



water  
resistant



battery  
powered



interchangeable  
electrode



DIN  
connection



replaceable  
electrode

## portable waterproof multiparameter meter

The HI-98194 provides multiparameter measurement across a wide range of parameters including EC, TDS Resistivity, Salinity and Seawater as well as dissolved oxygen, atmospheric pressure and temperature.

### Star features

The compact, rugged housing is waterproofed to IP67 standards making the meter ideal for use in demanding applications.

It is also particularly popular for testing out on location thanks to its robust quick connect multi-function probe with field replaceable sensors.

Designed to deliver high levels of accuracy even under difficult conditions, the HI-98194 also comes with a comprehensive pack of benefits for a wide range of applications:

### Supporting professional working practice

- Press Auto-Hold while measuring and once stabilised, the current reading will remain displayed to give you time to take detailed records.
- An Out of Calibration Range warning can be engaged to keep the user informed about the current calibration and avoid performing measurements that are out of range.

### Extensive data logging

- Continuous logging and log-on demand allows users to record and save up to 44,000 samples.
- Data can be transferred to PC via microUSB and dedicated software.

### GLP and on-screen assistance

- Press the GLP key and last calibration data will be displayed directly on-screen to support good laboratory practice.
- The contextual Help menu can also be accessed at the touch of a button and will deliver immediate on-screen information and assistance on the feature currently displayed.

### User friendly

- A backlit, graphic LCD provides easy to read resolution even in bright sunlight or low-lit areas.
- Dedicated and soft keys combine to allow easy, intuitive operation in a choice of languages.



Authorised distributor



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# Multiparameter Waterproof Weter | HI-98194



## A great range of features

### Accurate and easy to use even in demanding applications

- Waterproof: IP67 rated housing for meter: IP68 for probe
- Colour-coded sensors – easy to replace in the field
- Auto-sensor recognition
- Quick calibration feature
- pH CAL CHECK™: alerts user to problems during calibration including dirty or broken electrode, contaminated buffer and overall probe condition
- Automatic or manual temperature compensation: pH sensors incorporate a built-in temperature sensor



### Promotes good laboratory practice

- Automatic logging: stores up to 45,000 samples
- Log-on demand: stores measurement data at the press of a button
- GLP: provides data from previous calibration to support best working practice
- Auto-hold: automatically holds the first stable reading on display
- Calibration timeout: alerts the user when calibration is due at specified intervals
- Help menu: on-screen context specific help is readily available at the press of a button



### User-friendly

- Clear display: dot matrix display with multifunction virtual keys
- Backlit LCD
- Intuitive keypad: hard and virtual soft keys
- Connectivity: PC connectivity via microUSB and HI-92000 software
- 200-hour battery life: 4 x 1.5AA batteries



### pH specific features

- CAL CHECK™ electrode diagnostics: alerts users to calibration status
- Manual or automatic temperature compensation
- Calibration: up to 5-point calibration with 7 standard buffers and 5 custom buffers

### EC/TDS/NaCl/Resistivity specific features

- Methods: USP <645> capable
- Autoranging
- Salinity readings: Salinity can be displayed as %NaCl; seawater scale (ppt); or Practical Salinity Scale (PSU)
- Calibration: perform up to a 5-point calibration for enhanced accuracy
- Temperature compensation: Automatic Temperature Compensation; configurable temperature coefficient range from 0.00 to 10.00%/°C

### Dissolved Oxygen specific features

- Choice of units: display units in % saturation or mg/L (ppm)
- Salinity compensation: users are able to set the salinity value
- Pressure compensation: built-in barometer with user-selectable units (mmHg; inHg; atm; psi; kPa; mbar)
- Temperature compensation: built-in sensor with one or two point temperature calibration (°C or °F)
- Built-in calculations: BOD; OUR; SOUR
- Polarisation: automatic polarisation of probe at start-up
- Membrane caps: ready to use PTFE membrane caps are easy to replace

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## multi-function sensor

Sensor replacement is quick and easy with field replaceable screw-type connectors. The sensors are colour-coded for easy identification and are automatically recognised by the meter.

