

TECHNICAL SPECIFICATIONS

Physical Dimensions

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|-----------|------------------------------------------|
| Dimension | : 1100 mm (L) X 765 mm (W) x 1150 mm (H) |
| Weight | : 200 Kg |

Performance Features

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|-----------------|---------------------------------------------------|
| Analyzer Type | : Fully automated random access clinical analyzer |
| Throughput | : 400 Tests/Hour |
| Test Principles | : Colorimetric, Turbidimetry |
| Test Methods | : 1 Point End, 2 Point End, Fixed Time, Kinetics |
| Calibrations | : Linear and Non-Linear |

Reagent and Sample System

| | |
|------------------------|--------------------------------------------------------------------------------------------------|
| Reagent System | : 90 Reagent positions, 45 for R1 and 45 for R2 |
| Reagent Probes | : Dedicated probe for R1 and R2 with crash and liquid level detection |
| Reagent Cooling | : 2 – 14 °C |
| Reagent Identification | : Optional for Open and Barcoded reagents |
| Reagent Volume | : 20 – 300 µl, Step by 0.1 µl |
| Reagent Inventory | : Calculation of remaining reagent volume, alert messages for shortage of reagent |
| Sample System | : 120 Sample Positions |
| Sample Tube | : Micro cup, Test Tube, Blood Collection Tubes (Ø 12 – 13) mm – (25 -100) mm |
| Sample Volume | : 2 – 30 µl, Step by 0.1 µl |
| Sample Barcode | : Optional |
| Sample Dilution | : Available customizable Pre and Post Dilution of Sample |
| STAT Sampling | : Available for emergency samples |
| Sample Probe | : Internal and External washing with purified water, Crash Protection and Liquid level detection |

Reaction System

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|---------------------|-----------------------------------------------------|
| Reaction Tray | : 90 reusable Reaction Cuvettes |
| Cuvettes | : Detachable segment with 15 separate Cuvettes |
| Reaction Volume | : 150 – 330 µl |
| Reaction Time | : 10 Mins |
| Temperature Control | : Stable reaction temperature at 37±1 °C |
| Water Requirements | : NCCLS type 1 or Type 2 purified water supply |
| Washing System | : 2x6 steps auto washing station |
| Mixer | : Paddle type mixing, prevent effectively carryover |

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Optical System

| | |
|--------------------------|-------------------------------------------------------------------------------------------------------------------|
| Light Source | : Halogen Lamp 6 V 10 W |
| Wavelengths | : 8 Wavelength 340 nm, 405 nm, 450 nm, 505 nm, 546 nm, 578 nm, 630 nm, 700 nm (4 Additional filters available) |
| Absorbance Range | : 0 – 4 Abs |
| Resolutions | : 0.0001 Abs |
| Absorbance Stability | : ≤ 0.01 Abs |
| Absorbance Repeatability | : ≤ 1.5 % |
| Cuvette path | : 6 mm |
| Detection Method | : Direct absorbance of Cuvette (Monochromatic and Bi-chromatic) |

Operating System

| | |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating System | : Windows XP, Windows 7, Windows 8 and Windows 10 |
| Software Features | : Big Iconic Menu, Automatic Calibration with reagent blank, Panel tests, Pre and Post dilution with volume adjustment, Serum Index, Real Time Process Detection, Blank Deduction, Dirty cuvette detection, Customizable report print, Statistics of reports, QC files with L-J Charts, Sample Monitoring, QC flags, STAT Function, Sample Monitoring, Lamp Monitoring, Reaction Cuvettes Monitoring, Temperature indications, Auto checks of cuvettes, Daily maintenance programing |

| | |
|-----------------|-------------------------------------------------|
| Interface | : Pattern TCP/IP network interface |
| Report Printing | : 6 Formats Available, Support Customize format |

Power and Connectivity

| | |
|-------------------|------------------------------------------------------------------------------------------------------|
| Power Supply | : AC 230 V, 50 Hz, 1000 VA The Distance between power socket and instrument should be <2.5 meters |
| UPS | : Online 2 KVA with isolated transformer |
| Earthing | : ≤5 V |
| Water Consumption | : 15 L/Hour (maximum) Inbuilt reservoir for continuous water supply |



