HI9829

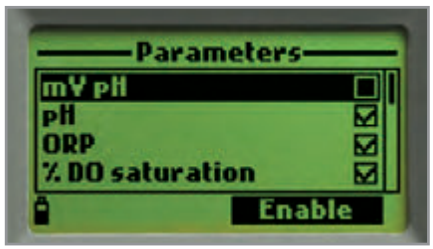
GPS Multiparameter Meters

pH/ORP/ISE, EC/TDS/Resistivity/ Salinity/Seawater σ, Turbidity, DO, Temperature and Atmospheric Pressure

- Logging
  - Logging from probe or meter
- Fast Tracker
  - Tag Identification System
- Sensor Check™
  - Auto-recognition of all sensors
- GLP features
  - Meets Good Laboratory Practices
- Connectivity
  - PC compatible via USB
- Help feature
  - On-screen user guides
- Backlight
  - Backlit, graphic LCD display
- Waterpoof
  - Waterproof casing

Waterproof Protection

The meter is enclosed in an IP67 rated waterproof casing and can withstand immersion in water at a depth of 1 m for up to 30 minutes. The probe features an IP68 rating for continuous immersion in water.



Backlit Dot Matrix LCD Display

The HI9829 features a backlit graphic LCD with on-screen help and the capability to display up to twelve parameters simultaneously. The graphic display allows for the use of virtual keys to provide for an intuitive user interface.

Intuitive Keypad

The fitted rubber keypad has dedicated keys for power, backlight, up/down arrows, help and alphanumeric characters. The meter also features two virtual soft keys that navigate the user through the configuration of each parameter, meter setup, and logging of data. The interface is intuitive for any user's level of experience.

Auto-sensor Recognition

The probe and meter automatically recognize the sensors that are connected. Any ports not used on the probe will not have the parameter displayed or be configurable.

Automatic Temperature Compensation

Integrated temperature sensor allows for automatic temperature compensation of pH, conductivity, and dissolved oxygen measurements.

Automatic Barometric Pressure Compensation

The meter features a built-in barometer with user-selectable units for dissolved oxygen pressure compensation.

Quick Calibration

Quick Calibration provides a speedy, single point calibration for pH, conductivity, and dissolved oxygen. Standard calibration options are available including pH up to three points, conductivity at one point and dissolved oxygen up to two points.

Dedicated Help Key

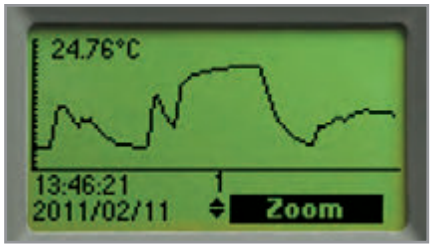
Contextual help is always available through a dedicated "HELP" key. Clear tutorial messages and directions are available on-screen to quickly and easily guide users through setup and calibration. The help information displayed is relative to the setting/option being viewed.

GLP Data

HI9829 includes a GLP feature that allows users to view calibration data and calibration expiration information at the touch of a key. Calibration data includes date, time, buffers/standards used for calibration, and slope characteristics.

Data Logging

The HI9829 allows users to store up to 44,000 continuous or log-on-demand samples with logging intervals from one second to three hours.



Graphing Capability

Trend graphing with sample date and time stamp may be viewed on the display or transferred to a PC.

PC Connectivity

Logged data can be transferred to a Windows compatible PC with the included HI7698291 USB adapter and HI929829 software.

Long Battery Life

The display of the meter has a battery icon indicator to show the remaining power. The meter is supplied with four 1.5V "C " NiMH rechargeable batteries that provide up to 140 hours of battery life*

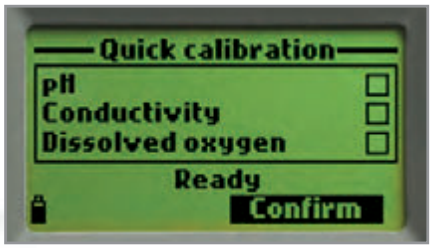
* Without GPS or turbidity measurements

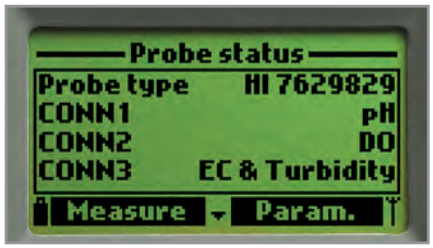
Rugged Custom Carrying Case

The HI9829 meter, probe, and all accessories are supplied in a rugged carrying case designed to provide years of use. The inside compartment of the carrying case is thermoformed to securely hold and protect all of the components.

HI7698297 Quick Release Flow Cell (optional)

The HI7698297 is an optional quick release flow cell designed for low flow sampling of environmental groundwater. The flow cell features a threaded collar for the HI9829 probe and two quick release fittings for inlet and outlet flow. The HI7698297 includes a wall mount kit for continuous monitoring option.





- Field Ready
  - For field calibration, our quick calibration solution allows standardization of pH and conductivity with one calibration solution.
- Quick Calibration
  - Simply screw the calibration beaker filled with HI9828-25 solution onto the probe, select "Quick calibration" from the menu and press OK. Individual calibration may also be performed using multiple calibration points.
- Auto-sensor Recognition
  - In this example, the HI9829 is identifying a pH, dissolved oxygen and EC/turbidity sensor.

