

HI98192

Professional Waterproof Meter

EC/TDS/Resistivity/Salinity Meter with USP <645>

- **Waterproof**
 - IP67 rated waterproof, rugged enclosure
- **Salinity readings**
 - Salinity can be displayed as % NaCl, seawater scale (ppt) or practical salinity scale (PSU)
- **Calibration**
 - Perform up to a five point calibration for enhanced accuracy
- **Temperature compensation**
 - Automatic Temperature Compensation
 - Configurable temperature coefficient range from 0.00 to 10.00%/°C
- **Four-ring platinum probe**
 - This probe can cover low EC samples to 1000 mS/cm (actual EC)
- **Log-on-demand**
 - Store measurement data at the press of a button
- **GLP**
 - GLP data provides data from previous calibration to ensure Good Laboratory Practices are met
- **AutoHold**
 - Automatically holds the first stable reading on the display
- **Calibration timeout**
 - Alerts when calibration is due at a specified interval
- **Help menu**
 - On-screen context specific help is readily available at the press of a button
- **Backlit LCD**
- **Clear display**
 - Dot matrix display with multifunction virtual keys
- **Intuitive keypad**
 - Most of the available options such as GLP information, help, range, calibration and backlight have a dedicated button
- **Connectivity**
 - PC connectivity via opto-isolated micro-USB with HI92000 software
- **Approximately 100 hour battery life**
 - Powered by (4) 1.5V AA batteries



For Universal Applications

HI98192 is a waterproof, portable conductivity meter that has an expanded conductivity range from 0.000 $\mu\text{S}/\text{cm}$ to 400 mS/cm, as well as TDS, resistivity and three salinity scales. This meter automatically recognizes the probe type (two or four ring) and allows the user to adjust the nominal cell constant. HI98192 is also ready to perform all three stages of USP <645> method required for EC measurement of ultrapure water.

Choose from seven memorized standards and obtain up to a five point conductivity calibration. For salinity (% range), HI7037 standard allows users to make a one point calibration.

EC and TDS measurements are fully customizable and include: cell constant selection between 0.010 and 10.000, selection of linear or natural water (non-linear) or no temperature compensation (for actual conductivity reading), configurable temperature compensation coefficient range from 0.00 to 10.00%/°C, choice of reference temperatures of 15°C, 20°C and 25°C, and a selectable TDS factor between 0.40 and 1.00.

Ten sets of customized measurement parameters can be stored as a user profile and later recalled.

Quick connect probe

The HI763133 four ring platinum conductivity probe features a quick connect DIN connector to make attaching and removing the probe simple and easy.

Data Logging

The HI98192's allows users to store up to 400 log-on-demand samples or 1000 lot logging samples that can be later transferred to a PC with the HI920015 USB cable and HI92000 software.

