

HI 9829

Portable GPS Multiparameter Meter





Features

- Field replaceable ISO 7027 compliant turbidity sensor
- Ammonium, chloride and nitrate ISE's
- Logging from probe or meter
- Fully customizable instrument, probe, sensors and measurement specifications
- Display from one to twelve parameters with font dimension adjustment
- Field replaceable sensors
- pH/ORP or pH, four ring EC or EC/ Turbidity and galvanic DO sensors
- Auto-recognition of all sensors

HI 9829

Portable GPS Multiparameter Meter

- Rugged probe with stainless steel tip has a diameter under 2" for wells and pipes
- Track measurement locations with GPS (HI 98290)
- Fast Tracker™-Tag I.D. System simplifies periodic monitoring
- Features a built-in barometer for DO concentration compensation
- Quick or independent sensor calibration feature
- Measurement check eliminates erroneous readings
- Logged data can be displayed as graphs
- Graphic LCD with backlight
- USB for PC connectivity
- Good Laboratory Practice feature with last five parameter calibrations recorded
- Meter accepts both alkaline and rechargeable batteries
- Waterproof protection for meter (IP67) and probes (IP 68)

The Perfect Monitoring Tool

Rugged, waterproof and easy to use, the HI 9829 and HI 98290 are the ideal meters for field measurements of lakes, rivers and seas. Both meters display one to twelve parameters simultaneously from up to fifteen user selectable parameters.

Combined with one of the HI 76x9829 series probes, the HI 9829 and HI 98290 can measure water quality parameters such as pH, ORP, conductivity, turbidity, temperature, ions ammonium, nitrate, chloride (as NH_4^+-N , NO_3^--N or Cl^-), dissolved oxygen (as % saturation or concentration), resistivity, TDS, salinity, and seawater σ . Atmospheric pressure is measured for DO concentration compensation.

The HI 98290 with the GPS option incorporates a built-in GPS receiver and antenna that guarantees position accuracy. Measurements from specific locations are tracked with detailed coordinate information that can be viewed immediately on the display.

Both meters feature a graphic, backlit LCD that scales digits to fit up to twelve parameters and allows full configuration of each parameter measured along with an on-screen graphing capability.

HELP key displays context sensitive help. The alphanumeric keypad offers a user friendly way to complete the input fields.

Water scientists and managers alike utilize data-collection programs as part of environmental monitoring. These programs are designed to reveal changes in water and the environment around it over time. Reliable, dependable measurements are required to monitor these changes and understand the contributions from seasonal fluctuations, weathering, as well as manmade pollution.

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

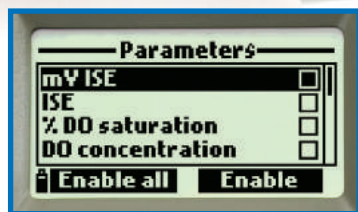
Intuitive Configuration, Measurement and Help

Sensors

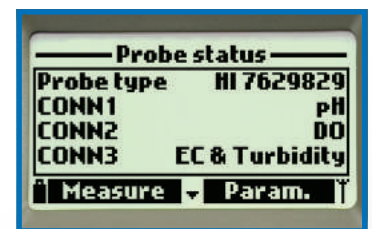
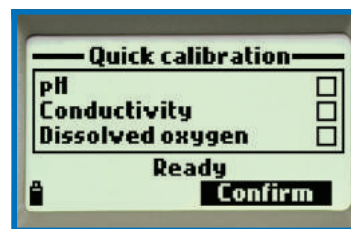
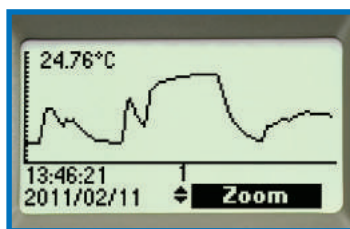
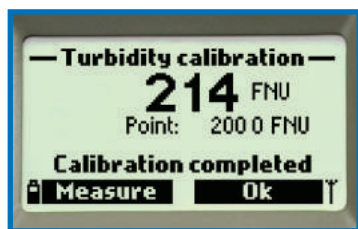
Hanna offers a selection of eight sensors to be used on the intelligent probes. Sensor replacement is quick and easy with screw type connectors and color coded sensors. The HI 9829 & HI 98290 automatically recognize sensor presence.

