

# HI922 Autosampler

## Automate up to 18 samples

The HI922 Autosampler is an automated titration sample handling system designed for use with the HI932 Automatic Titration System, making multiple sample titrations quick and easy.

With the Autosampler, up to 18 samples can be run consecutively. The HI922 Autosampler interfaces directly with the HI932 to access titration methods. Once a titration method is established, the user can fully customize the automation sequence of their samples for this method. Sample names and size can be customized or auto-filled with preset values. One beaker can be designated for storage purposes before and after titration sequences; up to three beakers per tray can be designated for an electrode rinse sequence, allowing for sufficient removal of solutions that are hard to clean between each sample titration. During each sample titration, the real-time progress is shown on the HI932 display. Finished sample results and graphs can be accessed during and after the titrations have finished.

Once the Autosampler sequence is complete, two reports are available for review: a sequence report featuring a table outlining each sample name, beaker position, sample size, and result for the tray, and a detailed titration report for each individual sample, including the graph of the titration data.



## 16 or 18 Sample Tray

The HI922 is able to automate samples using a 16 sample tray or an 18 sample tray. The 16 sample tray holds 150 mL beakers; the 18 sample tray holds 100 mL beakers. The Autosampler trays are composed of chemically resistant materials and are removable to allow for easy handling. The dishwasher safe trays provide a quick and simple way for users to clean regularly.

## Built-in Magnetic Stirrer

A magnetic stirrer comes built-in with each Autosampler tray. Users simply need to add a small magnetic stir bar to each beaker to ensure homogeneity during titrations. An optional overhead propeller stirrer can also be installed for use instead of the built-in stirrer. The HI922 allows users to easily adjust the stirring speed of both the built-in and overhead stirrers for optimal use.

## Built-in RFID

The HI922 sample trays feature a built-in RFID reader that is able to communicate the tray size and serial number of each tray. Users can have multiple trays, each designated to a specific set of samples. The RFID reader can ensure that the appropriate tray is used each time.

## Absolute Encoder

The Autosampler consistently tracks the tray position without the need to "home" or calibrate.

## Barcode Reader

A USB-compatible barcode reader can be used to associate names with each sample for improved organization of data.

## Optical IR Beaker Detection

An optical IR beam is able to detect the presence or absence of beakers within the sample tray. Users can dictate the Autosampler action if a beaker is missing from the tray during a titration sequence. If a beaker is detected as missing, the HI921 can skip over the sample or stop the titration sequence.

## Versatile Electrode Holder

The durable electrode holder is able to accommodate three 12 mm electrodes, a temperature sensor, one aspiration tube, and five multipurpose tubes. The multipurpose tubes can be utilized for actions such as reagent addition or burette dosing.

## Electrode Rinse Feature

Up to 3 beakers per tray can be designated for electrode dip/spray rinses.

## Sample Leveling Feature

Automatic leveling for fast preparation of volumetric samples.

## Waste Removal Feature

Aspirate completed samples into a waste container.

## Use with the HI932 Automatic Titration System

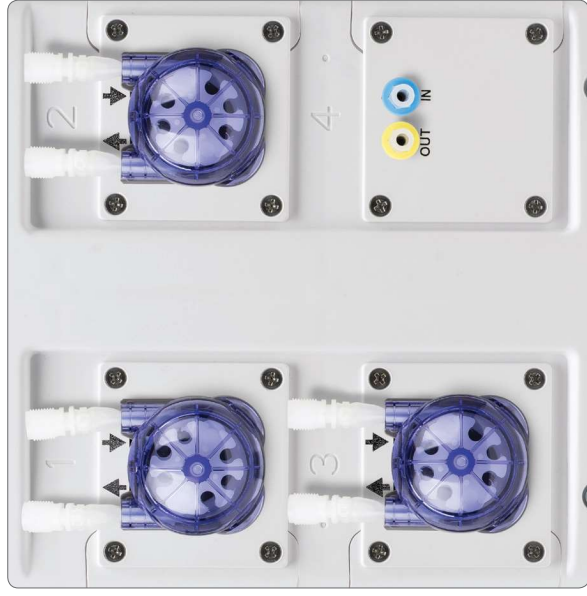
Flexible, accurate detection of the titration endpoint with HI932 potentiometric titrator.

Real-time progress of the sequence and results shown on the HI932 titrator screen.

## Control Panel

The included control panel features multiple buttons to allow for manual operation of the Autosampler tray, electrode holder, and any auxiliary pumps. A two-line backlit display on the handheld panel clearly displays status information. Manual control with the control panel is desirable for calibration, sample preparation, and method optimization.

