









Portable pH meter for special application

<p>PH8500-SS pH meter (Soft-Solid Food pH test)</p>  <p>Meter : PH8500 Electrode : LabSen753 3-in-1 pH electrode Electrode feature: food grade stainless steel sheath, solid electrolyte, suitable for soft-solid food samples. Application: cheese, bread, fruit, sushi rice, etc.</p>	<p>PH8500-BS pH meter (Meat pH test)</p>  <p>Meter : PH8500 Electrode : LabSen763 3-in-1 pH electrode Electrode feature: food grade stainless steel sheath and blade, solid electrolyte, suitable for solid food samples. Application: fresh meat and meat products.</p>
<p>PH8500-DP pH meter (Liquid Food pH test)</p>  <p>Meter : PH8500 Electrode : LabSen823 3-in-1 pH electrode Electrode feature: Protelyte electrolyte prevents the junction from being blocked by reaction with protein. Application: liquid food e.g. milk, yogurt, cream, sauce, jam.</p>	<p>PH8500-PW pH meter (Purified water pH test)</p>  <p>Meter : PH8500 Electrode : LabSen803 3-in-1 pH electrode Electrode feature: movable sleeve junction, suitable for purified water and low ion concentration solution. Application: drinking water, distilled water , RO water, deionized water, etc</p>
<p>PH8500-WW pH meter (Waste water pH test)</p>  <p>Meter : PH8500 Electrode : LabSen333 3-in-1 pH electrode Electrode feature: non-diaphragm junction, solid electrolyte, hard to be contaminated and blocked. Application: waste water, suspension, emulsion etc.</p>	<p>PH8500-SL pH meter (Soil pH test)</p>  <p>Meter : PH8500 Electrode : LabSen553 3-in-1 pH electrode Electrode feature: PVC plastic housing, more rugged, spear sensor for direct soil test. Application: soil (direct test, no slurry needed).</p>
<p>PH8500-MS pH meter (Micro volume measurement)</p>  <p>Meter : PH8500 Electrode: LabSen242-6 3-in-1 pH electrode Electrode feature: dimension of the sensor is $\Phi 6 \times 100\text{mm}$ Application: measurement for small volume samples ($>0.2\text{mL}$) and test in testing tubes.</p>	<p>PH8500-HF pH Meter (Strong Acid solutions pH test)</p>  <p>Meter : PH8500 Electrode: LabSen831 pH Electrode and MP500 Temp. Electrode Electrode feature: special HF glass membrane allows test in HF containing solutions for up to 1000 times (concentration$<1\%$). Application: solutions containing Hydro fluoride acid or other strong acids.</p>

ORP electrode , conductivity electrode and temperature electrode

301Pt-C	Plastic ORP combination electrode	Dimension : $\Phi 12 \times 160\text{mm}$, gel electrolyte, BNC connector, range: $\pm 2000\text{mV}$.
2310T-S	Plastic conductivity electrode	K=10 built-in 30k Ω thermistor, 4 pin connector, range: 20~200mS/cm.
DJS-0.1-S	Glass conductivity electrode	K=0.1 built-in 30k Ω thermistor, 4 pin connector, range: 0~200 $\mu\text{S/cm}$.
MP500	Temperature electrode	$\Phi 5$ stainless steel probe, range: $-10 \sim 110^\circ\text{C}$, RCA connector, 30k Ω thermistor.

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APER A
INSTRUMENTS

850 Series
8500 Series

Portable Water Analysis Meter



pH
ORP
Resistivity
TDS
Salinity
DO (Optical)

3-YEAR WARRANTY
on all instruments



850 Series Portable Meter

- PH850 pH Meter pH/mV/Temp.
- EC850 Conductivity Meter Cond./TDS/Temp.
- PC850 pH/Conductivity Meter pH/mV/Cond./TDS/Temp.

Main features

- Equipped with ATC pH and conductivity electrodes, convenient to use
- The most economical choice for a reliable portable meter
- Simple operation; easy to use



8500 Series Portable Meter

- PH8500 pH Meter pH/mV/Temp.
- EC8500 Conductivity Meter Cond./TDS/Temp.
- PC8500 pH/Conductivity Meter pH/mV/Cond./TDS/Temp.