Probes

The use of Hanna's microprocessor-based multiparameter intelligent probes with HI9829 will provide reliable data collection that can lead to an improved scientific understanding of the interconnections between natural, chemical and geological processes and manmade pollution to effectively evaluate applications for waste discharge permits, remediate contaminated sites and to protect or restore biological resources.

Reliable temperature measurements are a critical parameter of aquatic system monitoring. Temperature and temperature changes due to water releases can affect the ability of water to hold oxygen as well as the ability of organisms to resist certain pollutants. The intelligent probes incorporate an accurate thermistor that changes predictably with temperature changes. Accurate temperature reading in degrees Celsius, Fahrenheit and kelvin are displayed and utilized by other detectors for temperature correction.

The HI76x9829 probes utilize field replaceable sensors with auto-recognition. The sensors are housed with the probe electronics in a rugged housing and a water-tight cable connection. The HI76909829 probe allows conductivity, pH/ORP (or an ISE), and dissolved oxygen measurement. Other probe models allow turbidity and logging.

Probes with the logging function have a logging memory that allows storage of up to 140,000 individual samples or 35,000 complete sample data sets with date and time stamp thus permitting up to a 70 day deployment with all channels logging at 10 minute intervals. The probe incorporates a temperature sensor for temperature compensation of all parameters.

The probes are available with a choice of cable lengths such as 4m, 10 m and 20 m (13', 33', 65') that utilize a DIN connection to interface with the meters. Logging probes can be connected directly to a PC with the HI76982910 USB adapter cable, and HI929829 PC application software to download log files directly from the probes.

Sensors

Hanna offers a selection of seven sensors to be used on the intelligent probes. Sensor replacement is quick and easy with screw type connectors and are color coded for easy identification. The HI9829 automatically recognizes sensor presence.

The HI7609829-4 EC/turbidity sensor is field replaceable and offers readings from both parameters at the same time.

All potentiometric sensors feature a double junction design and are gel filled to increase resistance to contamination. One of the ISE sensors can be used in place of the pH sensor and is automatically recognized. pH in mV readings are also displayed –which is useful for troubleshooting.

HI7609829
for pH/ORP, Dissolved Oxygen, EC

HI7629829
for pH/ORP, Dissolved Oxygen, EC, Logging

With two probes to choose from, these digital probes provide stable, noise-free sensor signal management without the need for pre-amplified pH sensors.

Specifications		HI7609829	HI7629829	
Supported Configuration	Connector 1	pH, pH/ORP, ammonium ISE, chloride ISE, nitrate ISE	pH, pH/ORP, ammonium ISE, chloride ISE, nitrate ISE	
	Connector 2	dissolved oxygen	dissolved oxygen	
	Connector 3	EC	EC	
Temperature sensor		built-in	built-in	
Autonomous Logging		–	yes	
Logging Interval		–	1 second to 3 hours	
Computer Interface		–	USB (HI76982910)	
Memory		–	140,000 measurements (single parameter logged); 35,000 measurements (all parameters logged)	
Operating Temperature		-5 to 55°C*	-5 to 55°C*	
Maximum Depth		20 m (66')*	20 m (66')*	
Cable Specification		multistrand-multiconductor shielded cable with internal strength member rated for 68 kg (150 lb.) intermittent use		
Wetted Materials		body: ABS; threads: nylon; shield: ABS/316 SS; temperature probe: 316 SS; O-rings: EPDM		
Logging Probe Internal Battery Type		–	1.5V (4) AA alkaline	
Logging Probe Battery Life Note: Log space must be available for continuous logging		–	Interval	all channels logging (no averaging)
			1-5 seconds	72 hours
			1 minute	22 days
			10 minutes	70 days
Sample Environment		fresh, brackish, seawater	fresh, brackish, seawater	
Waterproof Protection		IP68	IP68	
Dimensions (without cable)		342 mm (13.5"), dia=46 mm (1.8")	442 mm (17.4"), dia 46 mm (1.8")	
Weight (with batteries and sensors)		570 g (20.1 oz.)	775 g (27.3 oz.)	

* Reduced for ISE sensors

Sensor Configurations

Both probes can accommodate a multitude of sensor configurations. The long sensor cap fits all configurations while the short sensor cap fits configurations not requiring the turbidity/EC sensor.