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BDPL/MAY23/BB400/Ver00

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Fully Automatic Clinical Chemistry Analyzer

- ◆ Random access with combined throughput of 400 tests/hour
- ◆ Designed to meet constant workflow with full potency
- ◆ Perfect match for Medium and big sized laboratories gives platform to wide range of routine and protein parameters
- ◆ In choosing to purchase BEACONIC B400 from Beacon Diagnostics with having 32 years of experience in IVD industry with providing unrivalled technical service support

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SYSTEM OUTLINE



REAGENT CAROUSEL

- ◆ 90 Reagent Position, 45 R1 and 45 R2 Reagents
- ◆ Non-stop reagent cooling at 2°C – 14°C with peltier
- ◆ Automatic Barcode Identification for smooth reagent recognition
- ◆ Dedicated system packs are available



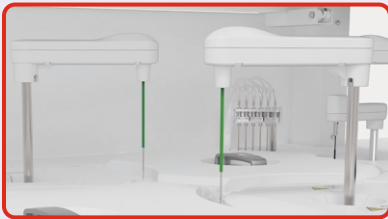
SAMPLE CAROUSEL

- ◆ 120 sample positions divided into three circles
- ◆ Facilitates for STAT, QC and Calibrators at any positions
- ◆ Support various tubes – Micro cup, test tubes and sample collection tubes
- ◆ Optional inbuild barcode system for smooth sampling process



REACTION UNIT

- ◆ 90 single reaction pyrex cuvettes, perfect transmittance
- ◆ Thermostat technology to ensures temperature accuracy of 37 ± 0.1 °C
- ◆ 2x6 steps auto on-board laundry system, Cuvette check function ensure clean and viable cuvettes are used



REAGENT AND SAMPLE SYSTEM

- ◆ Separate reagent probes, Internal and external washing of probe ensures minimal carryover
- ◆ Mirror polished probe ensures smooth operation which reduces cross contamination chances
- ◆ Mirror polished smart sample probe having clot detection and liquid level detection ensures acceptable samples are tested
- ◆ Collision protection and auto adjustment function of probe



CERAMIC SYRINGE

- ◆ Syringes are made up of high precision ceramic piston ensures best sampling
- ◆ Accurate dispensing as low as $0.1 \mu\text{l}$
- ◆ Air purging for removal bubbles



Ready to use Liquid Stable System Packs

Parameter Range :

GLUCOSE | SGOT | SGPT | UREA | URIC ACID | TG | CHOLESTEROL | HDL – D | LDL -D | RF | CRP | ASO | GGT | ENZ. CREATININE | ALBUMIN | TOTAL PROTEIN | BILIRUBIN T&D | HBA1C | FERRITIN | MAGNESIUM | LDH | ALP | CK-NAC | INORGANIC PHOSPHORUS | CALCIUM | AMYLASE | MULTICALIBRATOR | CONTROLS

OPTICAL SYSTEM

- ◆ Integrated fully closed optical system reduces light interferences to get maximum accuracy and longevity
- ◆ Monochromatic interference filters, no complex mechanism, Connected to lamp through optical fiber

POWERFUL SOFTWARE

- ◆ Easy and Iconic operating menu
- ◆ STAT Facility
- ◆ Rerunning Facility
- ◆ Designing of tests panels available
- ◆ LIS Connectivity easily achievable

CHEMISTRY PARAMETERS

- ◆ Auto dilution facility in parameters set up
- ◆ Substrate depletion for kinetic parameters

CALIBRATION

- ◆ Software displays current valid calibration, reagent blank, factors absorbance and calibration check interval

QUALITY CONTROLS

- ◆ Generates L-J charts, provides an easy inspection to assess QC errors, further shifts and trends
- ◆ QC multirole can be applied to ensure high error detection

INVENTORY MANAGEMENT

- ◆ Automatic calculation of remaining reagents
- ◆ Error flag on insufficient volume remained for any reagents

MAINTENANCE

- ◆ Programmable daily, weekly and monthly maintenance steps which is easy for operators
- ◆ Daily maintenance is very easy and less time consuming

