

Automation and Flexibility

BioSystems
BA200

Clinical Chemistry Analyser

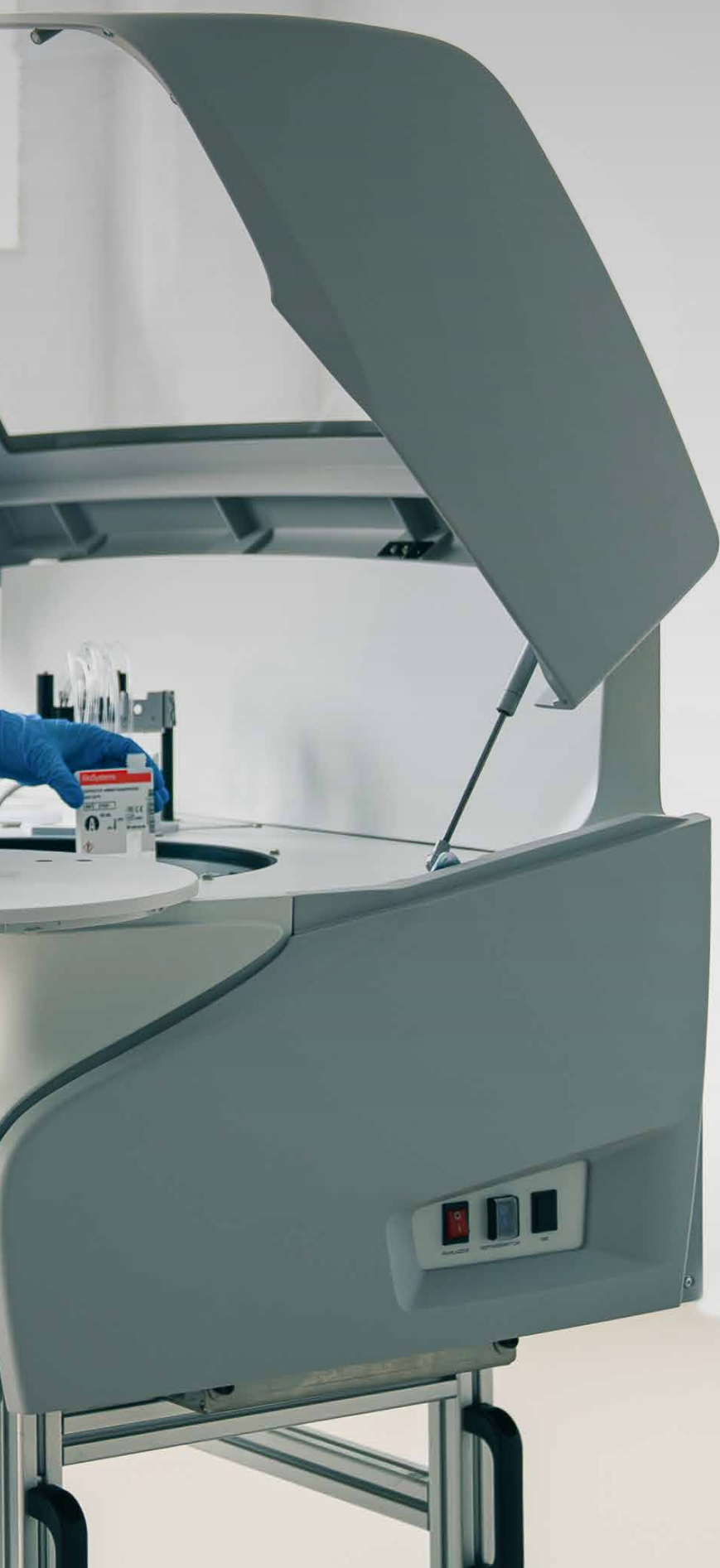
Veterinary analysis

human - centred biotech



We understand your needs
ensuring maximum flexibility
and performance





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BioSystems
BA200: designed
to enhance
the laboratory
workflow.

Technological innovation

The highest flexibility and compactness

A single rotor for samples and reagents allows maximum compactness without losing flexibility. The rotor layout is completely free to better fit the users' needs.

Highest performance, minimal maintenance

The optics based on our LED technology require minimal maintenance, allowing for greater durability, in addition to allowing users to have full confidence in the results obtained. The LEDs performance also enables the throughput of 200 t/h.





Make your work easier

Automation saves time, avoids manual procedures and improves workflow.



