

Spectro UV-Vis Double PC 8 Auto Cell Scanning Spectrophotometer UV-VIS Double Beam

Model UVD-3000
and Model UVD-3200



Spectro UV-Vis Double PC 8 Auto Cell is a high performance UV-Vis double beam automatic scanning spectrophotometer. Spectro UV-Vis Double has a brand new optical system design, microcomputer controlled. It is capable of processing data, from analytical and spectrum testing. Precise with high accuracy of measurement and stability are also provided by the powerful **built in software** and large LCD screen, which can display the screen menu and other functions. **It can also be linked to a computer and a printer** to show Photometric and Spectral data in the PC monitor.

Spectro UV-Vis Double PC 8 Auto Cell can perform automatic photometry scanning of the spectrums being measured, adding the possibility of quantitative analysis and kinetic spectrophotometric analysis. Both sample and reference beams are provided with the same sampling space, facilitating wider and longer scan of data with a more detailed view of the results in an easy to use environment.

Spectro UV-Vis Double PC 8 Auto Cell can be used extensively for qualitative and quantitative analysis in such fields as Pharmaceutical inspection, clinical analysis, chemistry and biochemistry labs, as well as in quality control departments, environmental control, water management, food processing, Petrochemistry, agriculture and **DNA/RND measurement**.

There are 2 models of Spectro UV-VIS Double PC 8 Auto Cell available:

1) Spectro UV-VIS Double PC 8 Auto Cell with **fixed** bandwidth of 2 nm. (Model UVD-3000)

2) Spectro UV-VIS Double PC 8 Auto Cell with **variable** bandwidth of 0.5, 1.0, 2.0 and 5.0 nm.(Model UVD-3200)

Technical Specifications

1) Wavelength range:	190 nm – 1100 nm
- Spectral bandwidth:	2.0 nm (Model UVD-3000) and 0.5, 1.0, 2.0 and 5.0 nm.(Model UVD-3200)
- Resolution:	2nm. (UVD-3000) and 0.5nm. (UVD-3200)
- Stray Light:	0.2%T (220 nm and 340 nm)
- Wavelength accuracy:	0.5 nm (with automatic wavelength correction).
- Wavelength Reproducibility:	0.2 nm
2) Photometric System:	The double-beam monitoring ratio system.
- Photometric Method:	Transmittance, absorbance, energy and concentration
- Photometric Range:	-0.3~3.0 Abs (0~200%T)
- Photometric Accuracy:	0.002Abs (0~0.5Abs) , 0.004Abs (0.5~1.0Abs)
- Photom. Reproducibility:	0.001Abs (0~0.5 Abs), 0.002Abs (0.5~1.0Abs), 0.15%T (0~100%T)
- Photometric Display:	-9999 ---- 9999
- Photometric Noise:	< ±0.001Abs (500nm, 0Abs, 2nm Bandwidth)
- Scanning Speed:	1400nm/min
- Baseline flatness:	0.002Abs (190 nm. ~1100 nm.)
- Baseline stability:	0.002Abs/h (500 nm., after preheating).
- Slew rate of wavelength:	3600nm/min
3) DNA/RNA Measurement:	
- Results Printout:	Printing of measured data by using any Printer with Paralell Port connection available.
4) Mainframe:	Compact and standalone spectrophotometer mainframe
- Light Source:	Socket Deuterium Lamp and Socket Tungsten Halogen Lamp.
- Detector:	Double Beam
- Sample Chamber:	Automatic eight-cell sample holder
- Display	Liquid Crystal Display (LCD 320 iA240 dot matrix)
- Keypad:	Touch soft keys.
- PC Interface:	PC Interface: RS-232
- Size:	22x16x10"
- Weight:	55 Lb

Features

- o **Baseline Stability:** The Double beam monitoring ratio system enhances baseline stability.
- o **Excellent Resolution:** The big-caliber light path enhances the instrument's energy, reduces its noise and raises its resolution performance
- o **Automatic successive measurement:** The automatic eight-cell sample holder offers the automatic measurement of eight samples in succession. So it can bring about one-touch measurement of the solution of six samples and a blank.
- o **User-friendly light source:** The socket deuterium lamps and tungsten lamps facilitate light source replacement, simplify maintenance and reduce operation error.
- o **Convenient Display:** The large backlit LCD screen displays both photometric values and spectral curves.
- o **Full use of Computer Technology:** Being computer controlled with RS-232 interface and working on the Windows platform with the UV/Win application software.
- o **The key components** adopt all from the world famous manufacturer, such as deuterium lamp, silicon photodiode and holographic grating, which ensures the stabilization and credibility of the Instrument for extended life.
- o **Computer System is optional (NOT INCLUDED).**

Software specifications

Monoprocessor Built-in Application:

- o **Photometric Measurement:** Measuring transmittance or absorbance at the current wavelength together with K factor calculations.
- o **Spectrum Scan:** Carrying out scanning of transmittance or absorbance on the selected wavelength range together with peak-pick module.
- o **Quantitative Determination:** Regression of standard curves and direct determination concentration of samples.

PC Windows Application Software (RS-232 Interface) to link Spectro to computer and printer:

- o **Photometric Measurement:** Measuring the photometric values at 1-10 wavelengths together with mathematical calculations according to entered quotations.
- o **Spectrum Scan:** Producing Wavelength scans within the operating parameters on samples together with powerful data handling facilities.
- o **Quantitative Determination:** Determination of unknown concentration with methods of 1-3 wavelength quantitation, together with fitting of calibration curve of 1st ~ 4th order.
- o **Kinetics:** Recording curves of changing photometric values of samples against timecourse at the selected wavelengths together with powerful data handling facilities.
- o **Output:** With the Windows clipboard, the measured data and graphics can be copied to other applications software for reports.

Accessories

- o 8 Auto Cell Holder
- o 8 Optical Glass Cells 10mm.
- o 2 Quartz Cells 10mm.
- o 1 Dust cover
- o 1 Instruction manual
- o 1 Power cable
- o 1 PC cable
- o 1 Software CD for Windows 98/2000/XP
- o 1 Software Operation Manual
- o 1 Spare Tungsten Halogen Lamp
- o 1 Block Light Cell
- o 1 Extra fuse
- o **Optional:** Peltier Kinetic Test System
- o **Optional:** Sipper Flow Through System