
# epoc
# Blood Analysis System
## Product Specifications

Improve outcomes and workflow, while transforming care delivery across clinical pathways. The epoc® Blood Analysis System gives you lab quality results here and now.

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# epoc® Blood Analysis System Product Specifications

| System Specifications | |
|---|---|
| System Description | Point of care blood gas, electrolytes, metabolites and hematocrit analyzer |
| Sample Types | Whole blood: arterial, venous, mixed venous, capillary |
| Sample Size | 92 µL |
| Time to Result | Approximately 35 seconds |
| Calibration | Automatically performed prior to every test |
| Quality Control | Eurotrol GAS-ISE Metabolite control; Eurotrol Hematocrit control |
| Integrated Bar-code Scanner | Patient ID and Operator ID; 1D and 2D bar-code format |
| External Interfaces | HL7 |
| Power Requirements | 100–240 VAC; 50–60 Hz (Reader) |
| Battery | Yes, with typical use up to 70 test cards |
| Safety | IEC 61010-1, IEC 61010-2-81, IEC 61010-2-101, CSA/UL 601 (Reader) |
| EMC | IEC60601-1-2 (Reader with AC adapter); IEC 61326-1, IEC 61326-2-6 |
| Operating System | MICROSOFT Windows Mobile 6.5 Classic |
| Communication | Real Time Wireless, LIS/HIS via data management system, POC Informatics Solutions |

| Test Card | |
|---|---|
| Storage | 15–30°C |
| Shelf Life | Up to 5 months |
| Size | 3.39 in (L) × 2.13 in (W) × 0.06 in (H)<br>86 mm (L) × 54 mm (W) × 1.4 mm (H) |

| System Dimensions | Host | Reader |
|---|---|---|
| Length | 5.78 in<br>147 mm | 8.46 in<br>215 mm |
| Width | 3.03 in<br>77 mm | 3.35 in<br>85 mm |
| Height | 1.06 in<br>27 mm | 2 in<br>51 mm |
| Weight | 12.5 oz<br>359 g | <1.1 lb<br>354 g |
| Display | 3.5 in LCD | — |

| Environmental Requirements | | |
|---|---|---|
| Operating Temperature | 0°C–50°C (Host) | 15°C–30°C (Reader) |
| Humidity | Up to 95% relative humidity, non-condensing | |
| Barometric Pressure | 400–825 mmHg (53.33-110 kPa) | |

| Measured Parameters | | |
|---|---|---|
| Parameter | Unit of Measure | Measurement Range |
| pH | pH units | 6.5–8.0 |
| $pCO_2$ | mmHg<br>kPa | 5–250<br>0.7–33.3 |
| $pO_2$ | mmHg<br>kPa | 5–750<br>0.7–100 |
| $Na^+$ | mmol/L<br>mEq/L | 85–180 |
| $K^+$ | mmol/L<br>mEq/L | 1.5–12.0 |
| $Ca^{++}$ | mmol/L<br>mg/dL<br>mEq/L | 0.25–4.00<br>1.0–16.0<br>0.5–8.0 |
| $Cl^-$ | mmol/L<br>mEq/L | 65–140 |
| Glu | mmol/L<br>mg/dL<br>g/L | 1.1–38.5<br>20–700<br>0.20–7.00 |
| Lac | mmol/L<br>mg/dL<br>g/L | 0.30–20.00<br>2.7–180.2<br>0.03–1.80 |
| Crea | mg/dL<br>µmol/L | 0.30–15.00<br>27–1326 |
| Hct | % PCV<br>L/L | 10–75<br>0.10–0.75 |

| Calculated Parameters | | |
|---|---|---|
| Parameter | Unit of Measure | Measurement Range |
| cHgb | g/dL<br>mmol/L<br>g/L | 3.3–25<br>2.0–15.5<br>33–250 |
| $cHCO_3^-$ | mmol/L<br>mEq/L | 1–85 |
| $cTCO_2$ | mmol/L<br>mEq/L | 1–85 |
| BE(ecf) | mmol/L<br>mEq/L | -30–+30 |
| BE(b) | mmol/L<br>mEq/L | -30–+30 |
| $cSO_2$ | % | 0–100 |
| eGFR | mL/min/<br>1.73m² | 2–60 or >60* |
| eGFR-a | mL/min/<br>1.73m² | 2–60 or >60* |
| AGap | mmol/L<br>mEq/L | -14–+95 |
| AGapK | mmol/L<br>mEq/L | -10–+99 |
| A | mmHg<br>kPa | 5-800<br>0.67-106.64 |
| A-a | mmHg<br>kPa | 1-800<br>0.13-106.64 |
| a/A | %<br>fraction | 0-100<br>0-1 |

Institutions should establish and set their own normal range values.

## "The smart card technology of epoc reduces cost and maximizes efficiency in the hospital setting."†

Agarwal, S et al. Evaluation of the analytical performance of the modified enterprise point-of-care blood gas and electrolyte analyzer in a pediatric hospital. Point of Care 13(4): Dec 2014.

*Values >60 will be reported as >60 mL/min/1.73 m².
†The outcomes obtained by the Siemens customer described here were realized in the customer's unique setting. Since there is no typical laboratory, and many variables exist, there can be no guarantee that others will achieve the same results.



Product availability may vary from country to country and is subject to varying regulatory requirements. Please contact your local representative for availability.

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