HI 902C
Potentiometric Titrator

Intuitive, simple to use and designed to grow with your needs and applications

SPECIFICATIONS	mV	pH	ISE	Temperature
Range	-2000.0 to 2000.0 mV	-2.000 to 20.000 pH	1×10^{-9} to 9.99×10^{10}	-5.0 to 105.0°C/23 to 221°F/ 268.2 to 378.2 K
Resolution	0.1 mV	0.1/0.01/0.001 pH	1, 0.1, 0.01	0.1°C/0.1°F/0.1K
Accuracy (@25°C/77°F)	±0.1 mV	±0.001 pH	±0.5% monovalent; ±1% divalent	±0.1°C/±0.2°F/±0.1K (excluding probe error)
Burette Sizes	5, 10, and 25 mL			
Burette Resolution	1/40000			
Display Resolution	0.001 mL			
Dosing Accuracy	±0.1% of full burette volume			
Display	5.7" (320 x 240 pixel) backlit color LCD			
Languages	English, Portuguese, Spanish			
Methods	load up to 100 methods (standard and user-defined)			
Burette Auto-Detection	burette size is automatically recognized when inserted into the unit			
Programmable Stirrer	propeller type, 100-2500 RPM, automatically held within 10% of the set value, resolution 100 rpm			
Flow Rate	user-selectable from 0.1 mL/min to 2 x burette volumes/min			
Temperature Compensation	manual or automatic (ATC)			
End-point Determination	equivalence point (1st or 2nd derivative) or fixed pH/mV value			
pH Calibration	up to 5-point calibration, 8 standard buffers and 5 custom buffers			
mV Calibration	single point offset			
ISE Calibration	up to 5 point calibration, 7 standard solutions and 5 user defined standards			
Potentiometric Titrations	acid-base (pH or mV-mode), redox, precipitation, complexometric, non-aqueous, ion-selective, argentometric, back titrations and titre determination			
Measurement Units	user specified expression of concentration units to suit specific calculation requirements			
Real Time & Stored Graphs	mV-volume or pH-volume titration curve, 1st derivative curve or 2nd derivative curve, in pH-mode, mV-mode or ISE mode: pH/mV/concentration values versus time-datalogging results			
Data Storage	up to 100 titration and pH/mV/ISE reports			
USB Host (Side)	flash drive compatibility for transfers of methods and reports			
Peripherals (Rear)	connections for VGA display, PS/2 keyboard, parallel printer, USB device input, RS232, interface for future expansion			
GLP Conformity	instrumentation data storage and printing capabilities			
Operating Environment	10 to 40°C (50 to 104°F), up to 95% RH			
Storage Environment	-20 to 70°C (-4 to 158°F), up to 95% RH			
Power	"-01" models: 115VAC; "-02" models: 230VAC; 50/60 Hz			
Dimensions	390 x 350 x 380 mm (15.3 x 13.8 x 14.9 in)			
Weight	approximately 10 kg (22 lbs.) with one pump and stirrer assembly			

- Large 5.7" (320 x 240 pixel) color LCD with backlight
- Intuitive user interface
- USB port allows for the transfer of methods and reports to a PC or another titrator via USB flash drive
- Field upgradeable software
- RS232 port allows direct connection to an analytical laboratory balance
- Multi language support
- Four working modes; potentiometric titrator, pH meter, mV meter, and ISE meter
- Potentiometric titrator
  - Linked titration methods allow two methods to run in sequence
  - Acid/base, non-aqueous, ORP, complexation, back, precipitation titrations and titre determination can be performed
  - Supports up to 100 titration methods (standard and user defined)
  - Supplied standard methods pack or create your own
  - Titration graph can be displayed on-screen and saved as a bitmap
  - Choice of endpoint detection: equivalence point (1st or 2nd derivative) or fixed pH/mV value
  - Reminders for titrant age and standardization expiration

- Multiple end-point titrations with multiple molecular weights and reaction ratios
- Two sensor inputs with the addition of a second analog board
- Supports 2 burette dosing pumps with the ability to perform back titrations
- Clip-Lock exchangeable burette system enables users to exchange burettes in a matter of seconds
- 25 mL precision ground glass syringe with PTFE plunger
- 40,000 step screw drive, piston dosing pump
- 3-way motor driven valve
- PTFE burette tubing with polyurethane tube jacketing
- pH meter
  - Full featured research grade pH meter
  - Automatic Temperature Compensation (ATC)
  - Up to 5 calibration points with automatic recognition of standard buffers
  - Up to 5 custom buffers can be used for calibration
- mV (ORP) meter
  - Relative mV calibration
- ISE meter
  - Numerous concentration units including: mol/L, mmol/L, mg/L, mg/mL, ug/L, %, ppt, ppm, g/L, and user defined
  - Up to 5 calibration points with 5 custom standards