Reliable validated system

Reagents are specifically designed and validated to ensure robust and reliable results. The reagent barcodes and the volume detection system allow a completely control of the reagent used at any time.



Systemic solutions

In combination with the original BA reagents validated for veterinary analysis (veterinary panel, including special biochemistry tests), the BA200 forms a complete system that perfectly adapts to the demands of the veterinary laboratories in its segment.

The BA System and our worldwide customer care team offer together a complete solution, integrating reagents and analysers 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
& Technical
Support



Remote
Assistance



Personalised
Support

BioSystems BA200

Full Automatic Random Access Analyser

Highlights

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

Barcoded dedicated reagents with highly accurate dispensing.

Reaction rotor washing station and continuous evaluation of cuvette status.

Dynamic Baseline with SMART LED Technology.

Compact system with low maintenance.

Item

Quantity

Code

BA200 analyser/BA200 analyser with ISE module*

-

83200/83200ISE

Wheeled table + computer support

1 unit

AC17346

Wheeled table

1 unit

AC17345

Reaction rotor

10 units

AC11485

Concentrated washing solution

500 mL

AC16434

Acid washing solution (WS1)

4 x 20 mL

AC17201

Alkaline washing solution (WS2)

4 x 15 mL

AC17205

Highly alkaline washing solution (WS3)**

1000 units

AC17800

Sample wells (pediatric cups)

10 units

AC10770

Reagent bottles 60 mL + caps

10 units

AC16362

Reagent bottles 20 mL + caps

10 units

AC16363

Ambar reagent bottles 60 mL + caps

10 units

AC16364

Ambar reagent bottles 20 mL + caps

100 units

AC16365

Silicon caps

100 unidades

AC17487

ISE Module

Sodium Electrode (Na⁺)

1 unit

5201

Potassium Electrode (K⁺)

1 unit

5202

Chloride Electrode (Cl⁻)

1 unit

5207

Reference Electrode

1 unit

5204

Lithium Electrode (Li⁺)

1 unit

5205

Spacer Electrode

1 unit

5206

Reagent pack Na⁺/K⁺/Cl⁻/Li⁺

1 unit

5420

Urine diluent 125 mL

125 mL

5412

Urine diluent 500 mL

500 mL

5408

ISE Cleaning solution Kit

1 unit

5421

Bi-level quality control kit (Na⁺/K⁺/Cl⁻/Li⁺)

1 unit

2814

Tri-level quality control kit (Na⁺/K⁺/Cl⁻/Li⁺)

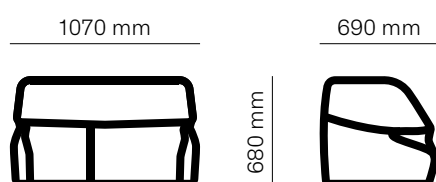
1 unit

2815

* Benchtop analyser, does not come with support.

** Check the need for use.

Dimensions



THROUGHPUTS	
Throughput without ISE module	200 t/h
Throughput of ISE module	300 t/h
ISE MODULE (OPTIONAL)	
Sample type	Serum, plasma or urine
Electrode type	Na ⁺ , K ⁺ , Cl ⁻ , Li ⁺ (optional)
Sample volume	Serum: 100 µL / Urine: 200 µL
SAMPLE HANDLING	
Sample rotor capacity	Up to 88 flexible positions
Barcode reader	Yes
Size of primary tubes	Diameter 12 mm to 16 mm (max. height 100 mm)
Sample well	Diameter 13.5 mm
Sample types	Serum, plasma, urine, whole blood, cerebrospinal liquid, semen and biological fluid
Dispensing mode	Ceramic pump without maintenance
Pipetting volume	From 2 µL to 40 µL
Pipetting resolution	0.1 µL
Predilution ratio	From 1:2 to 1:200
Clot detector	Yes
Tip wash	Inside and outside
REAGENT HANDLING	
Volume of reagent bottles	20 mL, 60 mL
Reactivos refrigerados	Sí
Cooled reagent	Yes
Temperature range of refrigerator	From 6 to 11 °C (measured at 21 °C)
Barcode reader	Yes
Reagent volume R1	120 µL to 450 µL
Reagent volume R2	10 µL to 300 µL
Dispensing mode	Ceramic pump without maintenance
Pipetting resolution	0.1 µL
Tip wash	Inside and outside
REACTIONS ROTOR	
Reaction volume range	From 180 µL to 600 µL
Number of wells	120
Well material	UV methacrylate
Type of incubation	Dry without maintenance
Temperature	37.0 °C
Temperature accuracy	± 0.2 °C
Number of mixers	1
Cuvette washing system	8 steps washing station

