

SP Series Spectrophotometers

SP7000UV/ SP8000UV / SP9000UV— Research-Grade Double-Beam UV-Vis

The SP7000UV, SP8000UV, and SP9000UV are research-grade double-beam UV-Vis spectrophotometers designed for laboratories where the highest levels of precision, stability, and analytical flexibility are required. All three instruments share the same powerful double-beam platform — dual tungsten and deuterium lamps, dual silicon photodiode detectors, a 10.1-inch 1280×800 touchscreen, and 128 GB built-in storage — delivering eight comprehensive measurement modes with ultra-low noise and exceptional long-term baseline stability. Rich connectivity across USB-A ×3, USB-B, RJ-45, VGA, HDMI, and optional Wi-Fi ensures seamless integration into modern research environments.



SP7000UV

Essential Performance

- True double-beam UV-Vis optical system with tungsten and deuterium lamps covering 190–1100 nm
- 1.8 nm spectral bandwidth with ultra-low noise and advanced measurement modes including spectrum, kinetics, and DNA/protein analysis
- 10.1-inch touchscreen with 128 GB storage, USB/network connectivity, and optional Wi-Fi

SP8000UV

Advanced Research

- True double-beam UV-Vis optical system with tungsten and deuterium lamps covering 190–1100 nm
- High-resolution 1 nm spectral bandwidth with ultra-low noise and advanced measurement modes including spectrum, kinetics, and DNA/protein analysis
- 10.1-inch touchscreen with 128 GB storage, USB/network connectivity, and optional Wi-Fi

SP9000UV

High-Resolution Precision

- True double-beam UV-Vis optical system with tungsten and deuterium lamps covering 190–1100 nm
- Selectable spectral bandwidths from 0.5–5 nm for maximum analytical flexibility and high-resolution performance
- 10.1-inch touchscreen with advanced measurement modes, 128 GB storage, USB/network connectivity, and optional Wi-Fi

Applications

Nucleic Acid

Precise absorbance measurements at 260 nm and 280 nm enable accurate quantification of DNA, RNA, and oligonucleotides with purity ratio analysis to assess sample quality ahead of downstream molecular biology workflows.

Protein Analysis

UV absorbance at 280 nm and compatibility with colorimetric protein assays such as Bradford, BCA, and Lowry make the series well suited for routine and high-precision protein quantification.

Enzyme Kinetics

The kinetics and time scan modes allow continuous absorbance monitoring over time, enabling detailed characterisation of enzyme activity, reaction rates, and substrate consumption.

Technical Specifications

SPECIFICATION	SP7000UV	SP8000UV	SP9000UV
Optical System	Double Beam		
Light Source	Tungsten + Deuterium		
Detector	Dual silicon photodiode		
Spectral Bandwidth	1.8 nm	1 nm	0.5, 1, 2, 4, 5 nm (selectable)
Wavelength Range	190–1100 nm		
Wavelength Accuracy	±0.3 nm; 0.1 nm @ 656.1 nm		
Wavelength Repeatability	±0.1 nm		
Wavelength Display	0.1 nm		
Swing Speed	10,000 nm/min		
Scanning Speed	20–4200 nm/min		
Photometric Range	-4–4 A 0–400 %T 0–9999.9 C		
Photometric Accuracy	±0.002 A (0–0.5 A) ±0.004 A (0.5–1 A) ±0.3 %T		
Photometric Repeatability	±0.001 A (0–0.5 A) ±0.002 A (0.5–1 A) ±0.15 %T		
Noise	±0.00005 A @ 0.0 A (500 nm, RMS)		
Baseline Flatness	±0.0005 A		
Stray Light	±0.03 %T @ 340 nm ±0.03 %T @ 220 nm ±1 %T @ 198 nm		
Measurement Modes	Photometry, Quantitation Scanning, Kinetics, Time Scan, Multi-Wavelength DNA/Protein, Custom		
Sample Holder	10 mm 1-cell holder		
Display	10.1" IPS Touchscreen 1280x800		
Storage	128 GB + USB/SD/Network		
Interface	USB-A x3; USB-B x1 RJ-45; VGA; HDMI Wi-Fi optional		
Power Supply	100–240 V AC 50/60 Hz, 140 VA		
Dimensions (WxDxH in/mm)	22.8 x 16.5 x 9.3 / 580 x 420 x 235		
Weight (lbs/kg)	37.5 / 17	40 / 18	40 / 18

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