

HI 98188

**EC/Resistivity/TDS/NaCl Meter**

Waterproof Meter with USP and Backlit Graphic LCD Display

**Industrial Grade EC Meter with USP**

HI 98188 waterproof, portable conductivity meter has an expanded conductivity range from 0.001  $\mu\text{S}/\text{cm}$  to 400  $\text{mS}/\text{cm}$ , as well as resistivity and 3 salinity scales. This meter automatically recognizes the probe type (2 or 4-ring) and allows the user to adjust the nominal cell constant.

Choose from 7 memorized standards and obtain up to a 5-point calibration. For salinity (% range), HI 7037 standard allows you to make a 1-point calibration. Both linear and natural water temperature compensation are available and the reference temperature is user adjustable. Ten sets of measurement parameters (such as reference temperature, temperature compensation mode, TDS factor, calibration etc.) can be stored as a customized user profile and recalled for later use. HI 98188 is also USP <645> compliant with stages 1, 2 and 3.

Data may be captured by either the log-on-demand option (400 samples) or by interval logging (from 5 sec to 1 minute). Return to the lab and download all data to your PC with the USB connection and HANNA's HI 92000 software. A combination of dedicated and soft keys allows quick, intuitive operation in a choice of languages. Comprehensive GLP data is directly accessible by pressing the GLP key. At the touch of a button access the contextual Help Menu to obtain on-screen information and assistance about each feature.

Designed for field use, this instrument can be easily operated with one hand and is housed in a rugged carrying case. With an extended battery life of up to 100 hours, users are assured long operation time. The inductive charger can either be plugged into a standard 115V or 230V socket with the included adapter.

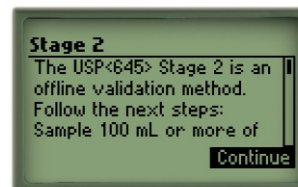
- USP <645> stages 1, 2 and 3
- Autorange from 0.001  $\mu\text{S}/\text{cm}$  to 400  $\text{mS}/\text{cm}$
- 2 or 4-ring probe with auto probe recognition
- Memorize up to 10 user profiles
- Linear and natural water temperature compensation
- Three salinity scales
- Interval Logging

**Screen Highlights****3 Stage Conformity**

This meter can perform all 3 stages of USP <645> water quality testing requirements.

**Progress Bar**

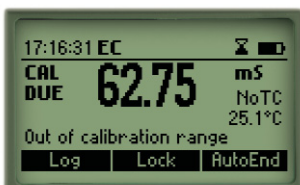
Meter displays progress towards meeting stage 2 stability requirements.

**On-screen Guide**

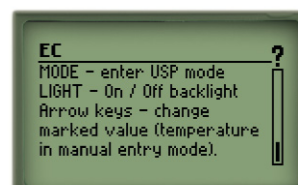
Users are provided with on-screen instructions for each USP stage.

**User Profiles**

10 sets of measurement parameters can be stored in user profiles for later retrieval.

**Measurement**

Large backlit graphic display shows multiple messages along with the current measurement readings.

**Help**

Users can consult the on-screen help from any mode by pressing the HELP key. The instrument will then explain the function and options currently available.

**Rechargeable batteries with inductive charger**

These models have up to 100 hours of extended battery life to guarantee long operation in the field. When the batteries are low, you don't have to worry about carrying a spare set with you—the batteries can be recharged with HANNA's inductive charger. Simply leave the meter on the recharger for a few hours and you're ready to go. The charger can be plugged into a standard 115V or 230V socket using the included HANNA adapter.

