Convergys® BG series

Blood Gas and ISE Electrolyte Analyzer

- **Measured Parameters Convergys® BG100: pCO_2, pO_2, K+, Na+, Cl-, Ca++, pH**
- **Measured Parameters Convergys® BG10: pCO_2, pO_2, pH**
- **≤180 µl sample volume of whole Blood, Serum and Plasma**
- **65 tests per hour throughput**
- **Built-in thermal printer**
- **Automatic two-point calibration**
- **240x128 dots LCD**
- **Easy-to-use menu with soft key interface**
- **Large data storage for 1000 results**

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Specifications of Convergys® BG series

Measured Parameters(BG100):	pCO_2, pO_2, K+, Na+, Cl- Ca++, pH
Measured Parameters(BG10):	pCO_2, pO_2, pH
Calculated Parameters:	pCO_2 (TC), pO_2 (TC), pH(TC), HCO_3-, SBC, AG, BE, BEecf, TCO_2, sO_2%, A-aDO_2, RI, Ca++(7.4), TCa++
Measuring principles:	ISE based Electrolyte analysis, determining the ion concentrations of K+, Na+, Cl-, Li+, Ca++, pH and measuring the particular blood gas pressure
Throughput:	65 tests/hour
Reagent system:	Calibrator-1 solution, Calibrator-2 solution, Flush solution, Cleaning solution, ISE, Ref. and BG electrode filling solutions and buffers, Conditioning solution, De-protenizer solution, Leakage checking solution, Low calibration gas and high calibration gas for installation and operation
Sampling method:	Semi-automatic aspiration system, using Sample Cup, Capillary or Collection Tube
Sample volume:	180µL
Sample types:	Human (general): whole Blood, Serum or Plasma (Built-in reference ranges)
Cleaning procedure:	Chemical cleaning of the measuring chamber and tubing system with Cleaning solution
Quality Control:	2 QC levels. QC parameters include all measured and calculated parameters. Separate QC database
Calibration:	Automatic two-point calibration with additional option for carrying out one-point and two-point calibration manually
Standby Mode:	Pre-adjusted with automatic calibration step
User interface:	Easy-to-use, menu driven user interface with soft key buttons including cursor and numeric keys
Languages available:	English menu
Data capacity:	1000 results
Host computer Interface:	RS-232 serial link for data download
Built-in printer:	Stationary Head Graphical Thermal Printer, 58 mm wide paper roll. Prints full report
Display:	240×128 dots high contrast and backlit LCD
Keypad:	Keypad with soft keys including cursor and numeric keys
Power requirements:	100-120 or 200-240 VAC, 50-60Hz
Operating conditions:	15-30°C, 59-86°F (Optimal temperature is 25 °C, 77 °F), 20%~ 80% RH, Measuring chamber temperature: 37°C ± 0.2°C, 98.6°F ± 3.5°F
Dimensions and weight:	(W x D x H) 450 x 375 x 330mm, ca. 12 kg

Gas Specification

• ***Low calibration Gas*** *Composition:*	CO_2: 5%, O_2: 20%, balance: N_2 (75%)
• ***High calibration Gas*** *Composition:*	CO_2: 10%, balance: N_2 (90%)
Tank(L) Pressure:	15MPa
Tank(H) Pressure:	10MPa
2nd stage Gas regulator is required (available as optional)	

Measured parameters

Parameter	Measuring range	Precision	Accuracy	CV
Hydrogen ion activity (pH)	6.800 - 8.000	0.001	±0.010	≤0.1%
Carbon dioxide partial pressure (pCO_2)	1.607 - 26.67 kPa	0.01 kPa	Reading × 4%	≤1.5%
Oxygen partial pressure (pO_2)	0 - 106.7 kPa	0.01 kPa	Reading × 3%	≤1.0%
Potassium ion (K^+)	2.00 - 10.00 mmol/L	0.01 mmol/L	±0.4 mmol/L	≤2.0%
Sodium ion (Na^+)	50.0 - 200.0 mmol/L	0.1 mmol/L	±4 mmol/L	≤1.0%
Chloride ion (Cl^-)	50.0 - 200.0 mmol/L	0.1 mmol/L	±4 mmol/L	≤2.0%
Ionized calcium (Ca^{++})	0.50 - 3.00 mmol/L	0.01 mmol/L	±0.3 mmol/L	≤3.0%

Ordering information

REF	Articel Name	Description
1100-2000	*Convergys® BG 100* main unit	Semi-automatic Blood Gas and Electrolyte Analyzer, pCO_2, pO_2, K+, Na+, Cl-, Ca++, pH
1100-2001	*Convergys® BG 10* main unit	Semi-automatic Blood Gas and Electrolyte Analyzer, pCO_2, pO_2, pH
1100-2003	*Convergys® BG* Calibrator-1 (400ml)	Standard Calibrator-1 solution
1100-2004	*Convergys® BG* Calibrator-2 (200ml)	Standard Calibrator-2 solution
1100-2005	*Convergys® BG* Flush (800ml)	Standard Flush solution
1100-2006	*Convergys® BG* Cleaning solution	Standard Cleaning solution
1100-2050	*Convergys® BG* 2nd stage Gas regulator	2-level 2nd stage Gas regulator for pressure fine-regulating

* Convergent Technologies reserves the right to change any of the specifications without prior notice.
** Usage of original Convergent Technologies reagents is recommended
*** Full specifications are available on request

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