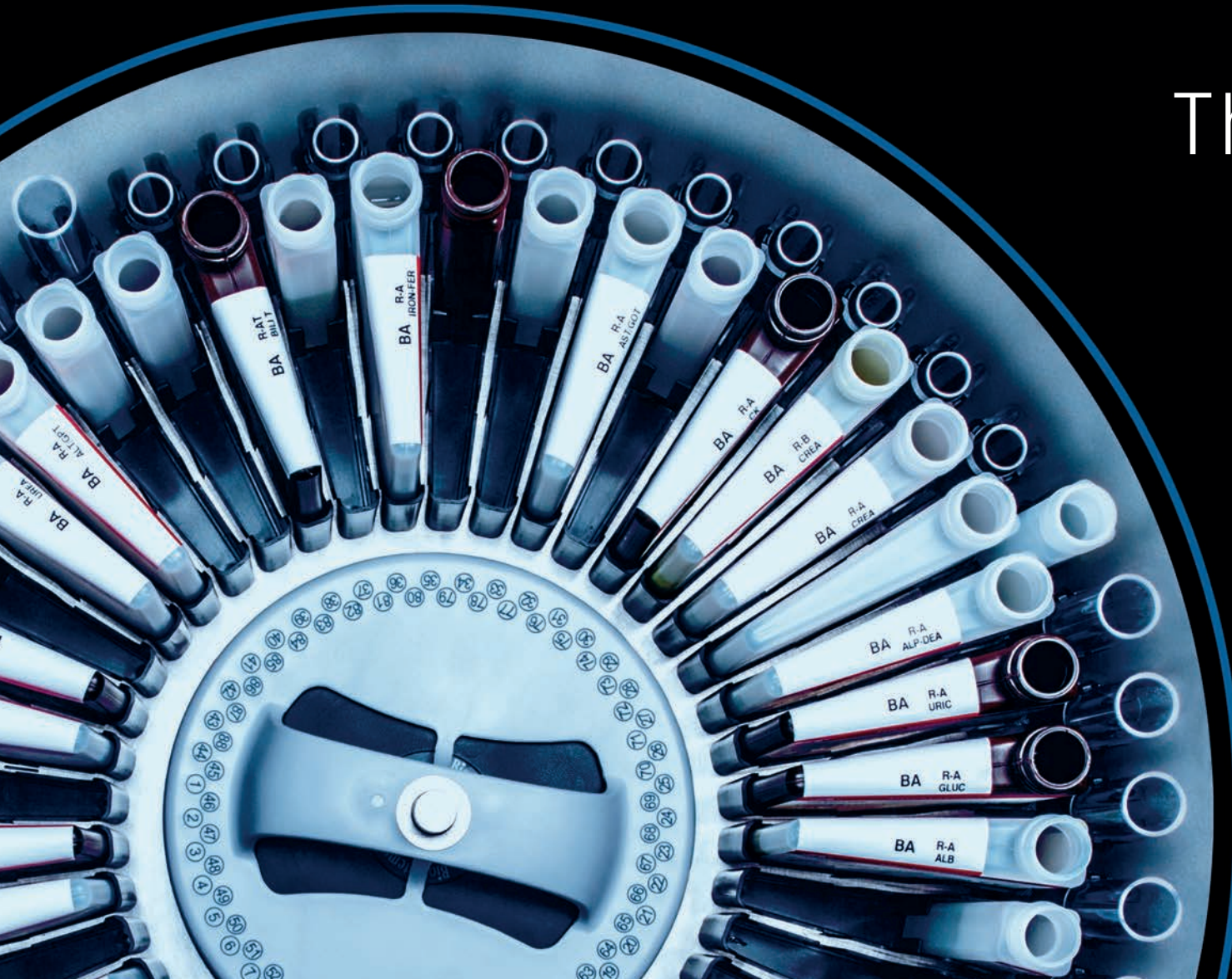


**BA200**

LED TECHNOLOGY



**BioSystems**



The Highest  
Flexibility



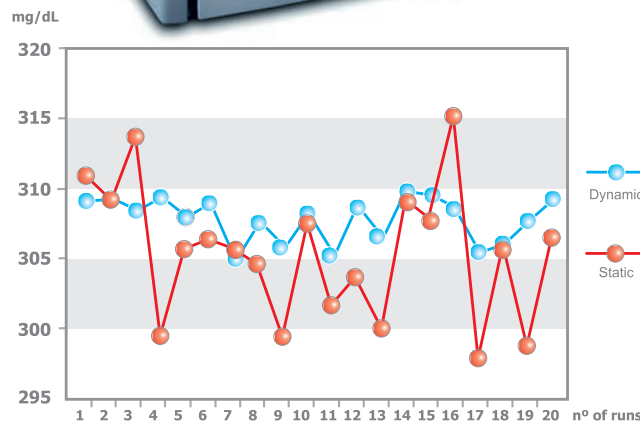
# BA200

LED TECHNOLOGY

## STAT and Routine Laboratories Benchtop Random Clinical Chemistry Analyzer

For 40 years **Biosystems, S.A.** develops IVD products at its facilities in Barcelona (Spain). The quality of our product, together with a personalized Customer Support have been and remain our main business philosophy. Through this experience we can now present our first benchtop analysis system with the most advanced technological features in electronics, design and reliability.

The BA200 joins the BA family, which together with the BA400 offers a wide spectrum of attention to the clinical laboratory with an excellent quality / price ratio.



### Dynamic Baseline SMART LED technology

A new more precise measurement algorithm for cuvette blanking allows better trueness in samples of low concentration / catalytic activity along with an improvement in precision.

## High reagent and sample capacity (88 positions), the highest grade in flexibility

Any position can be loaded either with a reagent bottle or a sample tube/pediatric well, (samples, controls or standards).

All of them fully accessible to barcode reader.