Specifications

HI98192

EC	Range	0 to 400 mS/cm (shows values up to 1000 mS/cm), actual conductivity 1000 mS/cm**; 0.001 to 9.999 μ S/cm*; 10.00 to 99.99 μ S/cm; 100.0 to 999.9 μ S/cm; 1.000 to 9.999 mS/cm; 10.00 to 99.99 mS/cm; 100.0 to 1000.0 mS/cm (autoranging)
	Resolution	0.001 μ S/cm*; 0.01 μ S/cm; 0.1 μ S/cm; 0.001 mS/cm; 0.01 mS/cm; 0.1 mS/cm
	Accuracy	$\pm 1\%$ of reading ($\pm 0.01 \mu$ S/cm or 1 digit, whichever is greater)
	Calibration	automatic up to five points with seven memorized standards (0.00 μ S/cm, 84.0 μ S/cm, 1.413 mS/cm, 5.00 mS/cm, 12.88 mS/cm, 80.0 mS/cm, 111.8 mS/cm)
TDS	Range	0.00 to 99.99 mg/L (ppm); 100.0 to 999.9 mg/L (ppm); 1.000 to 9.999 g/L (ppt); 10.00 to 99.99 g/L (ppt); 100.0 to 400.0 g/L (ppt) (autoranging)
	Resolution	0.01 mg/L (ppm); 0.1 mg/L (ppm); 0.001 g/L (ppt); 0.01 g/L (ppt); 0.1 g/L (ppt)
	Accuracy	$\pm 1\%$ of reading (± 0.05 mg/L (ppm) or 1 digit, whichever is greater)
Resistivity	Range	1.0 to 99.9 $\Omega \cdot \text{cm}$; 100 to 999 $\Omega \cdot \text{cm}$; 1.00 to 9.99 K $\Omega \cdot \text{cm}$; 10.0 to 99.9 K $\Omega \cdot \text{cm}$; 100 to 999 K $\Omega \cdot \text{cm}$; 1.00 to 9.99 M $\Omega \cdot \text{cm}$; 10.0 to 100.0 M $\Omega \cdot \text{cm}$ * (autoranging)
	Resolution	0.1 $\Omega \cdot \text{cm}$; 1 $\Omega \cdot \text{cm}$; 0.01 K $\Omega \cdot \text{cm}$; 0.1 K $\Omega \cdot \text{cm}$; 1 K $\Omega \cdot \text{cm}$; 0.01 M $\Omega \cdot \text{cm}$; 0.1 M $\Omega \cdot \text{cm}$ *
	Accuracy	$\pm 1\%$ of reading ($\pm 10 \Omega$ or 1 digit, whichever is greater)
Salinity	Range	% NaCl: 0.0 to 400.0%; practical salinity: 0.00 to 42.00 (PSU); seawater scale: 0.00 to 80.00 (ppt)
	Resolution	0.1%; 0.01
	Accuracy	$\pm 1\%$ of reading
	Calibration	max. one point only in % range (with HI7037 standard); use conductivity calibration for all other ranges
Temperature†	Range	-20.0 to 120.0°C; -4.0 to 248.0°F
	Resolution	0.1°C; 0.1°F
	Accuracy	$\pm 0.2^\circ\text{C}$; $\pm 0.4^\circ\text{F}$ (excluding probe error)
	Calibration	one or two points
Additional Specifications	Cell Constant Setup	0.010 to 10.000
	Temperature Compensation	NoTC, linear (-20.0 to 120.0°C (-4.0 to 248.0°F)), non linear (0 to 36°C (32 to 98.6°C)) ISO/DIS 7888 std
	Reference Temperature	15°C, 20°C and 25°C
	Temperature Coefficient	0.00 to 10.00 %/°C
	TDS Factor	0.40 to 1.00
	Probe	HI763133 platinum, four ring conductivity/TDS probe with internal temperature sensor and 1.5 m (4.9') cable (included)
	Logging	log-on-Demand: 400 samples; lot logging: 5, 10, 30 sec, 1, 2, 5, 10, 15, 30, 60, 120, 180 min (max 1000 samples)
	Memorized Profiles	up to 10
	Measurement Modes	autorange, autoend, lock and fixed range
	PC Connectivity	opto-isolated USB (with HI92000 software and micro USB cable)
	Battery Type / Life	1.5V AA batteries (4) / approximately 100 hours of continuous use (without backlight), 25 hours with backlight;
	Auto-off	user selectable: 5, 10, 30, 60 min, disabled
	Environment	0 to 50°C (32 to 122°F); RH 100% IP67
	Dimensions/Weight	185 x 93 x 35.2 mm (7.3 x 3.6 x 1.4") / 400 g (14.2 oz.)
Ordering Information	HI98192 is supplied with HI763133 conductivity probe, HI7031M 1413 μ S/cm calibration solution (230 mL), HI7035M 111.8 mS/cm calibration solution (230 mL), 100 mL plastic beaker (2), HI92000 PC software, HI920015 micro USB cable, 1.5V AA batteries (4), instruction manual, quick start guide, quality certificate and HI720192 rugged carrying case with custom thermoformed insert.	

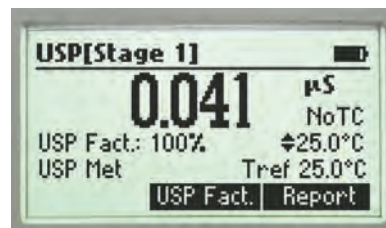


Shown in HI720192 rugged carrying case with custom thermoformed insert (included)

- **Supplied complete**

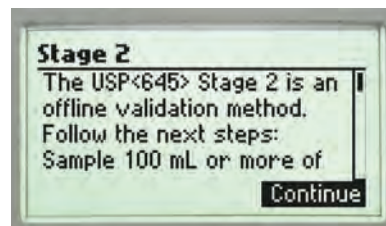
- Each meter is supplied complete with sensor, calibration solution, beakers, PC software and connection cable, instruction manual, quick start guide and batteries in a rugged, custom carrying case.

On-screen Features



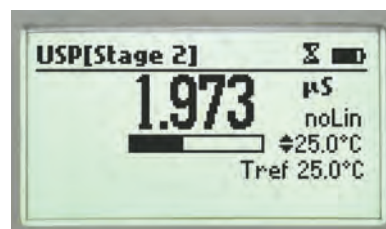
- **Three stages of conformity**

- Performs all 3 stages of USP <645> water quality testing requirements



- **On-screen guide**

- Users are provided with on-screen instructions for each USP stage



- **Progress bar**

- Displays progress towards meeting stage 2 stability requirements

EC, TDS and salinity solutions begin on page 6.42

* The 0.000 μ S/cm EC range and 0.1 M $\Omega \cdot \text{cm}$ resistivity range are not available with the optional 4m cable probe
**Uncompensated temperature reading

(†) Reduced to actual sensor limits