Dissolved Oxygen

HI7609829-2 DO

pH

HI7609829-0 pH
HI7609829-1 pH/ORP

ISE

HI7609829-10 Ammonium ISE
HI7609829-11 Chloride ISE
HI7609829-12 Nitrate ISE

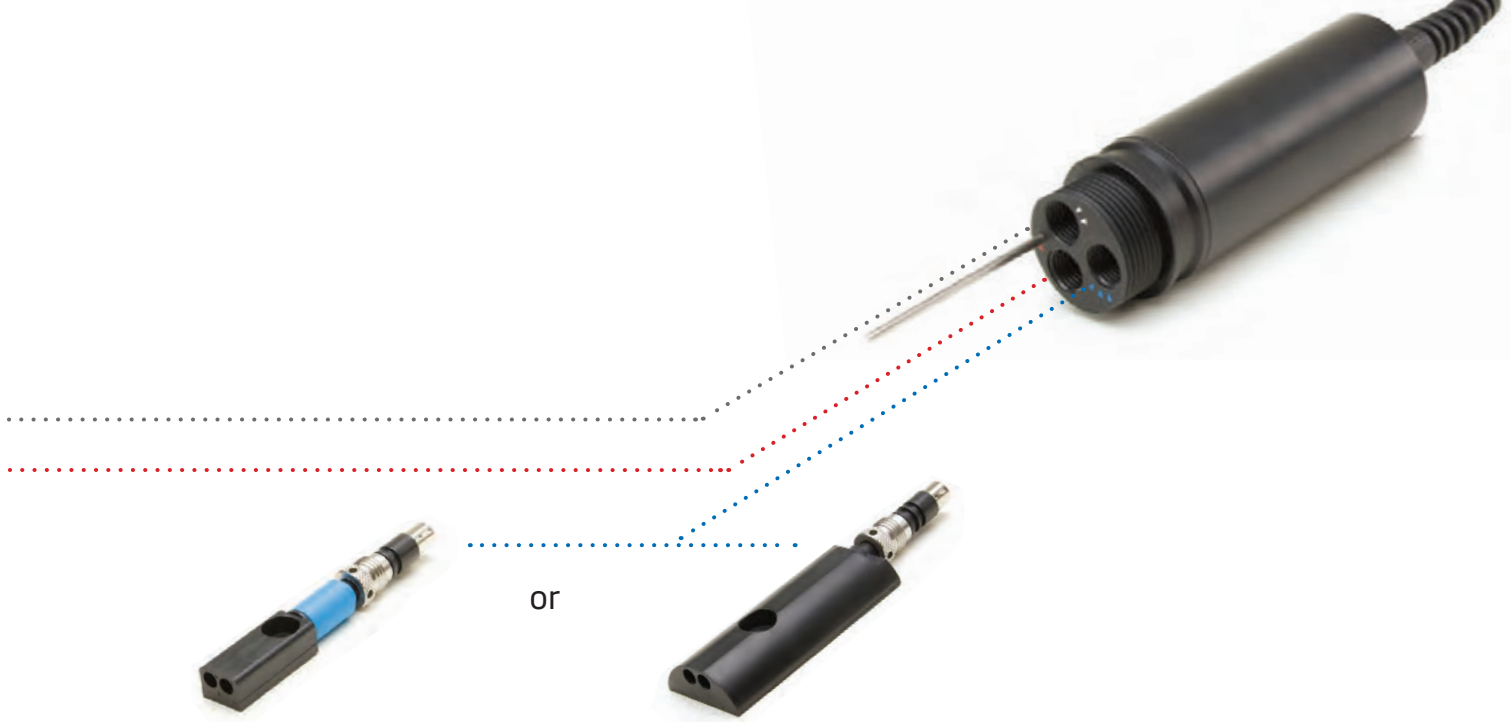
The dissolved oxygen in lakes, rivers, and oceans is crucial for the organisms and creatures living in it. If dissolved oxygen concentrations drop below normal levels in water bodies, the water quality degrades and the organisms begin to die off. The HI7609829-2 galvanic DO sensor does not require long polarization times so is ready for measurement at a moment's notice. This sensor also utilizes a replaceable cap design for ease of maintenance and a safe, non-toxic electrolyte. DO readings are compensated for the effects of temperature (using the probe's built-in temperature sensor) and atmospheric pressure (using the HI 9829's internal atmospheric pressure sensor). The DO measurement complies with standard methods 4500-O G and EPA article 360.1.

The HI7609829-0 and -1 feature a double junction design and are gel filled to increase resistance to contamination. These pH or pH/ORP sensors incorporate the technology that has made Hanna so successful as a pH manufacturer. Reliable pH measurements are one of the most important indicators of water chemistry indicating the relative amount of free hydrogen and hydroxyl ions in the water. Hanna's pH sensors utilize a resilient PEI body to protect them from solid particulates found in water samples. Consistency and quality are the hallmarks of these sensors. Our differential measurement system further enhances the measurement reliability, providing temperature corrected pH.

A choice of three ion selective electrodes (ISE) is available for constant reporting of common surface water contaminants. Nitrate, ammonium and chloride ISEs are available. Each ISE is a combination electrode incorporating an extremely constant reference spiral; all potentionmetric probes feature a double junction and solid gel reference design. The HI9829 displays measurements of ion activity as ppm ammonium-nitrogen, ppm chloride, and ppm nitrate-nitrogen.

HI7698295

Short cap for probes without EC/turbidity sensor



or

Conductivity

HI7609829-3 EC

The HI7609829-3 4-electrode conductivity sensor using the polarographic measurement principal ensures stable conductivity readings. Electrolytic conductivity measures the ability of water to conduct an electrical current. It is highly dependent on the amount of dissolved solids (such as salt) in the water. Absolute conductivity, temperature-corrected conductivity, salinity. Seawater and water hardness (TDS) determinations are possible with measurements from this sensor.

Conductivity and Turbidity

HI7609829-4 EC/Turbidity

The HI7609829-4 combined EC/turbidity sensor is a replaceable design for instantaneous conductivity and turbidity measurements that conform to ISO 7027 standards. It provides measurements from 0.0 to 1000 FNU. Turbidity is the amount of particulate matter that is suspended in water. Turbidity measures the scattering effect that suspended solids have on light: the higher the intensity of scattered light, the higher the turbidity. Material that causes water to be turbid include: clay, silt, finely divided organic and inorganic matter, soluble colored organic compounds, plankton and microscopic organisms. Conductivity measurement is the same as in the HI7609829-3.

