0.1, 1	•	•	•	—
	Accuracy	±0.5% F.S.	•	•	•	—
	Calibration Points	1 to 5 points	•	•	•	—
	Calibration Solutions	10µS/cm, 84µS/cm, 1413µS/cm, 12.88mS/cm, 111.8mS/cm	•	•	•	—
	Temperature Coefficient	Linear (0.0~10.0%/°C), pure water	•	•	•	—
	Reference Temperature	20/25°C	•	•	•	—
TDS	Range	0~10.00, 100.0, 1000ppm, 10.00, 200.0ppt	•	•	•	—
	Resolution	0.01, 0.1, 1	•	•	•	—
	Accuracy	±1% F.S.	•	•	•	—
	TDS Factor	0.1~1.0 (default 0.5)	•	•	•	—
Salinity	Range	0.00~42.00psu, 0.00~80.00ppt	•	—	•	—
	Resolution	0.01	•	—	•	—
	Accuracy	±1% F.S.	•	—	•	—
Resistivity	Range	0.00~20.00MΩ	•	—	•	—
	Resolution	0.01	•	—	•	—
	Accuracy	±1% F.S.	•	—	•	—
DO	Range	0.00~20.00mg/L, 0.0~200.0% saturation	•	—	—	•
	Resolution	0.01mg/L, 0.1%	•	—	—	•
	Accuracy	±0.2mg/L, ±2.0%	•	—	—	•
	Calibration Points	1 or 2 points	•	—	—	•
	Barometric Pressure Correction	60.0~112.5kPa/450~850mmHg, manual	•	—	—	•
General Spec.	Salinity Correction	0.0~50.0g/L, manual	•	—	—	•
	Temperature Compensation	0~100°C/32~212°F, manual or automatic	•	•	•	•
	Memory	500 data sets, USB communication interface	•	•	•	•
	Power Requirements	DC5V, using AC power adapter, 220V/50Hz	•	•	•	•
Dimensions and Weight	210(L)×188(W)×60(H)mm, 1.5kg	•	•	•	•	

# BI-620 Industrial pH Controller



## Features

- 1 to 3 points calibration with auto-buffer recognition
- Selectable pH buffer set, including the USA and NIST options
- Automatic temperature compensation ensures accurate readings over the entire range
- Automatic electrode diagnosis helps the user decide whether to replace the sensor
- Setup menu allows setting the number of calibration points, alarm limits, hysteresis value, 4 to 20mA output, etc.
- Reset function automatically resumes all settings back to the factory defaults

## Ordering Information

BI-620: Controller, IE-20T industrial pH electrode and pH buffer sachets

## Specifications

Model		BI-620
pH	Range	-1.00~15.00pH
	Resolution	0.01pH
	Accuracy	±0.01pH
	Calibration Points	1 to 3 points
	pH Buffer Options	USA (4.01/7.00/10.01), NIST (4.01/6.86/9.18)
mV	Range	±1000mV
	Resolution	1mV
	Accuracy	±1mV
Temperature	Range	0~100°C/32~212°F
	Resolution	0.1°C/0.1°F
	Accuracy	±1°C/±1.8°F
	Offset Calibration	1 point, reading ±10°C
Communication	Signal Output	4~20mA
	Load	Max. 500Ω
	Low or High Alarm	0.00~14.00pH, selectable
	Communication Interface	RS485
	Connection Terminals	Detachable screw terminals
Other Specifications	Temperature Compensation	0~100°C, automatic
	Environmental Conditions	Ambient temperature < 60°C, relative humidity < 80%
	Power Requirements	DC24V
	Dimensions	96(L)×96(W)×75(H)mm
	Weight	350g

# BI-650 Industrial Conductivity Controller



## Features

- 1 to 3 points calibration with automatic recognition for conductivity standards
- Selectable cell constant, temperature coefficient and TDS conversion factor
- Automatic temperature compensation ensures accurate readings over the entire range
- Setup menu allows setting the number of calibration points, alarm limits, hysteresis value, 4 to 20mA output, etc.
- Reset function automatically resumes all settings back to the factory defaults

## Optional Conductivity Electrodes

- IE-50LT : Suitable for measuring the pure water (<10 $\mu$ S/cm)
- IE-50MT: Suitable for general purpose applications
- IE-50HT : Suitable for measuring the seawater (>20mS/cm)

