Sensors

Sensor replacement is quick and easy with screw type connectors and color coded sensors. The HI 9829 automatically recognizes sensor presence.

The HI 769829-2 galvanic DO sensor with its fast response time can be ready at a moment's notice. This probe features a replaceable membrane cap for easy maintenance.

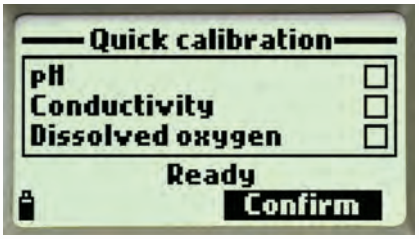
The HI 769829-3 4-electrode conductivity probe uses a polarographic measurement principle and ensures stable conductivity readings that are immune to polarization or surface coating. Absolute conductivity, temperature compensated conductivity, salinity, specific gravity and TDS determinations are possible with measurements from this sensor.

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.

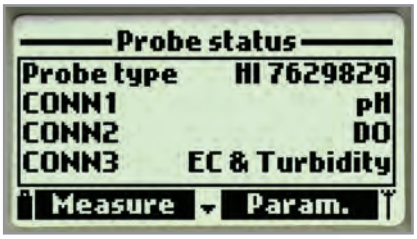
Field Ready

For field calibration, our quick calibration solution allows users to standardize pH and conductivity with one calibration solution.



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 chloride, dissolved oxygen and turbidity/ EC sensor

A Great Combination

The use of HANNA's microprocessor based multiparameter intelligent probes and new HI 9829 meter will provide reliable data collection that can lead to 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 feature 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 base probe model permits the measurement of conductivity, pH/ORP (or an ISE), and dissolved oxygen. Other models permit turbidity and logging.

The probes are available with a choice of cable lengths such as 4 m, 10 m and 20 m (13, 32, 66') that utilize a DIN connection to interface with the meter. The probes are supplied with a maintenance kit. These new probes can be connected directly to a PC with the HI 9828 PC adapter, and the HI 929829 PC software to communicate directly with the probes.

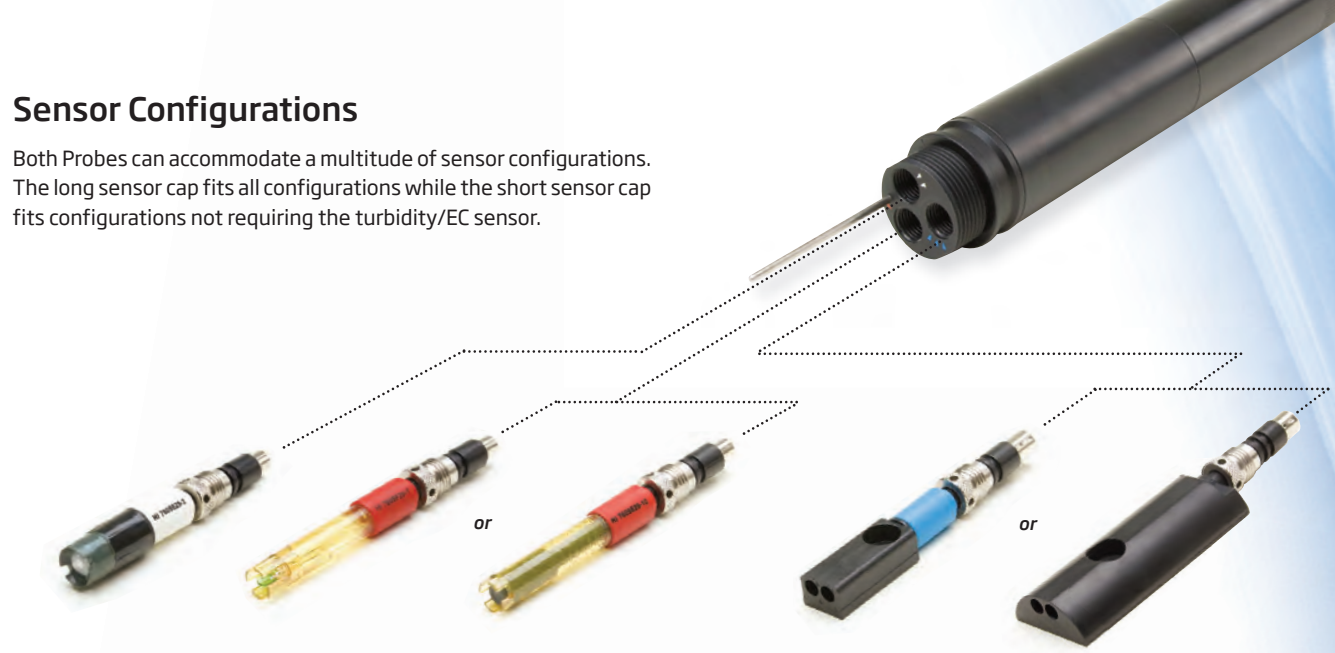
Reliable temperature measurements are a critical parameter of aquatic system monitoring. Temperature and temperature changes due to water releases can affect the ability of water to hold oxygen as well as the ability of organisms to resist certain pollutants. The intelligent probes incorporate an accurate 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 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 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 3 ion selective electrodes is available for constant reporting of common surface water contaminants. Nitrate,

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 and Turbidity
HI 7609829-4 EC/Turbidity

Short cap for probes without EC/turbidity sensor

Long cap for probes with EC/turbidity sensor

ammonium and chloride are available. Each ISE is a combination electrode incorporating an extremely constant reference spiral; all potentionmetric probes feature a double junction and solid gelled reference design. By utilizing conductivity, the HI 9829 meter can convert ion activity measurements to concentration units.

The HANNA 4-electrode conductivity probe using the polarographic 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, specific gravity 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 galvanic sensor does not require long polarization times so is ready for measurement at a moment's notice. Our 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 probes built-in temperature sensor) and atmospheric pressure (using the HI 9829's internal atmospheric pressure sensor).

The new HANNA turbidity sensor is a replaceable design for instantaneous turbidity reading that conforms to ISO 7027 standards. It provides measurements from 0.0 to 50.0 FNU; and 50 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.

Probes with the logging function have a logging memory that allows storage of up to 140,000 individual samples or 12,000 complete sample data sets with date and time stamp thus permitting up to a 35 day deployment with all channels logging at 10 minute intervals. Logging probes work with either rechargeable or standard batteries

The probe incorporates a temperature sensor for temperature compensation of all parameters.