HI7698296

Long cap for probes with EC/turbidity sensor

FastTracker™
location traceability

Fast Tracker™–Tag Identification System

HANNA's Fast Tracker™–Tag Identification System simplifies test logging. iButton®s with a unique ID can be installed at various sampling sites. When the matching connector on the meter contacts the location button, measurements are logged and labeled with the alphanumeric user-entered location ID. Location, date, time and measurements are logged into the meter which can be transferred to a PC. The Fast Tracker™ system complements the GPS for ultimate tracking.

iButton® Tags are Easy to Install

Install the optional TAGs near your sampling points for quick and easy iButton® readings. Each TAG contains a computer chip with a unique identification code encased in stainless steel. You can install a practically unlimited amount of TAGs. Additional TAGs can be ordered for all of your traceability requirements.

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Monitoring and Tracking

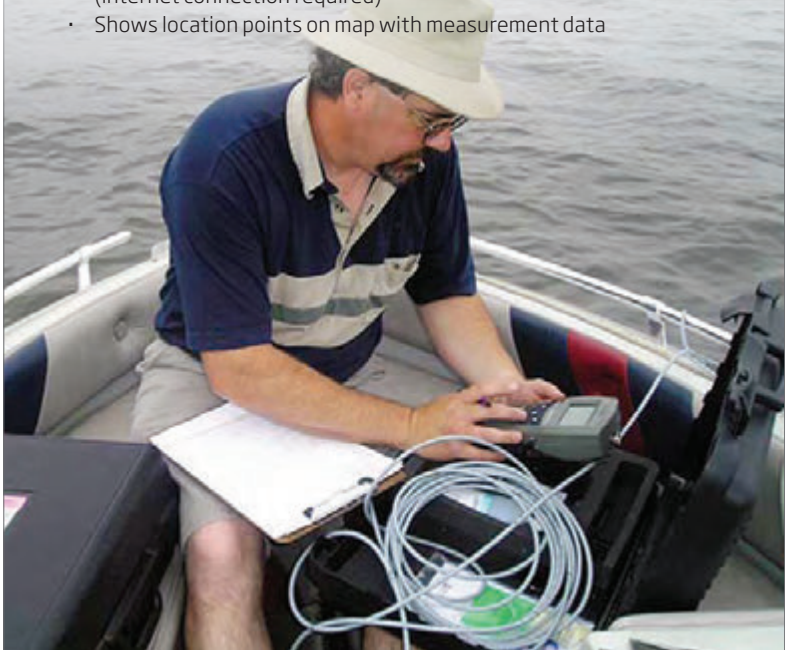
The HI9829 with GPS module can track measurement locations with detailed coordinate information. All models of the HI9829 are equipped with the Fast Tracker™ TAG ID system which is an invaluable tool for associating measurements with their locations. The HI9829 also incorporates a real-time clock which stamps all logged data with a time and date in addition to location information.

GPS (Global Positioning System)

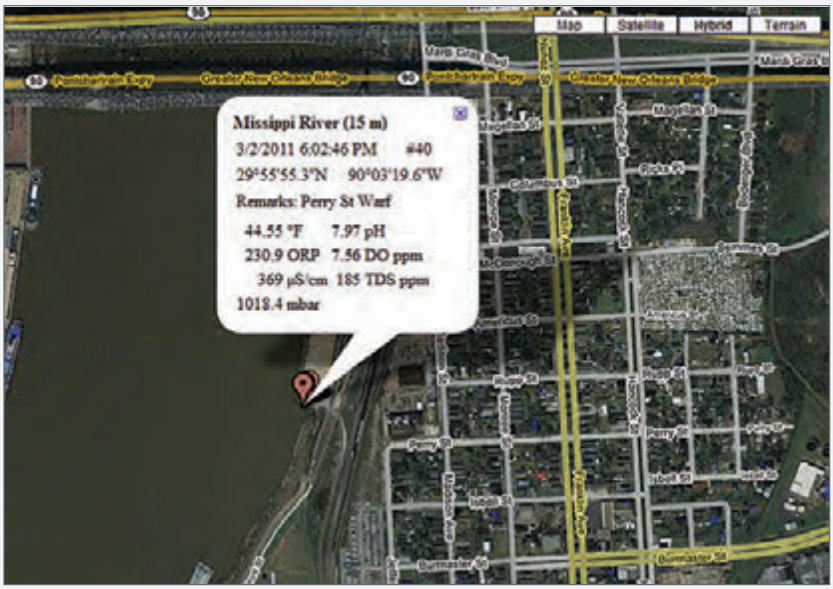
The HI9829 with GPS features an internal 12 channel GPS receiver and antenna that calculates its position to track locations along with measurement data. The GPS tracks your location using satellites to within 30 ft (10 m) so you can be sure that you return to the same location for repeated measurements. The GPS coordinates can be shown on the LCD together with up to 10 measurement parameters and are recorded with logged data. Users can connect to GPS tracking software such as Google™ Maps* to view locations where samples have been taken. Measurement information is shown right on the map.