The new HI 7609829-4 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. An ISE sensor can be used in place of the pH sensor and is automatically recognized. pH in mV readings are also displayed –ideal for troubleshooting.



- **Help**
The context sensitive help screen is always accessible.
- **Fully Configurable Measurement Screen**

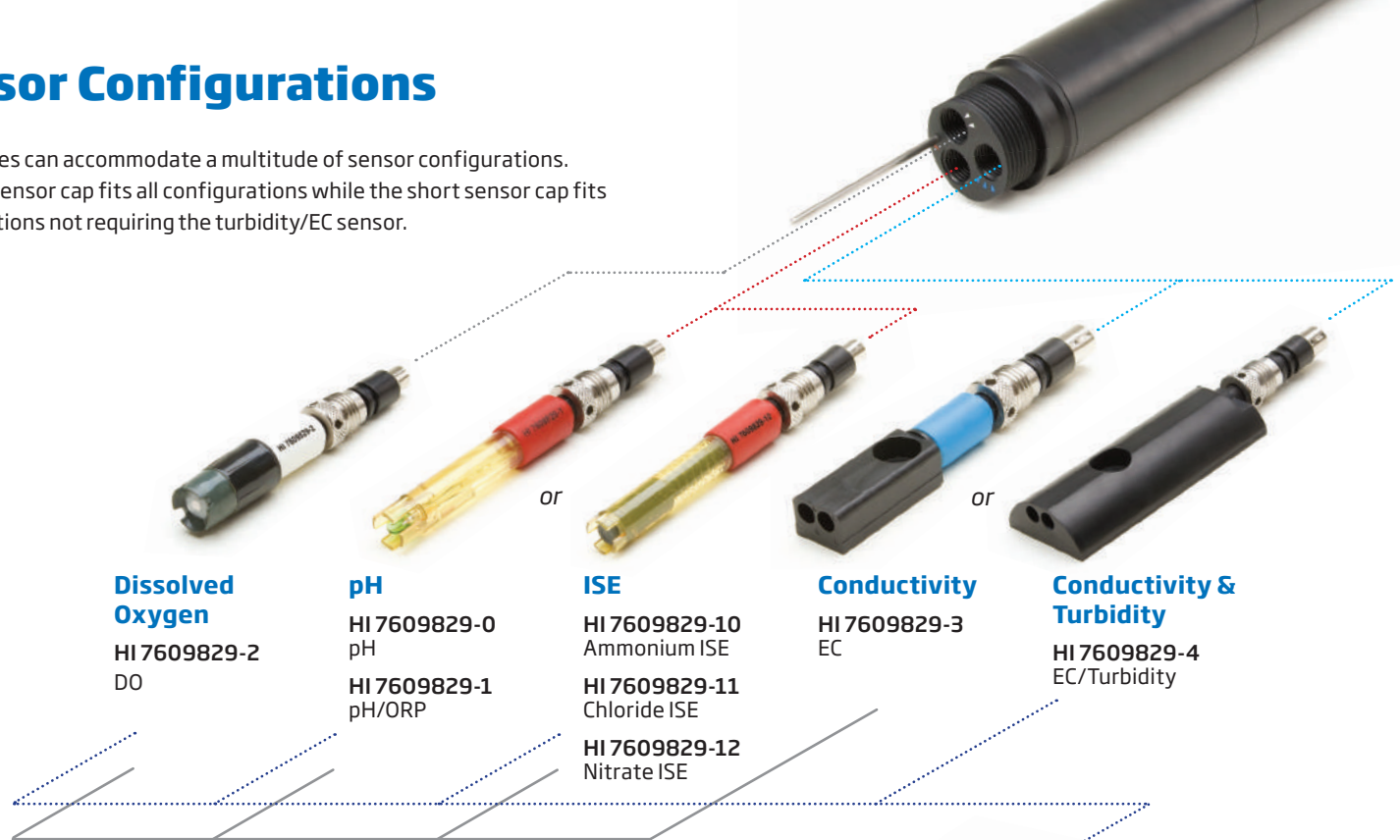


- **Calibration**
Calibration with the HI 9829(0) is easy and intuitive.
- **Graphing**
Trend graphing may be viewed on the display or transferred to a PC. The sample date and time stamp will also be displayed.

- **Quick Calibration**
Simply screw the calibration beaker filled with HI 9828-25 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 HI 9829 is identifying a pH, dissolved oxygen and turbidity/EC sensor.

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
HI 7609829-2
DO

pH
HI 7609829-0
pH
HI 7609829-1
pH/ORP

ISE
HI 7609829-10
Ammonium ISE
HI 7609829-11
Chloride ISE
HI 7609829-12
Nitrate ISE

Conductivity
HI 7609829-3
EC

Conductivity & Turbidity
HI 7609829-4
EC/Turbidity



Short cap
HI 7698295
Short cap for probes
without EC/Turbidity



Long cap
HI 7698296
Long cap for probes
with EC/Turbidity

A Great Combination

The use of Hanna's microprocessor based multiparameter intelligent probes with HI 9829 and HI 98290 meters will provide reliable data collection. These meters can aid in an improved scientific understanding of the interconnections between natural, chemical and geological processes and man made pollution to effectively evaluate applications for waste-discharge permits, remediate contaminated sites and to protect or restore biological resources.

The HI 76x9829 probes utilize field replaceable sensors with auto-recognition. The sensors are housed with the probe electronics in a rugged housing with a water-tight cable connection. The HI 76909829 probe allows conductivity, pH/ORP (or an ISE), and dissolved oxygen measurement. Other probe