**SPECIFICATIONS****HI 98188**

EC	Range	0 to 400mS/cm (actual conductivity 1000 mS/cm) 0.001 to 9.999 $\mu$ S/cm; 10.00 to 99.99 $\mu$ S/cm; 100.0 to 999.9 $\mu$ 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 $\mu$ S/cm; 0.01 $\mu$ S/cm; 0.1 $\mu$ 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)
Resistivity	Range	1 to 999.9 Ohm-cm; 1.000 to 9.999 kOhm-cm; 10.00 to 99.99 kOhm-cm; 100.0 to 999.9 kOhm-cm; 1.0 to 100.0 MOhm-cm (autoranging)
	Resolution	0.1 Ohm-cm; 0.001 kOhm-cm; 0.01 kOhm-cm; 0.1 kOhm-cm; 0.1 MOhm-cm
	Accuracy	$\pm$ 2% of reading ( $\pm$ 1 Ohm-cm or 1 digit, whichever is greater)
TDS	Range	0.00 to 99.99 ppm; 100.0 to 999.9 ppm; 1.000 to 9.999 g/L; 10.00 to 99.99 g/L; 100.0 to 400.0 g/L (autoranging)
	Resolution	0.01 ppm; 0.1 ppm; 0.001 g/L; 0.01 g/L; 0.1 g/L
	Accuracy	$\pm$ 1% of reading ( $\pm$ 0.05 ppm or 1 digit, whichever is greater)
NaCl	Range	%: 0.0 to 400.0%; seawater scale: 0.00 to 80.00 (PSU); Practical salinity: 0.01 to 42.00
	Resolution	0.1%; 0.01
Temperature	Accuracy	$\pm$ 1% of reading
	Range	-20.0 to 120.0°C
Calibration	Resolution	0.1°C
	Accuracy	$\pm$ 0.2°C (excluding probe error)
EC	EC	Automatic up to 5 points with 7 memorized standards (0.00 $\mu$ S/cm, 84.0 $\mu$ S/cm, 1.413 mS/cm, 5.00 mS/cm, 12.88 mS/cm, 80.0 mS/cm, 111.8 mS/cm)
	NaCl	1 point only in % range (with HI 7037 buffer); Use conductivity calibration for all other ranges
	Temperature	1 or 2 points
Temperature Compensation		-20.0 to 120.0°C
Reference Temperature		15°C, 20°C and 25°C
TDS Factor		0.40 to 1.00
Probe		HI 76310 4-ring EC probe with built-in temperature sensor
Logging	Log-on-demand	400 samples
	Interval	5 seconds to 1 minute
PC Connectivity		Opto-isolated USB (with HI 92000 software)
Battery Type/Life		(4) 1.5V AA rechargeable batteries/approx. 100 hrs continuous use (without backlight)
Recharger		HI 710042 inductive charger (included)
Auto-off		User Selectable: 5, 10, 30, 60 min or can be disabled
Environment		IP67
Dimensions / Weight		226.5 x 95 x 52 mm (8.9 x 3.75 x 2") /525 g

**ORDERING INFORMATION**

**HI 98188-01** (115V) and **HI 98188-02** (230V) are supplied with HI 76310 4-ring conductivity probe with built-in temperature sensor, calibration solution, (4) rechargeable batteries, HI 710042 inductive battery charger with power adapter, rugged carrying case and instructions.

**PROBES**

**HI 76310** 4-ring EC probe with built-in temperature sensor

**SOLUTIONS**

**HI 7030L** 12880  $\mu$ S/cm calibration solution, 500 mL

**HI 7031L** 1413  $\mu$ S/cm calibration solution, 500 mL

**HI 7033L** 84  $\mu$ S/cm calibration solution, 500 mL

**HI 7034L** 80000  $\mu$ S/cm calibration solution, 500 mL

**HI 7035L** 111800  $\mu$ S/cm calibration solution, 500 mL

**HI 7039L** 5000  $\mu$ S/cm calibration solution, 500 mL

**HI 7035L** 111800  $\mu$ S/cm calibration solution, 500 mL

**HI 70442L** 1500 ppm calibration solution, 500 mL

**HI 7036L** 12.41 ppt (g/L) calibration solution, 500 mL

**HI 7037L** Salinity solution, 500 mL

**HI 70300L** Electrode storage solution, 500 mL

**HI 7061L** Electrode cleaning solution, 500 mL

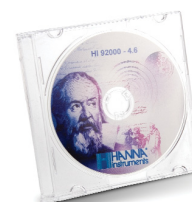
**ACCESSORIES**

**HI 710042** Inductive charger

**HI 76405** Electrode holder

**HI 92000** Windows® compatible software

**HI 920013** USB cable for PC connection



**HI 92000** — PC Software