VITANIX
future of healthcare

ELECTROLYTE ANALYZER
Vita Lyte Series



MADE IN SLOVENIA

CE

ISO 13485 SGS

UKAS MANAGEMENT SYSTEMS 0005

ELECTRO LYTE ANALYZER

Electro Lyte Analyzer Series
VITA LYTE A (K^+, Na^+, Cl^-, Ca^{2+}, pH)
VITA LYTE B (K^+, Na^+, Li^+, Ca^{2+}, pH)

ANALYZER OVERVIEW

ACCURATE - STABLE - INTELEGENT - INNOVATIVE

Accurate – Precise measurements for dependable clinical results.
Stable – Consistent performance and reliable operation.
Intelligent – Smart technology designed for efficient laboratory workflows.
Innovative – Advanced features engineered for modern clinical diagnostics.

Features & Benefits

High-Efficiency Cleaning System

Automatic Sample Washing: Advanced cleaning technology ensures efficient washing of the sample pathway after each test.
Reduced Cross-Contamination: Optimized cleaning performance helps minimize carryover and maintains sample integrity.
Automatic Standby Cleaning: The instrument self-cleans every 20 minutes while in standby, keeping the flow path ready for testing.
Anti-Protein Cleaning Program: A dedicated cleaning cycle removes protein deposits from the tubing and electrodes to extend electrode life.

Reliable Detection System

Stable Pump Performance: High-quality, long-life peristaltic pump and durable tubing components ensure dependable fluid handling.
Sensitive & Reliable Detection: Ion-selective electrodes with a flow-through measuring chamber provide high sensitivity and strong resistance to interference for consistent and dependable results.

Automated & Simplified Operation

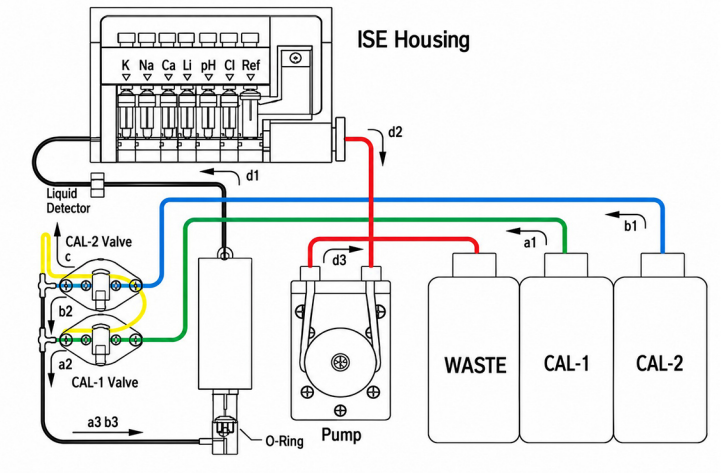
Intelligent Liquid-Path Monitoring: Integrated sensors continuously monitor the liquid pathway for smooth and reliable operation.
Probe Position Sensor: An optical position sensor detects the sample probe. Sample is aspirated automatically when the probe handle is lifted, and testing starts automatically when it is lowered.
Liquid Level Detection: An optical sensor controls sample and reagent aspiration, warns “No liquid” when aspiration fails, and aspiration volume can be fine-tuned through liquid-position calibration.

Autosampler (Optional)

The automatic sampler integrates cleaning, calibration, quality control, and emergency functions to work seamlessly with the automatic flushing system, providing a convenient, fast, and time-saving workflow.All models can be equipped with an optional autosampler.

Comprehensive Testing Capability

Standard parameters: K^+, Na^+, Cl^-, $Ca^{2+}$and pH.
Optional parameter: Li^+
Calculated parameters: n-Ca (ionised calcium normalised to pH 7.4) and T-Ca.
Urine mode: K^+, Na^+ and Cl^- (urine diluted 1:10 with Cal-1 solution).



Test Item	Precision (CV%)	Resolution	Measuring Range
K^+	≤1.0%	0.01 mmol/L	0.50–15.00 mmol/L
Na^+	≤1.0%	0.1 mmol/L	30.00–200.00 mmol/L
Cl^-	≤1.0%	0.1 mmol/L	30.00–200.00 mmol/L
Ca^{2+}	≤1.5%	0.01 mmol/L	0.10–5.00 mmol/L
pH	≤1.0%	0.01	4.00–9.00
Li^+ (Optional)	—	0.01 mmol/L	—

Displayed Parameters

Simultaneous digital display of results.
Selectable and adjustable reference ranges for all parameters.
"H" / "L" flags for results above or below the set normal range, with automatic printout of every result.

Calibration & Quality Control

Automatic Two-Point Calibration: Cal-1 and Cal-2 calibration run automatically at start-up, and each electrode is checked for stability within 60 seconds; any failed electrode is shown on screen.
Electrode Tracking: Optional automatic quick calibration before sample tests, with a full Cal-1/Cal-2 calibration after every 10 samples.
Two-Level QC: QC-1 and QC-2 with user-set targets and limits, out-of-range alarm and automatic mean, SD and CV calculation.
Automatic Correction Factors: Correction factors can be adjusted automatically from two-level QC data.
IC-Card Reagent Management: Each new Cal-1 reagent is registered with an IC card, and the analyzer prompts for reagent replacement when the Cal-1 bottle is empty.



Optional autosampler

- The automatic sampler with cleaning, calibration, quality control, and emergency functions is set to match the automatic flushing system, which is convenient, fast, and saves time and effort.
- All models can be equipped with an autosampler.

Completed testing project

- The detection items including K^+, Na^+, Cl^-, Ca^{2+}, Li^+, pH.





High efficient cleaning system

- Sophisticated design with automatic sample washing system.
- Completely overcome cross-contamination between samples.

Reliable detection system

- Equip with stable and long-life peristaltic pump, imported tubing components and detection elements.
- High detection sensitivity and strong anti-interference ability is available to make a stable and reliable result.





Automated and simplified operation

- Reliable liquid path positioning sensor detects the working process of the flow path in the whole process, and the automatic positioning make the measurement process simple and reliable. The correction program of unique automatic injection volume avoids instability of the test results.

TECHNICAL SPECIFICATONS

Parameter	Specification
Measuring Technology	Ion Selective Electrode (ISE) method
Sample Types	Whole blood, serum, plasma, QC, and diluted urine
Sample Volume	100 µL
Sample Application	Syringe, sample cup, collection tube, capillary
Analysis Time	≤60 seconds
Testing Throughput	Up to 60 samples/hour with printout
Calibration	Fully automatic 1-point and 2-point calibration; rapid calibration with each sample
Quality Control	2 levels (QC-1, QC-2); automatic mean, SD and CV statistics
Data Storage	Up to 512 test results; 31 results for each QC level
Reference Ranges	User-programmable normal ranges with H / L flagging
Correction Factors	User-programmable (slope/intercept) for different sample types
Display	128 × 64 dot-matrix LCD with backlight
Printer	Built-in 58 mm thermal printer
Operation	3-key keypad (YES / NO / EXIT), English interface
Standby Mode	Automatic power-saving after 3 min idle; self-cleaning every 20 min
Self-Diagnostics	Automatic start-up self-check; memory for the last 20 error messages
Computer Interface	RS-232C standard serial port
Dimensions (H × W × D)	33.5 × 28.0 × 29.5 cm
Weight	Approx. 6 kg (13 lb)
Operating Temperature	5°C–40°C
Relative Humidity	≤85%, non-condensing
Power Supply	AC 100–240 V, 50/60 Hz
Fuse	T1A/250V, Ř5 × 20 mm

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