models allow turbidity and logging. The probes are available with a choice of cable lengths such as 4 m and 10 m and 20 m (13, 33') that utilize a DIN connection to interface with the meters. Logging probes can be connected directly to a PC with the HI 76982910 USB adapter cable, and HI 929829 PC application software to download log files directly from the probes.

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, Kelvin or Fahrenheit are displayed and utilized by other detectors for temperature correction.

The pH and pH/ORP sensors feature a double junction design and are gel filled to increase resistance to contamination. These 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 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 is available for constant reporting of common surface water contaminants. Nitrate, ammonium and chloride ISE's are available. Each ISE is a combination electrode incorporating an extremely constant reference spiral; all potentiometric probes feature a double junction and solid gelled

Autonomously Logging Probes

After starting a log, the HI 7629829 and HI 7639829 logging probes can autonomously log parameters without further connection to the HI 9829 or HI 98290. Just connect the logging probe to the HI 9829, HI 98290 or a PC to retrieve the logged measurements.

General Probe Specifications

Temperature Sensor	built-in	Operating Temp.	-5 to 55°C*	Maximum Depth	20 m (66')*
Sample Environment	fresh, brackish, seawater	Waterproof Protection	IP68		
Cable Specification	Multistrand-multi-conductor 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				

HI 7609829

HI 7619829

Supported Configuration	Connector 1	pH, pH/ORP, ammonium ISE, chloride ISE, nitrate ISE
	Connector 2	dissolved oxygen
	Connector 3	EC
Upgradable	to HI 7619829, adding EC/turbidity sensor and long protective shield	
Dimensions / Weight	342 mm (13.5"), dia=46 mm (1.8") / 570 g (20.1 oz.)	382 mm (15.1"), dia 46 mm (1.8") / 650 g (22.9 oz.)