## Ordering Information

BI-650: Controller, IE-50MT industrial conductivity electrode

## Specifications

	Model	BI-650
Conductivity	Range	0.01~20.00, 200.0, 2000 $\mu$ S/cm, 20.00, 200.0mS/cm
	Resolution	0.001, 0.01, 0.1, 1
	Accuracy	$\pm 1\%$ F.S.
	Calibration Points	1 to 3 points (84 $\mu$ S/cm, 1413 $\mu$ S/cm, 12.88mS/cm, 111.8mS/cm)
TDS	Range	0~10.00, 100.0, 1000ppm, 10.00, 200.0ppt
	Resolution	0.01, 0.1, 1
	Accuracy	$\pm 1\%$ F.S.
	TDS Factor	0.1~1.0 (default 0.5)
Temperature	Range	0~100 $^{\circ}$ C/32~212 $^{\circ}$ F
	Resolution	0.1 $^{\circ}$ C/0.1 $^{\circ}$ F
	Accuracy	$\pm 1^{\circ}$ C/ $\pm 1.8^{\circ}$ F
	Offset Calibration	1 point, reading $\pm 10^{\circ}$ C
Communication	Signal Output	4~20mA
	Load	Max. 500 $\Omega$
	Low or High Alarm	0.02 $\mu$ S/cm~20.0mS/cm, selectable
	Communication Interface	RS485
	Connection Terminals	Detachable screw terminals
Other Specifications	Temperature Compensation	0~100 $^{\circ}$ C, automatic
	Environmental Conditions	Ambient temperature <60 $^{\circ}$ C, relative humidity <80%
	Power Requirements	DC24V
	Dimensions	96(L) $\times$ 96(W) $\times$ 75(H)mm
	Weight	350g



# BI-680 Industrial Dissolved Oxygen Controller



## Features

- 1 or 2 points calibration using the air-saturated water or zero oxygen solution
- Salinity and barometric pressure compensations eliminate the measurement error
- Automatic temperature compensation ensures accurate readings over the entire range
- Setup menu allows setting the number of calibration points, measurement unit, alarm limits, hysteresis value, 4 to 20mA output, etc.
- Reset function automatically resumes all settings back to the factory defaults

## Ordering Information

BI-680: Controller, IE-80T industrial dissolved oxygen electrode, electrolyte solution and membrane cap

## Specifications

Model		BI-680
DO	Range	0.0~20.0mg/L
	Resolution	0.1mg/L
	Accuracy	±0.5mg/L
% Saturation	Range	0.0~200.0%
	Resolution	0.1%
	Accuracy	±2.0%
Temperature	Range	0~60°C/32~140°F
	Resolution	0.1°C/0.1°F
	Accuracy	±1°C/±1.8°F
	Offset Calibration	1 point, reading ±10°C
Communication	Signal Output	4~20mA
	Load	Max. 500Ω
	Low or High Alarm	0.00~20.00mg/L, selectable
	Communication Interface	RS485
Other Specifications	Connection Terminals	Detachable screw terminals
	Dissolved Oxygen Calibration	1 or 2 points
	Temperature Compensation	0~40°C, automatic
	Barometric Pressure Correction	60.0~112.5kPa/450~850mmHg, manual
	Salinity Correction	0.0~35.0g/L, manual
	Power Requirements	DC24V
	Dimensions	96(L)×96(W)×75(H)mm
Weight	350g	

# TB100 Portable Turbidity Meter



## Features

- High-performance portable turbidity meter meets the design criteria in ISO 7027
- 2 to 5 points calibration using the Formazin Standards
- Selectable 4 turbidity units, including the NTU, FNU, EBC and ASBC
- Single measurement mode automatically senses and locks a stable reading
- Continuous measurement mode can be used for indexing or matching the sample vials
- Auto-Power Off effectively conserves battery life
- Setup menu allows setting the number of calibration points, resolution, date and time, etc.
- Reset function automatically resumes all settings back to the factory defaults
- Expanded memory stores or recalls up to 100 data sets
- USB communication interface for data transfer or connecting a power adapter to meter



## Ordering Information

TB100: Meter, turbidity standards (0.02, 200, 500, 1000 NTU), sample vials, lint-free cloth and carrying case

