Portable pH meter for special application

PH8500-SS pH meter (Soft-Solid Food pH test)

PH8500-BS pH meter (Meat pH test)



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,



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.

PH8500-DP pH meter (Liquid Food pH test)

PH8500-PW pH meter (Purified water pH test)



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.



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

PH8500-WW pH meter (Waste water pH test)

PH8500-SL pH meter (Soil pH test)



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.



Meter: PH8500

Electrode : LabSen553 3-in-1 pH electrode Electrode feature: PVC plastic housing, more rugged, spear sensor for direct soil

Application: soil (direct test, no slurry needed).

PH8500-MS pH meter (Micro volume measurement)

PH8500-HF pH Meter (Strong Acid solutions pH test)



Meter: PH8500 Electrode: LabSen242-6 3-in-1 pH electrode Electrode feature: dimension of the sensor is $\Phi6x100mm$

Application: measurement for small volume samples (>0.2mL) and test in testing tubes.



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.

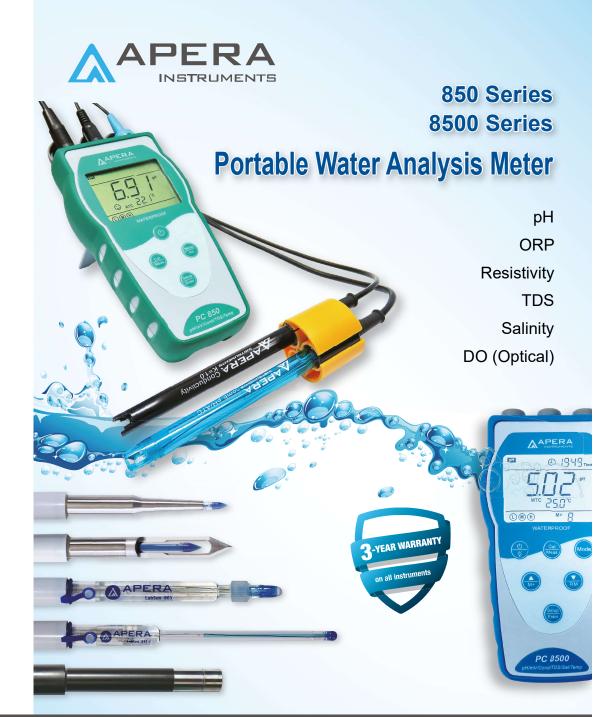
ORP electrode, conductivity electrode and temperature electrode

301Pt-C	Plastic ORP combination electrode	Dimension: Φ12×160mm, gel electrolyte, BNC connector, range: ±2000mV.
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: 0~200μS/cm.
MP500	Temperature electrode	Φ5 stainless steel probe, range: -10~110°C, RCA connector, 30kΩ thermistor.

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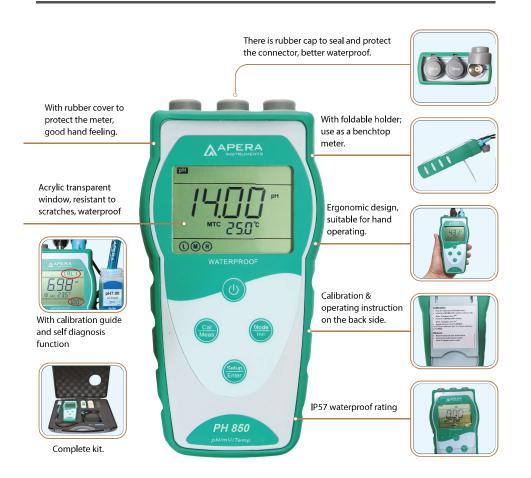