HI 7629829

HI 7639829

Supported Configuration	Connector 1	pH, pH/ORP, ammonium ISE, chloride ISE, nitrate ISE
	Connector 2	dissolved oxygen
	Connector 3	EC
Upgradable	to HI 7639829, adding EC/turbidity sensor and long protective shield	
Autonomous Logging	yes	
Logging Interval	1 second to 3 hours	
Computer Interface	USB (HI 76982910)	
Memory	140,000 measurements (single parameter logged); 35,000 measurements (all parameters logged)	
Logging Probe Internal Battery Type	1.5V (4) AA alkaline	
Logging Probe Battery Life**	Interval : 1 - 5 seconds, 1 minute, 10 minutes; All channels logging (no averaging) : 72 hours, 22 days, 70 days; All channels logging (10 sample averaging) : 72 hours, 11 days, 65 days	
Dimensions / Weight	442 mm (17.4"), dia 46 mm (1.8") / 775 g (27.3 oz.)	482 mm (19.0"), dia 46 mm (1.8") / 819 g (28.9 oz.)

HI 7609829

pH/ORP, DO, EC

HI 76198298

pH/ORP, DO, EC/Turbidity

HI 7629829

pH/ORP, DO, EC, Logging

HI 7639829

pH/ORP, DO, EC/Turbidity, Logging

reference design. By utilizing conductivity, the HI 9829 and HI 98290 can convert ion activity measurements to concentration units. The HI 9829(0) displays these measurements as ppm ammonium-nitrogen, ppm chloride and ppm nitrate-nitrogen.

The HI 7609829-3 four-ring conductivity sensor using the potentiometric measurement principal ensures stable conductivity readings. Electrolytic conductivity measures of 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 σ and water hardness (TDS) determinations are possible with measurements from this sensor.

The oxygen dissolved 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 HI 7609829-2 galvanic DO sensor does not require long polarization times so it is ready for measurement at a moment's notice. This sensor also utilizes a replaceable membrane cap design for ease of maintenance and a safe non-toxic electrolyte. DO readings are compensated for the effects of temperature (using the

probes built-in temperature sensor) and atmospheric pressure (using the HI 9829 and HI 98290's internal atmospheric pressure sensor). The DO measurement complies with standard methods 4500-0-G and EPA article 360.1.

The HI 7609829-4 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 HI 7609829-3.

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.

* Reduced for ISE sensors, **Log space must be available for continuous logging

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.

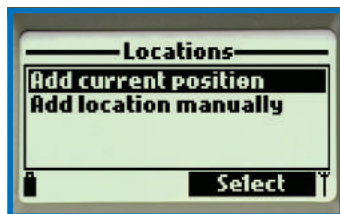
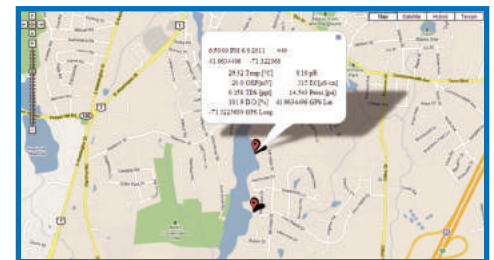
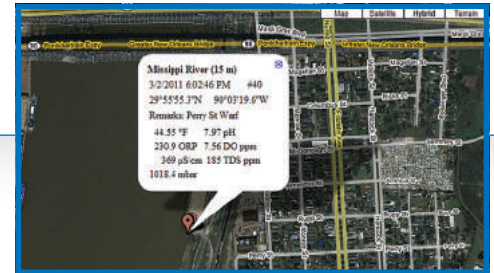
Install the optional TAGs near your sampling points for quick and easy iButton® readings. Each TAG contains a computer chip with a unique identification code encased in stainless steel. You can install a practically unlimited amount of TAGs. Additional TAGs can be ordered for all of your traceability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