OPTICAL SYSTEM	
Light Source	LED
Wavelengths	340 - 405 - 505 - 535 - 560 - 600 - 635 - 670 nm
Photometric range	-0.2 to 3.5 A
Internal resolution	0.0001 A
Measurement accuracy	CV <1% at 0.1 A
(for 340 nm, 405 nm and 505 nm)	CV <0.1% at 2 A
SIZE AND WEIGHT	
Size (w., d., h.)	1070 x 690 x 680 mm
Weight	166 Kg
ELECTRICAL AND ENVIRONMENTAL REQUIREMENTS	
Main voltage	115 to 230 V
Main frequency	50 or 60 Hz
Electric power	500 VA max.
Ambient temperature	From 10 to 35 °C From 10 to 30 °C (with ISE module)
Relative humidity	<85% without condensation
Altitude	<2500 m
FLUIDIC REQUIREMENTS	
Water inlet	External tank or mains water supply
Water type	Purified water type II
Water consumption	<9 L/h
Bottle of high concentration waste	2,4 L
Bottle of washing solution	2,4 L
MINIMUM COMPUTER REQUIREMENTS	
Operating system	Windows® 10 64 bit (x64)
CPU	Equivalent to Intel Core i3 @3.10 GHz or higher
RAM	4 GB
Hard Disk	40 GB or higher
Monitor minimum resolution	1024x768
Connector of serial channel	USB
LABORATORY INFORMATION SYSTEMS (LIS)	
Connectivity to LIS	HL7 and ASTM protocols

Reagents

Test	Code	RA	RB	mL/Kit	Comments
α-AMYLASE DIRECT					
<i>Direct substrate</i>	21550	8 x 20 mL	-	160	
	23550	4 x 20 mL	-	80	
α-AMYLASE-EPS					
<i>IFCC</i>	21534	2 x 60 mL	2 x 15 mL	150	
α-AMYLASE PANCREATIC					
<i>IFCC</i>	21799	2 x 60 mL	2 x 15 mL	150	
ALANINE AMINOTRANSFERASE (ALT/GPT)					
<i>IFCC</i>	21533	8 x 60 mL	8 x 15 mL	600	
	23533	4 x 60 mL	4 x 15 mL	300	
ALBUMIN					
<i>Bromocresol green</i>	21547	10 x 60 mL	-	600	
	23547	4 x 60 mL	-	240	
ALKALINE PHOSPHATASE (ALP)-AMP					
<i>AMP buffer (IFCC)</i>	21592	4 x 60 mL	4 x 15 mL	300	
	23592	1 x 60 mL	1 x 15 mL	75	
ALKALINE PHOSPHATASE (ALP)-DEA					
<i>DEA buffer</i>	21590	4 x 60 mL	4 x 15 mL	300	
	23590	1 x 60 mL	1 x 15 mL	75	
AMMONIA					
<i>Glutamate dehydrogenase</i>	23532	1 x 20 mL	1 x 7 mL	27	RA
ASPARTATE AMINOTRANSFERASE (AST/GOT)					
<i>IFCC</i>	21531	8 x 60 mL	8 x 15 mL	600	
	23531	4 x 60 mL	4 x 15 mL	300	
β-HYDROXYBUTYRATE					
<i>Hydroxybutyrate dehydrogenase / Diaphorase</i>	21525	1 x 60 mL	1 x 15 mL	75	
BILIRUBIN (DIRECT) DPD					
<i>Dichlorophenyl diazonium</i>	21504	4 x 60 mL	4 x 15 mL	300	
	23504	1 x 60 mL	1 x 15 mL	75	
BILIRUBIN (TOTAL) DPD					
<i>Dichlorophenyl diazonium</i>	21506	8 x 60 mL	8 x 15 mL	600	
	23506	4 x 60 mL	4 x 15 mL	300	
CALCIUM-ARSENAZO					
<i>Arsenazo III</i>	21570	10 x 60 mL	-	600	
	23570	4 x 60 mL	-	240	
CALCIUM-CRESOLPHTHALEIN					
<i>O-Cresolphthalein complexone</i>	21511	8 x 60 mL	8 x 15 mL	600	
	23511	2 x 60 mL	2 x 15 mL	150	

