

TECHNICAL SPECIFICATIONS

|                             |                                                                                                                                                                                                                                                                                |        |  |                 |       |                |       |                 |       |                   |       |    |       |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--|-----------------|-------|----------------|-------|-----------------|-------|-------------------|-------|----|-------|
| Principle                   | Ion selective Electrode ( ISE )                                                                                                                                                                                                                                                |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Sample Types                | Serum, Plasma, Whole Blood, Urine, CSF                                                                                                                                                                                                                                         |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Measured Parameters         | Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , iCa <sup>++</sup> , pH                                                                                                                                                                                                    |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Calculated Parameters       | TCa, nCa                                                                                                                                                                                                                                                                       |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Sample volume               | ≤ 90µL                                                                                                                                                                                                                                                                         |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Analysis Time               | ≤ 60 secs                                                                                                                                                                                                                                                                      |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Throughput                  | ≤ 60 samples per hour                                                                                                                                                                                                                                                          |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Calibration                 | Automatic Calibration :<br>• User-defined two-point calibration interval - 4 hours/ 8 hours/ 12 hours<br>• One Point Calibration with each sample analysis                                                                                                                     |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Normal Ranges               | User defined Normal Ranges for all Sample types with flagging for Abnormal Samples                                                                                                                                                                                             |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Data Management             | Calibration History, Sample History and Control History of last 30 days                                                                                                                                                                                                        |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Quality Control             | Tri-Level Quality Control, with L J Plots of last 30 days                                                                                                                                                                                                                      |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Display                     | 5" color LCD with Touchscreen Display, Resolution: 480 x 272 pixels                                                                                                                                                                                                            |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Printer                     | Built-in 2" ( 48 mm ) Thermal Printer, 42 characters wide                                                                                                                                                                                                                      |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| External Interface          | USB ( Keyboard, Barcode reader, Mouse, Pendrive )                                                                                                                                                                                                                              |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Operating Temp.             | 15 to 35°C                                                                                                                                                                                                                                                                     |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Relative Humidity           | 5 to 85% non-condensing                                                                                                                                                                                                                                                        |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Power Supply                | 110 to 240 VAC 50/60 Hz +/- 10%, 35W                                                                                                                                                                                                                                           |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Dimensions                  | 365mm x 255mm x 375mm                                                                                                                                                                                                                                                          |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Net Weight   Sample Storage | 5 Kg   10,000                                                                                                                                                                                                                                                                  |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Precision                   | <table><tr><td colspan="2">CV % -</td></tr><tr><td>Na<sup>+</sup></td><td>≤ 2%,</td></tr><tr><td>K<sup>+</sup></td><td>≤ 2%,</td></tr><tr><td>Cl<sup>-</sup></td><td>≤ 2%,</td></tr><tr><td>iCa<sup>++</sup></td><td>≤ 3%,</td></tr><tr><td>pH</td><td>≤ 2%,</td></tr></table> | CV % - |  | Na <sup>+</sup> | ≤ 2%, | K <sup>+</sup> | ≤ 2%, | Cl <sup>-</sup> | ≤ 2%, | iCa <sup>++</sup> | ≤ 3%, | pH | ≤ 2%, |
| CV % -                      |                                                                                                                                                                                                                                                                                |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Na <sup>+</sup>             | ≤ 2%,                                                                                                                                                                                                                                                                          |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| K <sup>+</sup>              | ≤ 2%,                                                                                                                                                                                                                                                                          |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| Cl <sup>-</sup>             | ≤ 2%,                                                                                                                                                                                                                                                                          |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| iCa <sup>++</sup>           | ≤ 3%,                                                                                                                                                                                                                                                                          |        |  |                 |       |                |       |                 |       |                   |       |    |       |
| pH                          | ≤ 2%,                                                                                                                                                                                                                                                                          |        |  |                 |       |                |       |                 |       |                   |       |    |       |

ISE - Tritrol



\* Optional Barcode reader & LIS available.

AGD Biomedicals Pvt. Ltd.  
Mehta Trade Center,  
Sir M.V. Road, Andheri East,  
Mumbai - 400 099 INDIA

P : +91-22-28231061/66  
+91-22-28257999  
E : sales@agdbio.com  
W : www.agdbio.com



\*Specifications are subject to change without the prior notice of manufacturer.



