SPECIFICATIONS

Feature	Details
Type	Desktop fully automated random access chemistry analyzer.
Test channels	43 channels: 40 on-line photometric channels plus 3 additional ISEs for Na, K and Cl.
Maximum number of tests in menu	60 from Master list of 500
Assay types	Endpoint, Kinetic, Bichromatic, Turbidimetric, ISE and Sample/Reagent blanking
Calibration Type	Linear, Factor, 2 Point, Point to Point, Log-Logit, Spline and Exponential.
Maximum number of calibrators per test	Up to 7 calibrators for multipoint.
Automatic calibration interval	Yes
Throughput	180 photometric tests per hour, 270 ISE tests per hour. Maximum 450 total tests per hour.
Sample type	Serum, Plasma and Urine, CSF and supernatant.
Sample input system	Type: Removable tray with sample tube holder on a turntable.
Sample tube size	Multiple tube sizes – Diameter 12-16 mm & Height 55-100 mm.
Tube and Cup size Recommended for Pediatric sample use	Sarstedt Cup Cat No. 72.730.006 Micro tube 0.5 ml PP Sarstedt Tube Cat No. 55.472 Tube 6.5ml 85 x 13 mm PS
Sample capacity	Capacity: 40 positions for routine, STAT and QC samples.
Closed or open primary tubes	Open
Clot detection	Not available
Sample identification	Barcode sample ID detection.
Sample dilution	Sample dilution: Pre-dilution and automatic re-assay with diluted sample / reduced / increased sample volume available. Dilution mixture 100-350 µl consisting of 2 –35 µl of sample and 65 – 400 µl of diluent.
STAT samples	STAT Sampling: Immediate sampling interruption.
Continuous sample loading	Yes
Sample pipette	Type: Micropipette with liquid level detector.
Pipette rinsing	Inside and outside with purified water.
Sample pump	Type: Micro syringe.
Sample volume	Volume:2 to 35 µl (incremented by 0.1 µl).
Sample dead volume	100 µl in primary tube / standard cup or 20 µl in pediatric cup
Reagent system	Type: Removable tray with reagent bottle holder on a turntable
Reagent capacity	40 reagent positions (accommodates 20 for 100 ml or 50 ml bottles and 20 for 20 ml bottles).
Reagent cooling	15°C below ambient temperature
No of cooled reagent positions	40
No of non cooled reagent positions	0
Maximum no of reagent additions per test	2
Reagent inventory	Calculation of remaining reagent volume and tests available.
Reagent identification	Barcode reagent ID detection.
Open channels	Available
Application of reagents from different suppliers	Open channels can be used
Reagent pipette	1
Reagent pipette type	Micropipette with liquid level detector.

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Reagent pipette rinsing	Inside and outside with purified water.
Reagent pump type	Micro syringe
Reagent volume	20 to 400 µl (incremented by 1 µl).
ISE unit	Integrated ISE unit.
Cuvette system	Number of cuvettes: 45 cuvettes on reaction line.
Cuvette type	Reusable
Path length	6 mm
Cuvette washing system	One washing station (6 cuvette washers and drying block).
Type of wash fluid	Dilute Alkaline Solution & Dilute Acid Solution
Cuvette material	Pyrex.
Minimum cuvette volume	180 µl.
Maximum cuvette volume	500 µl.
Reaction system	Direct heating system
Temperature	37°C +/-0.3.
Detector method	Direct absorbance in cuvette (Monochromatic or Bichromatic).
Photometric range	0.0 – 3A
Cycle time	20 seconds
Time to first result from sample barcode scan	14 min
Time to first emergency result from standby	12 min 30 seconds
Wavelength	8 filters - 340, 415, 510, 546, 570, 600, 660 and 700 nm.
Light source	Halogen tungsten lamp
Stirring system	Type: Stick type rotating stirrer
Stirring speed	Variable speed (weak, normal and strong).
Stirrer rinsing	Purified water.
Water consumption	Maximum 7.5 L per hour. Additional water unit available if required.
Water quality requirement	NCCLS Type 1 or 2 (Other types may be acceptable – please contact A. MENARINI Diagnostics)
User interface	Windows XP based user interface. Dell PCs supplied with analyser have flat screen monitor
Connection to host	Via RS232 interface using ASTM interface
Ambient temperature	15 – 30°C
Maximum humidity	45 – 85% without condensation
Power supply	Supply Voltage: 100 Vac +- 10 V
Power consumption	Less than 700 VA
UPS requirements	350 KVA
Dimensions	770 mm (W) x 620 mm (D) x 500 mm (H) (30.3” x 24.4” x 19.7”) – analyzer only.
Case	Stiff chassis – Double bottom for excellent noise insulation.
Maintenance	No rear access required. Simple twice-yearly preventative maintenance.
Q.C.	Daily, monthly and batch Q.C. with data archiving. Auto Q.C. facility available.
Data management and storage	Storage of up to 30,000 patient reports with search facility.
Reagent packs	Full range of dedicated bar-coded reagents available in 50 ml and 20 ml vials.
Time required for daily maintenance	Less than 5 minutes
Noise output (dB)	60 db with lid closed when >1 m distance from instrument

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Heat output	2253 BTU/hr analyzer only 3959 BTU/hr (including PC and printer)
Manipulation of raw data	Raw data can be viewed and printed in table format
Life time of ISE electrodes	6 months or 10,000 tests
Max no of tests possible with ISEs	3 (Na, K & Cl)
No of control and calibrator positions	Completely flexible on sample wheel
Cooled or uncooled control and calibrator positions	Uncooled
Data for multiple Reagents lots storable	Yes
Display of calibration data	Yes
Manipulation of calibration data	Yes
Automated dilution of controls	Yes
Display of several control lots storable	Yes
Display of control data	Yes