

Microcontroller Based Karl Fischer Titrator (21 CFR Part-11 Compliance)

Model: μ AquaCal100 | Make: ANALAB | HSN Code: 90278990



Supplied with 250ml Reaction Vessel, Dual Platinum Combined Electrode, Teflon Paddle, Teflon Assembly, Moisture Trap (02 Nos.), 250ml Amber Reservoir Bottle, Dispensing Tube (02 Nos.), Micro tip (02 Nos.) Teflon Tube for Dispensing Path, Power Cord, ANALABsafe software, USB Interface Cable, Operational & Instruction Manual with SOP, Calibration Test Certificate (Without Traceability Document) and Warranty Card.

Technical Specification:

Method of Detection	: Conductometric / Volumetric
Range of Moisture Detection	: Better than 50 ppm to 100% (depends upon type of sample)
Dispensing Resolution	: 0.001ml
Magnetic Stirrer	: Built-in with soft touch Key speed controller
Calibration	: Average factor can be calculated by <ol style="list-style-type: none">1) Water by volume2) Water by weight3) By DST
Method	: 40 with Three pre-assigned methods <ol style="list-style-type: none">1) Liquid by volume2) Liquid by weight3) For Solid sample Method No. 4-40 are customized with View, Print & Delete facility.
Auto Neutralization	: On / Off - users selectable - reduces the time between analysis & gives accurate results
Stirring Time	: 00:00 to 99:00 (mm:ss) – users adjustable
End Point Sensitivity	: 80-100 - users adjustable
End Point Time	: 1-20 seconds - users adjustable
End Point mV	: 1000-3000 mV - users adjustable
End Point Detection	: By Audio & Visual Alarm
Calibration Reminder Alarm	: 0-99 Hours
Over titration Alarm	: Audio / Visual Alarm at 15 ml to save KF Reagent
Display of Reading	: Moisture in ppm, percentage (%), mg/ml of water, gm/L, Mol/L
Auto Drain	: For cleaning reaction vessel - useful for large & multiple volume sample
Flush	: For cleaning dispensing path
Calculation of % RSD	: Possible
Average KF Factor Calculation:	: Automatic - Maximum 5 factor can be stored in memory.
Weight Entry	: In Resolution of 0.1 mg / 0.01 mg - users selectable
Weight Transfer	: Possible through RS-232 Port (From Balance to AKF)
Balance Interface	: Yes, with RS-232 Port
Dispenser Calibration/Validation:	: Onsite by user

Dispenser MOC	: SS-316L & Teflon for Corrosion Protection & Maintenance Free Operation
Dispenser type	: Motorized - For accurate measurement
Teflon Tube	: To transfer KF reagent from KF reagent bottle to dispenser & dispenser to reaction vessel
Material of Construction	: Epoxy Based Powder Coated Metallic Body / GMP Enclosure made up of Stainless Steel
Type of Electrode	: Dual Platinum - Combined Type
Input	: Electrode with Banana Connector
Error Messages	: “Over KF”, “KF Factor Error”, “Max. Factor Reached” & “Low Memory”
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 method, calibration done by, stirring time, average KF factor, % RSD, instrument serial number, instrument ID etc.
Analysis Data Storage	: More than 1500 analysis data, with corresponding calibration data company name, analysis date & time, record number, batch / ID number, sample name, username, sample type and method, sample volume (ml / mg), sample density (for liquid sample), stirring time, end point time, end point in ml, moisture result in %, ppm & H ₂ O (mg / ml), analysis done on, instrument serial number, instrument ID etc. Secondly , analysis data can be print online.
Searching of data	: With record number, batch number/ID, date, date range and by scrolling.
Report Formation	: As per GLP Compliance
21 CFR Part-11 Compliance	: <ul style="list-style-type: none">• 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, Analysis Method 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 must 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	:	230VAC \pm 10%, 50 Hz

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. Syringe for factor calculation

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 Karl Fischer Titrator

- Karl Fischer Titrator Model: μ AquaCal5 (0.1 ml Auto Dispenser)
- Karl Fischer Titrator Model: μ AquaCal10+ (0.01 ml Auto Dispenser & Auto Drain with Printing Facility as per Non-GLP Format)
- Karl Fischer Titrator Model: μ AquaCal50 (0.001 ml Auto Dispenser & Auto Drain with Printing Facility as per GLP Format)
- Karl Fischer Titrator Model: μ AquaCal100 (0.001 ml Auto Dispenser & Auto Drain with 21 CFR Part-11 Compliance)

Product Range

- pH/mV/°C/ORP Analyzer • Conductivity/TDS/Resistivity/Salinity/°C 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.

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