Features

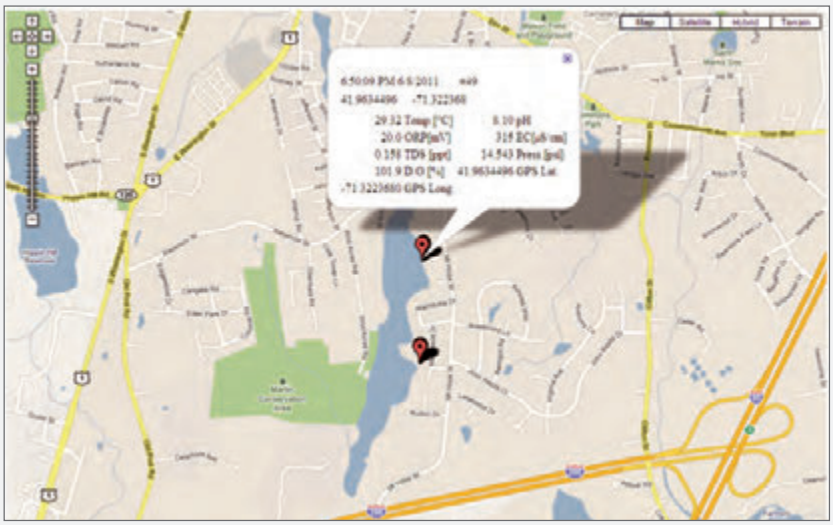
- Basic GPS Features
  - GPS coordinates shown on the LCD with up to 10 measurement parameters
  - GPS signal strength shown on LCD
  - Logged data is embedded with GPS coordinates
  - GPS status screen
- Advanced GPS Features
  - Users can associate GPS coordinates with alphanumeric locations
  - Distances between current location and predefined locations are displayed arranged by distance
  - Memorizes last location and time should signal be lost
- HI929829 PC Application Software
  - Manages logged data from the HI9829
  - Displays GPS coordinates with logged data
  - Automatically maps samples on your PC (internet connection required)
  - Shows location points on map with measurement data



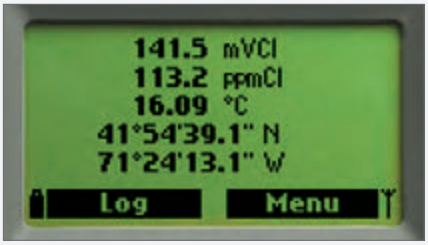
GPS Screen Features



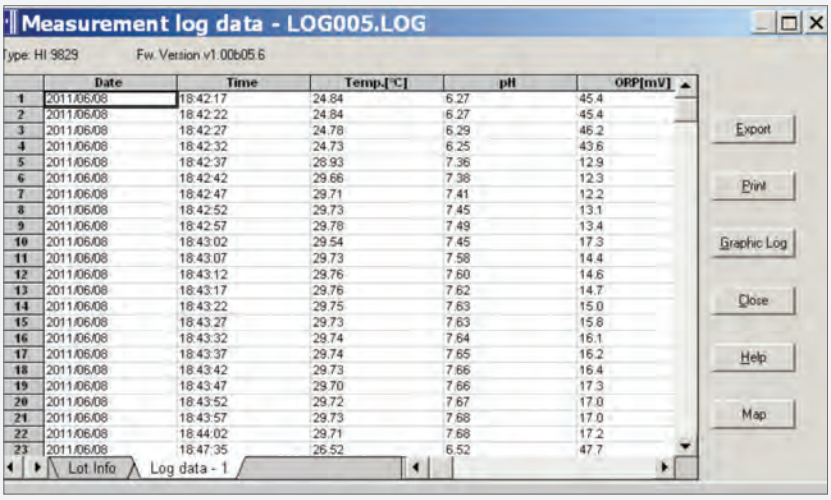
- GPS data can be customized to meet specific requirement

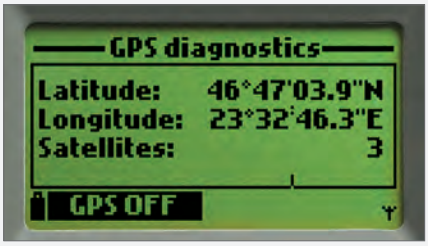


- Displays distances between current and predefined locations



- Display current readings along with GPS coordinates





- Shows current position and number of satellites

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Specifications	HI9829	HI9829 with GPS
Temperature Compensation	automatic from -5 to 55°C (23 to 131°F)	automatic from -5 to 55°C (23 to 131°F)
GPS	–	12 channel receiver, 10 m (30 ft) range
Logging Memory from Meter	44,000 records	44,000 records
Logging Interval	1 second to 3 hours	1 second to 3 hours
Computer Interface	USB (with HI 929829 software)	USB (with HI929829 software)
FastTracker™ TAG ID	Yes	Yes
Waterproof Protection	IP67	IP67
Environment	0 to 50°C (32 to 122°F); RH 100%	0 to 50°C (32 to 122°F); RH 100%
Power Supply	1.5V alkaline C cells (4) / 1.2V NiMH rechargeable C cells (4), USB, 12V power adapter	1.5V alkaline C cells (4) / 1.2V NiMH rechargeable C cells (4), USB, 12V power adapter
Dimensions	221 x 115 x 55 mm (8.7 x 4.5 x 2.2")	221 x 115 x 55 mm (8.7 x 4.5 x 2.2")
Weight	750g (26.5 oz.)	750g (26.5 oz.)

