



HI9835

EC/TDS/Salinity/°C Meters

- **ATC**
 - Automatic temperature compensation
- **Methods**
 - Measures EC/TDS/Salinity/ Temperature
- **Battery Error Prevention System (BEPS)**
 - Alerts the user of low battery power that could adversely affect readings
- **Battery indicator**
 - Battery life indicator at startup
- **Help feature**
 - On-screen user guides
- **Backlight**
 - Backlit, graphic LCD display

The HI9835 is a handheld EC/TDS/salinity/ temperature meter. Users are provided with a series of diagnostic features and messages on the LCD which help guide through calibration, operation and troubleshooting.

Conductivity and TDS measurement parameters are selectable such as: cell constant range from 0.500 to 1.700, temperature coefficient from 0.00 to 6.00%/°C, temperature reference from 20 to 25°C and a selectable TDS factor of 0.40 to 0.80.

The autoranging feature of the EC and TDS modes automatically sets the meter to the scale with the highest possible resolution. The auto endpoint feature automatically freezes the display once a stable reading is reached.

HI76309 conductivity probe

The HI76309 conductivity and temperature probe features a PVC body with a stainless steel, four ring design. This design offers highly accurate readings over the entire conductivity range.

- **Four-ring design**
 - Immune to polarization and fouling for longer periods of time

Specifications

HI9835

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 (ppt) (actual TDS)* with 0.80 conversion factor
	Resolution	0.01 mg/L (ppm); 0.1 mg/L (ppm); 1 mg/L (ppm); 0.01 g/L (ppt); 0.1 g/L (ppt)
	Accuracy	±1 % of reading (±0.03 mg/L (ppm) or 1 digit, whichever greater)
Salinity	Range	0.0 to 400.0% NaCl
	Resolution	0.1%
	Accuracy	±1% of reading
Temperature	Range	-20.0 to 120.0 °C (-4.0 to 248.0°F)
	Resolution	0.1°C
	Accuracy	±0.2°C (excluding probe error)
Calibration	EC	automatic, one point with six memorized values (84, 1413, 5000, 12880, 80000, 111800 µS/cm)
	Salinity	one point with HI7037 calibration solution
	Temperature	two point, at 0 and 50°C (32 and 122°F)
Additional Specifications	Temperature Compensation	automatic or manual from -20.0 to 120.0 °C (-4.0 to 248.0°F) (can be disabled for measuring conductivity activity)
	Temperature Coefficient	selectable from 0.00 to 6.00%/°C (EC and TDS only); default value is 1.90%/°C
	Reference Temperature	20°C or 25°C
	TDS Conversion Factor	selectable from 0.40 to 0.80 (default value is 0.50)
	Probe	HI76309 EC/TDS probe four-ring conductivity probe with internal temperature sensor, DIN connector with 1m cable
	Battery Type / Life	1.5V AAA batteries (3) /approximately 200 hours of continuous use without backlight (50 hours with backlight on); auto-off after 5, 10, 20 and 60 minutes (can be disabled)
	Environment	0 to 50°C (32 to 122°F); RH max 95%
	Dimensions	185 x 72 x 36 mm (7.3 x 2.8 x 1.4")
	Weight	300 g (10.6 oz)
Ordering Information	HI9835 is supplied with HI76309 conductivity probe, batteries, instructions and rugged carrying case.	

**Uncompensated temperature reading

Portable EC Meters

EC/TDS and Temperature

- **ATC**
 - Automatic temperature compensation
- **Methods**
 - Measures EC/TDS and Temperature
- **BEPS**
 - Alerts the user when the battery is low
- **Battery indicator**
 - Battery life indicator at startup
- **One-point calibration**
 - One-point EC/TDS calibration
- **Waterproof**

The HI99300 and HI99301 are portable EC/TDS and temperature meters. HI99300 measures low range conductivity in $\mu\text{S}/\text{cm}$ and TDS in ppm while the HI99301 measures high range conductivity in mS/cm and TDS in ppt. Both instruments are housed in a case rated for IP67 conditions.

These instruments offer single point, automatic calibration with automatic temperature compensated measurements. The compensation coefficient and EC/TDS conversion factor are user-selectable from 0.45 to 1.00 and temperature coefficient is selectable from 0.0 to 2.4%/°C.