## Specifications

Model		TB100
Turbidity	Principle	ISO 7027 nephelometric method (90°)
	Range	0~1100 NTU, 0~275 EBC, 0~9999 ASBC
	Resolution	0.01 (0~99 NTU), 0.1 (100~999 NTU), 1 (1000~1100 NTU)
	Accuracy	±2% of reading (0~500 NTU), ±3% of reading (501~1100 NTU)
	Calibration Points	2 to 5 points
	Calibration Standards	0.02, 10, 200, 500, 1000 NTU
Other Specifications	Light Source	Infrared-emitting diode (850nm wavelength)
	Detector	Silicon photodiode
	Stray Light	<0.02 NTU
	Sample Vial	60(H)×25(Dia)mm
	Sample Volume	30mL
	Memory	100 data sets
	Communication Interface	USB
	Operating Temperature	0~50°C
	Display	Custom LCD (60×40 mm)
	Power Requirements	3×1.5V AA batteries or DC5V power adapter
Dimensions	180(L)×85(W)×70(H)mm	
Weight	300g	

# TB200 Benchtop Turbidity Meter



## Measurement Parameters

Turbidity, total suspended solids (TSS)

## Features

- 2 to 7 points calibration using the Formazin Standards
- Selectable 4 turbidity units, including the NTU, FNU, EBC and ASBC
- TSS conversion factor ensures the accurate measurement of the total suspended solids
- Auto-Read function senses and locks a stable reading
- Setup menu allows setting the date and time, measurement mode, resolution, etc.
- Reset function automatically resumes all settings back to the factory defaults
- Password protection prevents the unauthorized calibration and settings
- Expanded memory stores or recalls up to 200 data sets
- USB communication interface is easy to transfer data to PC



## Ordering Information

TB200: Meter, turbidity standards (0.02, 200, 500, 1000 NTU), sample vials, lint-free cloth and power adapter

## Specifications

Model		TB200
Turbidity	Range	0~2000 NTU, 0~500 EBC, 0~9999 ASBC
	Resolution	0.01 (0~99 NTU), 0.1 (100~999 NTU), 1 (1000~2000 NTU)
	Accuracy	±2% of reading (0~500 NTU), ±3% of reading (501~2000 NTU)
	Calibration Points	2 to 7 points
	Calibration Standards	0.02, 10, 200, 500, 1000, 1500, 2000 NTU
TSS	Range	Depending on the TSS conversion factor
	Accuracy	3% of reading
Other Specifications	Light Source	Infrared-emitting diode (850nm wavelength)
	Detector	Silicon photodiode
	Stray Light	<0.02 NTU
	Sample Vial	60(H)×25(Dia)mm
	Memory	200 data sets
	Communication Interface	USB
	Operating Temperature	0~50°C
	Display	4.5 inches TFT LCD
	Power Requirements	DC12V, using AC power adapter, 220V/50Hz
	Dimensions	250(L)×177(W)×96(H)mm
Weight	1.2kg	

# WXG-4 Manual Polarimeter



Easy-to-use manual polarimeter, measuring range from -180 to +180 degrees. The instrument is suitable for measuring the optical rotation of the optically active substances, accuracy: 0.05 degrees.

## Features

The instrument is equipped with a 589nm sodium lamp. Switch on the power, the polarized light beam radiates to the polarizer filter. The operator is able to observe the distinct visual fields through eyepiece. Put the glass sample tube into the measurement chamber, rotate the vernier knob until the visual fields appear the equal brightness. Read and record the measured values from the vernier scale, the measurement is completed.



## Ordering Information

WXG-4: Polarimeter, glass sample tubes (100/200mm) and sealing rings

## Specifications

Model	WXG-4
Range	±180°
Scale Value	1°
Vernier	0.05°
Magnifier	3X
Light Source	Sodium lamp
Optical Wavelength	589nm
Sample Tube Length	Up to 200mm
Power Requirements	AC 220V/50Hz
Dimensions	500 (L) × 135 (W) × 330 (H) mm
Weight	5kg

# POL-200 Semiautomatic Polarimeter



## Measurement Parameters

Optical rotation, specific rotation, concentration, international sugar scale (°Z)

## Features

- Multiparameter semiautomatic polarimeter is installed with a 5.6 inches touch screen
- LED provides a long-life light source
- Zero point calibration adjusts and eliminates the measurement error
- Built-in temperature sensor automatically measures and compensates the readings to specific rotation value
- Selectable tube length or manually enter a desired value
- Expanded memory stores and recalls up to 100 data sets
- Reset function automatically resumes all settings back to the factory defaults
- On-screen operation guide detailedly shows the polarimeter uses