HI9829 Parameter Specifications

	pH / mV of pH input	ORP mV	Ammonium-Nitrogen	Chloride	Nitrate-Nitrogen
Range	0.00 to 14.00 pH / ±600.0 mV	±2000.0 mV	0.02 to 200 ppm (as N)	0.6 to 200 ppm	0.62 to 200 ppm (as N)
Resolution	0.01 pH / 0.1 mV	0.1 mV	0.01 ppm to 1 ppm; 0.1 ppm to 200 ppm		
Accuracy	±0.02 pH / ±0.5 mV	±1.0 mV	±5% of reading or 2 ppm, whichever is greater		
Calibration	automatic one, two, or three points with five memorized standard buffers (pH 4.01, 6.86, 7.01, 9.18, 10.01) or one custom buffer	automatic at one custom point	1 or 2 point, 10 ppm and 100 ppm		

	Conductivity	TDS	Resistivity	Salinity	Seawater σ
Range	0 to 200 mS/cm (absolute EC up to 400 mS/cm)	0 to 400000 mg/L or ppm (the maximum value depends on the TDS factor)	0 to 999999 Ω•cm; 0 to 1000.0 kΩ•cm; 0 to 1.0000 MΩ•cm	0.00 to 70.00 PSU	0 to 50.0 σt, σ0, σ15
Resolution	**manual:** 1 µS/cm; 0.001 mS/cm; 0.01 mS/cm; 0.1 mS/cm; 1 mS/cm; **automatic:** 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; **automatic mS/cm:** 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	**manual:** 1 mg/L (ppm); 0.001 g/L (ppt); 0.01g/L (ppt); 0.1 g/L (ppt); 1 g/L (ppt); **automatic:** 1 mg/L (ppm) from 0 to 9999 mg/L (ppm); 0.01 g/L (ppt) from 10.00 to 99.99 g/L (ppt); 0.1 g/L (ppt) from 100.0 to 400.0 g/L (ppt); **autorange g/L (ppt) scales:** 0.001 g/L (ppt) from 0.000 to 9.999 g/L (ppt); 0.01 g/L (ppt) from 10.00 to 99.99 g/L (ppt); 0.1 g/L (ppt) from 100.0 to 400.0 g/L (ppt)	dependent on resistivity reading	0.01 PSU	0.1 σt, σ0, σ15
Accuracy	±1% of reading or ±1 µS/cm, whichever is greater	±1% of reading or ±1 mg/L, whichever is greater	–	±2% of reading or ±0.01 PSU, whichever is greater	±1 σt, σ0, σ15
Calibration	automatic one point with six memorized standards (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	based on conductivity or salinity calibration		one custom point	based on conductivity or salinity calibration

	Turbidity	Dissolved Oxygen	Atm. Pressure	Temperature
Range	0.0 to 99.9 FNU; 100 to 1000 FNU	0.0 to 500.0%; 0.00 to 50.00 ppm	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	-5.00 to 55.00°C; 23.00 to 131.00°F; 268.15 to 328.15K
Resolution	0.1 FNU from 0.0 to 99.9 FNU; 1 FNU from 100 to 1000 FNU	0.1%; 0.01 ppm	0.1 mm Hg; 0.01 in Hg; 0.1 mbar; 0.001 psi; 0.0001 atm; 0.01 kPa	0.01°C; 0.01°F; 0.01K
Accuracy	±0.3 FNU or ±2% of reading, whichever is greater	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: ±1.5% of reading or 0.10 ppm, whichever is greater; 30.00 ppm to 50.00 ppm: ±3% of reading	±3 mm Hg within ±15°C from the temperature during calibration	±0.15°C; ±0.27°F; ±0.15K
Calibration	Automatic 1, 2 or 3 points at 0, 20 and 200 FNU, or custom	automatic one or two points at 0, 100% or one custom point	automatic at one custom point	Automatic at one custom point

solutions and accessories begin on page 7.26

Ordering Information

Meter and Probe with Rugged Carrying Case

HI9829 – w x y z

W=	0	Basic meter, no GPS
	1	Meter with GPS
x=	0	No turbidity basic probe
	1	Turbidity basic probe
	2	Autonomously logging probe, no turbidity
	3	Autonomously logging probe with turbidity
y=	04	4 meter cable length
	10	10 meter cable length
	20	20 meter cable length
Z=	1	115V
	2	230V

z=1 is supplied with 115V AC to 12V DC Adapter
z=2 is supplied with 230V AC to 12V DC Adapter

All HI9829 Kits Include:

HI9829 or HI 98290 (GPS Model)
HI710140 Hard carrying case
HI710005/8 (115V) or HI710006/8 (230V)
Mulitiparameter Probe (see table)
HI7698292 Probe Maintenance Kit
HI929829 Application Software
HI7698291 USB cable (PC to meter)
HI710045 Power supply cable
HI710046 Cigarette lighter cable
HI7609829-1 pH/ORP sensor
HI7609829-2 Galvanic DO Sensor
HI920005 iButton® with holder (5 pcs)
HI9828-25 Calibration solution
Instruction Manual

Optional Kit Components:

HI7609829-12 Nitrate sensor
HI7609829-11 Chloride ISE sensor
HI7609829-10 Ammonium ISE sensor
HI7698297 Long quick release flow cell
Spare Solution (see below)

Spare Solution

HI9829-10	25 sachets 10ppm ammonia-nitrogen calibration solution
HI9829-10/11	10 sachets each of 10ppm and 100ppm ammonia-nitrogen calibration solution
HI9829-11	25 sachets 100ppm ammonia-nitrogen calibration solution
HI9829-12	25 sachets 10ppm chloride calibration solution
HI9829-12/13	10 sachets each of 10ppm and 100ppm chloride calibration solution
HI9829-13	25 sachets 100ppm chloride calibration solution
HI9829-14	25 sachets 10ppm nitrate-nitrogen calibration solution
HI9829-14/15	10 sachets each of 10ppm and 100ppm nitrate-nitrogen calibration solution
HI9829-15	25 sachets 100ppm nitrate-nitrogen calibration solution

Kit Specific Components:

