



Ⓜ200 / Ⓜ400

Smart efficiency with
unlimited flexibility

FOODQUALITY
BY BIOSYSTEMS

After almost 40 years, BioSystems - a group of 15 companies - is a reliable partner for laboratories over the 5 continents in the fields of **In-vitro Human and Veterinary Clinical Diagnostic, Food & Beverage Analysis** and **Monitoring of Bioprocesses**.

Today, the scientific advances in Biotech and Digital technologies drive BioSystems to focus on better understanding your needs and expectations and so provide **Analytical Solutions** to deliver the best **User Experience**.

BioSystems worldwide team of **Scientists, Engineers** and **Expert Professionals** devote their best efforts to continuously design and develop new solutions and improve existing ones.

I'm convinced that **working together**, we will **design** the best solutions to your future needs.

I invite you to explore [BioSystems Product List](#)

P-Vila

Pau Vila Cases Ph. D.
Director General
BioSystems S.A.



Y200 / Y400 Smart efficiency with unlimited flexibility

Y200 / Y400 are the new platforms presented by **BioSystems S.A** in the wine market. These platforms incorporate the latest developments done by the different BioSystems Departments. Below we will present the most advanced and significant developments done in Optics, Fluid Mechanics, Mechanics, Electronics and Software departments.

We are convinced that these new analysers will suppose a significant upgrade in the quality of the results and they will bring a new user experience, closer, agile and optimized.



Optics

LED optical system, reduces maintenance cost, eliminates the temperature factor that usually affects the halogen lamps and by 2 photodiode working simultaneously (reading + reference) it corrects any variation of the light caused due to differences in the electrical supply. The **new dynamic baseline** allows the individual correction of the plastic colour in each cuvette.



Mechanics

The **new set of needles**, ceramic **pumps** and **stirrers** improves significantly the repeatability and reproducibility of the data. The **new automatic pre and post dilutions** are done in the reactions rotor and mixed by the stirrers, with this new performance the quality of the dilutions are much better and the positions in the sample carousel are optimized since are not request any empty tubes or cups for that.



Software

Friendly software with an **intuitive interface**, it allows a **real-time monitoring** of kinetics, the work session, a more in-depth quality control analysis (rules of Westgard, Youden and evey-Jennings diagrams) and modern management of the LIS communications and historical results.



Fluid Mechanics

Automatic washing station: apart from the obvious reduction of the cost in consumables, establishes an individual control per cuvette and a correction of individual for each one of them significantly improving repeatability. The **double waste circuit** (high and low concentration) allows a better management of the reagents. With this development, the clear interest of BioSystems in the preservation of the Environment is reflected in the products.



Electronics

New sensors have been incorporated to have a better control of the operation of the analyser, and in case of alarm it has a better diagnosis of the problem. A pressure control inside the arms allows to **detect clot needles**, a **sensors in a shock absorbers** inside the needle allows to detect impacts and an optical control in the washing station validate the quality of the cuvettes before being used again.

Y200



Y200

- 200 results per hour
- 1 arm and 1 stirrer
- 88 positions between reagents and samples
- cycles of 18 seconds
- Consumption of 9 liters/hour of distilled water

Higher performance,
200 real results per hour

Y400



Y400

- 400 results per hour
- 3 arms and 2 stirrers
- 135 sample and 88 reagents portions
- Cycles of 9 seconds
- Consumption of 13 liters/hour of distilled water

High capacity for samples
and reagents.
High application flexibility



Technical Specifications | Code 83020



Speed

200 tests/hour (200 results/hour)

Capacity

88 positions:

- 44 positions of 60 mL or samples (tube or pediatric well)
- 44 positions of 20 mL or samples (tube or pediatric well)

Fluid System

RA volume from 90 μ L to 300 μ L
 RB volume from 10 μ L to 100 μ L
 Sample volume from 2 μ L to 40 μ L
 Reaction volume from 180 μ L to 440 μ L
 Level and clot detector

Optical System

LED + Hard Coating Filter
 Main photodiode + reference photodiode
 Wavelengths
 340, 405, 420, 430, 505, 520, 560, 600, 620
 635, 750 (nm)

Other Characteristics

Dimensions 1077 x 690 x 680 (mm)
 166 Kg



Technical Specifications | Code 83040



Speed

400 tests/hour (400 results/hour)

Capacity

135 sample positions
 (90 with automatic barcode reading)

88 reagent bottles (refrigerated)
 Removable blade with 120 reaction cuvettes
 (autowashable)

Fluid System

RA volume from 90 μ L to 450 μ L
 RA volume from 10 μ L to 300 μ L
 Sample volume from 2 μ L to 40 μ L
 Reaction volume from 180 μ L to 600 μ L
 Level and clot detector

Optical System

LED + Hard Coating Filter
 Main photodiode + reference photodiode
 Wavelengths
 340, 405, 420, 430, 505, 520, 560, 600, 620
 635, 750 (nm)

Other Characteristics

Dimensions 1200 x 720 x 1258 (mm)
 210 Kg

Reagents

The dedicated reagents have been designed in conjunction with the Y200/400, optimizing performance and providing a complete system unique in the market.

Organic Acids

Acetic Acid	100 mL
Ascorbic Acid	90 mL
Citric Acid	50 mL
D-Lactic Acid	100 mL
Gluconic Acid	100 mL
L-Lactic Acid	100 mL
L-Malic Acid	100 mL
Pyruvic Acid	100 mL
Tartaric Acid	100 mL

Nitrogenous Substances and Sulfites

Ammonia	100 mL
PAN	100 mL
Free Sulfite	200 mL
Total Sulfite	200 mL

Ions

Calcium	100 mL
Copper	100 mL
Iron	100 mL
Potassium	80 mL
Magnesium	100 mL

Other parameters

Acetaldehyde	50 mL
Total Acidity	100 mL
Catechins	100 mL
Colour	80 mL
Carbon Dioxide	50 mL
Glycerol	100 mL
Histamine	100 mL
Polyphenols	80 mL
pH	100 mL

Calibration and Control Material

Sulfite Control	2 x 10 mL
Red and White Wine Control	10 x 5 mL
Multical Ions	5 x 10 mL
Multical	5 x 10 mL
High Glucose/Fructose Control	10 mL

Sugars

D-Glucose/D-Fructose/Sucrose	60 mL
D-Glucose/D-Fructose	120 mL

• Minimum handling

• Fast and convenient

• Reagent cost savings



Manufactured by: **BioSystems S.A.**
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- Certified Management System
- EN ISO 9001
- EN ISO 13485