Specifications

Operating Parameters

Measuring Range (Blood)
Na^+ : 20~250 mmol/L
K^+ : 0.5~20.0 mmol/L
Cl^- : 20~250 mmol/L
Ca^{2+} : 0.25~5.00 mmol/L

Measuring Range (Urine)
Na^+ : 10~400 mmol/L
K^+ : 1.0~120.0 mmol/L
Cl^- : 10~400 mmol/L
Ca^{2+} : Not available

Sample Type
Whole blood, Plasma, Serum, Urine

Sample Volume
60 µL

Sample introduction
Aspiration

Sample container
Tube, Syringe, Capillary

Sample Analysis Time
35 seconds

Measuring temperature
37.0±0.2 ℃

Measuring method
Electrochemistry (Direct ISE)

Calibration
Automatic 1-2-point calibration
Manual calibration is available if necessary

Temperature / Relative humidity
15~35 ℃ / 5~85 %

Cartridge

Test Panel Options
- i-Smart 30 PRO Cartridge E4
  Na^+, K^+, Cl^-, Ca^{2+}
- i-Smart 30 PRO Cartridge
  Na^+, K^+, Cl^-

Test Volume Options
50 tests / 4 weeks
100 tests / 4 weeks
200 tests / 4 weeks
300 tests / 4 weeks

Components
- Micro-sensor card
- Cal1, Cal2
- Reference solution
- Sampler & waste bag
- Valve and tubing

Storage Condition
10~30 ℃

Dimensions
138(W) x 139(H) x 80(D) mm

Weight
0.8 kg

Instrument & Connectivity

Computer
1.1 GHz dual core processor
RAM 4GB, SSD 32GB storage

Operating System
Microsoft® Windows® IoT10 Enterprise

Display
7 inch TFT LCD touch screen
wide view angle

Printer
2 inch thermal printer (built-in)

Dimensions / Weight
256(W) x 292(H) x 177(D) mm
5.5 kg (accessories excluded)

System Connectivity
Bidirectional LIS/HIS communication

Power Interface

Voltage
100~240 Va.c.

Frequency
50/60 Hz (±10%)

Power Adaptor
Input: AC-DC power supplies
Output: +24 Vd.c., Max. 2.7A, 65W

Battery Operation
Max. 2 hours (Li ion cells)

Interface
- 3 x USB 3.0
- Serial port (RS-232)
- Ethernet port (RJ45)
- HDMI interface (external display)

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i·Smart 30 PRO

Electrolyte Analyzer – Next Generation

Smart and Convenient

35 Seconds — Fast Analysis
60 µℓ — Small Sample Volume
Direct Urine test
All in 1 — All in One Cartridge
Voice Guidance
Touch Screen Operation
QC — Convenient Quality Control
L-J chart

i·Smart 30 PRO

Electrolyte Analyzer – Next Generation

- Measures Na^+, K^+, Cl^- and Ca^{2+} concentrations with 60 µL of blood or urine.
- Reports patient results in 35 seconds.
- Maintenance free cartridge and easy to use.
- Upgraded hardware allows stable performance.
- Reliable QC management with L-J chart.
- Operates on battery for max. two hours without being plugged in.

01 Maintenance Free Cartridge

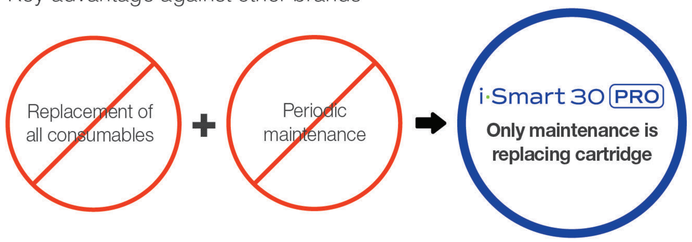
- All-in-one cartridge contains all reagents & consumables.
- Only required maintenance is replacing cartridge.
- Reduces expense & increases profit.

*Available to get 4 parameters' test results (Na^+, K^+, Cl^-, Ca^{2+}) by one test.

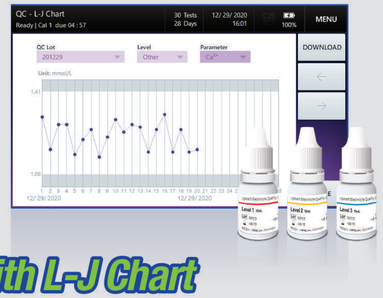
Available cartridge types:

- 50 Samples / 4 weeks
- 100 Samples / 4 weeks
- 200 Samples / 4 weeks
- 300 Samples / 4 weeks

Key advantage against other brands



02 Reliable QC Management with L-J Chart

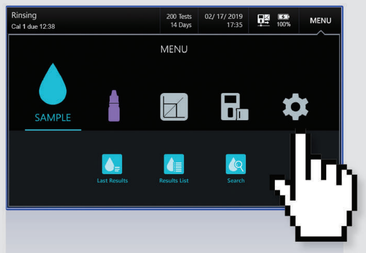


- Easy to check reliable performance with i-Smart electrolyte QC (3levels).
- Easy QC management and enhanced monitoring of QC results with L-J chart.

03 No Dilution Convenient Urine Test

- Wide K^+ sensor detection allows for urine sample test without dilution.
- No pre-treatment decreases test procedures and user errors.

04 Easy to Use



- Simple operation steps & User-friendly interface.
- Easy network interface set up to LIS/HIS.

05 Powerful Hardware with Smart Software

- Allow better performance stability with improved CPU & Window® 10 OS.
- Equipped with abundant memory space.
- Enhanced usability with intuitive GUI & Touch screen.

06 Operation on Battery

- Operates on battery for a max of 2 hours.
- Can operate during a blackout.