

# PORTABLE WATER QUALITY METER 9872X SERIES DUAL MEASUREMENT



<<98721pH\_SALT>><<98721pH\_EC>><<98721pH\_TDS>><<98721pH\_COND>><<98722pH\_ORP>><<98725pH\_DO>>

- Dual electrodes, one temperature sensor measures and displays at the same time as seen above.
- Temperature sensor can be integrated with any electrode, auto temperature compensation is featured.
- General purpose water quality measurement with dual input (Two electrodes) integrated with temperature sensor.
- Cost effective with deluxe blow carrying case, portable around and convenient storage.
- Professional look design accurate portable meters with large LCD display, two BNC connectors.
- Plug two sensor electrodes to measure and display simultaneously dual parameters in one device.
- Hold function, battery capacity indicator, automatic power off in 15 minutes
- Built-in temperature compensation sensor is 10K ohm, automatically compensated.
- Automatically / Manually adjust by pressing buttons to get accurate reading
- RFS (Recover to Factory Setting) function design is included. pH 4.10 slope check (<80%, >130%) electrode aging condition.
- pH 3 calibration points: 4.01, 7, 10 (Adjustable). Calibration and soaking buffer powder are included.
- Flat tip pH electrode is low Sodium error, self-cleaning, ideal for flat surface measurement, stronger than glass bulb type.
- Conductivity calibration point: 1413uS/cm (K=1) or 12.88mS/cm (K=10). Calibration buffer solution is included.
- Conductivity electrode may convert to TDS and Salinity readings, adjustable conductivity-to-TDS conversion factor from 0.4 to 1.0. Three in one electrode measure Conductivity, TDS and Salinity.
- Conductivity cell constant (K) selectable: 0.1 (Super clean water), 1.0 (Fresh water), 10 (Sea water) (Selectable)
- DO calibration 100% air calibration and zero calibration without electrode
- Select DO sensor from both Galvanic and Polarographic type with 3M cable and membrane cap, electrolyte.
- Manually Salinity (0~50ppt) and pressure (300~1100hpa) compensation for DO measurement
- Tripod mountable receptacle design for long time measurement or recording.
- Options: USB interface on line logging function, Off line logging function, Backlight function, SD card storage.
- Bluetooth (BLE4.0) function is optional, may read data with curve, download to mobile phones, share to others via email, LINE, Wechat or dropbox etc. Free APP download from Android and iOS, search "Aqua Air Guardian"

## STANDARD PACKING SUPPLIED:

Meter, electrodes, batteries AAA x3pcs, manual, carrying case. Calibration buffer (ORP excluded), soaking solution (Cond. excluded)

Combo measurement model numbers ATC (Either electrode)	pH	Cond/TDS/Salt	ORP	DO
	PC electrode, Glass bulb sensor	ABS electrode, Graphite(K=1) Platinum(K=10)	PC electrode, Platinum, 0~80C	ABS electrode, Galvanic type or Polarographic type (Choose one)
pH/EC(Cond/TDS/Salt)/T	98721	98721		
pH/ORP/T	98722		98722	
EC/DO/T		98723		98723
pH/DO/T	98725			98725

## SPECIFICATION & APPLICATION

### pH:

**Industrial:** Check water conditioning plants, cooling towers, plating ,finishing operations, food processing water testing(For HACCP compliance), printing ,chemical industries, water/wastewater treatment. **Environmental/ Agriculture:** Use in ecology studies, aquariums, hydroponics. **Laboratory :**Food processing, environmental studies, chemical labs, titrations ,quality assurance testing. Analyzing water in pools and spas, photographic developing processing.

### ORP:

**Industrial:** Chromate reduction( +200mV app) , Cyanide Oxidation ( +300mV app) , Pulp bleaching ( +900mV app) . **Water treatment :** Monitor ozone systems (+900mV) , Check free chlorine activity ( +600mV) in pools, spas, cooling towers) , Water purification ,drinking water ( +300mV) , Aquarium monitoring , water pollution monitoring. Monitoring plating operations, ozonation system efficiency and other redox measurement.

### Conductivity /TDS/Salinity:

**General :** Labs, field , schools. **Water quality:** Test hard water, untreated water, drinking water, incoming process water, pool water. Useful in hydroponics , agricultural industries , gentilizer/ chemical concentrations. **Industrial:** Check pollution control, metal finishing, cooling tower water, boiler water, drilling mud, brines, rinse tanks, ponds, recirculating systems , waste water, swimming pools, whirlpools . Testing font solutions on printing presses and developer concentrations on printing plates.

**TDS\_Low:** Natural water verify reverse osmosis systems and tap water quality. Check nutrient solution concentration for hydroponics. **TDS\_high:** Salt water, waste water, cooling tower water and boiler condensate. Check nutrient solution concentration in hydroponics. Ponds, recirculating systems, check saline,chemical levels in pools and spas. **Salt:** Aquarius, hobbyists(koi fish), aquaculture, fish-farms, water & waster water treatment, pools and spas.

**DO:** Aquariums, Aquaculture/Fishing Farming, Bio-reaction, BOD, Environmental testing(Lakes, streams, oceans) Water/Wastewater treatment, Wine production. **Aquacultural :** Oxygen levels in catfish , shrimp farming, game fishing ponds, ornamental fish tanks, ponds. **Environmental:** Monitor health of aquatic ecosystems, survey surface and ground water drinking supplies. **Industrial :** Check quality of plant water intake, discharge, waste water and water treatment, recirculating systems, industrial process systems. **Educational :** Check dissolved oxygen readings in labs and schools.

## ELECTRODES ▼

	Electrode P/N	Electrode body	Temp.compensation	Sensor type
pH electrode	99716G	PC	N/A	Glass bulb
	99716GT	PC	ATC	Glass bulb
	99716AT	Epoxy	ATC	Flat tip
Conductivity electrode	99717G	Glass	N/A ,K=1	Platinum disc
	99717A	ABS	N/A ,K=1	Graphite plate
Cond/TDS/Salt electrode	99717GT	Glass	K=1 ATC	Platinum disc
	99717AT	ABS	K=1 ATC	Graphite plate
ORP electrode	99718PP	PC	N/A	Platinum pin
	99718PB	Glass	N/A	Platinum band
DO electrode	99719GT	ABS	ATC	Galvanic
	99719PT	ABS	ATC	Polarographic

## SPECIFICATION ▼

	pH	Cond/TDS/Salt/EC	ORP	DO
Range_1	0~14pH , -414mV ~ +414mV	0.05uS/cm~1999uS/cm(K=0.1), 30uS/cm~20mS/cm(K=1), 500uS/cm~199mS/cm(K=10) __Conductivity	-1999mV~ +1999mV	0~199.9% (In saturation ) ; 0.0~20.0 mg/L
Range_2		0~19.99, 0~199.9, 0~1999ppm 0~19.99,0~199.9ppt __TDS		
Range_3		0~42.0ppt (Sea water) __Salinity		
Accuracy	+0.05pH+2 digit	+1% of full scale+1 digit	+0.2mV (- 199.9~+199.9mV), others +2mV	+2% of full scale + 1 digit
Resolution	0.01pH	0.01uS/cm, 0.1/1uS/cm; 0.01mS/cm, 0.1mS/cm	0.1mV (- 199.9~+199.9mV) , others 1mV	0.1%, 0.1mg/L
		0.01ppm; 0.1ppm; 1ppm		
		0.1ppt		
Meter Size	175mm x 58mm x 32mm ( With BNC connector)			
Cable length	1 M	1M	1M	3M