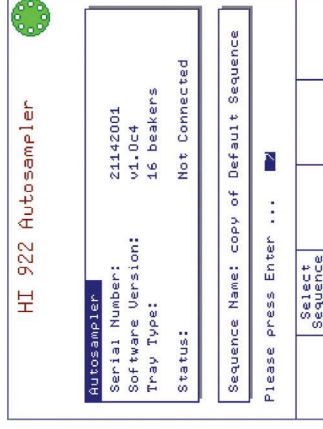




## Peristaltic and Membrane Pumps

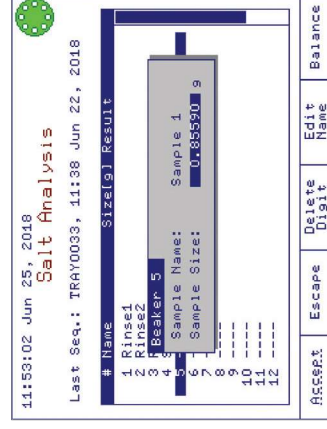
- Up to three peristaltic pumps can be added at anytime
- User replaceable pump systems
- Peristaltic pumps
  - Uses high performance plastic that is engineered to be chemically resistant and have long service life.
  - Reagent addition, sample leveling, waste removal
  - Greater than 200 mL/min flow
- Membrane pumps
  - Simple plug connection for tubing
  - Greater than 400 mL/min flow

Users can add up to three peristaltic pumps or one membrane pump at any time with the user-replaceable pump systems on the HI922. The peristaltic pumps use high performance plastic that is engineered to be chemically resistant with a long service life. These pumps have a flow greater than 200 mL/min and can be utilized for reagent addition, sample leveling, and waste removal. The membrane pump is a simple plug connection for tubing that has a flow greater than 400 mL/min.



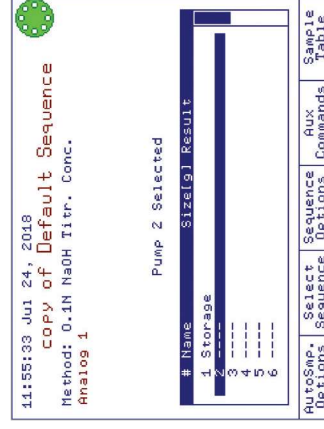
## RFID recognition

Sample trays are automatically detected and identified when placed on the Autosampler.



## Digital balance compatibility

Sample weights are communicated when connected to a digital balance.



## Speedy sample entry

Sample names can be automatically incremented for speedy sample identification.

## Status indicator lights

Highly visible status lights are located on both sides of the Autosampler. These lights correspond to the status indicator on the HI932 display and can easily be seen from far away. The lights double as a safety feature, as pressing them at any time will automatically stop the current titration sequence.



### Steady green

Idle, ready to start

### Flashing green

Titration sequence running



### Flashing yellow

Titration sequence paused



### Steady Red

Error or emergency stopped, or initializing during power on

### Flashing Red

Error during sequence running or manual operation



control panel

Specifications	HI922
Electrode Holder Slots	3 x 12-mm electrodes
	1 temperature sensor
	1 aspiration tube
	5 multi-purpose slots (titrant/reagent tubes)
	1 overhead stirrer
Temperature Sensor	HI766Z-A (included)
Stirrers	built-in magnetic stirrer overhead propeller stirrer (optional)
Peristaltic Pumps	up to 3 can be installed installs in slots #1, 2, 3
Membrane Pump (for cleaning)	installs in slot #4
Trays	16 beakers x 150 mL (HI920-11660) 18 beakers x 100 mL (HI920-11853)
Beakers	built-in RFID, transmits the tray type and serial number to Autosampler ASTM short-form glass beakers HI920-060 (120 mL), fits HI920-11660 tray - 20 plastic beakers HI920-053 (100 mL), fits HI920-11853 tray - 20 plastic beakers
Control Panel	buttons for manual operation of tray and titration head manual operation of peristaltic or membrane pumps
Barcode Reader	2-line backlit display with status information compatible with USB barcode readers, used to add sample names
Report Storage	up to 40 trays of samples (e.g.: 720 reports for 18-beaker tray)
Ordering Information	Choose your Autosampler configuration:

## HI922 – x y z

x =	1	16 sample tray
	2	18 sample tray
y =	0	no peristaltic pump
	1	one peristaltic pump
	2	two peristaltic pumps
z =	3	three peristaltic pumps
	0	no membrane pump
	1	one membrane pump