

# SP2000

## Visible Spectrophotometer

Single-beam · 320–1050 nm · 2 nm bandwidth · Touchscreen interface

**320–1050 nm**

Wavelength Range

**2 nm**

Spectral Bandwidth

**±0.8 nm**

Wavelength Accuracy

### OVERVIEW

The SP2000 is a single-beam visible spectrophotometer covering 320–1050 nm with a narrowed 2 nm spectral bandwidth, delivering enhanced wavelength resolution ideal for applications requiring finer spectral discrimination. Built on a robust aluminium die-cast chassis with a 5-inch TFT colour touchscreen, it provides a complete photometry and quantitation suite for pharmaceutical QC, clinical analysis, environmental testing, food and beverage science, and academic research.

### SOFTWARE FUNCTIONS

PHOTOMETRY	QUANTITATION
A / %T / E conversion Record, rename, delete, save & print results	Single & dual wavelength modes 3 curve fitting methods Save & load standard curves 19 built-in + user-defined units
FILE MANAGEMENT	SYSTEM
Delete, rename, batch import/export Convert to .txt and .csv	Dark current, wavelength & baseline calibration Light source management 6-language interface Firmware upgrade via USB

### SPECIFICATIONS

PARAMETER	SPECIFICATION
<b>OPTICAL SYSTEM</b>	
Optical System	Single beam
Light Source	Tungsten lamp
Detector	Silicon photodiode
Spectral Bandwidth	2 nm
<b>WAVELENGTH</b>	
Wavelength Range	320–1050 nm
Wavelength Accuracy	±0.8 nm
Wavelength Repeatability	±0.3 nm
Wavelength Resolution	0.1 nm
Wavelength Scan Speed	10,000 nm/min
<b>PHOTOMETRIC PERFORMANCE</b>	
Measurement Range	-0.3–3 A, 0–200 %T, 0–9999.9 C
Photometric Accuracy	±0.003 A (0–0.5 A); ±0.006 A (0.5–1 A); ±0.5 %T (0–100 %T)
Photometric Repeatability	±0.002 A (0–0.5 A); ±0.003 A (0.5–1 A); ±0.2 %T (0–100 %T)
Noise (RMS)	±0.0001 A @ 0.0 A (500 nm)
Stability	±0.002 A/h @ 500 nm (after 2 h preheat)
Stray Light	±0.2 %T @ 340 nm (NaNO <sub>2</sub> )

SYSTEM	
Measurement Modes	Photometry, Quantitation
Sample Compartment	10 mm, 4-cell manual changer
Display	5-inch TFT colour touchscreen
Memory	236 KB built-in; unlimited via USB storage
Connectivity	RS232 x1 (printer), USB-A x1 (storage), USB-B x1 (PC)
Languages	EN / DE / FR / ES / PT / ZH
ELECTRICAL	
Power Supply	100–240 V AC, 50/60 Hz, 75 VA
PHYSICAL	
Dimensions (WxDxH)	456 × 360 × 185 mm
Weight	10.5 kg

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