## Ordering Information

POL-200: Polarimeter, glass sample tubes (100/200mm) and sealing rings



## Specifications

Model	POL-200
Range	$\pm 90^\circ/\pm 130^\circ Z$
Resolution	0.005°
Accuracy	$\pm 0.02^\circ/\pm 0.05^\circ Z$
Calibration Points	1 to 3 points
Temperature Correction	0–50°C
Light Source	LED and interference filter
Optical Wavelength	589nm
Sample Tube Length	Up to 200mm
Data Storage	100 data sets
Communication Interface	USB
Display	5.6 inches TFT touch screen
Power Requirements	AC 220V/50Hz
Dimensions	550(L)×300(W)×220(H)mm
Weight	7.5kg

## JB-1A Mini Magnetic Stirrer



### Features

Simple and interesting mini magnetic stirrer, using an electrical motor spins the magnet modules, stirring speed from 0 to 1250rpm.

### Specifications

Model	JB-1A
Stirring Volume	0~2000mL
Stirring Speed	0~1250rpm
Top Plate Size	Dia.145mm
Material	PC
Stir Bar Size	30(L)×7 (Dia.)mm
Power Requirements	AC 220V/50Hz
Dimensions	185(Dia.)×75(H)mm
Weight	0.6kg

## MS Series Hotplate Magnetic Stirrer



### Features

- High-performance hotplate magnetic stirrer comes with a temperature probe
- Large LCD display clearly shows the timer, temperature and running status
- Automatic constant temperature through a connected sensor
- 1 point offset calibration ensures the accurate temperature control
- Push-button speed control effectively avoids that hot-liquids hurt the operator
- Adjustable heating temperature, stirring times and speeds

### Ordering Information

- MS200: Stirrer and stir bar
- MS300/400: Stirrer, stir bar and temperature probe

### Specifications

Model	MS200	MS300	MS300
Stirring Volume	0~2000mL		
Stirring Speed	0~1250rpm		
Heater	—	380W	450W
Hotplate Temperature	—	Max. 300°C	Max. 400°C
Timer Range	Up to 999 minutes		
Top Plate Size	135(L)×135(W)mm		
Material	Stainless steel		
Display	Custom LCD (95×35 mm)		
Power Requirements	AC 220V/50Hz		
Ambient Temperature	< 50°C		
Dimensions	230(L)×180(W)×120(H)mm		
Weight	2.2kg		



## P Series Glass pH Electrode

### P11

Glass pH electrode, suitable for measuring the non-high temperature liquids



Range	0~14pH
Operating Temperature	0~80°C, 32~176°F
Reference	AgCl, single junction
Liquid Junction	Annular ceramic
Body Type	Glass
Connector	BNC, 1m cable
Dimensions	120(L)×12(Dia.)mm

### P11-LiCl

Glass pH electrode, suitable for measuring the non-aqueous samples



Range	0~14pH
Operating Temperature	0~80°C, 32~176°F
Reference	AgCl, double junction
Liquid Junction	Ceramic
Body Type	Glass
Connector	BNC, 1m cable
Dimensions	120(L)×12(Dia.)mm

### P11-HA

Glass pH electrode, suitable for measuring the high alkalines samples



Range	0~14pH
Operating Temperature	0~100°C, 32~212°F
Reference	Ag/AgCl, single junction
Liquid Junction	Ceramic
Body Type	Glass
Connector	BNC, 1m cable
Dimensions	120(L)×12(Dia.)mm

### P11-NA

Glass pH electrode, suitable for measuring the biofuels



Range	0~14pH
Operating Temperature	0~60°C, 32~140°F
Reference	Ag/AgCl, double junction
Liquid Junction	Ceramic
Body Type	Glass
Connector	BNC, 1m cable
Dimensions	120(L)×12(Dia.)mm

### P12

Glass pH electrode, suitable for measuring the sample in the test tube



Range	0~14pH
Operating Temperature	0~80°C, 32~176°F
Reference	AgCl, single junction
Liquid Junction	Frit ceramic
Body Type	Glass
Connector	BNC, 1m cable
Dimensions	150(L)×6(Dia.)mm

### P13

Glass pH electrode, suitable for measuring the micro-volume samples



Range	0~14pH
Operating Temperature	0~80°C, 32~176°F
Reference	AgCl, single junction
Liquid Junction	Frit ceramic
Body Type	Glass
Connector	BNC, 1m cable
Dimensions	90(L)×4.3(Dia.)mm