Main Features

- Equipped with ATC pH and conductivity electrodes, convenient to use
- Conform to GLP data management standard
- USB data output



Table 1 Portable pH and cond. Meter Model Comparison









					
Model		PH850	PH8500	EC850	EC8500
Parameter		pH/mV/Temp		Cond./TDS/Temp	Cond./TDS/Sal/Temp
pH	Range	0 to 14.00 pH	-2.00 to 16.00 pH		
	Resolution	0.1/0.01 pH			
	Accuracy	±0.01 pH±1 digit			
	Temp.compensation	0 to 100 °C (32 to 212 °F), automatic or manual			
	Automatic calibration	1 ~ 3 points	1 ~ 3 points		
	Buffer solution	USA/NIST	USA/NIST/CUS		
	Calibration reminding	No	Yes		
	Calibration time checking	No	Yes		
mV	Stability setting	Yes	Yes		
	Range	±1000mV	±1999mV		
	Resolution	1mV	±0.1/1mV		
Conductivity	Accuracy	±0.2% FS ±1 digit	±0.1% FS ±1 digit		
	Range			0~200.0mS/cm	
	Resolution			0.01/0.1/1μS, 0.01/0.1mS	
	Accuracy			±1%FS±1 digit	
	Electrode constant			0.1/1.0/10.0 cm-1	
	Auto temp.compensation			0 to 50°C (32 to 122°F)	
	Criterion temperature			15~30 °C	
	Temp. compensation coefficient			0~9.99%/ °C	
	Calibration			1~3 points automatic	
	Calibration standard			Standard	Standard/CUS
TDS	Calibration reminding			No	Yes
	Calibration time checking			No	Yes
	Range			0.1mg/l~100 g/l	
Salinity	TDS coefficient			0.40~1.00	
	Range			No	0~100 ppt
Temp.	Range			0~ 100°C; 32.0 ~ 212 °F	
	Resolution			0.1°C; 0.1/1°F	
	Accuracy			±0.5°C±1 digit; ±0.9°F±1 digit	
Function	Display	LCD (no backlight)	LCD (white backlight)	LCD (no backlight)	LCD (white backlight)
	Stable measuring indication	with 			
	Automatic hold	Yes	Yes	Yes	Yes
	Date and time	No	Yes	No	Yes
	Data storage	No	500 sets	No	500 sets
	Timing storage	No	Yes	No	Yes
	Self-diagnosis information	Yes	Yes	Yes	Yes
	USB output	No	Yes	No	Yes

Table 2 Portable pH/cond. Meter Model Comparison

			
Model		PC850	PC8500
Parameter		pH/mV/Cond./TDS/Temp	pH/mV/Cond./TDS/Sal/Temp
pH	Range	0 to 14.00 pH	-2.00 to 16.00 pH
	Resolution	0.1/0.01 pH	
	Accuracy	±0.01 pH±1 digit	
	Temp. compensation	0 to 100°C (32 to 212°F), automatic or manual	
	Automatic calibration	1~3 points	1~3 points
	Buffer solution	USA/NIST	USA/NIST/CUS
	Calibration reminding	No	Yes
	Calibration time checking	No	Yes
mV	Stability setting	Yes	Yes
	Range	±1000mV	±1999mV
	Resolution	1mV	±0.1/1mV
Conductivity	Accuracy	±0.2% FS ±1 digit	±0.1% FS ±1 digit
	Range		0~200.0mS/cm
	Resolution		0.01/0.1/1μS, 0.01/0.1mS
	Accuracy		±1%FS±1 digit
	Electrode constant		0.1/1.0/10.0 cm-1
	Auto temp.compensation		0 to 50°C (32 to 122°F)
	Criterion temperature		15~30 °C
	Temp. compensation coefficient		0~9.99%/°C
	Calibration		1~3 points automatic
	Calibration standard	Standard	Standard/CUS
TDS	Calibration reminding	No	Yes
	Calibration time checking	No	Yes
	Range		0.1mg/l~100 g/l
Salinity	TDS coefficient		0.40~1.00
	Range	No	0~100 ppt
Temp.	Range		0~ 100°C; 32.0 ~ 212°F
	Resolution		0.1°C; 0.1/1°F
	Accuracy		±0.5°C±1 digit; ±0.9°F±1 digit
Function	Display	LCD (no backlight)	LCD (white backlight)
	Stable measuring indication	with 	
	Automatic hold	Yes	Yes
	Date and time	No	Yes
	Data storage	No	500 sets
	Timing storage	No	Yes
	Self-diagnosis information	Yes	Yes
	USB output	No	Yes
Others	Electrode connector	pH electrode: BNC; Conductivity electrode: 4 pin connector	
	IP rating	IP57 waterproof rating (float on water)	
	Electrode	PH: 201T-F; Conductivity: 2301T-S	
Others	Power	AA battery (1.5V×3)	
	Dimension/weight only meter	88×170×33mm/313g	
	Dimension/weight with case	360×270×76mm/1.3kg	