### Probe Specifications

Product Code	HI-7698194	
Sensor inputs	3 (pH, DO, EC)	
Sample Environment	Fresh, brackish, seawater	
Waterproof Protection	IP68	
Operating Temperature	-5 to 55°C	
Storage Temperature	-20 to 70°C	
Maximum Depth	20 m	
Dimensions (without cable)	342 mm; 46 mm dia	
Weight (without batteries and sensors)	570 g	
Cable specification	Multistrand-multiconductor shielded cable with internal strength member rated for 68 kg intermittent use.	
Wetted Materials	Body	ABS
	Threads	Nylon
	Shield	ABS / 316 SS
	Temperature Probe	316 SS
	O-rings	EPDM



### Sensor Specifications

Product Code		HI-7698194-0	HI-7698194-1	HI-7698194-3	HI-7698194-2
Description		pH sensor	pH/ORP sensor	EC sensor	DO sensor
Measurement Type		pH, mV (pH)	pH, mV (pH/ORP)	EC	DO (% saturation and concentration)
Measurement Range		0.00 to 13.00 pH ; ±600.0 mV	0.00 to 13.00 pH; ±600.0 mV; ±2000.0 mV	0.0 to 200.0 mS/cm; 0.0 to 400 mS/cm (absolute)	0.0 to 500.0 %; 0.0 to 50.00 mg/L
Temperature Range		-5 to 55°C	-5 to 55°C	-5 to 55°C	-5 to 55°C
Color Code		red	red	blue	white
Materials	Tip	glass (pH)	glass (pH); Pt (ORP)	Stainless steel electrodes AISI 316	Cat/An: Ag/Zn
	Junction	ceramic	ceramic	-	Membrane: HDPE
	Body	PEI	PEI	ABS/epoxy	white top ABS
	Electrolyte	gel	gel	-	-
Reference		double	double	-	-
Maintenance solution		HI-70300 (storage solution)	HI-70300 (storage solution)	-	HI-7042S (DO electrolyte)
Dimensions		118 x 15 mm	118 x 15 mm	111 x 17 mm	99 x 17 mm
Depth		20 m	20 m	20 m	20 m

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# Multiparameter Waterproof Weter | HI-98194

manufactured by



## Ordering Information

### Multiparameter Waterproof Weter | HI-98194

supplied with

- HI-7698194 probe
- HI-7698194-0 pH sensor
- HI-7698194-3 EC sensor
- HI-7698194-2 DO sensor
- HI-92000 PC software
- HI-920015 micro USB cable
- 1.5V AA batteries (4)
- instruction manual
- quick start guide
- quality certificate
- rugged carrying case with custom thermoformed insert