ORDERING INFORMATION

HI 902C1-01 titrator with one analog board, 115V
HI 902C1-02 titrator with one analog board, 230V
HI 902C2-01 titrator with two analog boards, 115V
HI 902C2-02 titrator with two analog boards, 230V

All models include stirrer with stand, 25 mL glass burette, dosing pump drive, temperature sensor, USB cable, 256 MB USB flash drive and PC software.

ACCESSORIES

HI 900100 Dosing pump
HI 900125 25 mL burette assembly (includes syringe, aspiration, and dispensing tubes)
HI 900110 10 mL burette assembly (includes syringe, aspiration, and dispensing tubes)
HI 900105 5 mL burette assembly (includes syringe, aspiration, and dispensing tubes)
HI 900225 25 mL burette syringe
HI 900210 10 mL burette syringe
HI 900205 5 mL burette syringe
HI 900260 3-way valve (includes 3 gaskets and 2 screws)

HI 900270 Aspiration tube with fitting (includes blue protection tube, gasket, and tube lock)
HI 900280 Dispensing tube with fitting (includes standard dispensing tip, blue protection tube, gasket, and tube lock)
HI 900301 Overhead stirrer assembly (includes overhead stirrer and 3 propellers)
HI 900302 Propeller (includes 3 propellers)
HI 900310 Overhead electrode holder (includes overhead stirrer without electronics and stir bar)
HI 900320 Stirrer stand

Contact us for more information:
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(800) 426-6287

With great products, come great results™
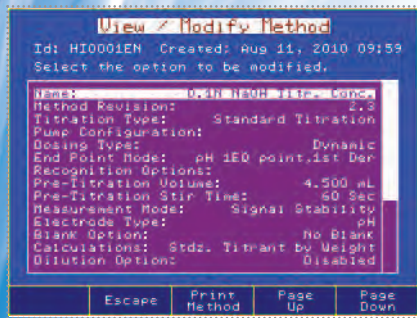
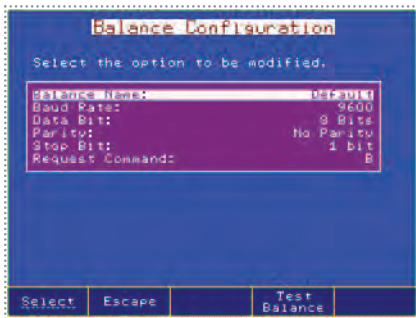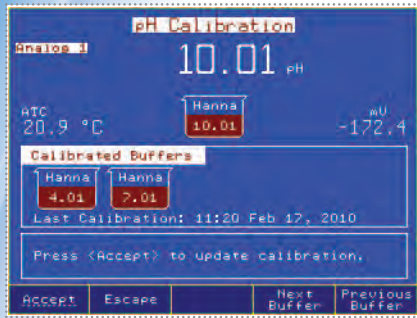www.hannainst.com

HANNA instruments®

Fully customizable titration methods

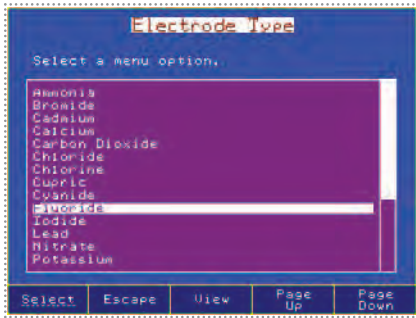**Linked methods allow two methods to run in sequence**