These instruments easily fit in the palm of your hand and the bottom probe connection ensures the electrode cable doesn't get in your way. The large, multi-level LCD displays the primary reading, temperature and calibration guides simultaneously. Symbols and messages on the LCD indicate meter status and guides users through operations.

At start-up, the meter shows the remaining battery percentage; when a low battery condition is detected, a battery symbol appears on the LCD to advise the user that only a few hours of working time is left.

The HI76306 EC/TDS and temperature probe resists clogging and is easy to clean.



Specifications	HI99300	HI99301	
EC	Range	0 to 3999 $\mu\text{S}/\text{cm}$	0.00 to 20.00 mS/cm
	Resolution	1 $\mu\text{S}/\text{cm}$	0.01 mS/cm
	Accuracy	$\pm 2\%$ F.S.	$\pm 2\%$ F.S.
TDS	Range	0 to 2000 ppm (mg/L)	0.00 to 10.00 ppt (g/L)
	Resolution	1 ppm (mg/L)	0.01 ppt (g/L)
	Accuracy	$\pm 2\%$ F.S.	$\pm 2\%$ F.S.
Temperature	Range	0.0 to 60.0°C/32.0 to 140.0°F	0.0 to 60.0°C/32.0 to 140.0°F
	Resolution	0.1°C/0.1°F	0.1°C/0.1°F
	Accuracy	$\pm 0.5^\circ\text{C}/\pm 1^\circ\text{F}$	$\pm 0.5^\circ\text{C}/\pm 1^\circ\text{F}$
Additional Specifications	Calibration	automatic, one point at 1413 $\mu\text{S}/\text{cm}$, 1382 ppm (CONV 0.5) or 1500 ppm (CONV 0.7)	automatic, one point at 12.88 mS/cm , 6.44 ppt (CONV 0.5) or 9.02 ppt (CONV 0.7)
	EC/TDS Temperature Compensation	automatic, 0 to 60°C (32 to 140°F) with β adjustable from 0.0 to 2.4%/°C with 0.1% step	
	EC/TDS Factor	adjustable from 0.45 to 1.00 with 0.01 step (default 0.50)	
	Probe	HI76306 EC/TDS probe with internal temperature sensor, DIN connector and 1 m (3.3') cable (included)	
	Battery Type / Life	1.5V AAA (3) / approximately 500 hours of continuous use	
	Environment	0 to 50°C (32 to 122°F); RH max. 100%	
	Dimensions	152 x 58 x 30 mm (6.0 x 2.3 x 1.2")	
Weight	205 g (7.2 oz)		
Ordering Information	HI99300 and HI99301 are supplied with HI76306 EC/TDS probe, batteries, instructions and rugged carrying case.		

HI993310

Direct Soil Activity and Solution Conductivity Measurement Kit



- Automatic temperature compensation (ATC)
- Battery Error Prevention System (BEPS)
 - Alerts the user when the battery is low

The HI993310 is an instrument that has been designed to address the need for fast and accurate conductivity measurements in soil and liquids. It is supplied with two probes: HI76305 with stainless steel, conical tip for direct soil measurement and HI76304 for fertilizer enriched solutions.

The HI993310 measures the soil conductivity in EC (mS/cm) as well as soil activity (g/L). The different scales can be selected through two keys on the front panel and two separate LEDs indicate which parameter is being tested. In addition, HI993310 is equipped with an alarm LED that illuminates if the soil is too dry or nutritive substances such as potassium or nitrogen are lacking. Demineralized water can be added to the soil prior to proceeding with further tests.

Direct soil measurement is facilitated by the stainless steel HI76305 probe. Once inserted into the ground, the user simply waits until the meter displays the value read by the auger-like probe.

Why this meter is so important...

Conductivity is an important factor in greenhouses and hydroponics and is measured in soil as well as in fertilizer solutions since it is an excellent indication of the presence of nutritive salts. Soil conductivity is checked before and after fertilization to establish its effectiveness as well as ensuring that the soil is not too saline or damaging to the plant roots.

Conductivity of the irrigation water and fertilizer mixes is checked to make sure values are within an acceptable range and a correct fertilizer concentration strength is being applied.

