NEW

8699   8698

Industry First

Industry first multifunctional water probe capable of measuring the conductivity range up to **200mS/cm**

Low ionic strength pH probe

Low ionic strength pH glass bulb

Longer probe with more electrolyte to extend life time
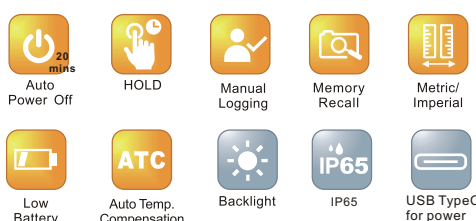
Replaceable electrode & 5M long extension cable kit

Ordering Code
VZ8698AZ, 8698 meter
VZ8699AZ, 8699 meter
VZ8698PAZ, pH/EC probe for 8698 and 8699
VZ8698PAZ1,8698/99 extension cable-5M
VP860101, empty bottle for cal. buffer storage

*Available for EB project

IP65 pH/EC/TDS/SALT/S.G/Temp. Pen
Hydroponics:8698   Aquaculture: 8699

■ The world's first multifunctional water probe capable of measuring the conductivity range up to seawater salinity

■ Auto ranging and integrated S.G. (Specific Gravity) and Salinity Unit for aquaculture users

■ Clear LCD with backlight to display parameters in turns: PH, Conductivity, TDS, Salinity, S.G. and Temperature

■ Replaceable sensor: rust-resisting EC and high quality pH

■ Adjustable TDS factor for all hydroponic formula

■ Multiple points calibration. EC/TDS/SALT: 4, pH:3

Auto Power Off (20 mins)	HOLD	Manual Logging	Memory Recall	Metric/ Imperial
Low Battery	ATC Auto Temp. Compensation	Backlight	IP65	USB TypeC for power

Eco-friendly rechargeable

Model	8698	8699
pH range/resolution	0.00~14.00/resolution :0.01	
pH accuracy	+/-0.1	
EC (Auto range)	0~199.9uS/cm, 200~1999uS/cm, 2.00~19.99mS/cm, 20.0~200.0mS/cm	
EC accuracy	+/-2% F.S +/- 1 digit	
EC resolution	0.1uS/cm, 1uS/cm, 0.01mS/cm, 0.1mS/cm	
TDS. Range (f is TDS factor)	0~199.9*f ppm, 200~1999*f ppm, 2.00~19.99*f ppt, 20.0~200.0*f ppt	
TDS. Accuracy / res.	+/-2% F.S +/- 1 digit；res.:0.1,1ppm;0.01, 0.1ppt	
TDS Factor	0.40~1.00	
Salinity range		0.00~11.40ppt; 11.4~159.9ppt(NaCl)
Salinity accuracy/res.		+/-2% F.S +/- 1 digit；res.:0.01 ppt, 0.1ppt
S.G. range		0.950~1.080 (NaCl)
S.G. Resolution		0.001
Temp. range	0.0~70.0°C(32.0~158.0°F)	
Temp. Accuracy/res.	+/-0.6°C；0.1(+/-1°F; 0.1)	
ATC active range	0.0~50.0°C(32.0~122.0°F)	
Temp. Coefficient	2.0% per °C(1.1% per °F)	
Normalization Temp.	25.0°C (77 °F)	
LCD size(mm)	30(H)x18(W)mm	
Operating temp.&RH%	0~50°C, Humidity<80%	
Storage temp.&RH%	0~60°C, Humidity < 90%	
Dimension(mm)	210(L)x39(W)x39(H)	
Weight	120g	
Battery	Built-in rechargeable lithium battery, 5V USB-C	
Power consumption	<6.5mA (backlight off),<12mA(backlight on)	
Response time	<90 seconds	
Sensor life time (with good maintenance)	> 6 months	
Standard Package	Meter(with built-in bat.)/Manual/USB-C cable hard storage case/wrist strap	
Optional accessory	-Empty vial for buffer storage(20mL) -5M long extension cable kit	

2025.02 V0.2

In the past few decades, all pH and EC 2-in-1 meters designed for hydroponics were limited to measuring EC values up to 20 mS/cm. While this range is sufficient for measuring the nutrient solution used in hydroponic systems (typically between 0.5 and 5 mS/cm, rarely exceeding 10 mS/cm), it is not suitable for measuring the EC of seawater.

Seawater typically has an EC value of 50–55 mS/cm, far exceeding the 20 mS/cm limit of standard hydroponic meters. To accurately measure the EC of seawater, a specialized high-range EC meter is required, capable of measuring up to 200 mS/cm or higher.

Hydroponics
Typically 0.5 ~5 mS/cm

Seawater typically has an EC value of 50–55 mS/cm

Specific Gravity (S.G.)

The concept of S.G. has been used for centuries in marine studies, earlier conductivity, making it a familiar metric for marine related field, such as aquariums, aquaculture systems, and desalination processes.

S.G. provides a practical approximation of salinity since seawater's salinity increases with higher S.G. For example:An S.G. of *1.023–1.025* corresponds to the typical salinity of *35 ppt* in ocean water.

Salinity (SALT)

Salinity refers to the concentration of dissolved salts (mainly sodium chloride, NaCl) in seawater, typically expressed in ppt (parts per thousand). The average salinity of the world's oceans is approximately 35 ppt, meaning that each kilogram of seawater contains 35 grams of salt.

However, the salinity of the ocean varies due to regional environmental factors and natural processes. A salinity range between 30 ppt and 40 ppt is commonly observed.