pH/mV/°C/ORP Analyzer
(Multipoint Calibration & 21 CFR Part-11 Compliance)
Model:µpHCal100 | Make:ANALAB | HSN Code:90278990

Supplied with Combination Glass pH Electrode (0-70°C), Standard Buffer Tablets (7.00 pH, 4.01 pH & 9.18 pH), Temperature Probe, Electrode Stand consists of Clamp, Base Plate & Rod, Dust Cover, DC Adaptor, ANALABsafe software, USB Interface Cable, Operational & Instruction Manual with SOP, Calibration Test Certificate (Without Traceability Document) and Warranty Card.

Technical Specification:

pH

Range	:	-2.000 to 20.000pH
Selectable Resolution	**:**	**0.1 / 0.01 / 0.001 pH**
Relative Accuracy	:	$\pm$ 0.002 pH

mV/ORP

Range – mV / RmV	:	$\pm$ 2000.0
ORP	:	EH auto calibration to standard hydrogen electrode
Resolution	:	0.1
Relative Accuracy	:	$\pm$ 0.2 mV OR 0.05%, whichever is greater.

Temperature

Range	:	-5.0 to 130.0ºC
Resolution	:	0.1ºC
Relative Accuracy	:	$\pm$ 0.1ºC
Temperature Compensation	:	Auto / Manual
Temperature Calibration	**:**	**In-built software and can be calibrated by users**
Selectable Slope	**:**	**1) 80-120 %**
		2) 90-110 %
		3) Customized slope (User adjustable)
Total Numbers of Slope	**:**	**4 slopes for Five-point calibration & 2 slopes for Three-point calibration**
		Maximum 10 Slope's depending upon points calibrated.
Auto Buffer Recognition	**:**	**1) 4.01, 6.86 / 7.00, 9.18 / 10.01 pH @ 25ºC for Three points**
		2) 1.68, 4.01, 6.86 / 7.00, 9.18 / 10.01 & 12.45 pH @ 25ºC for Five points
		3) Ten pH Buffer, 6.86 / 7.00 @ 25ºC for Multipoint Calibration.
Calibration Reminder Alarm	:	0-99 hours
Display Reading	:	Simultaneous - pH, mV & Temperature
Result hold / un-hold	:	By "hold / un-hold" Key
Result	**:**	**Auto / Manual**
Buffer Standard	**:**	**US / NIST / EURO / DIN**
Error Messages	**:**	**"Bad Buffer / Electrode", "Temperature Probe Error",**
		"In-complete Calibration", "Calibration Due",
		"Low Memory" & "pH Over Range".
Short Link	**:**	**Provided to diagnose the problem either with Instrument OR Electrode.**
Display	:	20 x 4 Line Alphanumeric Backlit LCD
Keypad	:	Membrane waterproof polycarbonate soft touch keypad compliance to UL/ROHS

Calibration Data Storage	:	Non-Volatile Memory which can store, print & view calibration date & time, calibration done by, calibration point, pH, mV, temperature, % slope, validation pH for Calibration standard buffers, instrument serial number, instrument ID, Model name, etc.
Analysis Data Storage	:	**More than 1500** analysis data can be stored, printed & viewed with corresponding calibration data with company name, analysis date & time, record number, batch number / ID, sample name, username, pH, mV, temperature reading, Corresponding Calibration Data, instrument serial number, instrument ID, model name etc. **Secondly,** analysis data can be print online.
Searching of data	:	With record number, batch number, date, date range and by scrolling.
Report Formation	:	**As per GLP Compliance.**
21 CFR Part-11 Compliance	:	• **In-built with system for ease of operation without PC.**