Specifications	HI993310	
EC	Range	0.00 to 19.99 mS/cm
	Resolution	0.01 mS/cm
	Accuracy (@25°C/77°F)	±2% F.S. (0 to 15.00 mS/cm; excluding probe error)
Soil Activity	Range	0.00 to 1.00 g/L
	Resolution	0.01 g/L
	Accuracy (@25°C/77°F)	±2% F.S. (0 to 15.00 mS/cm; excluding probe error)
Additional Specifications	Calibration	manual, one point
	Temperature Compensation	automatic from 0 to 50°C (32 to 122°F), $\beta=2\%/^{\circ}\text{C}$
	Probes	HI76305 stainless steel conductivity probe with internal temperature sensor, DIN connector and 1 m (3.3') cable for direct soil measurement (included); HI76304 conductivity probe with internal temperature sensor, DIN connector and 1 m (3.3') cable for measurement in soil slurry or water sample (included)
	Battery Type / Life	9V / approximately 100 hours of continuous use
	Environment	0 to 50°C (32 to 122°F); RH max 95% non-condensing
	Dimensions	185 x 82 x 52 mm (7.3 x 3.2 x 2.0")
	Weight	275 g (9.7 oz.)
Ordering Information	HI993310 is supplied with HI76304 conductivity probe, HI76305 direct soil conductivity probe, battery, instructions and rugged carrying case.	

Multi-range EC and TDS Meters

- Automatic temperature compensation (ATC)
- Battery Error Prevention System (BEPS)
 - Alerts the user of low battery power that could adversely affect readings
- One-point calibration
- Waterproof

The HI9033 is a rugged conductivity meter designed to hold up under extended use in wet, humid, dusty and muddy conditions. This meter has the advantage of measuring samples from deionized water to brine without having to switch or recalibrate the probe.

The HI9034 measures total dissolved solids (TDS) in three ranges and offers the highest accuracy when performing measurements in applications as diverse as HVAC, wastewater treatment and reverse osmosis. All three ranges can be activated at the touch of a button without having to change the conductivity probe.

Both instruments perform measurements with Automatic Temperature Compensation which adjusts for the effects of temperature on the probe. These instruments also feature Hanna's BEPS (Battery Error Prevention System) technology that alerts the user when low batteries could affect the readings.



Specifications	HI9033 (EC)	HI9034 (TDS)
Range	0.0 to 199.9 µS/cm; 0 to 1999 µS/cm; 0.00 to 19.99 mS/cm; 0.0 to 199.9 mS/cm	0.0 to 199.9 mg/L; 0 to 1999 mg/L; 0.00 to 19.99 g/L
Resolution	0.1 µS/cm; 1 µS/cm; 0.01 mS/cm; 0.1 mS/cm	0.1 mg/L; 1 mg/L; 0.01 g/L
Accuracy (@25°C/77°F)	±1% F.S. (excluding probe error)	±1% F.S. (excluding probe error)
Calibration	manual, one point	manual, one point
TDS Factor	-	0.5
Temperature Compensation	automatic, 10 to 50°C (50 to 122°F) with β = 2%/°C	automatic, 10 to 50°C (50 to 122°F) with β = 2%/°C
Probe	HI76302W conductivity probe with internal temperature sensor, DIN connector and 1 m (3.3') cable (included)	HI76302W conductivity probe with internal temperature sensor, DIN connector and 1 m (3.3') cable (included)
Battery Type / Life	9V / approximately 100 hours of continuous use	9V / approximately 100 hours of continuous use
Environment	0 to 50°C (32 to 122°F); RH max 100%	0 to 50°C (32 to 122°F); RH max 100%
Dimensions	185 x 72 x 36 mm (7.3 x 2.8 x 1.4")	185 x 72 x 36 mm (7.3 x 2.8 x 1.4")
Weight	425 g (0.9 lbs.)	425 g (0.9 lbs.)
Ordering Information	HI9033 and HI9034 are supplied with HI76302W conductivity probe, battery, instructions and rugged carrying case.	

HI8633 · HI8733

Multi-range EC Meters



- Automatic temperature compensation (ATC) (HI8733)
- Help feature
 - On-screen user guides
- One-point calibration
 - One-point calibration
- Waterproof

The HI8633 and HI8733 conductivity meters have been designed for use in areas of production and quality control.

These meters utilize four ring potentiometric probes that offer greater versatility over typical amperometric designs. These rugged probes are made of PVC and are ideal for indoor as well as outdoor measurements.

