



# SINGLE BEAM UV VISIBLE SPECTROPHOTOMETER BSNA-403

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## ULTRA-MICRO ULTRAVIOLET-VISIBLE SPECTROPHOTOMETER

Ultra-micro ultraviolet-visible spectrophotometer is a full-wavelength ultra-micro ultraviolet-visible spectrophotometer, the micro detection mode can be used to detect nucleic acids, micro nucleic acid arrays, pure protein detection, labeled protein detection, protein quantitative detection, microbial cell culture detection and regular full-wavelength scanning. In the cuvette detection mode, nucleic acids, proteins, and microbial cells can be measured Cultivation and kinetic testing. The fluorescence detection module can perform fluorescence quantification of nucleic acid. After the fluorescent dye is combined with a specific target molecule, the fluorescence intensity is detected to measure the concentration of the target molecule. It is used to detect low-concentration samples with high accuracy. Fluorescence detection is suitable for the detection of trace amounts of samples, usually ultra-low concentration samples that cannot be measured by photometers.



By forming a liquid column, the sample required for one test is as low as 0.5ul, and the trace amount is detected, saving precious samples.

The detection concentration range is wide, and commonly used samples can be detected without dilution.

The machine does not need to be warmed up, it can be detected after starting up, and the single detection time is about 5 seconds, and the detection is fast.

Built-in software, easy and fast to operate, software running fast and stable, no delay, provide a stable user experience.

Small size, easy to carry, very suitable for field testing.

Can record all the data that the user tests, and has screenshot function, convenient for users to export precious data or delete data at any time. More than 10,000 data can be

## SPECIFICATIONS

Model	BSNA-403
Test sample capacity	0.5~2ul
Light source	Xenon lamp
Detector	2048 linear CCD array
Optical path	≤0.7mm
Wavelength range	200~850nm
Wavelength accuracy	<1nm
Wavelength resolution	≤2nm
Light absorption range	0.04~300Abs (10mm)
Light absorption accuracy	0.002Abs (1mm)
Spectral bandwidth	≤1.8nm(FWHM)
Spectral resolution	≤0.3nm
Absorbance accuracy	1%(0.76Abs at 256nm)
Detection concentration range	2~15000ng/ul(dsDNA)
Sample base material	304 stainless steel and quartz optical fiber
Measure time	About 5s
Power	20W
Power Adapter	12V , 5A
Dimensions	W.197xD.327xH.181mm
Net weight	3.1kgs
Cuvette detection parameters	
Specification of cuvette	L.12.5xW.12.5xH.45mm
Optical path length of cuvette	10, 5, 2, 1mm
Cuvette beam height	8mm
Heating range of cuvette	37±0.5°C

Memory capacity	8G
Measurement time	About 2 seconds
Mixing speed of cuvette	High and low modes
Cuvette detection concentration range	0.2~75ng/μl(dsDNA)
Light absorption range of cuvette	0.004~1.5Abs (10mm)
Operating system	Linux
Fluorescence detection parameters	
Sampling range	1~20ul
Dynamic range	5 orders of magnitude
Detector type	Photodiode
Excitation channel	Blue light: 430nm~495nm
Transmission channel	Green light: 510nm~580nm
Number of stored sample results	> 1000, can be exported via USB flash disk
Alt Name	Ultra-micro ultraviolet-visible Spectrophotometer

## FEATURES

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It can be quickly upgraded by U disk, which is convenient for the instrument to update the software.

With user management system, multi-user independent detection, independent management of data.

High-definition 7-inch display screen, using capacitance touch screen, full touch operation, can sense the touch of laboratory gloves, longer life and better experience.

Has power-on self-test function, it can quickly and accurately judge whether there are impurities in the detection platform when the machine is started up.

The material of the sample detection platform is stainless steel and quartz optical fiber, high strength and anti-corrosion.

With cuvette measurement function, the cuvette measurement provides stirring and heating auxiliary functions at the same time, which makes the cuvette detection more powerful and uses more detection scenarios.

Support kinetic detection, kinetic detection provides users with an intuitive absorbance change curve, user-defined wavelength points to view the relationship between absorbance changes over time, and 100 kinetic programs can be built-in.

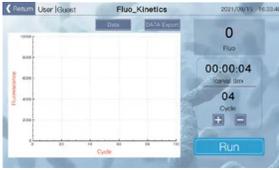
Support colonies (OD600) detection, and the detection of colonies can be carried out in both cuvette and micro mode, which meets the different detection needs of users.



### A. Interface display



## Main Interface



## Measurement interface

NO.	Conc./mg/ml	Time
01	200.005	2019/05/21 08:20:23 AM
02	252.608	2019/05/21 08:20:23 AM
03	496.64	2019/05/21 08:20:23 AM
04	0.00	2019/05/21 08:20:23 AM
05	595.654	2019/05/21 08:20:23 AM
06	120.654	2019/05/21 08:20:23 AM
07	155.005	2019/05/21 08:20:23 AM
08	132.630	2019/05/21 08:20:23 AM
09	602.66	2019/05/21 08:20:23 AM
10	44.656	2019/05/21 08:20:23 AM

260.005  
Fluo\_Kinetics

Measure

## Data Table



## Set interface

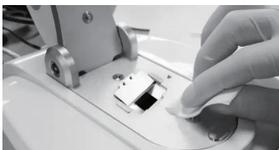
## B. Operating instructions



Raise the sample arm, add the sample to the detection base.



Put down the sample arm and measure the sample according to the software interface.



After the test is completed, wipe the measuring platform with dust-free paper to avoid sample residue.

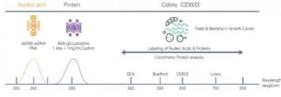


Cuvette measurement: Put the cuvette into the cuvette slot and cover the measuring arm to test

## APPLICATIONS

Ultra-micro ultraviolet-visible spectrophotometer is a very important analytical instrument, whether in the fields of scientific research such as physics, chemistry, biology, medicine, materials science, environmental science, or in modern chemical engineering, medicine,

environmental testing, metallurgy Production and management departments, Ultra-micro ultraviolet-visible spectrophotometer have a wide range of important applications. Ultra-micro ultraviolet-visible spectrophotometer is to use spectrophotometry to quantitatively and qualitatively analyze substances, and is often used for nucleic acid, protein quantification and cell culture detection; Ultra-micro ultraviolet-visible spectrophotometer is already a conventional instrument in modern molecular biology laboratory.



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