- • **2 Admin, 10 Reviewers, 40 Users & 1 Manufacturer with individual Login ID & Passcode.**
- • **Audit trail can store more than 5000 lines in instrument.**
- • **Audit trail includes action taken, date & time, action taken by whom.**
- • **Audit trail can be transfer to PC through ANALABsafe software and can print on 40 / 80 column dot matrix printer for record.**
- • **Admins can set up operation permission of each Users & Reviewers.**
- • **Strict Admins control to audit and monitor usage and access.**
- • **Audit trail record can be printed with Date, Date Range and by individual User's ID.**
- • **Once Audit trail transfer to the PC or Printer, system will delete Audit trail records and before final deletion, the system will give warning twice.**
- • **Data integrity with database capability to store Analysis Data, Calibration Data, Audit trail and Passcode in instrument.**
- • **No direct access to data from outside the instrument, thereby creating a closed system.**
- • **Audit traceability to ensure that the device and results are appropriately handled.**
- • **Auto User's logout after defined Logout time.**
- • **Auto Users & Reviewers block when password is entered incorrectly 3 consecutive times.**

Printer Interface	:	Centronics Parallel Port / Serial (RS-232 C) Port
Printer	:	40 / 80 Column Dot Matrix Printer (Printer to be procure optionally)
PC Interface	:	USB Type - B

PC Connectivity	:	By USB Interface Cable with Driver, **ANALABsafe** software to transfer Analysis data in GLP format, Calibration data and Audit trail from Instrument to PC in **non-editable format (Cannot be Deleted)**
Power Supply	:	DC Adaptor

Optional

1. **IQ / OQ / PQ / DQ Documents**
   Note: a) Please provide Customer's Name & Address prior to dispatch.
   b) To perform onsite documentation, visit charge will be extra depending upon place of Installation.
   c) Traceability documents along with installation report.
   d) Standards / Chemicals / Buffers required to perform documents are in customer's scope.
   e) We don't send documents by email.

2. **NIST Traceable pH Buffer Standards 1.68 / 4.01 / 7.01 / 9.18 / 12.45 pH @ 25ºC Any one Buffer (Capacity : 480 ml each)**

3. **GMP Enclosure made up of Stainless Steel**

4. **40 / 80 Column dot matrix printer**

5. **Keypad Screen Guard**

6. **Traceability Documents**

Available other Models of pH/mV/°C Analyzer

- Digital pH/mV Meter Model: pHCal   • pH/mV/°C Analyzer Model: μpHCal5 with Two Point Calibration
- pH/mV/°C Analyzer Model: μpHCal5+ with Two / Three Point Calibration
- pH/mV/°C/ORP Analyzer Model: μpHCal10+ (Two / Three Point Calibration & Non-GLP Format Printing Facility)
- pH/mV/°C/ORP Analyzer Model: μpHCal50 (Three / Five Point Calibration with GLP Format Printing Facility)
- pH/mV/°C/ORP Analyzer Model: μpHCal100 (Multipoint Calibration with 21CFR Part-11 Compliance)
- Handheld pH/mV/°C Analyzer Model: μpHCalHandheld (Two Point Calibration)
- Online pH Controller Model: μpHCalOnline with Three Point Calibration

Product Range

• pH/mV/ºC/ORP Analyzer • Conductivity/TDS/Resistivity/Salinity/ºC Analyzer • Multiparameter Analyzer (pH/ORP/Conductivity/TDS/Resistivity/Salinity/°C) • Karl Fischer Titrator • Auto Titrator • Automatic Melting Point Apparatus • Flame Photometer • Friability Test Apparatus • Tablet Dis-integration Test Apparatus • Tap Density Test Apparatus • Tablet Hardness Tester • Leak Test Apparatus • Tablet Dissolution Test Apparatus • Electromagnetic Sieve Shaker • Ultrasonic Bath (Sonicator) • Analytical Electronics Balance • Halogen Based Moisture Analyzer • Visible & UV-Vis. Spectrophotometer • Nitrogen Gas Generator • Zero Air Gas Generator • Combination Nitrogen / Zero Air Gas Generator • Air Drying Unit for TOC Analyzer • Dew Point Apparatus • Gas Handling & Purification System • Laboratory Furniture & Fume Hood • Exhaust Hood for AAS/ICP.