Specifications

Operating Parameters

Reportable Range
pH : 6.500~7.800
pCO_2 : 5.0~150.0 mmHg
pO_2 : 10~680 mmHg
Na^+ : 80~200 mmol/L
K^+ : 1.0~20.0 mmol/L
Ca^{2+} : 0.25~5.00 mmol/L
Cl^- : 50~150 mmol/L
Glu : 5~500 mg/dL
Lac : 0.2~15.0 mmol/L
Hct : 10~70%

Calculated Parameters
pH(T), pCO_2(T), pO_2(T), tCO_2, HCO_3^-, HCO_3^-(std), BE(ecf), BE(B), Anion gap(K), tHb, sO_2
Ca^{2+}(7.4), pO_2(A-a)

Sample Type
Heparinized whole blood

Sample Volume
100 µL

Sample Analysis Time
50 seconds

Cartridge

Test Panel Options

- CarePak 108
  pH, pCO_2, pO_2, Na^+, K^+, Ca^{2+}, Cl^-, Hct
- CarePak 110
  pH, pCO_2, pO_2, Na^+, K^+, Ca^{2+}, Cl^-, Hct, Glu, Lac

Test Volume Options
50 tests / 2 or 3 weeks
100 tests / 2 or 3 weeks
200 tests / 2 or 3 weeks
300 tests / 2 or 3 weeks

Storage Condition
15~25 °C

Components

- Micro-sensor card
- Cal1, Cal2, Cal3
- Reference solution
- Sampler & waste bag
- Valve and tubing
- EEPROM

Dimensions / Weight
182(W) x 148(H) x 100(D) mm
1.7 kg

Instrument & Connectivity

Computer
1.1 GHz dual core processor
SSD 32 GB storage

Display
9 inch TFT LCD touch screen
wide view angle

Dimensions / Weight
269(W) x 391(H) x 255(D) mm
8.4 kg (accessories excluded)

Operating System
Microsoft® Windows® IoT10 Enterprise

Printer
2 inch thermal printer (built-in)

System Connectivity
Bidirectional LIS/HIS communication

Power Interface

Voltage
100~240 Va.c.

Frequency
50/60 Hz

Power Adaptor
Input: 100~240 Va.c., 1.5 A,
50/60 Hz, Max. 1.5 A
Output: +24 Vd.c., Max. 2.7 A

Battery Operation
Max. 2 hours

Interface

- 650 nm Laser Diode scanner (built-in)
- Serial port (RS-232)
- Ethernet port (RJ45)
- HDMI interface (external display)

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AD138 REV5 11/2024

Sensing Ahead, Caring More

i·SmartCare® 10
Blood Gas Analyzer



One-Touch Care



pH | pCO_2 | pO_2 | Na^+ | K^+ | Ca^{2+} | Cl^- | Hct | Glu | Lac

Sensing Ahead, Caring More i·sens

i·SmartCare® 10

01 Maintenance Free

- All-in-One multi test cartridge contains all reagents & consumables
- Self-cleaning sample probe helps maintain sample integrity

02 Fast, Safe & Reliable Results

- EEPROM chip enables automatic cartridge information loading
- Fast patient test results: 50 seconds
- Fully automated calibration and system performance monitoring

03 Easy to Use & Simple Operation

- Syringe and capillary samples without adapters
- Built-in sample barcode scanner & printer
- Internal battery provides up to 2 hours of full operation without AC power
- One-touch design

04 Connectivity Management

- Analyzer monitoring including QC status
- Real-time data transfer to HIS/LIS
- Middleware keep strict quality control and strict data security & integrity

05 Efficiency

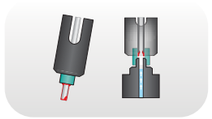
- Wide range of available cartridges (by analyte menu and volumes) allows for best-fit to testing needs
- Light weight and small foot-print

Intuitive Touch Screen Interface

- Microsoft® Windows® 10 operation
- 9 inch TFT LCD touch screen
- Wide view angle

Intelligent Sample Probe

- Syringe or capillary position depending on sample type selection
- Rinses out septum and probe after each sample to avoid carry-over
- Illuminated sampling area for low-light testing environments
- Exposed probe only during sampling (automatically retracts for safety purposes)



Rechargeable Internal Battery

- Up to 2 hours of sample measurement



Built-In Printer

- Hard copy printout of patient and QC calibration results

External Input / Output Ports

- Serial port (RS-232)
- Ethernet port (RJ45)
- HDMI Interface (external display)

Built-In Barcode Scanner

- Internal barcode scanner enters samples and operator ID automatically

Built-In EEPROM Chip

- Automatic cartridge information recognition
- Prevention of copy reagents
- Ensures valid cartridges and quality of reagents are used

Data Management System

DM

Management Function
- Analyzer, Material Registration Operator, Patient and Ward Management

POC Devices Integration
- CareSens® Expert Plus, A1Care®, i-SmartCare® 10

Analyte Consolidation
- Glucose, Ketone, HbA1c, Blood Gas, Metabolites, Electrolytes

Quality Control
- Variety of QC Export Options and Statistics Reports

Data Connectivity
- HIS/LIS/EMR
- POCT1-A and HL7 Protocols

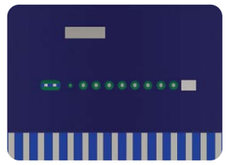
Convenient Device Management

↓

Providing Differentiated Customer Value

↑

Improved Work Efficiency



• Micro Sensor Technology

Micro sensors fabricated on i-SENS' unique screen-printed electrodes allow for accurate analysis of samples at small volumes



• All-in-One Multi Test Cartridge Technology

Each cartridge contains all reagents, sensors, calibration solutions and complete fluidic components from sampler to waste bag required for optimal testing