Kit Number	Probe	HI7609829-3 EC Sensor	HI7698290 Short calibration beaker	HI7609829-4 EC/Turbidity Sensor	HI7698293 Long calibration beaker	HI9829-16 0 FNU calibration solution	HI9829-17 20 FNU calibration solution	HI9829-18 200 FNU calibration solution	HI76982910 USB cable (PC to Probe)	HI7698295 Short protective sleeve	HI7698296 long protective sleeve
HI9829-0004Z	HI7609829/4	•	•							•	
HI9829-0010Z	HI7609829/10	•	•							•	
HI9829-0020Z	HI7609829/20	•	•							•	
HI9829-0104Z	HI7609829/4			•	•	•	•	•			•
HI9829-0110Z	HI7609829/10			•	•	•	•	•			•
HI9829-0120Z	HI7609829/20			•	•	•	•	•			•
HI9829-0204Z	HI7629829/4	•	•						•	•	
HI9829-0210Z	HI7629829/10	•	•						•	•	
HI9829-0220Z	HI7629829/20	•	•						•	•	
HI9829-0304Z	HI7629829/4			•	•	•	•	•	•		•
HI9829-0310Z	HI7629829/10			•	•	•	•	•	•		•
HI9829-0320Z	HI7629829/20			•	•	•	•	•	•		•
HI9829-1004Z	HI7609829/4	•	•							•	
HI9829-1010Z	HI7609829/10	•	•							•	
HI9829-1020Z	HI7609829/20	•	•							•	
HI9829-1104Z	HI7609829/4			•	•	•	•	•			•
HI9829-1110Z	HI7609829/10			•	•	•	•	•			•
HI9829-1120Z	HI7609829/20			•	•	•	•	•			•
HI9829-1204Z	HI7629829/4	•	•						•	•	
HI9829-1210Z	HI7629829/10	•	•						•	•	
HI9829-1220Z	HI7629829/20	•	•						•	•	
HI9829-1304Z	HI7629829/4			•	•	•	•	•	•		•
HI9829-1310Z	HI7629829/10			•	•	•	•	•	•		•
HI9829-1320Z	HI7629829/20			•	•	•	•	•	•		•