### P15

Glass pH electrode, suitable for measuring the low conductivity liquids



Range	0~11pH
Operating Temperature	0~50°C, 32~122°F
Reference	HgCl, single junction
Liquid Junction	Annular ceramic
Body Type	Glass
Connector	BNC, 1m cable
Dimensions	120(L)×12(Dia.)mm

### P16

Glass pH electrode, suitable for measuring the liquids with Tris buffers



Range	0~14pH
Operating Temperature	0~50°C, 32~122°F
Reference	HgCl, single junction
Liquid Junction	Frit ceramic
Body Type	Glass
Connector	BNC, 1m cable
Dimensions	90(L)×6(Dia.)mm

### P18

Glass pH electrode, suitable for measuring the slurrie and soil



Range	0~14pH
Operating Temperature	0~80°C, 32~176°F
Reference	AgCl, single junction
Liquid Junction	Annular ceramic
Body Type	Glass
Connector	BNC, 1m cable
Dimensions	120(L)×12(Dia.)mm

### P19

Glass pH electrode, suitable for measuring the semisolids



Range	0~14pH
Operating Temperature	0~80°C, 32~176°F
Reference	AgCl, single junction
Liquid Junction	Frit ceramic
Body Type	Glass
Connector	BNC, 1m cable
Dimensions	40(L)×6(Dia.)mm

### P21

Glass pH electrode, suitable for measuring the colloids



Range	0~14pH
Operating Temperature	0~80°C, 32~176°F
Reference	AgCl, double junction
Liquid Junction	Sleeve
Body Type	Glass
Connector	BNC, 1m cable
Dimensions	120(L)×12(Dia.)mm

### P22

Glass pH electrode, suitable for measuring the high temperature samples



Range	0~14pH
Operating Temperature	0~130°C, 32~266°F
Reference	AgCl, double junction
Liquid Junction	Porous teflon
Body Type	Glass
Connector	BNC, 1m cable
Dimensions	120(L)×12(Dia.)mm

## E Series Laboratory pH Electrode

### E201-BNC

General purpose pH electrode, suitable for measuring the liquids



Range	0~14pH
Operating Temperature	0~60°C, 32~140°F
Reference	AgCl, single junction
Liquid Junction	Fiber
Body Type	Epoxy
Connector	BNC, 1m cable
Dimensions	120(L)×12(Dia.)mm

### E202-BNC

Flat surface pH electrode, suitable for measuring the semisolids



Range	0~14pH
Operating Temperature	0~60°C, 32~140°F
Reference	AgCl, single junction
Liquid Junction	Teflon
Body Type	Epoxy
Connector	BNC, 1m cable
Dimensions	120(L)×12(Dia.)mm

### E203-BNC

General purpose pH electrode with a built-in temperature sensor (10KΩ)



Range	0~14pH
Operating Temperature	0~60°C, 32~140°F
Reference	AgCl, single junction
Liquid Junction	Fiber
Body Type	Epoxy
Connector	BNC, 1m cable
Dimensions	120(L)×12(Dia.)mm

## 5 Series Laboratory ORP Electrode

### 501

General purpose ORP electrode, suitable for the sample with a strong redox potential



Sensor Type	Platinum pin
Operating Temperature	0~80°C, 32~176°F
Reference	Ag/AgCl
Liquid Junction	Teflon
Body Type	Epoxy
Connector	BNC, 1m cable
Dimensions	120(L)×12(Dia.)mm

### 502

General purpose ORP electrode, suitable for the sample with a weak redox potential



Sensor Type	Platinum band
Operating Temperature	0~80°C, 32~176°F
Reference	Ag/AgCl
Liquid Junction	Teflon
Body Type	Epoxy
Connector	BNC, 1m cable
Dimensions	120(L)×12(Dia.)mm

### 504

Glass ORP electrode, suitable for high temperature samples (<100°C/212°F)



Sensor Type	Platinum band
Operating Temperature	0~100°C, 32~212°F
Reference	Ag/AgCl
Liquid Junction	Annular ceramic
Body Type	Glass
Connector	BNC, 1m cable
Dimensions	120(L)×12(Dia.)mm

## Electrode Selection Table

The accurate pH measurement depends on selecting the suitable pH electrode. The following chart describes the application range of each sensor. For reference only.