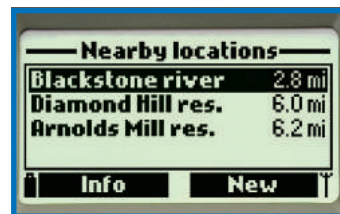
Monitoring and Tracking

The HI 98290 with GPS module can track measurement locations with detailed coordinate information. All models of the HI 9829 are equipped with the Fast Tracker™ TAG ID system which is an invaluable tool for associating measurements with their locations. HI 9829(0) meters also incorporate a real-time clock which stamps all logged data with a time and date in addition to location information.

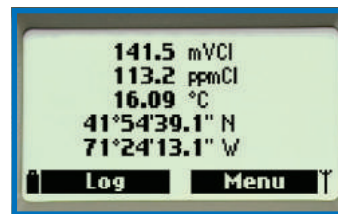
The new HI 98290 features an internal 12 channel GPS receiver and antenna that calculates its position to track locations along with measurement data. The GPS tracks your location using satellites to within 30 ft (10 m) so you can be sure that you return to the same location for repeated measurements. 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.



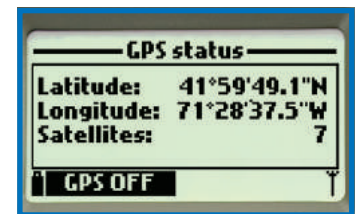
GPS data can be customized to meet specific requirements.



Displays distances between current and predefined locations.



Display current readings along with GPS coordinates



Shows current position and number of satellites.

• Basic GPS Features

- GPS coordinates shown on the LCD with up to ten 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

• HI 929829 PC Application Software

- Manages logged data from the HI 9829
- Displays GPS coordinates with logged data
- Automatically maps samples on your PC (internet connection required)
- Shows location points on map with measurement data

*Google™ is a registered trademark of Google™, Inc. HANNA Instruments® has no affiliation with Google™.



SPECIFICATIONS

HI 9829

HI 98290

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

HI 9829 and HI 98290 PARAMETER SPECIFICATIONS

	pH / mV of 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	0.01 ppm to 1 ppm; 0.1 ppm to 200 ppm	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	±5% of reading or 2 ppm, whichever is greater	±5% of reading or 2 ppm, whichever is greater
	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 $\Omega \cdot \text{cm}$; 0 to 1000.0 $\text{k}\Omega \cdot \text{cm}$; 0 to 1.0000 $\text{M}\Omega \cdot \text{cm}$	0.00 to 70.00 PSU	0 to 50.0 $\sigma_t, \sigma_0, \sigma_{15}$
Resolution	manual: 1 $\mu\text{S}/\text{cm}$; 0.001 mS/cm; 0.01 mS/cm; 0.1 mS/cm; 1 mS/cm; automatic: 1 $\mu\text{S}/\text{cm}$ from 0 to 9999 $\mu\text{S}/\text{cm}$; 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); 0.01 g/L (ppt); 0.1 g/L (ppt); 1 g/L (ppt); autorange scales: 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 setting	0.01 PSU	0.1 $\sigma_t, \sigma_0, \sigma_{15}$
Accuracy	±1% of reading or ±1 $\mu\text{S}/\text{cm}$, whichever is greater	±1% of reading or ±1 mg/L, whichever is greater			±1 $\sigma_t, \sigma_0, \sigma_{15}$
	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	

Ordering Information

Sensors for all meter and probe configurations are sold separately. Choose your configuration below:

Meter only, carton box packaging

HI 9829-01	Meter only, charging adapter and instruction manual, 115VAC
HI 9829-02	Same as HI 9829-01, for 230VAC
HI 98290-01	Meter only with GPS, charging adapter and instruction manual, 115VAC
HI 98290-02	Same as HI 98290-01, for 230VAC

