Specifications

Operating parameters

Reportable range
pH : 6.500 ~ 8.000
pCO_2 : 5.0 ~ 150.0 mmHg
pO_2 : 5 ~ 700 mmHg
cNa^+ : 80 ~ 200 mmol/L
cK^+ : 1.0 ~ 20.0 mmol/L
cCa^{2+} : 0.25 ~ 5.00 mmol/L
cCl^- : 50 ~ 150 mmol/L
Hct : 10 ~ 70 %

Derived parameters
$pH(T)$, $pCO_2(T)$, $pO_2(T)$, $ctCO_2$, $cHCO_3^-$, $cHCO_3^-(std)$, BE(ecf), BE(B), Anion gap(K), $ctHb$, sO_2 $Ca^{2+}(7.4)$, $pO_2(A\text{-}a)$

Sample type
Heparinized whole blood

Sample volume
100 μL

Sample analysis time
50 seconds

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

Cartridge

Choices offering
50 tests / 2 weeks, 3 weeks
100 tests / 2 weeks, 3 weeks
200 tests / 2 weeks, 3 weeks
300 tests / 2 weeks, 3 weeks

Storage condition
15 ~ 25 ℃

Shelf life
6 months from
manufacturing date

Components
· Sensors
· Cal 1, Cal 2
· Reference solution
· Sampler & waste bag
· Valve and tubing

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

Instrument

Computer
1.6 GHz processor
2 GB RAM
8 GB flash storage

Operating system
Windows® Embedded
standard 7

Display
8 inch TFT LCD Touch screen

Printer
2 inch thermal printer(built-in)

Dimensions / weight
257(W) x 394(H) x 252(D) mm
7.1 kg

Power requirements

Voltage
100 ~ 240 VAC

Frequency
50/60 Hz (±10%)

Power adaptor
AC-DC power supply
(Output: DC24V, 2.7A)

Battery operation
Max. 2 hours (Li ion cells)

Interface
· Built-in barcode scanner
· 4 USB ports
· Serial (RS232) port
· Ethernet (RJ45) port
· VGA port (for external screen)

7090 Rev.0

*Critical care testing
for your companion animal*

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

| $pH(T)$ | $pCO_2(T)$ | $cHCO_3^-$ | $cHCO_3^-$ (std) | BE(B) | BE(ecf) | $ctCO_2$ | $pO_2(T)$ | pO_2 (A-a) | $ctHb$ | sO_2 | Anion Gap | Ca^{2+} (7.4) |

i·Smart®300 VET
BLOOD GAS ANALYZER

i-Smart 300 VET Blood Gas System delivers critical patient results quickly and simply, with minimal operator interaction.

Clinicians can implement patient therapy sooner than before as testing can be conducted anywhere.

i-Smart 300 VET portable analyzers meet the need for critical care testing in any places, such as OR, ER, ICU, or Laboratory.

Intuitive-obvious touch screen display
Simple layout and condensed menu that is easy to understand allows for effortless operation.

Maintenance-free, multi-use and stand-alone disposable cartridge.
Cartridge* is a self contained "miniature" analyzer.
When replaced, it is like having a brand-new machine every time.
*A functioning analyzing unit that contains all necessary parts: reagents, sample probe, valves, tubing, and sensors.

Rechargeable internal battery with advanced technology
Operational for up to two hours with AC power disconnected.

Sample species setup
Five animal species (Canine, Feline, Bovine, Equine, Porcine) as default and one user-defined species are provided.

Built-in printer
Hard copy printout of patient test, QC and calibration results.

Built-in barcode scanner
Internal barcode scanner reads and enters test sample and operator ID automatically.

External input/output ports.
RS-232, RJ45 Ethernet, USB (4), and VGA for external monitor.

Built-in RFID module.
Allows operator-free entry of new cartridge information. Tags cartridges to prevent accidental reuse.

Colorful GUI Design

01 Maintenance Free

- Proven quality through the previous Electrolyte Analyzer.
- Disposable Cartridge contains all sensors, reagents, waste bag, tubing and sample probe.
- Replacing a cartridge is all you have to do for maintenance!

Available Cartridge Types

- 50 tests / 2 weeks
- 100 tests / 2 weeks
- 200 tests / 2 weeks
- 300 tests / 2 weeks
- 50 tests / 3 weeks
- 100 tests / 3 weeks
- 200 tests / 3 weeks
- 300 tests / 3 weeks

02 Reliable and Easy to Use

- Audio guided menu driven touch-screen operation.
- Self-cleaning sample probe helps to maintain sample integrity.
- Cutting-edge sensor technology helps to ensure superior quality of measurement.
- Self-contained reagent cartridge helps to minimize exposure to biohazards.

03 Fast and Flexible

- RFID allows automatic cartridge information loading.
- Fast patient results, measurement takes only 50 seconds.
- Fully automated calibration and system performance monitoring.
- Built-in bar-code scanner for entry of patient information, operator identification and QC data.

04 Simple Operation

- Requires small sample size, ideal for all patient types.
- Analyzes syringe and capillary samples without adapters.
- Small, portable and weighs less than 7.1 kg.

05 System Connectivity

- Onboard QC program calculates and stores data.
- Seamless integration with your LIS/HIS via standard ASTM interface protocol.