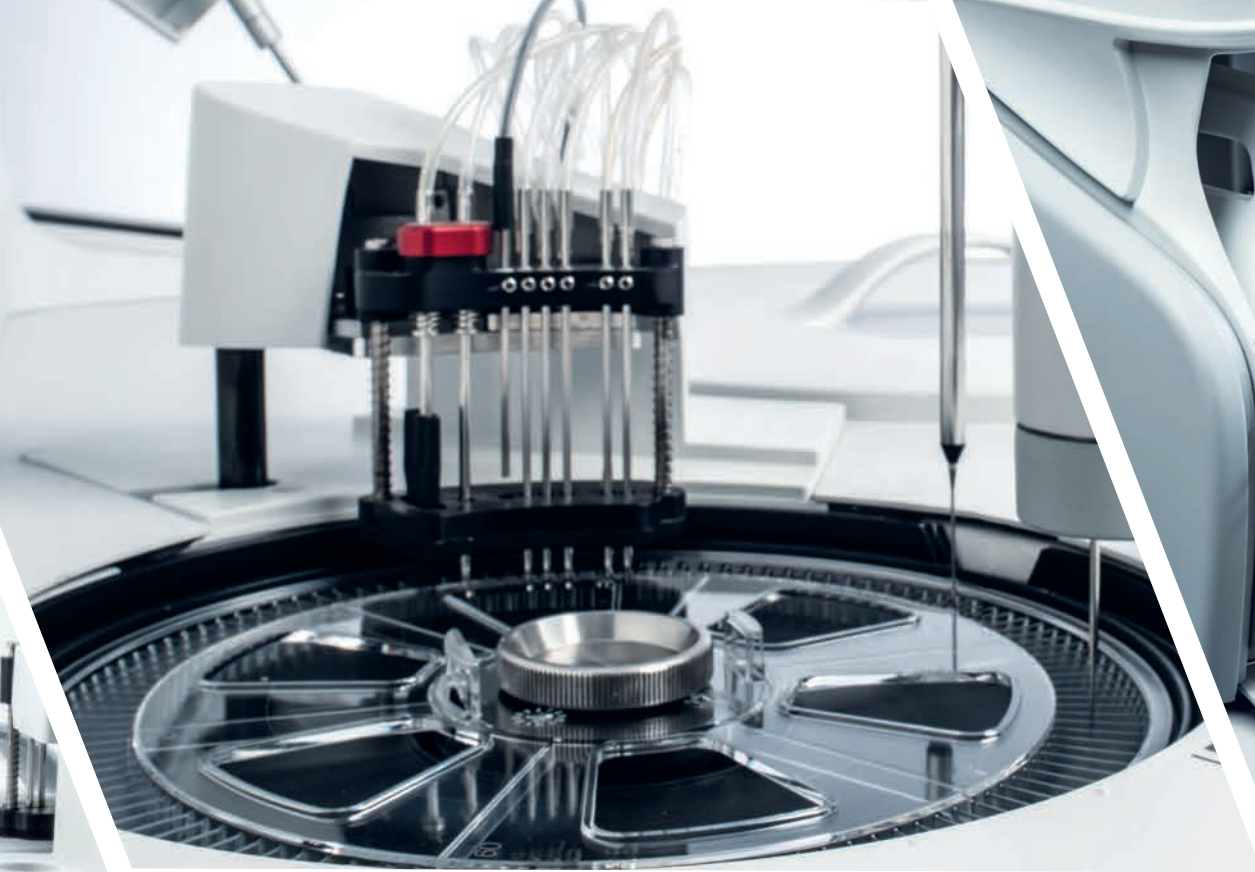
## Barcoded dedicated reagents

The BA has several kit sizes suitable for high and low turnover.

*Ask your local dealer for additional information.*

## Highly accurate dosing

Making the most of reagents with a precise control in consumption of calibrators, controls and reagents.



## 120 - cuvette rotor with washing station

All 120 cuvettes are easily changed in only one step while all of them are optically checked. Continuous management of optical quality.



## Compact system with low maintenance

No additional elements required to be connected out of the analyzer. Long durability pump and LED light sources maintenance - free. Individual collection of High Contamination Waste. Up to 7h of continuous workload.



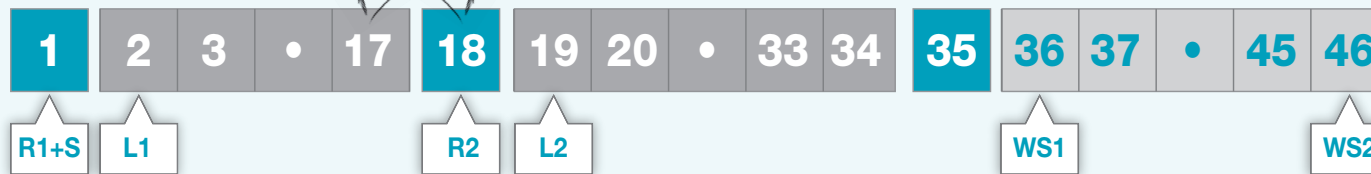
## Now with Quick Pause

The Instrument takes only between 6 and 24 seconds as a pause time to ease loading and unloading of samples and reagents (from Sw v 5.3.1).



## When time matters, Real 200 t/h throughput

Even with double reagent reactions, the analyzer keeps its speed. Up to 4 volumes can be handled in every cycle.



● Dispensation  
● Aspiration

BA200 machine cycle sequence: R1 and sample are both dispensed in cycle 1, not requiring additional time for R1 pre thermo

## General Performance

|                                      |  |
|--------------------------------------|--|
| Throughput                           | 200 test/h (without electrolytes)  |
| Combined throughput (ISE+Photometry) | 267 test/h (3 channels)<br>300 test/h (4 channels)   |
| Principles of analysis               | Colorimetry, turbidimetry, ISE method:<br>Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> (Li <sup>+</sup> as optional) |

