



Spectro UV-VIS Dual Beam PC Scanning Spectrophotometer

UV-VIS Split Beam 8 Auto Cell

Models UVS-2700 and UVS-2800



Spectro UV-Vis Split Beam PC (Models UVS-2700 & UVS-2800) is a precise scanning spectrophotometer with a new design of an eight (8) automatic microprocessor with 2 row cell holder for precision testing and noiseless movement. UVS-2800 has a variable bandwidth ranging from 0.5, 1.0, 2.0 and 5.0 nm. and Spectro UVS-2700 has 2nm bandwidth. Both Spectros feature a dual detector, which in turn makes it an extremely accurate system. This spectrophotometer has a large LCD display, which can function independently, or, in the alternative it can be linked to a computer and a printer. With the RS-232C, the port, and the included software, the instrument can be linked to a computer, which is compatible with Windows Platforms, and a printer to display the photometric and spectral data on the PC monitor. Spectro UV-Vis Split Beam PC (Model UVS-2800) offers high performance, ease of use and reliability, which can be used in various applications. Spectrophotometer Model UVS-2800 can be used extensively for qualitative and quantitative analysis in such fields as pharmaceutical laboratory, agricultural laboratory, research industry, inspection, clinical analysis, petrochemistry laboratory, chemistry and biochemistry laboratories, DNA/RNA analysis as well as in quality control departments, i.e. environmental control, water management, and food processing. Spectro UV-Vis Split Beam PC (Models UVS-2700 & UVS-2800) is also capable of performing kinetic test through the use of an optional Peltier Constant Temperature System. Additionally, this instrument can analyze flow through liquid with the use of the optional Sipper Flow through System. There are 2 models of Spectro UV-VIS Double PC 8 Auto Cell available to the public:

- 1) Spectro UV-Vis Split Beam PC (UVS-2700) has fixed bandwidth of 2 nm
- 2) Spectro UV-Vis Split Beam PC (UVS-2800) has variable bandwidth of 0.5, 1.0, 2.0, and 5.0

Labomed, Inc. is certified by ISO-9001-2000, has CE Conformity and is FDA Licensed.

Features

- **Baseline Stability:** The Split-beam monitoring ratio system enhances baseline stability.
- **Excellent Resolution:** The big-caliber light path enhances the instrument's energy, reduces its noise and raises its resolution performance.
- **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 seven samples and a blank.
- **User-friendly light source:** The socket deuterium lamps and tungsten lamps facilitate light source replacement, simplify maintenance and reduce operation error.
- **Convenient Display:** The large backlit LCD screen displays both photometric values and spectral curves.
- **Full use of Computer Technology:** Being computer controlled with RS-232 interface and working on the Windows platform with the UV/Win application software, presents to the fullest of the fascination of modern computer technology.
- **The key components:** adopts 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.
- **Computer System is optional (NOT INCLUDED).**

Accessories

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



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Software Specifications

MONOPROCESSOR BUILT- IN APPLICATION

Photometric Measurement: Measuring transmittance or absorbance at the current wavelength together with K factor calculations..

Spectrum Scan: Carrying out scanning of transmittance or absorbance on the selected wavelength range together with peak-pick module.

Quantitative Determination: Regression of standard curves and direct determination concentration of samples.

PC WINDOWS APPLICATION SOFTWARE (RS-232 INTERFACE)

Photometric Measurement: Measuring the photometric values at 1-10 wavelengths together with mathematical calculations according to entered quotations.

Spectrum Scan: Producing Wavelength scans within the operating parameters on samples together with powerful data handling facilities.

Quantitative Determination: Determination of unknown concentration with methods of 1-3 wavelength quantitation, together with fitting of calibration curve of 1st ~ 4th order.

Kinetics: Recording curves of changing photometric values of samples against timecourse at the selected wavelengths together with powerful data handling facilities.

Output: With the Windows clipboard, the measured data and graphics can be copied to other applications software for reports.

Technical Specifications

Optical System	Dual Beam	Baseline Flatness:	± 0.002 Abs (190-1100nm)
Wavelength range:	190 nm – 1100 nm	Baseline stability:	0.001Abs/h (500nm, 0Abs 2nm Sp. Bandwidth)
Spectral Bandwidth:	2,0 nm(UVS-2700) and 0,5-1,0-2,0 and 5,0 nm.(UVS-2800)	Scanning Speed:	1400nm/min.
Straylight:	$< 0.12\%T$ (220 nm, NaI; 340 NaNo ₂), ≥ 2.0 Abs (KCl)	Interface Card:	RS-232
Wavelength accuracy:	± 0.3 nm	Detector:	Dual Silicon photodiodes
Wavelength Reproducibility:	0.2 nm	Photometric Display:	-9999 ---- 9999
Photometric System:	The split-beam monitoring ratio system.	Photometric Noise:	$< \pm 0.001$ Abs (500nm, 0Abs, 2nm Bandwidth).
Optical System:	The crossed monochromator with the high-resolution, diffraction holographic grating.	Slew rate of wavelength:	3600nm/min.
Photometric Method:	Transmittance, absorbance, energy, concentration	DNA/RNA Measurement:	Results Printout: Printing of measured data by using HP Deskjet 600/800 series (OPTIONAL)
Photometric Range:	-0.3~3.0 Abs (0~200%T)	Mainframe:	Compact and standalone mainframe
Photometric Accuracy:	± 0.002 Abs (0~0.5A) / ± 0.004 Abs (0.5~1A) $\pm 0.3\%T$ (0~100%T)	Light Source:	Socket Deuterium Lamp and Socket Tungsten
Photometric Reproducibility:	0.001Abs (0~0.5A) / 0.002Abs (0.5~1A) 0.15%T (0~100%T)	Sample Chamber:	Automatic eight-cell sample holder.
		Size:	22x16x10"
		Weight:	55 Lb.