	Model	P11	P12	P13	P16	P18	P19	P20	P21	E201	E202	
Samples	Agar										•	
	Alkalines (high)	•										
	Beer	•	•	•				•	•	•	•	
	Blood Products	•	•	•					•		•	
	Bread/Dough					•	•					
	Cement	•										
	Cosmetics	•	•	•						•		•
	Dairy Products	•	•	•				•				•
	Education	•									•	•
	Fats/Cream							•				
	Field Use						•		•		•	•
	Fish Products							•				•
	Lab Flasks		•									
	Low Ionic	•										
	Meat							•				•
	Cheese							•				•
	Micro Samples				•							
	Paint		•	•								•
	Photographic											
	Soil						•	•				
	Surface											•
	Test Tubes		•			•						
Tris Buffer					•							
Viscose Samples											•	

## IE-20T Industrial pH Electrode



### Features

- General purpose pH electrode with a built-in temperature sensor
- 3/4 inch NPT is easy to install

Range	0-14pH
Operating Temperature	0-60°C, 32-140°F
Reference	Ag/AgCl
Liquid Junction	Teflon
Body Type	PPS/PC
Cable Length	5m
Dimensions	150(L)×29.5(Dia.)mm

## US Series Ion Selective Electrode

### Features

- Combination ion selective electrode
- No reference electrode needed
- Solid state sensors Ideal for unskilled operatives



### Specifications

Model	Ion	Concentration (mol/L)	Limits (ppm)	pH Range	Operating Temperature
NH4-US	Ammonium	$5 \times 10^6 \sim 1$	0.1~18000	4~10	0~50°C
Br-US	Bromide	$5 \times 10^6 \sim 1$	0.4~79900	1~12	0~80°C
Cd-US	Cadmium	$1 \times 10^6 \sim 0.1$	0.01~11200	2~12	0~80°C
Ca-US	Calcium	$5 \times 10^7 \sim 1$	0.02~4000	2.5~11	0~40°C
CL-US	Chloride	$5 \times 10^6 \sim 1$	1.8~35500	2~12	0~80°C
Cu-US	Cupric	$1 \times 10^9 \sim 0.1$	0.006~6400	2~12	0~80°C
Cn-US	Cyanide	$5 \times 10^6 \sim 0.01$	0.2~260	10~14	0~80°C
F-US	Fluoride	$1 \times 10^6 \sim \text{saturation}$	0.02~saturation	5~7	0~80°C
I-US	Iodide	$5 \times 10^8 \sim 1$	0.06~127000	0~14	0~50°C
Pb-US	Lead	$1 \times 10^8 \sim 0.1$	0.2~20700	4~7	0~80°C
NO3-US	Nitrate	$7 \times 10^6 \sim 1$	0.4~62000	2.5~11	0~50°C
K-US	Potassium	$1 \times 10^6 \sim 1$	0.04~39000	2~12	0~40°C
Ag-US	Silver	$1 \times 10^7 \sim 1$	0.01~107900	2~12	0~80°C
Na-US	Sodium	$1 \times 10^5 \sim 1$	0.1~23000	>9	0~80°C
S-US	Sulphide	$1 \times 10^7 \sim 1$	0.003~32100	2~12	0~80°C
NH3-US	Ammonia	$1 \times 10^6 \sim 1$	1.02~17000	11	0~50°C

## WH-UK Water Hardness Electrode

### Features

- Combination water hardness electrode
- No filling solution required
- Long lifetime



### Specifications

Model	WH-UK
Concentration	0.05~200mmol/L
pH Range	2~11pH
Operating Temperature	0~50°C, 32~122°F
Cable Length	1m
Connector	BNC
Dimensions	120(L)×12(Dia.)mm

# K Series Laboratory Conductivity Electrode

## K10

Platinum conductivity electrode, suitable for the general purpose applications



Range	0~35mS/cm
Cell Constant	K=1.0
Operating Temperature	0~50°C, 32~122°F
Body Type	Glass
Cable Length	1m
Connector	6-pin nimi-DIN
Dimensions	120(L)×12(Dia.)mm

## K20

Graphite conductivity electrode, suitable for measuring the paint, dyes, etc.