ACCURATE | RELIABLE | FRIENDLY INTERFACE

EL - 120

ELECTROLYTE ANALYZER



- Na<sup>+</sup>, K<sup>+</sup>, Cl<sup>-</sup>, iCa<sup>++</sup>, pH
- Calculated parameters: TCa, nCa
- Low sample volume
- Fast sample processing
- Low cost per test

Erma EL - 120 is ideal for Medium to High Volume Laboratories and Hospitals. It is user Friendly & Reliable. It also allows measurement of specific ions; Accurately and Precisely. This supports Fast Diagnosis.

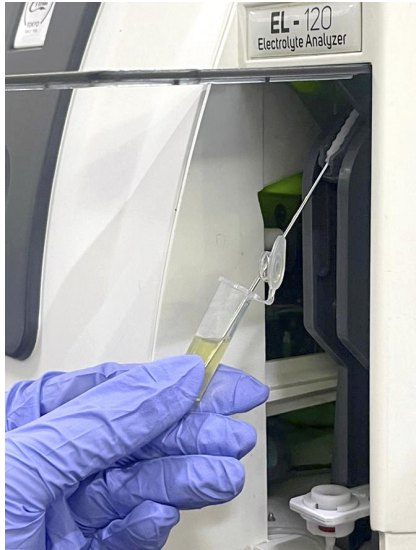
## MAIN MENU

- Large Graphical Display affords convenience of Operation and Minimizes Errors while Entering Data
- User Friendly Software with Interactive Graphical User Interface
- Shortcut Menu Keys for Easy Operation



## ANALYSIS

- Aspiration System: Internal Peristaltic Stepper Motor Pump for Accurate and Precise aspiration of Analytes
- Automatic flushing after aspiration of every sample to eliminate carryover
- Precise & Accurate Result



## ELECTRODES

- Electrodes are based on Ion Selective Principle
- Electrodes can be refilled.
- Long life and Assured Stability



## CALIBRATION

- Two Point Calibration after 4 hrs/ 8 hrs or 12 hrs. Programmable as per user
- One Point Calibration with each Sample Analysis
- Display Status of Calibration with Date and Time for each parameter
- Also Displays the Date and Time of next Calibration to be Performed / Due

## RUN QUALITY CONTROL

- Levy Jennings plot of daily and monthly QC data to assess the performance
- Helpful for laboratories incase of Accreditation and Quality Assessment

## ISEPak

- Convenient to place ISEpak which contains reagents required for all parameters
- Integrated reagent Pack for testing of All Parameters
- In-Built Reagent Inventory Management Software

## URINE DILUENT AND DEPROTEINIZER

- **Urine Diluent** : Used for the Dilution of Urine Samples to Quantitatively determine Urine Electrolytes.
- **Deproteinizer** : Used for the Cleaning and Maintenance of Electrolyte Analyzer

### Measuring Range

| PARAMETER         | SERUM /PLASMA<br>BLOOD / AQUEOUS |
|-------------------|----------------------------------|
| Na <sup>+</sup>   | 40 - 205                         |
| K <sup>+</sup>    | 1.5 - 15                         |
| Cl <sup>-</sup>   | 50 - 200                         |
| iCa <sup>++</sup> | 0.2 - 5.0                        |
| pH                | 5.0 - 9.0                        |

| Sample Result        |              |        |
|----------------------|--------------|--------|
| Id: 22110309390001   |              |        |
| Date: 03/11/22 09:41 |              |        |
| External Id: 0001    |              |        |
| Name: -              |              |        |
| Sample Type: Aqueous |              |        |
| Parameter            | Result       | Status |
| Na <sup>+</sup>      | 129.1 mmol/L | OK     |
| K <sup>+</sup>       | 2.82 mmol/L  | OK     |
| pH                   | 7.275 units  | OK     |
| iCa <sup>++</sup>    | 1.70 mmol/L  | OK     |
| nCa <sup>++</sup>    | 1.58 mmol/L  | OK     |
| tCa <sup>++</sup>    | 3.39 mmol/L  | OK     |
| Cl <sup>-</sup>      | 116.5 mmol/L | OK     |

