



# V4r

## pH & TCO<sub>2</sub> + Electrolyte Analyzer



Autosampler for primary tubes (optional)



Self-cleaning fill port



Automatic calibration



60 samples per hour (without TCO<sub>2</sub>)  
30 samples per hour (with TCO<sub>2</sub>)



Manual and/or Automatic sample loading  
From syringe, tube or capillary



HD 4" touchscreen  
Multilingual, user friendly interface



Built-in barcode reader



Built-in printer



Levey-Jennings charts



QC validation software  
Local or remote



### Connectivity

LIS, keyboard, mouse, ethernet, USB, wireless connectivity



## Electrolytes/Parameters available

(up to 9 simultaneously)

pH, TCO<sub>2</sub>, Na<sup>+</sup>, K<sup>+</sup>, Cl<sup>-</sup>, Ca<sup>++</sup>, Li<sup>+</sup>

Calculated parameters: AnionGap, Ca<sup>++</sup>@pH 7,40

## Autosampler

(optional)

Up to 40 positions.

Primary pediatric or adult tubes, cups, ependorf.

## Principle measurement

Direct ISE, manometric method for TCO<sub>2</sub>.

## Sample type

Whole blood, serum, plasm, urine, sweat and others.

## Minimum sample volume

175 µl (5 electrolytes + pH)

200 µl (5 electrolytes + pH + TCO<sub>2</sub>).

## Large memory for sample results

## Calibration & Rinse

Automatic, configurable Standby mode.

## Operator information

Multiple user login

## Pack of consumables on board



### Manual load

60 samples per hour (without TCO<sub>2</sub>)  
30 samples per hour (with TCO<sub>2</sub>)



### With autosampler

49 samples per hour, rinse between samples (without TCO<sub>2</sub>)  
28 samples per hour, rinse between samples (with TCO<sub>2</sub>)



### Time to results

60 seconds (without TCO<sub>2</sub>)  
95 seconds (with TCO<sub>2</sub>)

## Ranges and reproducibility

### Serum measurement range(mmol/l)

Na<sup>+</sup> : 40.0 - 220.0  
K<sup>+</sup>: 1.00 - 30.00  
Cl<sup>-</sup> : 20,0 - 250,0  
Ca<sup>++</sup> : 0,20 - 5,00  
Li<sup>+</sup> : 0,30 - 5,00  
pH : 6,80 - 7,80  
TCO<sub>2</sub>: 5,0 - 100,0

### Reproducibility in Serum Within Run (n=20)(mmol/L)

Na<sup>+</sup> (140-160) CV≤ 1%  
K<sup>+</sup> (4-8) CV≤1%  
Cl<sup>-</sup>(90-125) CV≤ 1%  
Ca<sup>++</sup> (1-1,5) SD ≤0,05  
Li<sup>+</sup> (1-1,5)SD≤0,06  
pH (7,0-7,6) SD≤0,01  
TCO<sub>2</sub> (15-50)≤3,5%

### Urine measurement range (mmol/l)

Na<sup>+</sup> : 20.0 - 300.0  
K<sup>+</sup> : 2.00 - 150.00  
Cl<sup>-</sup>: 20.0 - 300.0

### Reproducibility in Urine Within Run (n=20)(mmol/L)