RAPIDPoint® 500e Blood Gas System Product Specifications

With Integri-sense Technology

Inspired by patients. Empowered by technology.

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System Description

Point-of-care blood gas analyzer

System Menu

pH	K^+	Lactate
pCO_2	Ca^{++}	tHb
pO_2	Cl^-	CO-oximetry
Na^+	Glucose	nBili

Parameter Specifications

Analyte	Units	Reporting Range
pH	–	6.500–7.800
Pleural pH	–	7.000–7.500
pO_2	mmHg kPa	10.0–700.0 1.33–93.32
pCO_2	mmHg kPa	5.0–200.0 0.66–26.66
Na^+	mmol/L	100.0–200.0
K^+	mmol/L	0.50–15.00
Ca^{++}	mmol/L mg/dL	0.20–5.00 0.8–20.0
Cl^-	mmol/L	65.0–140.0
Glucose	mmol/L mg/dL	1.1–41.6 20–750
Lactate	mmol/L mg/dL	0.18–30.00 1.6–270.3

CO-oximetry Parameters

Analyte	Units	Reporting Range
tHb	g/dL g/L mmol/L	2.0–25.0 20–250 1.2–15.5
nBili	mg/dL µmol/L	2.0–30.0 34–513
sO_2	%	15.0–100.0
FO_2Hb	%	0.0–100.0
*F*HHb	%	0.0–100.0
*F*COHb	%	0.0–100.0
*F*MetHb	%	0.0–100.0

Calculated Parameters

pH(T)	BO_2
pCO_2(T)	pO_2 (A-a)(T)
pO_2(T)	pO_2 (a/A)(T)
HCO_3^-act	*p*50
HCO_3^-std	$\dot{Q}sp/\dot{Q}t$(T)
BE(B)	$\dot{Q}sp/\dot{Q}t$(T)(est)
BE(ecf)	RI(T)
$ctCO_2$	pO_2/F_IO_2
Ca^{++}(7.4)	ctO_2(a), $ctO_2(\bar{v})$
AnGap	$ctO_2([a\text{-}\bar{v}]/a)$
Hct	ctO_2(v), $ctO_2(a\text{-}\bar{v})$
sO_2	ctO_2(Hb)
O_2SAT(est)	$\dot{V}O_2$
mOsm	$\dot{D}O_2$

Input Parameters

Patient Demographics

Patient ID	Sex
Last Name	Date of Birth
First Name	

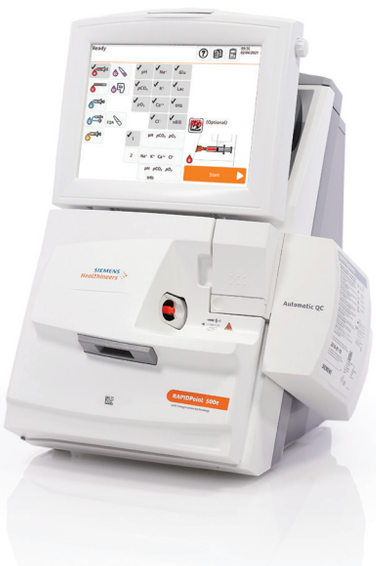
Sample Demographics

Location	Temperature
Physician ID	tHb
Draw Date	F_IO_2
Draw Time	Flow
Accession No.	Resp Rate
Operator ID	pATM

Up to 10 custom demographic fields available

Ventilator Settings (optional)

Ventilator Flow
Respiratory Rate
Continuous Positive Airway Pressure
Positive End Expiratory Pressure
Peak Inspiratory Pressure
Tidal Volume
Allen Test



Integri-sense™ Technology is the guardian of patient results. It is a comprehensive series of analyzer functional checks and flagging mechanisms designed to deliver accurate test results.

SIEMENS Healthineers

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Sample Types
Whole blood (arterial, venous, mixed venous and capillary); External Quality Assurance Mode (EQA); pleural fluid; dialysate*

Measurement Volume
Sample volume: 100 µL

Time to Result
Approximately 60 seconds

Cycle time: approximately 120 seconds

Measurement Cartridge
Use life: 28 days, or maximum number of tests

Size: 100*/250/400/750 tests

Cartridge initialization time: approximately 24 minutes

Calibration
1-point calibration every 30 minutes; 2-point calibration every 2 hours; full calibration every 8 hours

Quality Control
Automatic Quality Control (AQC) cartridge: three levels of independent quality control solutions; customizable QC schedule; ampule QC

System Dimensions
Width: 30.0 cm (11.5 in.)

Depth: 42.0 cm (16.0 in.)

Height: 55.0 cm (21.5 in., display at highest position)

Weight: 16.55 kg (36.5 lb, excluding cartridges)

Touchscreen: 21.1 x 15.8 cm (8.3 x 6.2 in.)

Integrated and External Bar-code Scanner†
For patient ID, operator ID, and ampuled QC

1D Bar-code symbologies: Code 128, Codabar, Code 39, Interleaved 2 of 5

2D Bar-code symbologies: PDF47, MicroPDF417, Datamatrix, QR Code, Micro QR Code, Aztec, and MaxiCode

External Interfaces
USB (3 ports); RS232; 10BASE-T Ethernet; bar-code scanner

Power Requirements
Rating: 150 VA

Voltage: 100–240 VAC

Frequency: 48–62 Hz

Environmental Requirements
Temp: 15–30°C

Humidity: 5–85% noncondensing

Barometric pressure: 523–800 mmHg

Safety
TUV-listed, CSA, EN/IEC 61010-1, JIS

EMC
61326-2-6: Class B

Operating System
MICROSOFT WINDOWS 10 IoT Enterprise (1809)

Data Security
Patient data encryption

MCAFEE-enabled anti-malware

Endpoint configuration

Firewall

Two-step operator authentification

No hard-coded password

Remote software updates through teamplay Fleet

USB on/off functionality

Data Capacity
Patient samples: 250

QC samples: 250

Operators: 5000

Communication
Wireless‡

LIS

Dual-port transmission via Ethernet and serial port

POCcelerator®, UniPOC™, RAPIDComm® Data Management Systems

Features and specifications are subject to manufacturer change.

**RP500e is not yet licensed, in accordance with Canadian Law, for use with Dialysate fluid; Use of Dialysate fluid is also not approved for use in the U.S.*

†External scanner is optional and is not included with the analyzer.

‡This feature applies only to facilities that implement an external wireless bridge between the RAPIDPoint 500e system and a DMS.

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