

BA 400

BioSystems

Efficiency and Autonomy

Clinical Chemistry Analyser

Clinical analysis

human - centred biotech



Our main goal is to optimise the laboratory workflow and improve the user experience.





 BioSystems

—
BA400 system:
updated to suit
our users needs.

Technological innovation



Minimum working time

The new segmented samples rotor improves the analyser workflow, streamlining the samples loading. New enhanced manoeuvres reduce samples loading time and minimise the attention required by the user.



Reliable validated system

Dedicated and validated reagents ensure a robust and reliable analytical system. The reagent barcoding and volume detection system allow to manage the amount of reagent in the system at any time.



Make your work easier

Automation saves time and avoids manual procedures. The new automatic haemolysis function guarantees more accurate results.



Highest performance, minimal maintenance

BA400 improves your laboratory resources and minimise the required system maintenance. The optics, based on our LED technology, will lead users to have full confidence in the reported results.

Systemic solutions

In combination with the original dedicated BA reagents (complete panel of clinical chemistry including special test), the BA400 forms a complete system that perfectly adapts to the demands of the laboratories in its segment.

The BA System and our worldwide customer care team offer together a complete solution, integrating reagents and analyzers jointly designed and validated under the same european brand.

Our main focus is to satisfy our users requirements and strive to exceed their technical, economical and human expectations. We are committed to provide the best possible user experience.



Scientific
and Technical
Support



Remote
Assistance



Personalised
Support



Technical Specifications

Highlights

- Throughput of 400 t/h (Clinical Chemistry and Turbidimetry).
- Maximum throughput of 560 t/h with ISE Module: Na⁺, K⁺, Cl⁻, Li⁺ (optional).
- Segmented samples rotor for faster samples loading.
- Automatic haemolysis on whole blood samples.
- 88 cooled reagents on board (6 - 11 °C) for 20 and 60 mL dedicated reagent bottles with barcode.
- Reaction rotor washing station and continuous evaluation of cuvettes status.
- Dynamic baseline with SMART LED technology.
- Photometric range up to 3.5 Abs and optical resolution of 0.0001 Abs.
- Full-capacity to integrate into LIS (ASTM, HL7).
- Minimum user maintenance.

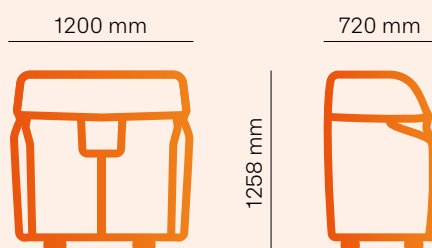
Ordering Information

Item	Code	Quantity
BA400 analyser*/ BA400 analyser with ISE module	83400/83400ISE	-
Segmented samples rotor for faster samples loading. (pediatric adapters included)	AC17457	3 units
Reaction rotors	AC11485	10 units
Concentrated washing solution	AC16434	500 mL
Acid washing solution (WS1)	AC17201	4 x 20 mL
Alkaline washing solution (WS2)	AC17205	4 x 15 mL
High alkaline washing solution (WS3)**	AC17800	2 x 60 mL
Sample wells (pediatric cups)	AC10770	1000 units
Reagent bottles 60 mL + caps	AC16362	10 units
Reagent bottles 20 mL + caps	AC16363	10 units
Ambar reagent bottles 60 mL + caps	AC16364	10 units
Ambar reagent bottles 20 mL + caps	AC16365	10 units

If you want information about the ISE module consumables, contact us at customersupport@biosystems.es.

* FDA approved.

** Check the need of use.



Throughputs		Optical System	
Throughput without ISE module	400 t/h	Light Source	LED
Throughput of ISE module	320 t/h	Wavelengths	340 - 405 - 505 - 535 - 560 - 600 - 635 - 670 nm
ISE Module (optional)		Photometric range	-0.2 to 3.5 A
Sample type	Serum, plasma or urine	Internal resolution	0.0001 A
Electrode type	Na ⁺ , K ⁺ , Cl ⁻ , Li ⁺ (optional)	Measurement accuracy	CV <1% at 0.1 A
Sample volume	Serum: 100 µL / Urine: 200 µL	(for 340 nm, 405 nm and 505 nm)	CV <0.1% at 2 A
Sample handling		Size and weight	
Sample rotor capacity	Up to 18 segments available (14 positions/segment)	Size (w., d., h.)	1200x720x1258 mm
Barcode reader	Yes	Weight	210 Kg
Number of samples with barcode	9/segment	Electrical and Environmental Requirements	
Size of primary tubes	Diameter 12 mm to 16 mm (max. height 100 mm)	Mains voltage	115 to 230 V
Sample well	Diameter 13.5 mm	Mains frequency	50 or 60 Hz
Sample types	Serum, plasma, urine, whole blood, cerebrospinal liquid, semen and biological fluid	Electric power	500 VA
Dispensing mode	Ceramic pump without maintenance	Ambient temperature	From 10 to 35 °C From 10 to 30 °C (With ISE module)
Pipetting volume	From 2 µL to 40 µL	Relative humidity	<85% without condensation
Pipetting resolution	0.1 µL	Altitude	<2500 m
Predilution ratio	From 1:2 to 1:200	Fluidic Requirements	
Clot detector	Yes	Water inlet	External tank or mains water supply
Tip wash	Inside and outside	Water type	Purified water type II
Reagent handling		Water consumption	<14 L/h
Volume of reagent bottles	20 mL, 60 mL	Bottle of high concentration waste	5 L
Reagent rotor capacity	88 (44 bottles of 20 mL or 60 mL + 44 bottles of 20 mL)	Bottle of washing solution	5 L
Cooled reagent	Yes	Minimum Computer Requirements	
Temperature range of refrigerator	From 6 to 11 °C (measured at 21 °C)	Operating system	Windows® 10 64 bit (x64)
Barcode reader	Yes	CPU	Equivalent to Intel Core i3 @3.10 GHz or higher
Reagent volume R1	120 µL to 450 µL	RAM	4 GB
Reagent volume R2	10 µL to 300 µL	Hard Disk	40 GB or higher
Dispensing mode	Ceramic pump without maintenance	Monitor minimum resolution	1024x768
Pipetting resolution	1 µL	Connector of serial channel	USB
Tip wash	Inside and outside	Laboratory Information Systems (LIS)	
Reactions rotor		Connectivity to LIS	HL7 and ASTM protocols
Reaction volume range	From 180 µL to 600 µL	Directives and Standards Compliance	
Number of wells	120	EC Directive-IVD	98/79/CE
Well material	UV methacrylate		
Type of incubation	Dry without maintenance		
Temperature	37.0 °C		
Temperature accuracy	± 0.2 °C		
Number of mixers	2		
Cuvette washing system	7 tips (2 for washing, 3 for rinsing and 2 for drying)		



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