solutions and accessories begin on page 7.26

Meter with Probe Ordering Information

Choose Your Configuration Below

Meter and Probe with Rugged Carrying Case

Basic	**HI9829-00041** (115V) **HI9829-00042** (230V)	HI9829 meter, HI7609829/4 probe, HI7698291 USB cable (PC to meter), HI920005 iButton® with holder (5 pcs), HI929829 PC application software, HI7609829-3 EC sensor, HI7609829-2 DO sensor, HI7609829-1 pH/ORP sensor, HI710045 power supply cable, HI7698292 probe maintenance kit, HI7698290 short calibration beaker, HI9828-25 calibration solution (500 mL), HI710046 cigarette lighter cable, HI710005/8 (115V) or HI710006/8 (230V), instruction manual.
	HI9829-00101 (115V) **HI9829-00102** (230V)	HI9829 meter, HI7609829/10 probe, HI7698291 USB cable (PC to meter), HI920005 iButton® with holder (5 pcs), HI929829 PC application software, HI7609829-3 EC sensor, HI7609829-2 DO sensor, HI7609829-1 pH/ORP sensor, HI710045 power supply cable, HI7698292 probe maintenance kit, HI7698290 short calibration beaker, HI9828-25 calibration solution (500 mL), HI710046 cigarette lighter cable, HI710005/8 (115V) or HI710006/8 (230V), instruction manual.
	HI9829-00201 (115V) **HI9829-00202** (230V)	HI9829 meter, HI7609829/20 probe, HI7698291 USB cable (PC to meter), HI920005 iButton® with holder (5 pcs), HI929829 PC application software, HI7609829-3 EC sensor, HI7609829-2 DO sensor, HI7609829-1 pH/ORP sensor, HI710045 power supply cable, HI7698292 probe maintenance kit, HI7698290 short calibration beaker, HI9828-25 calibration solution (500 mL), HI710046 cigarette lighter cable, HI710005/8 (115V) or HI710006/8 (230V), instruction manual.
GPS	**HI9829-10041** (115V) **HI9829-10042** (230V)	HI9829 meter with GPS, HI7609829/4 probe, HI7698291 USB cable (PC to meter), HI920005 iButton® with holder (5 pcs), HI929829 PC application software, HI7609829-3 EC sensor, HI7609829-2 DO sensor, HI7609829-1 pH/ORP sensor, HI710045 power supply cable, HI7698292 probe maintenance kit, HI7698290 short calibration beaker, HI9828-25 calibration solution (500 mL), HI710046 cigarette lighter cable, HI710005/8 (115V) or HI710006/8 (230V), instruction manual.
	HI9829-10101 (115V) **HI9829-10102** (230V)	HI9829 meter with GPS, HI7609829/10 probe, HI7698291 USB cable (PC to meter), HI920005 iButton® with holder (5 pcs), HI929829 PC application software, HI7609829-3 EC sensor, HI7609829-2 DO sensor, HI7609829-1 pH/ORP sensor, HI710045 power supply cable, HI7698292 probe maintenance kit, HI7698290 short calibration beaker, HI9828-25 calibration solution (500 mL), HI710046 cigarette lighter cable, HI710005/8 (115V) or HI710006/8 (230V), instruction manual.
	HI9829-10201 (115V) **HI9829-10202** (230V)	HI9829 meter with GPS, HI7609829/20 probe, HI7698291 USB cable (PC to meter), HI920005 iButton® with holder (5 pcs), HI929829 PC application software, HI7609829-3 EC sensor, HI7609829-2 DO sensor, HI7609829-1 pH/ORP sensor, HI710045 power supply cable, HI7698292 probe maintenance kit, HI7698290 short calibration beaker, HI9828-25 calibration solution (500 mL), HI710046 cigarette lighter cable, HI710005/8 (115V) or HI710006/8 (230V), instruction manual.
Basic & Turbidity	**HI9829-01041** (115V) **HI9829-01042** (230V)	HI9829 meter, HI7609829/4 probe, HI7698291 USB cable (PC to meter), HI920005 iButton® with holder (5 pcs), HI929829 PC application software, HI7609829-2 DO sensor, HI7609829-1 pH/ORP sensor, HI7609829-4 EC/Turbidity sensor, HI710045 power supply cable, HI7698292 probe maintenance kit, HI9829-16 0 FNU calibration solution (230 mL), HI9829-17 20 FNU calibration solution (230 mL), HI9829-18 200 FNU calibration solution (230 mL), HI7698293 long calibration beaker, HI9828-25 calibration solution (500 mL), HI710046 cigarette lighter cable, HI710005/8 (115V) or HI710006/8 (230V), instruction manual.
	HI9829-01101 (115V) **HI9829-01102** (230V)	HI9829 meter, HI7609829/10 probe, HI7698291 USB cable (PC to meter), HI920005 iButton® with holder (5 pcs), HI929829 PC application software, HI7609829-2 DO sensor, HI7609829-1 pH/ORP sensor, HI7609829-4 EC/Turbidity sensor, HI710045 power supply cable,HI7698292 probe maintenance kit, HI9829-16 0 FNU calibration solution (230 mL), HI9829-17 20 FNU calibration solution (230 mL), HI9829-18 200 FNU calibration solution (230 mL), HI7698293 long calibration beaker, HI9828-25 calibration solution (500 mL), HI710046 cigarette lighter cable, HI710005/8 (115V) or HI710006/8 (230V), instruction manual.
	HI9829-01201 (115V) **HI9829-01202** (230V)	HI9829 meter, HI7609829/20 probe, HI7698291 USB cable (PC to meter), HI920005 iButton® with holder (5 pcs), HI929829 PC application software, HI7609829-2 DO sensor, HI7609829-1 pH/ORP sensor, HI7609829-4 EC/Turbidity sensor, HI710045 power supply cable,HI7698292 probe maintenance kit, HI9829-16 0 FNU calibration solution (230 mL), HI9829-17 20 FNU calibration solution (230 mL), HI9829-18 200 FNU calibration solution (230 mL), HI7698293 long calibration beaker, HI9828-25 calibration solution (500 mL), HI710046 cigarette lighter cable, HI710005/8 (115V) or HI710006/8 (230V), instruction manual.
GPS & Turbidity	**HI9829-11041** (115V) **HI9829-11042** (230V)	HI9829 meter with GPS, HI7609829/4 probe, HI7698291 USB cable (PC to meter), HI920005 iButton® with holder (5 pcs), HI929829 PC application software, HI7609829-2 DO sensor, HI7609829-1 pH/ORP sensor, HI7609829-4 EC/Turbidity sensor, HI710045 power supply cable, HI7698292 probe maintenance kit, HI9829-16 0 FNU calibration solution (230 mL), HI9829-17 20 FNU calibration solution (230 mL), HI9829-18 200 FNU calibration solution (230 mL), HI7698293 long calibration beaker, HI9828-25 calibration solution (500 mL), HI710046 cigarette lighter cable, HI710005/8 (115V) or HI710006/8 (230V), instruction manual.
	HI9829-11101 (115V) **HI9829-11102** (230V)	HI9829 meter with GPS, HI7609829/10 probe, HI7698291 USB cable (PC to meter), HI920005 iButton® with holder (5 pcs), HI929829 PC application software, HI7609829-2 DO sensor, HI7609829-1 pH/ORP sensor, HI7609829-4 EC/Turbidity sensor, HI710045 power supply cable, HI7698292 probe maintenance kit, HI9829-16 0 FNU calibration solution (230 mL), HI9829-17 20 FNU calibration solution (230 mL), HI9829-18 200 FNU calibration solution (230 mL), HI7698293 long calibration beaker, HI9828-25 calibration solution (500 mL), HI710046 cigarette lighter cable, HI710005/8 (115V) or HI710006/8 (230V), instruction manual.
	HI9829-11201 (115V) **HI9829-11202** (230V)	HI9829 meter with GPS, HI7609829/20 probe, HI7698291 USB cable (PC to meter), HI920005 iButton® with holder (5 pcs), HI929829 PC application software, HI7609829-2 DO sensor, HI7609829-1 pH/ORP sensor, HI7609829-4 EC/Turbidity sensor, HI710045 power supply cable, HI7698292 probe maintenance kit, HI9829-16 0 FNU calibration solution (230 mL), HI9829-17 20 FNU calibration solution (230 mL), HI9829-18 200 FNU calibration solution (230 mL), HI7698293 long calibration beaker, HI9828-25 calibration solution (500 mL), HI710046 cigarette lighter cable, HI710005/8 (115V) or HI710006/8 (230V), instruction manual.

Mulitiparameter Probe (Cable length: 4m, 10m, 20m)

solutions and accessories begin on page 7.26