HI8733's conductivity measurements can be automatically temperature compensated by using the HI76302W probe with built-in temperature sensor.

Temperature compensation for HI8633 is performed by manual adjustment.

Specifications	HI8633	HI8733
Range	0.0 to 199.9 $\mu\text{S}/\text{cm}$; 0 to 1999 $\mu\text{S}/\text{cm}$ 0.00 to 19.99 mS/cm ; 0.0 to 199.9 mS/cm	0.0 to 199.9 $\mu\text{S}/\text{cm}$; 0 to 1999 $\mu\text{S}/\text{cm}$ 0.00 to 19.99 mS/cm ; 0.0 to 199.9 mS/cm
Resolution	0.1 $\mu\text{S}/\text{cm}$; 1 $\mu\text{S}/\text{cm}$ 0.01 mS/cm ; 0.1 mS/cm	0.1 $\mu\text{S}/\text{cm}$; 1 $\mu\text{S}/\text{cm}$ 0.01 mS/cm ; 0.1 mS/cm
Accuracy (@25°C/77°F)	$\pm 1\%$ F.S. (excluding probe error)	$\pm 1\%$ F.S. (excluding probe error)
Calibration	manual, one-point through EC knob	manual, one-point through EC knob
Temperature Compensation	manual, 0 to 50°C (32 to 122°F) with $\beta = 2\%/^{\circ}\text{C}$	automatic, 0 to 50°C (32 to 122°F) with β adjustable from 0 to 2.5%/°C
Probe	HI76301D four ring conductivity probe with DIN connector and 1 m (3.3') cable (included)	HI76302W four-ring conductivity probe with internal temperature sensor, DIN connector and 1 m (3.3') cable (included)
Battery Type / Life	9V / approximately 100 hours of continuous use	9V / approximately 100 hours of continuous use
Environment	0 to 50°C (32 to 122°F); RH max 100%	0 to 50°C (32 to 122°F); RH max 100%
Dimensions	145 x 80 x 36 mm (5.7 x 3.1 x 1.4")	145 x 80 x 36 mm (5.7 x 3.1 x 1.4")
Weight	230 g (8.1 oz.)	230 g (8.1 oz.)
Ordering Information	<p>HI8633 is supplied with HI76301D conductivity probe, 12880 $\mu\text{S}/\text{cm}$ HI70030 calibration solution sachets (5), battery, instructions and rugged carrying case.</p> <p>HI8733 is supplied with HI76302W conductivity probe, 12880 $\mu\text{S}/\text{cm}$ HI70030 calibration solution sachets (5), battery, instructions and rugged carrying case.</p>	

EC and Resistivity Meter

- Automatic temperature compensation (ATC)
- One-point calibration
- Help feature
 - On-screen user guides
- Waterproof

The HI87314 is a combination, portable meter that can read conductivity in four different ranges and resistivity.

For conductivity measurements, a one-point calibration is performed via a trimmer located in the battery compartment. The supplied probe does not require recalibration when switching from one range to another. The four-ring stainless steel probe has a built-in temperature sensor that automatically compensates for temperature changes. The temperature coefficient can be adjusted from 0 to 2.5%/°C using a knob on the front panel.

For resistivity measurements, the meter is factory calibrated and, if necessary, calibration can be adjusted. The HI3316D resistivity probe is easy to clean and requires little maintenance. It also features a built-in temperature sensor to automatically compensate for temperature variations. The temperature coefficient is user-selectable from 2 to 7%/°C.



Specifications	HI87314	
EC	Range	199.9 $\mu\text{S}/\text{cm}$; 1999 $\mu\text{S}/\text{cm}$; 19.99 mS/cm ; 199.9 mS/cm
	Resolution	0.1 $\mu\text{S}/\text{cm}$; 1 $\mu\text{S}/\text{cm}$; 0.01 mS/cm ; 0.1 mS/cm
	Accuracy (@25°C/77°F)	±1% F.S.
Resistivity	Range	0 to 19.90 $\text{M}\Omega\cdot\text{cm}$
	Resolution	0.10 $\text{M}\Omega\cdot\text{cm}$
	Accuracy (@25°C/77°F)	±2% F.S.
Additional Specifications	Calibration	manual, one point, for both EC and resistivity
	Temperature Compensation	automatic from 0 to 50°C with β selectable from 0 to 2.5%/°C for EC and from 2 to 7%/°C for resistivity
	Probes	HI76302W conductivity probe with internal temperature sensor, DIN connector and 1 m (3.3') cable; HI3316D resistivity probe with internal temperature sensor, DIN connector and 1 m (3.3') cable
	Battery Type / Life	9V / approximately 100 hours of use
	Environment	0 to 50°C (32 to 122°F); RH max 100%
	Dimensions	145 x 80 x 36 mm (5.7 x 3.1 x 1.4")
	Weight	230 g (8.1 oz.)
Ordering Information	HI87314 is supplied with HI76302W conductivity probe, HI3316D resistivity probe, HI70030 calibration solution sachet, calibration screwdriver, battery, instructions and hard carrying case.	