850 Series Portable Meter

- 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









PHASO				3		
Range		Model	PH850	PH8500	EC850	EC8500
Resolution	Parameter		pH/mV/Temp		Cond./TDS/Temp	Cond./TDS/Sal/Temp
Accuracy		Range	0 to 14.00 pH	-2.00 to 16.00 pH		
Temp.compensation		Resolution	0.1/0.01 pH			
## Automatic calibration		Accuracy	±0.01 pH±1 digit			
Buffer solution		Temp.compensation	0 to 100 °C (32 to 212 °F), automatic or manual			
Calibration reminding No Yes Calibration time checking No Yes Yes Range	рН	Automatic calibration	1 ~ 3 points	1 ~ 3 points		
Calibration time checking Stability setting Range Range ### ### ### ### #### #### ##########		Buffer solution	USA/NIST	USA/NIST/CUS		
Stability setting		Calibration reminding	No	Yes		
Range		Calibration time checking	No	Yes		
Resolution		Stability setting	Yes	Yes		
mV Resolution 1mV ±0.1/1mV ±0.1/1mV Conductivity Range ±0.2% FS ±1 digit ±0.1% FS ±1 digit 0-200.0mS/cm Conductivity 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 to122°F) Criterion temperature 15~30 °C Temp. compensation 0~9.99%/ °C Calibration standard Standard Standard/CUS Calibration reminding No Yes Calibration ime checking No Yes TDS Range 0.1mg/l-100 g/l TDS coefficient 0.40~1.00 0.40~1.00 Salinity Range 0~100°C; 32.0~212°F Temp. Resolution 0.1°C; 0.1/1°F Accuracy ±0.5°C±1 digit; ±0.9°F±1 digit Emp. Display LCD (no backlight) LCD (no backlight) LCD (no backlight) Function Automatic hold Yes Yes Yes Yes		Range	±1000mV	±1999mV		
Range 0~200.0mS/cm	mV	-	1mV	±0.1/1mV		
Resolution		Accuracy	±0.2% FS ±1 digit	±0.1% FS ±1 digit		
Accuracy ±1%F.5±1 digit		Range	-	-	0~200.	0mS/cm
Accuracy Electrode constant 0.1/1.0/10.0 cm-1		Resolution				
Electrode constant Auto temp. compensation Criterion temperature Calibration Calibration time checking Calibration time checking TDS TDS Range TDS Calibration Range Temp. Resolution Temp. Temp. Resolution Temp. Tem		Accuracy				
Auto temp. compensation Criterion temperature Temp. compensation coefficient Calibration Calibration standard Calibration reminding Calibration time checking TDS Range TDS Range TDS Range TOS Range TOS Calibration Calibration Calibration Calibration time checking Calibration Calibration Calibration time checking Range Calibration time checking No Yes Calibration time checking No Yes Calibration time checking No Yes Calibration time checking No Yes No Calibration time checking No Yes No Calibration time checking No Yes Calibration time checking No Yes No O-100 ptl Automatic hold Ves Yes Yes Yes Yes Yes Yes Yes		Electrode constant			•	
Conductivity Criterion temperature Temp. compensation coefficient Calibration Calibration standard Calibration reminding Calibration time checking Range TDS Range TDS coefficient Range TOS coefficient Calibration time checking Range Calibration time checking No Yes Calibration time checking No O-1mg/l~100 g/l TDS coefficient Calibration time checking No O-200 ppt Range O~100°C; 32.0 ~ 212 °F Resolution Calibration time checking No O~100 ppt Complex to the comple		Auto temp. compensation				
Temp. compensation coefficient Calibration Calibration standard Calibration reminding Calibration time checking TDS Range TDS Range TDS Range TOS Range TOS Calibration time checking Calibration time checking TOS coefficient Calibration reminding Calibration time checking Range TOS coefficient Calibration time checking No Yes Calibration time checking No O.1mg/l~100 g/l County/l~100 g/l County/l		Criterion temperature				
Calibration standard Standard Standard/CUS Calibration reminding No Yes Calibration time checking No Yes TDS Range 0.1mg/l~100 g/l TDS coefficient 0.40~1.00 Salinity Range No 0~100 ppt 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 Stable measuring indication LCD (no backlight) LCD (no backlight) LCD (no backlight) Stable measuring indication With ⊕con Automatic hold Yes Yes Yes Punction Date and time No Yes No Yes Function Timing storage No 500 sets No 500 sets Function Date and time No Yes No Yes	Conductivity				0~9.99%/ ℃	
Calibration reminding Calibration time checking Range TDS Range TDS coefficient TEMP. Resolution Resolution Accuracy TEMP TOSlabilay TOSlabil		Calibration			1~3 points automatic	
Calibration time checking Range Range TDS Range TDS coefficient Range TOS coefficient Range Resolution Resolution Accuracy Display LCD (no backlight) Stable measuring indication Automatic hold Yes Yes Yes Punction Punction Punction Date and time No Yes No Yes No Yes No Yes Self-diagnosis information Yes Yes Yes Yes Yes Yes Yes Ye		Calibration standard			Standard	Standard/CUS
Range		Calibration reminding			No	Yes
TDS coefficient Salinity Range Range O~100°C; 32.0~212 °F Resolution O.1°C; 0.1/1°F Accuracy Display LCD (no backlight) Stable measuring indication Automatic hold Yes Yes Ves Temp. Punction Punction Date and time No Yes No Solvest Timing storage No Self-diagnosis information No O-100 ppt No O-100 ppt No O-100 ppt LCD (white backlight) LCD (white backlight) LCD (white backlight) LCD (no backlight) LCD (white backlight) Ves Yes Yes Yes Yes Yes Yes Yes		Calibration time checking			No	Yes