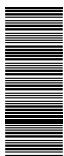
In **bold italics**: methods | **WR**: Working Reagent / **RA**: Reagent A Preparation / **RB**: Reagent B Preparation / **Std Inc**: Standard Included

Test	Code	RA	RB	mL/Kit	Comments
CHOLESTEROL					
<i>Cholesterol oxidase / Peroxidase</i>	21505	10 x 60 mL	-	600	
	23505	4 x 60 mL	-	240	
CHOLESTEROL HDL DIRECT					
<i>TOOS</i>	21594	4 x 60 mL	4 x 20 mL	320	
	23594	1 x 60 mL	1 x 20 mL	80	
CHOLESTEROL LDL DIRECT					
<i>TOOS</i>	21785	2 x 60 mL	2 x 20 mL	160	
	23785	1 x 60 mL	1 x 20 mL	80	
CHOLINESTERASE (CHE)					
<i>Butyrylthiocholine</i>	21588	2 x 60 mL	2 x 15 mL	150	
CREATINE KINASE (CK)					
<i>IFCC</i>	21790	2 x 60 mL	2 x 15 mL	150	
	23790	1 x 60 mL	1 x 15 mL	75	
CREATININE					
<i>Jaffé-compensated</i>	21502	5 x 60 mL	5 x 60 mL	600	
	23502	5 x 20 mL	5 x 20 mL	200	
CREATININE ENZYMATIC					
<i>Enzymatic</i>	21734	2 x 60 mL	2 x 20 mL	160	
γ-GLUTAMYL TRANSFERASE (γ-GT)					
<i>IFCC</i>	21520	4 x 60 mL	4 x 15 mL	300	
	23520	2 x 60 mL	2 x 15 mL	150	
GLUCOSE					
<i>Glucose oxidase / Peroxidase</i>	21503	10 x 60 mL	-	600	
	23503	4 x 60 mL	-	240	
IRON-FERROZINE					
<i>Ferrozine</i>	21509	4 x 60 mL	4 x 15 mL	300	
	23509	2 x 60 mL	2 x 15 mL	150	
LACTATE					
<i>Lactate oxidase / Peroxidase</i>	21736	4 x 60 mL	4 x 15 mL	300	
	23736	1 x 60 mL	1 x 15 mL	75	
LACTATE DEHYDROGENASE (LDH)					
<i>Pyruvate</i>	21580	8 x 60 mL	8 x 15 mL	600	
	23580	4 x 60 mL	4 x 15 mL	300	
LACTATE DEHYDROGENASE (LDH)-IFCC					
<i>IFCC</i>	21586	8 x 60 mL	8 x 15 mL	600	
	23586	2 x 60 mL	2 x 15 mL	150	
LIPASE					
<i>DGGR</i>	21760	1 x 20 mL	1 x 10 mL	30	

Test	Code	RA	RB	mL/Kit	Comments
MAGNESIUM					
<i>Xylidyl blue</i>	21797	2 x 60 mL	2 x 15 mL	150	
	23797	1 x 60 mL	1 x 15 mL	75	
NON-ESTERIFIED FATTY ACIDS (NEFA)					
<i>Acil-Coa Oxidase / Peroxidase</i>	21840	2 x 20 mL	2 x 7 mL	54	RA, RB
PHOSPHORUS					
<i>Phosphomolybdate / UV</i>	21518	4 x 50 mL	4 x 20 mL	280	
	23518	1 x 50 mL	1 x 20 mL	70	
PROTEIN (TOTAL)					
<i>Biuret</i>	21513	2 x 60 mL	2 x 20 mL	160	
	23513	1 x 60 mL	1 x 20 mL	80	
TOTAL BILE ACIDS					
<i>Enzymatic cycle</i>	23551	1 x 60 mL	1 x 20 mL	80	
TRIGLYCERIDES					
<i>Glycerol phosphate oxidase / Peroxidase</i>	21528	10 x 60 mL	-	600	
	23528	4 x 60 mL	-	240	
UREA/ BUN-UV					
<i>Urease / Glutamate dehydrogenase</i>	21516	8 x 60 mL	8 x 15 mL	600	
	23516	4 x 60 mL	4 x 15 mL	300	
URIC ACID					
<i>Uricase / Peroxidase</i>	21521	10 x 60 mL	-	600	
	23521	4 x 60 mL	-	240	







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