Range	0~10mS/cm
Cell Constant	K=1.0
Operating Temperature	0~50°C, 32~122°F
Body Type	Epoxy
Cable Length	1m
Connector	6-pin nimi-DIN
Dimensions	120(L)×12(Dia.)mm

## K30

Platinum conductivity electrode with the flow cell design



Range	0~35mS/cm
Cell Constant	K=1.0
Operating Temperature	0~50°C, 32~122°F
Body Type	Glass
Cable Length	1m
Connector	6-pin nimi-DIN
Dimensions	120(L)×12(Dia.)mm

## K21

Graphite conductivity electrode, suitable for measuring the pure water



Range	0~500μS/cm
Cell Constant	K=0.1
Operating Temperature	0~50°C, 32~122°F
Body Type	Epoxy
Cable Length	1m
Connector	6-pin nimi-DIN
Dimensions	120(L)×12(Dia.)mm

## K40

Platinum conductivity electrode, suitable for measuring the low conductivity liquids



Range	0~500μS/cm
Cell Constant	K=0.1
Operating Temperature	0~50°C, 32~122°F
Body Type	Glass
Cable Length	1m
Connector	6-pin nimi-DIN
Dimensions	120(L)×12(Dia.)mm

## K22

Graphite conductivity electrode, suitable for measuring the high conductivity liquids



Range	0~500mS/cm
Cell Constant	K=10
Operating Temperature	0~50°C, 32~122°F
Body Type	Epoxy
Cable Length	1m
Connector	6-pin nimi-DIN
Dimensions	120(L)×12(Dia.)mm

## CON Series

### Laboratory Conductivity Electrode

#### CON-0.1

Platinum conductivity electrode, suitable for measuring the pure water



Range	0~100 $\mu$ S/cm
Cell Constant	K=0.1
Operating Temperature	0~80°C, 32~176°F
Body Type	Glass
Cable Length	1m
Connector	6-pin nimi-DIN
Dimensions	120(L) $\times$ 12(Dia.)mm

#### CON-1

Platinum conductivity electrode, suitable for general purpose applications



Range	10 $\mu$ S/cm~20mS/cm
Cell Constant	K=1.0
Operating Temperature	0~80°C, 32~176°F
Body Type	Glass
Cable Length	1m
Connector	6-pin nimi-DIN
Dimensions	120(L) $\times$ 12(Dia.)mm

#### CON-10

Platinum conductivity electrode, suitable for measuring the high conductivity liquids



Range	100 $\mu$ S/cm~200mS/cm
Cell Constant	K=10
Operating Temperature	0~80°C, 32~176°F
Body Type	Glass
Cable Length	1m
Connector	6-pin nimi-DIN
Dimensions	120(L) $\times$ 12(Dia.)mm

## IE-50T Series

### Industrial Conductivity Electrode



#### Features

- Platinum conductivity electrode with a built-in temperature sensor
- Strong and unbreakable stainless steel housing
- 3/4 inch NPT is easy to install

#### Specifications

Model	IE-50LT	IE-50MT	IE-50HT
Range	0~100 $\mu$ S/cm	0~20mS/cm	0~200mS/cm
Cell Constant	K=0.1	K=1.0	K=10
Operating Temperature	0~80°C, 32~176°F		
Body Type	Stainless steel		
Cable Length	5m		
Dimensions	150(L) $\times$ 29.5(Dia.)mm		



# DO100 Laboratory Dissolved Oxygen Electrode

## Features

- Polarographic dissolved oxygen electrode with a built-in temperature sensor
- Screw cap design makes membrane replacement quick and easy



## Sensor Includes

- Electrolyte solution (30mL)
- Membrane cap

## Specifications

Model	DO100
Sensor Type	Polarographic
Range	0-20mg/L
Operating Temperature	0-50°C, 32-122°F
Response Time	95% of final reading in 30 seconds, 98% in 45 seconds
Minimum Sample Flow	20cm per second
Cable Length	2m
Connector	6-pin nimi-DIN
Dimensions	150(L)×12(Dia.)mm

# IE-80T Industrial Dissolved Oxygen Electrode

## Features

- Polarographic dissolved oxygen electrode with a built-in temperature sensor
- 3/4 inch NPT is easy to install



## Sensor Includes

- Electrolyte solution (30mL)
- Membrane cap

## Specifications

Model	IE-80T
Sensor Type	Polarographic
Range	0-20mg/L
Operating Temperature	0-50°C, 32-122°F
Response Time	95% of final reading in 30 seconds, 98% in 45 seconds
Minimum Sample Flow	20cm per second
Cable Length	6m
Connector	—
Dimensions	150(L)×29.5(Dia.)mm



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