Meter, logging probe and carrying case, no sensors

HI 98291-01	HI 9829 and HI 7629829/4 logging probe for pH/pH+ORP/ISE, DO, EC, temperature, with 4 m (13.1') cable, probe maintenance kit, charging adapter, instruction manual and hard carrying case, 115VAC
HI 98291-02	Same as HI 98291-01, for 230VAC
HI 98292-01	HI 9829 and HI 7639829/4 logging probe for pH/pH+ORP/ISE, DO, EC+turbidity, temperature, with 4 m (13.1') cable, probe maintenance kit, charging adapter, instruction manual and hard carrying case, 115VAC
HI 98292-02	Same as HI 98292-01, for 230VAC
HI 98293-01	HI 9829 and HI 7629829/10 logging probe for pH/pH+ORP/ISE, DO, EC, temperature, with 10 m (33') cable, probe maintenance kit, charging adapter, instruction manual and hard carrying case, 115VAC
HI 98293-02	Same as HI 98293-01, for 230VAC
HI 98294-01	HI 9829 and HI 7639829/10 logging probe for pH/pH+ORP/ISE, DO, EC+turbidity, temperature, with 10 m (33') cable, probe maintenance kit, charging adapter, instruction manual and hard carrying case, 115VAC
HI 98294-02	Same as HI 98294-01, for 230VAC
HI 98295-01	HI 98290 with GPS and HI 7629829/4 logging probe for pH/pH+ORP/ISE, DO, EC, temperature, with 4 m (13.1') cable, probe maintenance kit, charging adapter, instruction manual and hard carrying case, 115VAC
HI 98295-02	Same as HI 98295-01, for 230VAC
HI 98296-01	HI 98290 with GPS and HI 7639829/4 logging probe for pH/pH+ORP/ISE, DO, EC+turbidity, temperature, with 4 m (13.1') cable, probe maintenance kit, charging adapter, instruction manual and hard carrying case, 115VAC
HI 98296-02	Same as HI 98296-01, for 230VAC
HI 98297-01	HI 98290 with GPS and HI 7629829/10 logging probe for pH/pH+ORP/ISE, DO, EC, temperature, with 10 m (33') cable, probe maintenance kit, charging adapter, instruction manual and hard carrying case, 115VAC
HI 98298-01	HI 98290 with GPS and HI 7639829/10 logging probe for pH/pH+ORP/ISE, DO, EC+turbidity, temperature, with 10 m (33') cable, probe maintenance kit, charging adapter, instruction manual and hard carrying case, 115VAC
HI 98298-02	Same as HI 98298-01, for 230VAC

Probe only, no sensors, carton box packaging

HI 7609829/4	Probe for pH/pH+ORP/ISE, DO, EC, temperature with HI 7698295 short protective shield and 4 m (13.1') cable
HI 7609829/10	Probe for pH/pH+ORP/ISE, DO, EC, temperature with HI 7698295 short protective shield and 10 m (33') cable
HI 7619829/4	Probe for pH/pH+ORP/ISE, DO, EC+turbidity, temperature, with HI 7698296 long protective shield and 4 m (13.1') cable
HI 7619829/10	Probe for pH/pH+ORP/ISE, DO, EC+turbidity, temperature, with HI 7698296 long protective shield and 10 m (33') cable
HI 7629829/4	Logging probe for pH/pH+ORP/ISE, DO, EC, temperature with HI 7698295 short protective shield and 4 m (13.1') cable
HI 7629829/10	Logging probe for pH/pH+ORP/ISE, DO, EC, temperature with HI 7698295 short protective shield and 10 m (33') cable
HI 7639829/4	Logging probe for pH/pH+ORP/ISE, DO, EC+turbidity, temperature, with HI 7698296 long protective shield, and 4 m (13.1') cable
HI 7639829/10	Logging probe for pH/pH+ORP/ISE, DO, EC+turbidity, temperature, with HI 7698296 long protective shield, and 10 m (33') cable

