

Specs for the GEM Premier™ 3000 with iQM®

GEM Premier 3000 simplifies and enhances critical care testing, with its self-contained cartridge, comprehensive test menu options and iQM.

Connectivity

GEMweb® provides a remote link from a PC to the GEM Premier 3000 using the hospital's network and a standard web browser.

Standardization

Over 30 cartridges of various test volumes and analyte menus are available to fit every need.

Intelligent Quality Management (iQM)

Designed to improve the quality of test results and enhance patient safety, iQM is an automated quality assurance system that replaces the use of conventional QC.

- Active, continuous, real-time quality management
- Reduces time to error detection when compared to Manual or Auto QC
- Automatically performs corrective action and documentation
- Completely integrated within the GEM cartridge



The single disposable multi-use cartridge contains: sensors, solutions, gases, pump tubing, waste container and sampler.



pH, PCO ₂ , PO ₂
Na ⁺ , K ⁺ , Ca ⁺⁺ , Hematocrit
Glucose, Lactate
tHb, O ₂ Hb, COHb, MetHb, RHb, SO ₂ m*
PT, Cit PT, APTT, ACT, ACT-LR**

* With the optional GEM OPL module
 ** With the optional GEM PCL Plus module

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Product Specifications

Measured Analytes	Displayed Ranges	Resolution
pH	6.80 to 7.80	0.01
PCO ₂	5 to 115 mmHg*	1 mmHg
PO ₂	0 to 760 mmHg	1 mmHg
Na ⁺	100 to 200 mmol/L	1 mmol/L
K ⁺	0.1 to 20.0 mmol/L	0.1 mmol/L
Ca ⁺⁺	0.10 to 5.00 mmol/L	0.01 mmol/L
Glucose	20 to 500 mg/dL	1 mg/dL
Lactate	0.3 to 15.0 mmol/L	0.1 mmol/L
Hct	15 to 65%	1%

Derived Analytes	Displayed Ranges	Resolution
HCO ₃ ⁻	3.0 to 60.0 mmol/L	0.1 mmol/L
HCO ₃ ⁻ std	3.0 to 60.0 mmol/L	0.1 mmol/L
TCO ₂	3.0 to 60.0 mmol/L	0.1 mmol/L
BE (B) (<i>in vitro</i>)	-30.0 to +30.0 mmol/L	0.1 mmol/L
BE(ecf) (<i>in vivo</i>)	-30.0 to +30.0 mmol/L	0.1 mmol/L
SO ₂ c	0 to 100%	1%
Ca ⁺⁺ (7.4)	0.10 to 5.00 mmol/L	0.01 mmol/L

*PCO₂ trending to 150 mmHg available

Physical Specifications

GEM Premier 3000 Analyzer

Size and Weight in cm (inches)/kg (pounds)	Width 30.5 (12.0) Depth 30.7 (12.0) Height 43.2 (17.0) Weight 13.4 (29.5)
Power Requirements	Universal power input, 90-264 VAC, 50-60 Hz. Sixty minute power interrupt allows transport without power. Instrument cannot be operated during power interrupt.
Temperature Control	Electrode Chamber maintained at 37°C nominal
Data Output Port	3 RS-232 Serial I/O Ports, 1 Parallel Printer Port, 1 Ethernet Port
Product Safety	UL listed under UL-544, complies with IEC 1010-1. Complies with European CE IVD requirements.

GEM Premier 3000 with IQM Cartridge

Size and Weight in cm (inches)/kg (pounds)	Width 21.6 (8.5) Depth 7.6 (3.0) Height 15.2 (6.0) Weight 1.9 (4.2)
Sample Type	Whole blood with addition of approximately 25 USP units/mL Sodium Heparin or Lithium Heparin
Measurement Methodology	pH, PCO ₂ , Na ⁺ , K ⁺ , Ca ⁺⁺ — potentiometric; PO ₂ , Glucose, Lactate — amperometric; Hct — conductivity
QC Frequency	Automatic at regularly scheduled intervals (minimum every 30 minutes or after every patient sample)
Response Time	85 seconds from sample introduction

Cartridge Configuration

Maximum Tests per Cartridge	BG/Hct	BG/Lytes*/Hct	BG/Lytes*/Glu/Lac/Hct	Use Life
35	✓			4 weeks
75	✓	✓		4 weeks
75	✓	✓	✓	3 weeks
150	✓	✓	✓	3 weeks
300	✓	✓	✓	3 weeks
450	✓	✓	✓	3 weeks
600	✓	✓	✓	2 weeks
Sample Volume:	135µL	135µL	150µL	

*Lytes include Na⁺, K⁺ and Ca⁺⁺

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For more information, call 800-955-9525 or visit www.ilus.com