Salinity Range No 0-100 ppt		Range			0.1mg/l~100 g/l	
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 Display LCD (no backlight) LCD (white backlight) LCD (no backlight) LCD (white backlight) Stable measuring indication with ⊕con Automatic hold Yes Yes Yes Yes Yes Function Date and time No Yes No Yes Data storage No 500 sets Timing storage No Yes No Yes Self-diagnosis information Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	IDS	TDS coefficient			0.40-	-1.00
Temp. Resolution 0.1°C; 0.1/1°F Accuracy ±0.5°C±1 digit; ±0.9°F±1 digit Display LCD (no backlight) LCD (white backlight) LCD (no backlight) LCD (white backlight) Stable measuring indication with⊕con Automatic hold Yes Yes Yes Yes Function Date and time No Yes No Yes Data storage No 500 sets Timing storage No Yes No Yes Self-diagnosis information Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Salinity	Range			No	0~100 ppt
Accuracy Display LCD (no backlight) LCD (white backlight) LCD (no backlight) LCD (white backlight) LCD (no backlight) LCD (white backlight) LCD (no backlight) LCD (white backlight) Ves Yes Yes Yes Yes Data and time No Yes Data storage No Solo sets Timing storage No Yes Yes Yes Yes Yes Yes		Range	0~ 100°C; 32.0 ~ 212 °F			
Display LCD (no backlight) LCD (white backlight) LCD (no backlight) LCD (white backlight) LCD (no backlight) LCD (white backlight) LCD (white backlight) LCD (no backlight) LCD (white backlight) LCD (white backlight) LCD (no backlight) LCD (white backlight) LCD (white backlight) LCD (white backlight) LCD (no backlight) LCD (white backlight) LCD (no backlight) LCD (white backlight) LCD (w	Temp.	Resolution	0.1°C; 0.1/1°F			
Stable measuring indication Automatic hold Yes Yes Yes Yes Yes Yes Yes Ye		Accuracy	±0.5°C±1 digit; ±0.9°F±1 digit			
Function 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		Display	LCD (no backlight)	LCD (white backlight)	LCD (no backlight)	LCD (white backlight)
Function 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		Stable measuring indication	with⊕con			
Data storage No 500 sets No 500 sets Timing storage No Yes No Yes Self-diagnosis information Yes Yes Yes Yes		Automatic hold	Yes	Yes	Yes	Yes
Timing storage No Yes No Yes Self-diagnosis information Yes Yes Yes Yes	Function	Date and time	No	Yes	No	Yes
Self-diagnosis information Yes Yes Yes Yes		Data storage	No	500 sets	No	500 sets
		Timing storage	No	Yes	No	Yes
USB output 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	
	Range	0 to 14.00 pH	-2.00 to 16.00 pH	
	Resolution	0.1/0.01 pH		
	Accuracy	±0.01 p	H±1 digit	
	Temp. compensation	0 to 100°C (32 to212°F)) , automatic or manual	
рН	Automatic calibration	1~3 points	1~3 points	
	Buffer solution	USA/N I ST	USA/NIST/CUS	
	Calibration reminding	No	Yes	
	Calibration time checking	No	Yes	
	Stability setting	Yes	Yes	
	Range	±1000mV	±1999mV	
mV	Resolution	1mV	±0.1/1mV	
	Accuracy	±0.2% FS ±1 digit	±0.1% FS ±1 digit	
	Range	0~200.0	-	
	Resolution	0.01/0.1/1μS, 0.01/0.1mS		
	Accuracy	±1%F.S±1 digit		
	Electrode constant	0.1/1.0/10.0 cm-1		
	Auto temp. compensation	0 to 50°C (32 to122°F)		
Conductivity	Criterion temperature	15~30 ℃		
	Temp. compensation coefficient	0~9.99%/°C		
	Calibration	1~3 points	automatic	
	Calibration standard	Standard	Standard/CUS	
	Calibration reminding	No	Yes	
	Calibration time checking	No	Yes	
	Range	0.1mg/l~100 g/l		
TDS	TDS coefficient	0.40~1	.00	
Salinity	Range	No	0~100 ppt	
	Range	0~100°C; 32.0 ~ 212°F		
Temp.	Resolution	0.1°C; 0.1/1°F		
	Accuracy	±0.5°C±1 digit; ±0.9°F±1 digit		
	Display	LCD (no backlight)	LCD (white backlight)	
	Stable measuring indication	with 🛈 con		
	Automatic hold	Yes	Yes	
	Date and time	No	Yes	
	Data storage	No	500 sets	
Function	Timing storage	No	Yes	
	Self-diagnosis information	Yes	Yes	
	USB output	No	Yes	
	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		
Others				







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	
	Range	(0-20.00) mg/L (ppm), (0-200.0) %		
	Resolution	0.01/0.1mg/L (ppm), 0.1/1% ,		
	Accuracy	$\pm 2\%$ reading or $\pm 2\%$ oxygen saturation, take the higher value; $\pm 2\%$ reading or ± 0.2 mg/L, take the higher value		
	Temp compensation	0 to 100 °C (32 to 212 °F) , automatic or manual		
DO	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		
	Salinity compensation	Manual, (60~120) kPa	Automatic or manual , (60~120) kPa	
	Range	(0~50.0) ℃		
Temp.	Resolution	0.1 ℃		
	Accuracy	±0.5℃		
	Display	LCD(white backlight)		
	Stable measuring indication	With icon		
	Automatic hold	Yes	Yes	
Function	Date and time	No	Yes	
runction	Data storage	No	500 sets	
	Timing storage	No	Yes	
	USB output	No	Yes	
	IP rating	IP57 waterproof rating (float on water)		
	Power	AA battery x3 (1.5V×3)		
	Dimension/weight only meter	88×170×33mm/313g		
Others	Dimension/weight with case	360×270×76mm/1.5kg	360×270×76mm/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	





DO8500 kit

