

Dual Beam UV-VIS 2000 Spectrophotometer



The UV 2000 is a high performance compact Dual Beam Spectrophotometer with a fixed 2nm spectral bandwidth.

The UV 2000 range consists of two models:

UV 2000U (UV-Visible) operating within a wavelength range of 190 -1100nm.

UV 2000V (Visible) operating within a wavelength range of 325 -1000nm.

The instrument has a switched mode power supply accepting voltages in the range of 95 - 240V AC and supplied with 10mm path length 4 cell changer as standard. The UV 2000 delivers the functionality and accuracy of an advanced instrument at an affordable price.

FEATURES & FUNCTIONS

- High performance fixed 2nm spectral bandwidth.
- Low stray light 0.05%T.
- Wavelength accuracy +/- 0.5nm.
- Holographic blazed grating 1200 lines/mm.
- Software (M.Wave Professional) control for photometric fixed wavelength measurement.
- Easily upgraded to include quantitative analysis, multi wavelength spectrum & kinetics.
- Robust modular design with a small footprint.

OPTICAL SYSTEM & COMPONENTS

- High quality optical components ensure reliable analytical data with low stray light achieved using very low noise electronic circuits.
- Deuterium and tungsten light sources deliver superior stability across the full wavelength range. Both types of lamp have self timers and are inexpensive and easy to replace when required.
- The monochromator is completely sealed and the optical surfaces can be easily cleaned to maintain optimum reflectivity over the lifetime of the instrument.
- A maintenance free high resolution direct stepper drive positions the grating precisely, which ensures reproducible wavelength scanning at different scan speeds, thus negating any wavelength peak shift.
- The spectrophotometer shell is made from an environmentally friendly non corrosive material and a simple retaining mechanism on the base allows easy access for air filter changes and routine maintenance.

**ACCURATE.
RELIABLE.
FLEXIBLE.**



TYPICAL SPECIFICATIONS

	UV 2000U (UV-Visible)	UV 2000V (Visible)
Optical system	Dual beam with 1200 lines / mm	Dual beam with 1200 lines / mm
Scan speed	Selectable	Selectable
Wavelength range	190 -1100nm	325 -1000nm
Wavelength accuracy	±0.5nm	±0.5nm
Wavelength reproducibility	≤ 0.3nm	≤ 0.3nm
Spectral bandwidth	2nm	2nm
Photometric mode	Transmittance, Absorbance, Energy	Transmittance, Absorbance, Concentration
Photometric range	-0.3 - 3.0Abs	-0.3 - 3.0Abs
Photometric accuracy	0.002A (0-0.5A), 0.004A (0.5 -1A) 0.3%T (0 -100%T)	0.002A (0 - 0.5A), 0.004A (0.5 -1A) 0.3%T (0 -100%T)
Photometric reproducibility	0.001A (0 - 0.5A), 0.002A (0.5 -1A) 0.15%T (0 -100%T)	0.001A (0 - 0.5A), 0.002A (0.5 -1A) 0.15%T (0 -100%T)
Photometric noise	0.001A (500nm) 30min warm-up	0.001A (500nm) 30min warm-up
Baseline flatness	0.002A (200 -1000nm)	0.002A (325 -1000nm)
Baseline stability	0.001A/h (500nm,0Abs), 2hr warm-up	0.002A/h (500nm,0Abs), 2hr warm-up
Stray light	≤ 0.05%T (220nm NaI, 340nm NaNO ₂)	≤ 0.05%T (340nm NaNO ₂)
Standard Functionality	Photometric Measurement (Quantitative, Multi-wavelength, Spectrum and Kinetic measurements)	Photometric & Quantitative Measurement, Spectrum & Kinetic by Software
Optional Accessory	Specular Reflection Accessory, Integrating Sphere 60mm / 100mm Automatic 8 Cell Changer, long path cell holder, Peltier Solid Sample holder etc.	
Detector	Silicon photo diode	Silicon photo diode
Light source	Tungsten Halogen and Deuterium arc lamps	Tungsten Halogen
Display	Graphic LCD	Graphic LCD
Printer	Parallel Port	Parallel Port
PC Interface	USB PORT	USB PORT
Software support	M.Wave Professional	M.Wave Professional
Power supply	Switch mode 95 - 250VAC 50 - 60Hz	Switch mode 95 - 250VAC 50 - 60Hz
Weight	14kg	12kg
Dimensions (W/D/H)	470(mm), 373(mm), 187(mm)	470(mm), 373(mm), 187(mm)

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www.labindia-analytical.com / For Enquiries: sales.mfd@labindia.com

Labindia Analytical Instruments Pvt. Ltd.

HEAD OFFICE:

Thane: 201, Nand Chambers, LBS Marg, Near Vandana Cinema, Thane (W) - 400 602. **Tel.:** +91-22-2598 6000 / 2598 6110 **E-mail:** sales.mfd@labindia.com

REGIONAL OFFICES:

Delhi: Tel.: +91-11-4330 6001 / 10

Chennai: Tel.: +91-44-2434 7008 / 2432 0352

Kolkatta: Tel.: +91-33-2466 3362

BRANCH OFFICES:

Bangalore: Tel.: +91 80 4565 6200

Lucknow: Tel.: +91-522-2346 535 / 2346 496

Hyderabad: Tel.: 040 4444 3530

Vadodara: Tel.: +91-265-2986 005 / 2986 006

Pune: Tel.: +91-20-2545 3386

Chandigarh: Tel.: +91-172-4090 001-07 / 4090 009

FACTORY 1: Plot No. EL-72, Electronic Zone, TTC Industrial Area, Thane Belapur Road, Navi Mumbai - 400 705. **Tel.:** +91-22-6107 6666

FACTORY 2: Plot No. W-401, TTC, MIDC Industrial Area, Rabale, Thane-Belapur Road, Navi Mumbai 400 701. **Tel.:** +91-22-6107 6555

APPLICATION & TRAINING CENTRE: R-909, TTC Industrial Area, Thane Belapur Road, Rabale, Navi Mumbai - 400 701. **Tel.:** +91-22-6107 6555



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