## Sample and reagent handling

|                                      |   |
|--------------------------------------|---|
| Capacity of rotor                    | 88 (44 bottles of 20 mL, 60 mL or sample tube<br>+ 44 bottles of 20 mL or sample tubes) |
| Barcode detector                     | Yes   |
| Sample tube size                     | Diameter from 12 mm to 16 mm (height up to 100 mm)                                      |
| Pediatric well                       | 13.5 mm diameter  |
| Type of syringe                      | Ceramic piston pump with low maintenance  |
| Pipetting volume                     | from 2 µL to 40 µL  |
| Pipetting resolution                 | 0.1 µL  |
| Dilution (Pre/Post) ratio            | From 1:1 to 1:200   |
| Level detection                      | Yes   |
| Tip wash                             | Inside and outside  |
| Clot detector                        | Yes   |
| Vertical collision detector          | Yes   |
| Volume of reagent bottles            | 20 mL, 60 mL  |
| Cooling unit                         | Yes (Samples & Reagents)  |
| Temperature range of refrigerator    | From 6 °C to 11 °C (measured at 21 °C)  |
| Reagent volume R1                    | From 90 µL to 300 µL  |
| Reagent volume R2                    | From 10 µL to 100 µL  |
| Curve autocal from a single standard | Yes   |

## Reactions rotor

|                            |                 |
|----------------------------|-----------------|
| Minimum reaction volume    | 180 µL          |
| Maximum reaction volume    | 440 µL          |
| Number of wells            | 120             |
| Well material              | UV methacrylate |
| Type of incubation         | 5 min (fixed)   |
| Temperature reaction rotor | 37 °C           |
| Accuracy of temperature    | ± 0.2 °C        |
| Temperature stability      | ± 0.1 °C        |
| Mixers                     | 1               |

## Cuvette washing system

|                                 |                               |
|---------------------------------|-------------------------------|
| Washing station type            | 7 step with drying            |
| Consumption of washing solution | 1.42 mL/cycle (=7.11 µL cws*) |

\* Concentrated washing solution AC16434

## Optical System

|   |  |
|---|--|
| Light source  | LED + Hard coating filter  |
| Number of wavelengths                                   | 8  |
| Wavelengths   | 340 nm - 405 nm - 505 nm - 535 nm - 560 nm -<br>600 nm - 635 nm - 670 nm |
| Filters bandwidth                                       | ± 2 nm   |
| Photometric range                                       | -0.2 to 3.5 A  |
| Internal resolution                                     | 0.0001   |
| Detector  | Main Photodiode + reference photodiode                                   |
| Measurement accuracy<br>(for 340 nm, 405 nm and 505 nm) | CV < 1% at 0.1 A<br>CV < 0.1% at 2 A                                     |

## ISE Module (optional)

|                |  |
|----------------|--|
| Sample type    | Serum, Plasma, Urine, Whole Blood, CSF<br>and other biological fluids            |
| Electrode type | Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> (Li <sup>+</sup> as optional) |
| Sample volume  | Serum: 100 µL / Urine: 200 µL  |

## Environmental Requirements

|                     |   |
|---------------------|---|
| Ambient temperature | 10 °C to 35 °C  |
| Relative humidity   | 10 °C to 30 °C (With ISE module)<br><85% without condensation |

## Dimensions and weight

|                                      |                           |
|--------------------------------------|---------------------------|
| Dimensions (width, depth and height) | 1077 mm x 690 mm x 680 mm |
| Weight                               | 166 Kg                    |

## Electrical Requirements

|                 |                                      |
|-----------------|--------------------------------------|
| Mains voltage   | 115 V to 230 V                       |
| Mains frequency | 50 Hz or 60 Hz                       |
| Electric power  | Max. 500 VA<br>Average power: 260 VA |

## Fluidic Requirements

|                               |                                     |
|-------------------------------|-------------------------------------|
| Water inlet                   | External tank or mains water supply |
| Type of water                 | Purified type II (CLSI)             |
| Water consumption             | <9 L/h                              |
| High concentration waste tank | 2.4 L                               |
| Washing solution tank         | 2.4 L                               |

BioSystems, S.A. reserves the right to change specifications  
of the instruments at any time due to technical improvements.



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Dynamic Baseline with LED Light Source Technology

High reagent and sample capacity (88 positions), the highest grade in flexibility

Barcoded dedicated reagents

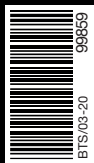
Highly accurate dispensing

120 - cuvette rotor with washing station

Compact system with low maintenance

Real 200 t/h, even with bi reagent reactions

Quick Pause



**Manufactured by: BioSystems S.A.**  
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