Take care of your wine, we take care of its analysis



human - centred biotech

BioSystems SPICA

It has never been so easy; the first assisted analytical system.

02. SAMPLE AND REAGENT PLACING

03. CHECK WORK IN PROGRESS

0.5.

06. HISTORICAL DATA

5





SPICA is a new system; innovative, modular, connected and intelligent.



Automatic oenological analyser

SPICA is set to revolutionize the automatic and multiparametric analytical platforms of the wine sector, SPICA is:

Flexible and modular. Able to configure and adapt to different analytical needs.

Connected. It allows working with any device such as a PC, tablet or even your smartphone, and allows to upload and manage data in the cloud.

Smart and intuitive. The improved autonomy and efficiency of the platform together with a very simple application make it an optimized and user-friendly tool.

Robust and accurate. Incorporating the latest mechanical assemblies offering robustness, repeatability and excellent accuracy.



BioSystems SPICA

SPICA has been designed together with users from all over the world.

Modular and flexible

SPICA has been designed to meet the evergrowing complexity of the wine industries demands. Offering flexibility in programming, SPICA allows users to customize their testing protocols through management of reagents, samples, pretreatments and incubations. Thus improves quality of testing and provides an avenue for future developments and customizations.

The new modular design allows users to add functionality to the SPICA in the form of reagent cooling systems, barcode readers, or a cuvette washing station. These modules can be added at later dates to adapt to changing user needs.





Connected

SPICA improves upon previous experiences with a reimagined user interface focusing on accessibility and ease. The incorporation of an internal computer and cloud-based platform allows users to run the SPICA from any computer or smart device.

Being connected through the Cloud means the analyser no longer connects to software or transfers data to a separate program. The built-in application allows for seamless updates and improvements, along with more efficient access to remote support.





Smart and intuitive

Every stage in the process has been simplified, from setting the device up to the daily routine. No software installations, no peripheral setups, no reagent mixing or expiration control; SPICA takes care of everything.

The new interface is very user-friendly and intuitive, designed on user experience feedback in collaborative partnerships with many companies from all over the world. It's automatically adaptable to any support used.

SPICA will guide you through all the processes, guaranteeing accurate results with low reagent consumption. SPICA accompanies you in your decisions.



Robust and accurate

SPICA provides the precision and accuracy you need for everyday decision making. With the incorporation of a powerful LED optical bank ranging from **280 nm to 750 nm**, and a mechanical stirrer, you can be confident in your results.



State-of-the-art technology in each detail.



SPICA

SPICA reagents

Calibration and Control Material

High Glucose Control Ions Multical Multical Sulfite Control Wine Control Red and White Other parameters Acetaldehyde

Anthocyanins Catechins Color Glycerol pH Polyphenols Total Acidity TPI (Total Polyphenols Index)

lon Calcium

Nitrogen and Sulphite Substances

Ammonia Free Sulfite Primary Amino Nitrogen Total Sulfite

Organic Acids

Acetic Acid Ascorbic Acid Citric Acid D-Gluconic Acid L-Lactic Acid L-Malic Acid Sorbic Acid Tartaric Acid

Sugars

D-Glucose/D-Fructose Sucrose/D-Glucose/D-Fructose

1000 mm

620 mm



Technical specifications

General characteristics		Optical system	
Speed	From 120 results/h Monoreagent /	Light source	LED + Hard Coating Filter
	50 - 60 results/h Bi-Tri reagents	No. of wavelengths	11 minimum
Analysis principles	Photometry, turbidimetry	Wavelengths	280 - 340 - 405 - 480 - 505 - 535
Analyser type Sample and reagent management	Random access Analyser		– 560 – 600 – 635 – 670 - 750 nm (other wavelengths optional) 10 nm ± 2 nm
Sample and reagent rotor	105 positions (7 racks x 15		± 2 nm
capacity	positions)	Fliter bandwidth	- 0.2 A to 3.5 A
Barcode readertype	Optional	Wavelength accuracy	0.0001
Number of samples with barcodes	70	Photometric range	Principal photodiode + reference photodiode
Size of primary tubes	12 mm to 16 mm diameter (max.	Internal resolution	CV <1% at 0.1 A
	height 100 mm)	Detector	Yes
Sample well	Sample well diameter 13.5 mm	Measurement precision	CV <0.1% at 2 A
Reagent bottle volume	20 mL, 60 mL, 10 mL, 40 mL or 10 + 40 mL	(tor 340 nm, 405 nm and 505 nm)	
Refrigerated reagents	Optional	Environmental requirements	
Refrigerator temperature	10 °C under room temperature (at	Room temperature	10 °C to 35 °C
range	room temperature of 21 °C)	Relative humidity	<85% with no condensation
Type of sample pump syringe	Low-maintenance, ceramic piston	Maximum altitude	<2000 m
Piston diameter	8 mm	Contamination grade	2
Liquids handling limits	2 - 600 µL	Transportation, storage	0 °C to 40 °C
Dilution ratio	1:1 to 1:100	temperature	
Dispensing resolution	Yes	Transportation and storage	<85% with no condensation
Level detection	Interior and exterior	humidity	
Washing of tip	Optional	Dimensions and weight	
Clot detector	No	Dimensions (Width x Depth x	100 cm x 62 cm x 65 cm
Vertical collision detector	Yes	Height)	
Thermostat tip	Yes	Weight	75 Kg
Reaction rotor		Electrical requirements	
Minimum reaction volume	180 µL	Mains voltage	115 V or 230 V
Maximum reaction volume	800 µL	Network frequency	50 Hz or 60 Hz
Number of cuvettes	120	Electric power	450 VA
Cuvette material	UV methacrylate	Fluctuations of the mains	± 10
Type of incubation	Dry	voltage Electric power	
Dispensing time for second reagent	Relative to RA dispensing (variable)	Fluid requirements	
Reaction cuvette temperature	37 °C	Type of water	Fluid requirements
Accuracy of temperature	± 0.2 °C	Water tank	3 L
Temperature stability	± 0.1 °C	Water tank	3 L
Stirrers	1	Washing solution tank	1L
Optional table	ional table Uninterruptible power supply (UPS)		UPS)
Single table	AC17345	UPS ref. AC17262	Optional / external





BioSystems S.A. Costa Brava 30, 08030 Barcelona (Spain) t. +34 933 110 000 foodbeverage@biosystems.global www.biosystems.global



Management System ISO 9001:2015

www.tuv.com ID 0091006696