







The Magic is in the **BIO**sensor

EC 90

Detects Na<sup>+</sup>, K<sup>+</sup>, Cl<sup>-</sup>, iCa<sup>++</sup>



Seamless Operation Patient Friendly User Friendly Affordable

Making Automation Affordable for labs Everywhere



# **EC 90**

# **Next Generation Electrolyte Analyzer**

The state-of-the-art Microfluidic **BIO**sensor technology-based analyzer with high quality components, increases productivity, improves turnaround time, offers accurate results, and reduces operational costs to make electrolyte analysis more affordable.

The microfluidic chip, integrated with printed sensors, enables hassle-free operation. The small footprint along with the all-in-one cartridge makes analysis easier and perfects for small to high workload users

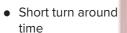
## **KEY BENEFITS**



- Helps lab in creation the brand
- Advanced technology
- Excellent data management



#### **PATIENT FRIENDLY**



 Small aspiration volume helps to analyse Paediatric & Geriatric samples



# **FRIENDLY**

- Plug & play
- Simple user interface
- No replacement of electrode
- Easy access through barcode
- Lab mean enabled
- All-in-one cartridge

# **USER**

Higher revenues

**AFFORDABLE** 

- No extra maintenance cost
- Fixed output
- Predictable cost per test

## Advantage of DIRECT ISE over INDIRECT ISE

**Direct ISE** 

Quicker Turn The patient's sample (Serum/Plasma, Whole Blood, and Other Body Fluid) is brought into direct contact Around Time with electrode membrane of BioSensor and the activity of the respective ion is measured Therefore, DIRECT ISE has quicker TAT

electrolyte Analysis

The patient's sample (Serum/Plasma, Whole Blood, and Other Body Fluid) gets diluted first with a buffer in the range of 1:16 to 1:34 before the sample meets electrode membrane

**Indirect ISE** 

Freedom from Protein & Lipid Interference

Illness such as Diabetes, Liver and Kidney disorders and alcoholism can raise protein and lipid concentration in the blood, causing HYPERPROTEINEMIA and HYPERLIPIDEMIA.

**Hence DIRECT ISE ensures accurate** result even in conditions like **HYPERPROTEINEMIA** and **HYPERLIPIDEMIA** 

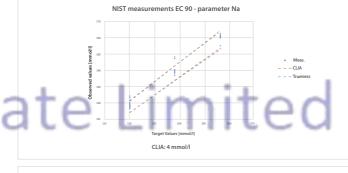
compared to any other principle available for

In case of HYPERPROTEINEMIA and HYPERLIPIDEMIA, the volume of plasma solid increases, which lead to falsely low value, especially for Sodium. The phenomenon is known as PSEUDOHYPONETREMIA and has an impact on result in INDIRECT ISE

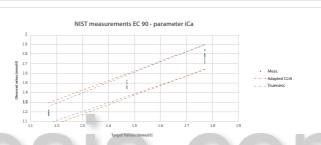
Accurate results for all patient types Conditions like dehydration can reduce the plasma water concentration of the sample. Direct ISE with biosensor is reporting the true results, without any plasma water concentration assumption

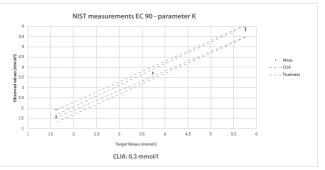
**DIRECT ISE will provide accurate result** as it is not using any calculation of plasma water concentration

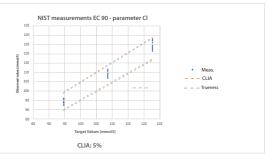
Indirect ISE use a calculation based on assumption of 93% plasma water concentration. Various degree of dehydration reduces the plasma water concentration which lead to inaccurate results



**EC90 NIST\* Performance** 







NIST Standard Reference Materials (SRMs) are key tools for verifying important measurement results, developing new measurement methods, and providing users with the means to establish traceability of their results to a stated reference.

# **KEY FEATURES**











**Analysis Time** 35 sec



All-in-One Cartridge



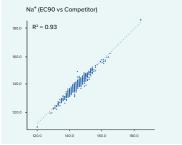


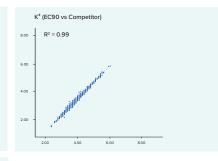


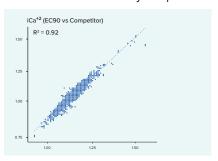
**10000** sample storage capacity

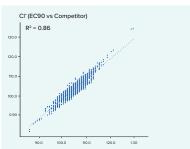
## Method evaluation in a clinical setting

EC90 results were evaluated using ~1300 patients measured on the reference device in a university hospital.









The EC90 Analyser results displayed a very strong correlation with the reference device. Few, small variations between sensors, days and devices were detected which are not clinically relevant.



# **Ordering Information**

Product Code		HSN Code	Product Description
166409		90278990	EC-90 - Electrolyte Analyzer
122095		38221990	EC Cartridge XS (250T)
122041		38221990	EC Cartridge S (500T)
122040		38221990	EC Cartridge M (1000T)
122121		38221990	EC Cartridge XS (250T) plus iCa
122122	D::	38221990	EC Cartridge S (500T) plus iCa
122123	RIOSIS	38221990	EC Cartridge M (1000T) plus iCa
122125		38221990	EC90 Urine Diluent

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