

DIAMOND[®]
DIAGNOSTICS



SmartLyte[®]

The World's Most Reliable Electrolyte Analyzer



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Sample

Whole Blood, Serum, Plasma, Urine or Dialysate

Sample Size

95 µl

Number of Parameters

3 (Simultaneously)

Detection Range

Blood Na⁺: 40-200 mmol/L

Dialysate K⁺: 1.7-15 mmol/L

Cl⁻: 50-200 mmol/L

Ca⁺⁺: 0.3-5.0 mmol/L

Li⁺: 0.2-5.5 mmol/L

Urine Na⁺: 3-300 mmol/L

K⁺: 5-120* mmol/L

Cl⁻: 15-300 mmol/L

*60-120 requires additional dilution

Reproducibility

Typical Within Run (n=30)

Blood, Serum, Plasma, Dialysate

Na⁺: CV ≤ 1% (120-160mmol/L)

K⁺: CV ≤ 2% (2.5-6 mmol/L)

Cl⁻: CV ≤ 2% (85-130 mmol/L)

Ca⁺⁺: SD ≤ 0.02 mmol/L (0.8-1.5 mmol/L)

Li⁺: SD ≤ 0.02 mmol/L (0.4-1.3 mmol/L)

(Lithium not typically measured in dialysate samples)

Urine

Na⁺: CV ≤ 5% (100-250 mmol/L)

K⁺: CV ≤ 5% (10-60 mmol/L)

Cl⁻: CV ≤ 5% (100-250 mmol/L)

(Calcium and Lithium are not typically measured in urine samples)

Display Resolution

Na⁺: 1 mmol/L or 0.1 mmol/L

K⁺: 0.1 mmol/L or 0.01 mmol/L

Cl⁻: 1 mmol/L or 0.1 mmol/L

Ca⁺⁺: 0.01 mmol/L or 0.001 mmol/L

Li⁺: 0.01 mmol/L or 0.001 mmol/L

Veterinary Options

Feline, Canine, Bovine, Equine, Swine, Ovine or Open

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Analysis Time

60 sec without printout (60 per hour)

72 sec with printout (50 per hour)

Data Storage

1000 Patient Results

500 Level 1 QC Results

500 Level 2 QC Results

500 Level 3 QC Results

Calibration

2 Point every 4 hours

On Demand

1 Point after every Measurement

User Input

Keypad, External Keyboard

External Barcode Scanner (optional)

Output

Graphic backlit display

Graphic 16 column printer

RS232 LIS Communication

Ambient Conditions

15-32°C, Room temperature (60-90°F)

<85% humidity

Languages

English, Chinese, French, German, Italian, Korean
Japanese, Portuguese, Russian, Spanish, Polish

Power

100-240V ~ 50/60 Hz (self adjusting)

1.6 A max, 50 Watts max

Size & Weight

13.2 x 12.4 x 12" or 335 x 315 x 295 mm

14 lbs or 6 kgs

DIAMOND®
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