## Specifications

Product Code		HI-98194
pH / mV	Range	0.00 to 14.00 pH / ±600.0 mV
	Resolution	0.01 pH / 0.1 mV
	Accuracy	±0.02 pH / ±0.5 mV
	Calibration	automatic one, two, or three points with automatic recognition of five standard buffers (pH 4.01, 6.86, 7.01, 9.18, 10.01) or one custom buffer
ORP	Range	±2000.0 mV
	Resolution	0.1 mV
	Accuracy	±1.0 mV
	Calibration	automatic at one custom point (relative mV)
EC	Range	0 to 200 mS/cm (absolute EC up to 400 mS/cm)
	Resolution	<b>manual:</b> 1 µS/cm; 0.001 mS/cm; 0.01 mS/cm; 0.1 mS/cm; 1 mS/cm; <b>automatic:</b> 1 µS/cm from 0 to 9999 µS/cm; 0.01 mS/cm from 10.00 to 99.99 mS/cm; 0.1 mS/cm from 100.0 to 400.0 mS/cm; <b>automatic mS/cm:</b> 0.001 mS/cm from 0.000 to 9.999 mS/cm; 0.01 mS/cm from 10.00 to 99.99 mS/cm; 0.1 mS/cm from 100.0 to 400.0 mS/cm
	Accuracy	±1% of reading or ±1 µS/cm whichever is greater
	Calibration	automatic single point, with six standard solutions (84 µS/cm, 1413 µS/cm, 5.00 mS/cm, 12.88 mS/cm, 80.0 mS/cm, 111.8 mS/cm) or custom point
TDS	Range	0 to 400000 ppm (mg/L) (the maximum value depends on the TDS factor)
	Resolution	<b>manual:</b> 1 ppm (mg/L); 0.001 ppt (g/L); 0.01 ppt (g/L); 0.1 ppt (g/L); 1 ppt (g/L); <b>automatic:</b> 1 ppm (mg/L) from 0 to 9999 ppm (mg/L); 0.01 ppt (g/L) from 10.00 to 99.99 ppt (g/L); 0.1 ppt (g/L) from 100.0 to 400.0 ppt (g/L); <b>automatic ppt (g/L):</b> 0.001 ppt (g/L) from 0.000 to 9.999 ppt (g/L); 0.01 ppt (g/L) from 10.00 to 99.99 ppt (g/L); 0.1 ppt (g/L) from 100.0 to 400.0 ppt (g/L)
	Accuracy	±1% of reading or ±1 ppm (mg/L) whichever is greater
Resistivity	Range	0 to 999999 Ω•cm; 0 to 1000.0 kΩ•cm; 0 to 1.0000 MΩ•cm
	Resolution	dependent on resistivity reading
	Calibration	Based on conductivity or salinity calibration
Salinity	Range	0.00 to 70.00 PSU
	Resolution	0.01 PSU
	Accuracy	±2% of reading or ±0.01 PSU whichever is greater
	Calibration	based on conductivity calibration
Seawater σ	Range	0.0 to 50.0 σ <sub>t</sub> , σ <sub>t</sub> , σ <sub>15</sub>
	Resolution	0.1 σ <sub>t</sub> , σ <sub>t</sub> , σ <sub>15</sub>
	Accuracy	±1 σ <sub>t</sub> , σ <sub>t</sub> , σ <sub>15</sub>
	Calibration	based on conductivity or salinity calibration
Dissolved Oxygen	Range	0.0 to 500.0%; 0.00 to 50.00 ppm (mg/L)
	Resolution	0.1%; 0.01 ppm (mg/L)
	Accuracy	0.0 to 300.0%; ±1.5% of reading or ±1.0% whichever is greater; 300.0 to 500.0%; ±3% of reading; 0.00 to 30.00 ppm (mg/L); ±1.5% of reading or ±0.10 ppm (mg/L), whichever is greater; 30.00 ppm (mg/L) to 50.00 ppm (mg/L); ±3% of reading
	Calibration	automatic one or two points at 0, 100% or one custom point
Atmospheric Pressure	Range	450 to 850 mm Hg; 17.72 to 33.46 in Hg; 600.0 to 1133.2 mbar; 8.702 to 16.436 psi; 0.5921 to 1.1184 atm; 60.00 to 113.32 kPa
	Resolution	0.1 mm Hg; 0.01 in Hg; 0.1 mbar; 0.001 psi; 0.0001 atm; 0.01 kPa
	Accuracy	±3 mm Hg within ±15°C from the temperature during calibration
	Calibration	automatic at one custom point
Temperature	Range	-5.00 to 55.00°C; 23.00 to 131.00°F; 268.15 to 328.15K
	Resolution	0.01°C; 0.01°F; 0.01K
	Accuracy	±0.15°C; ±0.27°F; ±0.15K
	Calibration	Automatic at one custom point
Temperature Compensation		automatic from -5 to 55°C
Logging Memory		45,000 records (continuous logging or log-on-demand of all parameters)
Logging Interval		one second to three hours
PC Connectivity		USB (with HI-929829 software)
Environment		0 to 50°C; RH 100% IP67
Battery Type / Life		1.5V AA batteries (4) / approximately 360 hours of continuous use without backlight (50 hours with backlight)
Dimensions / Weight		185 x 93 x 35.2 mm / 400 g

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