

HI 4521 • HI 4522

Research Grade Meter with Calibration Check™ and USP <645> pH/ORP/ISE and EC/TDS/Resistivity/Salinity and Temperature

- Up to eight measurement parameters, two input channels
- Extended range from 0.001 $\mu\text{S}/\text{cm}$ to 1000 mS/cm
- Performs all three stages of USP <645> method required for conductivity measurement of pure and ultra pure water
- Practical salinity, natural sea water, and percent scales
- Linear and natural water temperature compensation, no compensation for actual conductivity
- Five point pH and ISE calibration with standard and custom buffers
- Large log memory with different logging methods
- pH Calibration Check™
- Fully customizable



HI 4521 and HI 4522 are research grade, benchtop instruments that feature 8 measurement ranges: pH, ORP (Oxidation Reduction Potential), ISE (HI 4522 only), conductivity, resistivity, TDS, salinity and temperature. These instruments incorporate dual channels with a separate temperature input and support the external reference electrodes required by some pH and ISE sensors.

The user interface is customizable and capable of displaying two channels at the same time, showing the measurements in various modes: basic measurement with or without GLP information, graph or log history.

Conductivity is fully customizable and include: temperature compensation coefficient, temperature reference, selectable compensation method (linear, natural water and no compensation), adjustable cell constant and TDS factor.

All ranges of conductivity, resistivity and TDS feature auto range or users can select the unit of measure manually. Three salinity scales are available: basic sea water, practical salinity and ‰.

These instruments can be used to perform all 3 stages of USP <645> method required for conductivity measurement of pure and ultra pure water. The instrument provides clear directions on how to perform each testing stage and automatically monitors the temperature, conductivity and stability during testing and determines whether a sample is within USP limits.

These instruments are equipped with auto standard recognition and can support custom calibration solutions. Up to a four point calibration can be obtained for enhanced accuracy over an extended measuring range.

The enhanced warning system is in place to alert users when measuring outside the calibration range. This system will also remind the user when a new calibration is due.

HANNA's pH Calibration Check™ diagnostics system ensures accurate readings every time by alerting users of potential problems during the calibration process.

Automatic, semiautomatic and manual pH calibration is available in up to five points, with 8 standard (1.68, 3.00, 4.01, 6.86, 7.01, 9.18, 10.01 and 12.45) and up to 5 custom buffers. These instruments also feature up to five point Manual Selection and Custom Standard ISE calibration with up to five standard solutions and up to 5 custom solutions with or without temperature compensation (HI 4522 only).

Up to 10 profiles can be saved and recalled eliminating the need to reconfigure each time when a different electrode is used.

Three selectable logging modes are available: Automatic, Manual and AutoHold. Up to 100 logging lots with 10,000 records per lot can be stored for automatic or manual modes along with up to 200 USP reports, and up to 100 ISE method reports. Automatic logging features a selectable area and sampling period while GLP information includes complete data about user calibration of each parameter and identification information for the instrument, user, and company. Data can be transferred to a PC via the opto-isolated PC interface via the RS232 or USB ports and HI 92000 software (optional).

These instruments offer multi-language support and contextual help is available through a dedicated Help key. Clear tutorial messages and directions are available on-screen to quickly and easily guide users through all measurement and calibration procedures to ensure measurements and procedures are performed properly.