Fully configurable balance interface

Up to 5 pH calibration points, with automatic buffer recognition

Relative mV calibration allows for a mV offset

Select your ISE type from the available list

Versatile Data Management

- **HI 900 Series titration systems can be easily incorporated into any existing GLP data management program:**
  Easily record all necessary GLP information with every sample such as sample identification, company and operator name, date, time, electrode ID codes and calibration information
- **Data can be transferred to a PC using the HANNA HI 900PC application**
- **The USB port allows for the easy transfer of methods, reports and software upgrades via USB flash drive**
- **Users can print reports of analyses directly from the titrator using a standard parallel printer**
- **An external monitor and keyboard can be attached for added versatility**
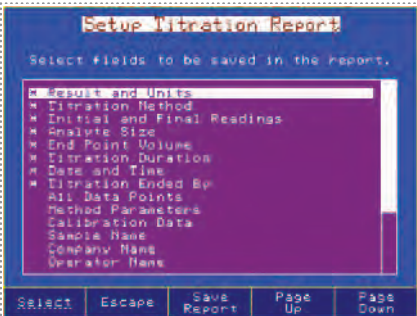
Customizable reports
Titration reports are fully customizable
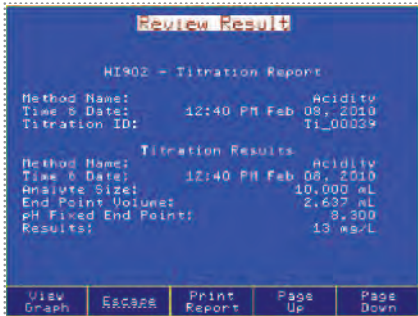
Versatile results
Titration or pH/mV/ISE reports can be viewed on-screen or transferred to a USB storage device
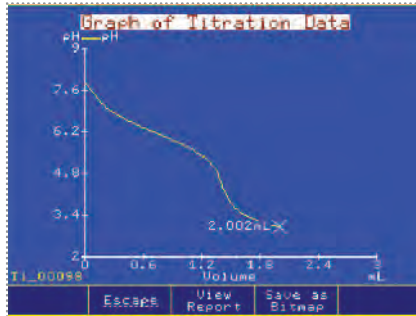
Titration graphs
Titration graphs can be viewed on screen or saved as bitmaps and transferred to a PC via USB

Support for 2 electrodes, 2 burette dosing pumps and 2 stirrers

Clip-Lock™ Exchangeable Burette System
With Clip-Lock™, it only takes a few seconds to exchange the reagent burettes to perform a different titration

HI 900301 stirrer
Ensures effective mixing with a selectable speed from 100 to 2500 rpm

Quick change
Keep several burettes on hand for a quick change

Powerful Customization, Accurate Analysis

The HI 902C is an automatic titrator that complements our wide range of products dedicated to quick and accurate laboratory analysis. HI 902C can perform acid/base, potentiometric, ORP, complexometric, precipitation, back titrations and titre determinations.

The HI 902C dispenses the titrant, detects the endpoint and performs all necessary calculations automatically.

This versatile titrator supports up to 100 methods, standard or user defined. When powered on, the instrument initiates an internal diagnostics check and then readies itself for the first titration of the day. A large color LCD screen clearly shows the chosen method and related information. A real-time titration curve can be shown on the display; this feature is useful when new methods are tested or when a procedure needs to be optimized. At the end of the titration, all data, including the graph, are automatically stored in memory and can be copied via the built-in USB drive or through direct connection with a PC.

This titrator is supplied with a pack of standard methods or you can create your own. Methods (standard and user) can be upgraded, stored or deleted by connecting the titrator to a PC with HANNA software or USB flash drive. Software updates can also be performed using a USB flash drive.

Users can connect pH, ORP or ISE electrodes to the HI 902C, as well as create a complete workstation with a PC, monitor, keyboard and printer.

The HI 902C complies with GLP specifications. All GLP information from each sample can be stored, including ID number, date and time of analysis, electrode ID code, and last calibration date.

Clip-Lock™ Exchangeable Burette System

With Clip-Lock™, it only takes a few seconds to exchange the reagent burettes to perform a different titration.

The Clip-Lock™ exchangeable burette system prevents cross contamination while reducing loss of time and reagents. Burettes simply slide out for quick exchanges and detaching the aspiration and dispensing tubes from the titrant bottles is easy.

Interrupting an important cycle of analysis due to a malfunctioning burette is a thing of the past. With the HANNA Clip-Lock™ system you can simply substitute the burette and complete all your tests with the same titrant!

Having several prepared burettes on hand will make the HANNA HI 902C one of the fastest and most versatile titration systems available.

Field upgradeable software via USB

Support for 2 electrodes, 2 burettes and 2 stirrers

Method sequencing

Full featured research grade pH/ISE meter

HI 902C Connectivity

| PC with HANNA software | VGA Display | Parallel Printer | PC Keyboard | Balance | USB Flash Drive |

With great products, come great results™