HI2300

Autoranging Bench Meter

EC, TDS, Salinity and Temperature

The HI2300 is a durable benchtop EC/TDS/Salinity and temperature meter that features a four-ring potentiometric probe, one-point calibration, and a USB port for computer connectivity. The meter is autoranging to choose the appropriate conductivity and total dissolved solids (TDS) range, and can easily be switched to salinity mode to measure from 0.0 to 400.0% NaCl.

Four-ring EC Probe

The HI2300 meter is supplied with the HI76310 platinum, four-ring EC/TDS probe with a built-in temperature sensor that operates over a wide range from 0.00 µS/cm to 500.0 mS/cm*.

Calibration

EC and TDS are calibrated at one point with a choice of six pre-programmed standards. Salinity is calibrated at one point using the HI7037 100% NaCl standard solution.

Temperature Compensation

Temperature can be compensated for automatically (ATC) or manually (MTC) from -20.0 to 120.0°C, or it can be disabled for actual conductivity or TDS measurements. The temperature correction coefficient, also referred to as β, is adjustable from 0.00 to 6.00 %/°C.

Adjustable TDS Factor

The factor that relates conductivity to total dissolved solids is based on the type of sample being measured. For users to get an accurate determination of TDS based on their unique solution, the TDS factor is adjustable from 0.40 to 0.80.

GLP Data

The calibration data including date, time, standards used, offset and cell constant can be accessed at any time along with the current measurement by selecting the Good Laboratory Practice (GLP) display option.

Data Logging

The log-on-demand feature allows up to 500 data points to be recorded and exported to a computer for data review and storage.

Data Transfer

Data can be transferred to a PC with USB cable and HI92000 software (both sold separately).

On-screen Features

Last calibration date

Last calibration year

Last calibration time

Cell constant value (K)

Offset value

Specifications		HI2300
EC	Range	0.00 to 29.99 µS/cm; 30.0 to 299.9 µS/cm; 300 to 2999 µS/cm; 3.00 to 29.99 mS/cm; 30.0 to 200.0 mS/cm; up to 500.0 mS/cm (actual EC)*
	Resolution	0.01 µS/cm; 0.1 µS/cm; 1 µS/cm; 0.01 mS/cm; 0.1 mS/cm
	Accuracy	±1% of reading ± (0.05 µS/cm or 1 digit)
TDS	Range	0.00 to 14.99 mg/L (ppm); 15.0 to 149.9 mg/L (ppm); 150 to 1499 mg/L (ppm); 1.50 to 14.99 g/L (ppt); 15.0 to 100.0 g/L (ppt); up to 400.0 g/L (actual TDS)*, with 0.80 conversion factor
	Resolution	0.01 mg/L; 0.1 mg/L; 1 mg/L; 0.01 g/L; 0.1 g/L
	Accuracy	±1% of reading ± (0.03 mg/L or 1 digit)
Salinity	Range	0.0 to 400.0% NaCl
	Resolution	0.1%
	Accuracy	±1% of reading
Temperature**	Range	-20.0 to 120.0°C
	Resolution	0.1°C
	Accuracy	±0.4°C
Additional Specifications	EC Calibration	automatic, one point with six memorized values (84, 1413, 5000, 12880, 80000, 111800 µS/cm)
	NaCl Calibration	one point, with HI7037 calibration solution (optional)
	Temperature Calibration	two point, at 0 and 50°C
	Temperature Compensation	automatic or manual from -20.0 to 120.0°C, disabled
	Temperature Coefficient	selectable from 0.00 to 6.00%/°C (EC and TDS only)
	TDS Conversion Factor	selectable from 0.40 to 0.80 (default value: 0.50)
	Probe	HI76310 platinum, four ring conductivity/TDS probe with internal temperature sensor and 1 m (3.3') cable (included)
	PC Connectivity	opto-isolated USB
	Logging	log on demand, 500 samples
	Auto-off	after five minutes of non-use (can be disabled)
	Power Supply	12 VDC adapter (included)
	Environment	0 to 50°C (32 to 122°F); RH max 95%
	Dimensions	235 x 222 x 109 mm (9.2 x 8.7 x 4.3")
	Weight	1.3 kg (2.9 lbs.)
Ordering Information		**HI2300-01** (115V) and **HI2300-02** (230V) is supplied with HI76310 conductivity probe, 12 VDC adapter and instructions.

* with temperature compensation function disabled
(**) Reduced to actual sensor limits

EC, TDS and Salinity solutions begin on page 5.34