HI8734

TDS Meter

- One-point calibration
- Waterproof



The HI8734 has not only been specifically designed for the water conditioning industry, but particularly in the softening, demineralization, reverse osmosis and drinking water applications.

Three ranges of measurement ensure the highest accuracy possible. All three ranges can be executed at the touch of a button, without having to change the conductivity probe. This makes it very easy to switch applications without having to worry about recalibration.

To enhance accuracy and efficiency, MTC (Manual Temperature Compensation) is available using a knob on the front panel.

For the best protection in the field, the four-ring potentiometric probe is made of rugged PVC. To access difficult areas, the probe is supplied with a 1 m (3.3') cable.

The ratio between conductivity and TDS is factory set at 0.5.

Specifications	HI8734
Range	0.0 to 199.9 mg/L (ppm); 0 to 1999 mg/L (ppm); 0.00 to 19.99 g/L (ppt)
Resolution	0.1 mg/L (ppm); 1 mg/L (ppm); 0.01 g/L (ppt)
Accuracy (@25°C/77°F)	±1% F.S. (excluding probe error)
Calibration	manual, one-point through TDS knob
Temperature Compensation	manual from 0 to 50°C (32 to 122°F) with $\beta = 2\%/^{\circ}\text{C}$
TDS Factor	0.5
Probe	HI76301D four ring conductivity probe with DIN connector and 1 m (3.3') cable (included)
Battery Type / Life	9V / approximately 100 hours of continuous use
Environment	0 to 50°C (32 to 122°F); RH max 100%
Dimensions	145 x 80 x 36 mm (5.7 x 3.1 x 1.4")
Weight	230 g (8.1 oz.)
Ordering Information	HI8734 is supplied with HI76301D conductivity probe, HI70032 1382 mg/L (ppm) calibration solution sachet, battery, instructions and rugged carrying case.

HI8033

EC/TDS Meter

- One-point calibration
- Manual temperature compensation

HI8033 is a handheld conductivity meter with the ability to take measurements in three different ranges.

The included HI76301W probe utilizes the four-ring potentiometric method which measures conductivity with the utmost accuracy and reliability.

The four stainless steel rings are embedded in the resin shaft of the probe to create a smooth surface for fast and easy cleaning.

To improve accuracy in measurements, temperature compensation can be achieved with a knob on the front panel of the meter.

The dial on the front of the HI8033 easily indicates which range you are working in.



Specifications	HI8033	
EC	Ranges	0.0 to 199.9 $\mu\text{S}/\text{cm}$; 0 to 1999 $\mu\text{S}/\text{cm}$; 0.00 to 19.99 mS/cm
	Resolution	0.1 $\mu\text{S}/\text{cm}$; 1 $\mu\text{S}/\text{cm}$; 0.01 mS/cm
TDS	Range	0 to 19990 mg/L (ppm)
	Resolution	10 mg/L (ppm)
	Accuracy (@25°C/77°F)	$\pm 1\%$ F.S. (excluding probe error)
Additional Specifications	Calibration	manual, one-point
	Temperature Compensation	manual from 0 to 50°C (32 to 122°F) with $\beta=2\%/^{\circ}\text{C}$
	Probe	HI76301W conductivity probe with 1 m (3.3') cable (included)
	Battery Type / Life	9V / approximately 100 hours of continuous use
	Environment	0 to 50°C (32 to 122°F); RH max 95%
	Dimensions	185 x 82 x 47 mm (7.3 x 3.2 x 1.9")
	Weight	270 g (9.5 oz.)
Ordering Information	HI8033 is supplied with HI76301W conductivity probe, battery and instructions.	