ABL800 BASIC analyzer
Specifications

Standard parameters

Type	Parameter	Units	Measuring range
pH	pH	pH scale	6.300 – 8.000
	cH^+	nmol/L	10.0 – 501
Blood gas	pCO_2	mmHg	5.0 – 250
		kPa	0.67 – 33.3
		Torr	5.0 – 250
	pO_2	mmHg	0.0 – 800
		kPa	0.00 – 107
		Torr	0.0 – 800
Oximetry	$ctHb$	g/dL	0.00 – 27.7
		mmol/L	0.00 – 17.2
		g/L	0.0 – 277
	sO_2	%	0.0 – 100.0
		Fraction	0.000 – 1.000

Additional parameters

Type	Parameter	Units	Measuring range
Electrolyte*	cCl^-	mmol/L	7 – 350
		meq/L	7 – 350
	cCa^{2+}	mmol/L	0.20 – 9.99
		meq/L	0.40 – 19.98
		mg/dL	0.80 – 40.04
	cK^+	mmol/L	0.5 – 25.0
		meq/L	0.5 – 25.0
	cNa^+	mmol/L	7 – 350
		meq/L	7 – 350
Metabolite*	$cGlu$	mmol/L	0.0 – 60
		mg/dL	0 – 1081
	$cLac$	mmol/L	0.0 – 30
		mg/dL	0 – 270
		meq/L	0.0 – 30

* The total number of electrolytes and metabolites is limited to five.

Derived parameters

$pH(T)$	$cCa^{2+}(pH=7.40)$
$cH^+(T)$	Anion Gap(K^+)
$pCO_2(T)$	Anion Gap
$cHCO_3^-(P)$	DO_2
$cBase(B)$	Hct
$cBase(B,ox)$	$pO_2(x)$
$cBase(Ecf)$	$pO_2(x,T)$
$cBase(Ecf,ox)$	$ctO_2(B)$
$cHCO_3^-(P,st)$	$ctO_2(a–\bar{v})$
cH^+	BO_2
$ctCO_2(P)$	$ctO_2(x)$
$ctCO_2(B)$	$FShunt$
pH(st)	$FShunt(T)$
$pO_2(T)$	RI
$pO_2(A)$	RI(T)
$pO_2(A,T)$	VO_2
p50	$mOsm$
p50(T)	Qx
p50(st)	Q_t
$pO_2(A–a)$	V(B)
$pO_2(A–a,T)$	sO_2
$pO_2(a/A)$	FO_2Hb
$pO_2(a/A,T)$	
$pO_2(a)/FO_2(I)$	
$pO_2(a,T)/FO_2(I)$	

Measuring system

Mode	Sample volume (µL)	Measuring time (sec)	Cycle time (sec)
All parameters (S)	195	80	150
All parameters, micro (S/C)	95	135	200
pH + BG + Oxi (S)	85	80	145
pH + BG, Oxi, micro (C)	55	100	170
Glu + Lac, micro (C)	35	80	145
Oxi, micro (C)	35	80	145
Expired air (S)	15	65	170

Other analyzer versions will have other measuring times/volumes. S = Syringe C = Capillary
The *Measuring range* for a parameter is the range within which the analyzer is physically capable of measuring.
The measuring range corresponds to the 'range of indication' as defined in
the 'International vocabulary of basic and general terms in metrology' (VIM).

Hardware

Computer specifications

Intel Celeron® Processor
128 MB RAM
Hard disk
TFT 10.4" VGA color touch screen
Dedicated 80386 CPU for wet section operations

Interface

Integrated barcode reader
Serial line RS232
RJ45 Ethernet port
Option ports for mouse and keyboard
3 USB ports

Software

Software platform

Windows® XP Embedded software
Sybase software
VxWorks software

Data capacity

Patient results:	2000
Calibration results:	1000
QC results:	1500
System messages and service registrations:	5000

Communication

Access to Local Area Network for backup, etc.:
using PC network operating systems supporting Windows®XP software
Output protocols:
High-level protocols
   ABL700-compatible ASTM (E1394-91)
   ABL700-compatible HL7 (Version 2.2)
   ABL5xx-compatible ASTM (E1394-91)
   POCT 1A
Low-level protocols
   ASTM (E1381-95)
   Radiometer network protocol (TCP/IP only)
   Raw (serial only)
Transport layer
   TCP/IP
   RS232
Radiometer IT solution via Ethernet adapter

Calibration data

Automatic	Default interval	Interval options
1-point cal.	4 hours	after measurement, 30 min, 1, 2, 4 hours
2-point cal.	4 hours	after measurement, 1, 2, 4 hours
System alignment	24 hours	
Cleaning	8 hours	8, 24 hours

Manual		
tHb calibration	3 months	never, 7 days, 1, 2, 3, 4, 6 months

Additional information

Dimensions

Width	70 cm	28 in
Height	55 cm	22 in
Depth	53 cm	21 in
Weight	34.2 kg	75.5 lbs

Other

Warm-up time	Cold start: 25 min typical. Warm start: 5 min
Ambient temperature	15–32 °C / 59–90 °F
Relative humidity	20–80 %
Thermostatting	pH and blood gases, 37.0 °C ± 0.15 °C / 98.6 °F ± 0.3 °F Electrolytes and metabolites, 37.0 °C ± 0.25 °C / 98.6 °F ± 0.5 °F
Spectrometer	128-wavelength measurement
Hemolyzer frequency	30 KHz intracuvette hemolysis
Barometer	450–800 mmHg
Power	100–240 VAC, 50–60 Hz, 270 VA