DO850

DO8500

Portable Optical DO Meter

Main Features



- Automatic temperature and pressure compensation.
- Large size LCD with white backlight, clear display.
- Reading stable display mode and automatic lock display mode.
- DO8500 model: automatic salinity compensation, real time clock, timing storage, USB output.
- IP57 waterproof rating, equipped with carrying case.



Comparison between electrochemistry DO sensor and optical DO sensor

	Polarography or galvanic DO sensor	Optical DO sensor
Measurement	Consume oxygen in measurement – Unstable measurements.	Adopts Fluorescence technologies, no oxygen being consumed during test – stable measurements
Calibration	Serious electrode polarization , frequent calibration is needed; calibration time is long	No polarization; no need to calibrate frequently; only 2 minutes to calibrate.
Performance	Slow response, bad repeatability, low accuracy	15 seconds response time, good repeatability, high accuracy.
Lifetime	electrode membrane need to be frequently replaced; electrolyte need to be refilled; short life time.	No electrode membrane; no electrolyte; Service life>8000hours

Table 3 Portable Optical DO Meter Model Comparison

			
Model		DO850	DO8500
Parameter		DO/Temp	DO/Sal/Temp
DO	Range	(0-20.00) mg/L (ppm), (0-200.0) %	
	Resolution	0.01/0.1mg/L (ppm), 0.1/1% ,	
	Accuracy	±2% reading or±2% oxygen saturation, take the higher value; ±2% reading or ±0.2 mg/L, take the higher value	
	Temp compensation	0 to 100 °C (32 to212 °F) , automatic or manual	
	Response time	≤30s (25°C, 90% response)	
	Calibration point	Oxygen saturation & zero oxygen	
	Temperature compensation	Automatic, (0~50.0) °C	
	Pressure compensation	Automatic, (60~120) kPa	
Temp.	Salinity compensation	Manual, (60~120) kPa	Automatic or manual , (60~120) kPa
	Range	(0~50.0) °C	
	Resolution	0.1 °C	
Function	Accuracy	±0.5°C	
	Display	LCD (white backlight)	
	Stable measuring indication	With ☺ icon	
	Automatic hold	Yes	Yes
	Date and time	No	Yes
	Data storage	No	500 sets
	Timing storage	No	Yes
	USB output	No	Yes
Others	IP rating	IP57 waterproof rating (float on water)	
	Power	AA battery x3 (1.5Vx3)	
	Dimension/weight only meter	88x170x33mm/313g	
	Dimension/weight with case	360x270x76mm/1.5kg	360x270x76mm/1.6kg
	Product set	DO850 meter DO803 DO Sensor (3M cable) Calibration sleeve+carrying case	DO8500 meter DO803 DO sensor (3M cable) 2301-3M salinity electrode Calibration sleeve+carrying case Combination probe cap USB cable+software CD



DO850 kit



DO8500 kit