

Spectrophotometer

Micro-Volume UV/VIS Spectrophotometer



Introduction:
Micro-Volume UV/VIS spectrophotometer is a high-precision analytical instrument requiring no warm-up and offering simple operation. It rapidly and accurately measures nucleic acids, proteins, and cell solutions using only 0.5~2µL samples. Its cuvette mode also supports concentration measurement of solutions such as bacterial cultures. Equipped with fluorescence detection, the device is compatible with fluorescence quantitative assay kits. Based on the specific binding of fluorescent dyes to target substances, it enables highly precise quantification of DNA, RNA, and proteins, with dsDNA detection sensitivity as low as 0.5pg/µL—ideal for trace sample analysis.

- Features:**
- * Integrated built-in printer: Print reports immediately upon test completion, delivering one-step data output.
 - * Dedicated OD600 detection: Built-in specialized optical path provides a fast, precise solution for measuring microbial culture concentrations.
 - * High-sensitivity fluorescence detection: Enables precise pg-level quantification of ultra-trace nucleic acids, meeting advanced research requirements.
 - * Multi-path intelligent detection: Measures an ultra-wide concentration range on a single device, eliminating the need for sample dilution while ensuring stable, reliable data.
 - * Smart flash light source: Instant detection greatly extends light source lifespan and effectively minimizes sample photodamage.
 - * Dedicated contaminant detection capability.

Technical Parameters:

Model	BK-CW2000B	
Path Length	0.01mm, 0.02mm, 0.05mm, 0.2mm, 1.0mm	
Sample Volume	0.5~2µL	
Light Source	Xenon flash light source, flash count >10 ⁹	
Detector	Hamamatsu UV-enhanced CMOS linear array sensor	
Scanning Wavelength Range	190~850nm	
Wavelength Accuracy	±1nm	
Wavelength Resolution	1nm	
Wavelength Reproducibility	<±0.2nm	
Spectral Resolution	≤0.3nm(FWHM, Hg 253.7nm line)	
Absorbance Accuracy	±1%(7.332Abs @260nm as reference)	
Absorbance Resolution	0.002Abs(0.2mm path length)	
Absorbance Range	0.02~300Abs(Equivalent to 10mm path length)	
Nucleic Acid Measurement Range	2~27500ng/µL dsDNA	
Protein Measurement Range	0.06~820mg/mL BSA	
Detection Time	<5s	
Detection Platform	Quartz fiber + stainless steel	
Fluorescence Performance	Fluorescence Detection Value	Compatible with dedicated reagents, capable of detecting pg-level dsDNA
	Fluorescence Sensitivity	dsDNA up to 0.5pg/µL
	Fluorescence Linearity	R ² >0.995
	Fluorescence Stability	≤1.5%
OD600 Performance	Absorbance Range	0~6.000Abs <3: ≤0.5%
	Absorbance Stability	3~4: ≤2% <2: ≤0.005
	Absorbance Accuracy	2~3: ≤1% 3~4: ≤2%
	Absorbance Repeatability	<3: ≤0.5% 3~4: ≤2%
Operating System		Android system, 7-inch HD capacitive touchscreen
Interface Output		Supports USB data export
Data Format		Supports image(JPG) and table storage
Standard Accessories		Built-in printer, 10mm glass cuvette*2
Power Supply		AC 110/220V, 50/60Hz
External Size(W*D*H)		200*260*165mm
Package Size(W*D*H)		420*350*280mm
Net Weight		4.23kg
Gross Weight		6.7kg