Sensors with O-ring

HI 7609829-0	pH
HI 7609829-1	pH/ORP
HI 7609829-2	Dissolved oxygen
HI 7609829-3	EC
HI 7609829-4	EC/Turbidity
HI 7609829-10	Ammonium ISE
HI 7609829-11	Chloride ISE
HI 7609829-12	Nitrate ISE

Quick Calibration Solutions

HI 9828-25	Quick calibration solution, 500 mL
HI 9828-27	Quick calibration solution, 1 gal.

pH Calibration Solutions

HI 7004L	pH 4.01 buffer solution, 500 mL
HI 7007L	pH 7.01 buffer solution, 500 mL
HI 7010L	pH 10.01 buffer solution, 500 mL

ORP Calibration Solutions

HI 7021L	ORP test solution @240 mV, 500 mL
HI 7022L	ORP test solution @470 mV, 500 mL

Conductivity Calibration Solutions

HI 7030L	12880 µS/cm cal. sol., 500 mL
HI 7031L	1413 µS/cm cal. sol., 500 mL
HI 7033L	84 µS/cm cal. sol., 500 mL
HI 7034L	80000 µS/cm cal. sol., 500 mL
HI 7035L	111800 µS/cm cal. sol., 500 mL
HI 7039L	5000 µS/cm cal. sol., 500 mL

Dissolved Oxygen Solutions

HI 7040L	Zero oxygen solution, 500 mL
HI 7042S	Electrolyte solution, 30 mL

Turbidity Calibration Solutions

HI 9829-16	0 FNU calibration solution, 230 mL
HI 9829-17	20 FNU calibration solution, 230 mL
HI 9829-18	200 FNU calibration solution, 230 mL

ISE Standards

HI 9829-10/11	Kit containing 10 sachets each of 10 ppm and 100 ppm standard for HI 7609829-10 ammonium ISE
HI 9829-10	10 ppm standard sachet for HI 7609829-10 ammonium ISE, 25 mL (25)
HI 9829-11	100 ppm standard sachet for HI 7609829-10 ammonium ISE, 25 mL (25)
HI 9829-12/13	Kit containing 10 sachets each of 10 ppm and 100 ppm standard for HI 7609829-11 chloride ISE
HI 9829-12	10 ppm standard sachet for HI 7609829-11 chloride ISE, 25 mL (25)
HI 9829-13	100 ppm standard sachet for HI 7609829-11 chloride ISE, 25 mL (25)
HI 9829-14/15	Kit containing 10 sachets each of 10 ppm and 100 ppm standard for HI 7609829-12 nitrate ISE
HI 9829-14	10 ppm standard sachet for HI 7609829-12 nitrate ISE, 25 mL (25)
HI 9829-15	100 ppm standard sachet for HI 7609829-12 nitrate ISE, 25 mL (25)

Probe Maintenance Kit

HI 7698292	Probe maintenance kit consisting of HI 7042S (electrolyte solution for DO sensor), O-rings for DO sensor (5), small brush, O-rings for probe (5), and syringe with grease to lubricate the O-rings.
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pH/ORP Cleaning and Storage Solutions

HI 70300L	pH/ORP electrode storage sol., 500 mL
HI 7061L	pH/ORP electrode cleaning sol., 500 mL

Accessories

HI 929829	PC application software
HI 7698291	USB cable, PC to meter
HI 76982910	USB cable, PC to probe
HI 710046	Cigarette lighter cable
HI 7698290	Short calibration beaker
HI 7698293	Long calibration beaker
HI 7698294	Short flow cell
HI 7698297	Long, quick release flow cell
HI 7698295	Short protective shield
HI 7698296	Long protective shield
HI 920005	iButton® with holder (5 pcs)
HI 710140	Hard carrying case
HI 710045	Power supply cable