

VWR® SPECTROPHOTOMETERS

Reliable

Accurate

Easy to Use



Your first choice for spectrophotometry

Quality Guaranteed

VWR® SPECTROPHOTOMETERS

Single Beam Units

VWR offers a choice of 5 models of single beam VIS and UV/VIS spectrophotometers, each with a ready-to-use package including glass or quartz cells. These robust units feature easy handling plus all the functions required for daily measurements in your lab. A large sample compartment coupled with an extensive range of optional accessories allow you to customize your unit to your requirements.

Double Beam Option

The newest member of the spectrophotmeter family is the UV- 6300PC. With our large range of accessories, this powerful unit is an all round top performer in a host of different applications, from research to pharmaceutical labs, QC to new material development.

Software

Two different software packages — M.Wave Professional or UV-Analyst (depending on the model) — transform these stand-alone units to allow greater results, storage and more demanding analysis of results.











Represents the reliability and robustness that we provide in all our units.

M.Wave Professional

Full functionality of stand-alone unit plus more powerful data processing, expanded data collecting and storage capability. Optional for V-1200, included with UV-1600PC.

Basic functionalities

- Basic photometric mode
- Quantitative test (standard curve)
- Wavelength scanning
- Kinetics
- DNA/protein
- Multi-wavelength test
- · System utility

PC system requirements:

Pentium or above PC, CD-ROM, USB ports; 32 MB memory (>256 MB is strongly recommended); >50 MB hard disc space; Microsoft Windows 2000/XP/Vista/7

More advanced software functionalities

- Printable spectrums, results and reports
- No memory limits by spectrophotometer
- Standard curve
- Up to 20 standards, curve fitting: Linear/linear through zero/ square
- Wavelength scan
- Automatic record of peaks and valleys (unlimited number of channels)
- Off-line calculation and processing including:
 1st to 4th derivation
 - Rescaling axes, smoothing, combination, zooming, overlap
- Multiwavelength scan
- Up to 20 wavelengths
- DNA/protein concentration

PC Software UV-Analyst

Full functionality of stand-alone unit plus more powerful data processing, expanded data collecting and storage capability. Included with UV-3000PC, UV-3100PC and UV-6300PC.

Basic functionalities

- Basic photometric mode
- Quantitative test (standard curve)
- Wavelength scanning
- Kinetics
- DNA/protein
- Multiwavelength test
- System utility

PC system requirements:

Pentium or above PC, CD-ROM, USB ports; 32 MB memory (>256 MB is strongly recommended); >50 MB hard disc space; Microsoft Windows 2000/XP/Vista/7

More advanced software functionalities

- Printable spectrums, results and reports
- No memory limits by spectrophotometer
- Standard curve up to 20 standards
- Wavelength scan
- Automatic record of peaks and valleys (unlimited number of channels)
- Off-line calculation and processing including:
 1st to 4th derivation
 - Smoothing, combination, zooming, overlap
- Multiwavelength scan
- Up to 20 wavelengths
- Multiple sample measurement (with optional automatic cell changer)

Represents the reliability and robustness that we provide in all our units.









VWR® Spectrophotometers, Basic Vis or UV-VIS, V-1200, UV-1600PC

- Large LCD display (128 × 64 pixels)
- Can save up to total 200 results and 200 standard curves
- Download data to PC via USB interface
- Application software allows PC control of the spectrophotometers (delivered with UV-1600PC); includes the following methods: Basic mode, quantitative, wavelength scan, kinetics, multi-wavelength, DNA/protein
- Variety of optional accessories including an automatic 8-cell changer

Description	Cat. No.
V-1200 Spectrophotometer	10037-434
UV-1600PC Scanning Spectrophotometer	10037-436

Specifications

specifications.		
Display	Graphic LCD (128 × 64 pixels)	
Interfaces	USB port to PC / parallel port to printer	
Languages	EN, DE, ES, FR	
Light source	Tungsten halogen	Deuterium/tungsten halogen
Model	V-1200	UV-1600PC
Optical system	Single beam, grating 1200 lines/ mm silicon photodiode detector	
Photometric accuracy	±0.5% T	±0.5% T
Photometric range	-0.3 to 3 A; 0 - 200% T	
Photometric reproducibility	±0.3% T	±0.2% T
Photometric stability	±0.002 A/h @ 500 nm	
Power requirements	120V	
Spectral bandwidth (nm)	4	
Stray light	≤0.3% T	±0.05% T @ 220, 360 nm
Wavelength accuracy (nm)	±2	±0.5
Wavelength range (nm)	325 - 1000	190 - 1100
Wavelength repeatability (nm)	≤0.8	≤0.3
Weight (kg)	12	14
W×D×H (mm)	490 × 360 × 210	490 × 360 × 240

Represents the reliability and robustness that we provide in all our units.









VWR® Spectrophotometers, **UV-VIS** Scanning, **UV-3100PC and Vis V-3000-PC**

- Large LCD display (320 × 240 pixels)
- Full scan mode
- Easily accessible USB port for data import and export
- Supplied application software 'UV-VIS Analyst' allows PC control of the spectrophotometer
- Methods for PC control or stand-alone include: Basic mode, quantitative, wavelength scan, kinetics, multiwavelength, DNA/protein
- The range of accessories includes an automatic 8-cell changer and Peltier thermostatted single cell holder

Description	Cat. No.
V-3000PC, VIS Scanning Spectrophotometer	10037-440
UV-3100PC, UV/VIS Scanning Spectrophotometer	10037-438

Specifications

Baseline flatness ±0.002 A (200 - 1000 nm) ±0.002 A (320 - 1000 nm) Display 5" graphic LCD (320 × 240 pixels) Interfaces Languages EN, DE, ES, FR Interfaces Light source Deuterium/tungsten halogen Tungsten halogen Model UV-3100PC UV-VIS V-3000PC No. of standards 200 standard curves V-3000PC Optical system Single beam, grating 1200 lines/mm, silicon photodiode detector Single beam, grating 1200 lines/mm, silicon photodiode detector Photometric accuracy ≤±0.5% T or 0.005 A at 1 A V-3000PC Photometric range -0.3 to 3 A; 0 - 200% T; 0 - 9999 Conc V-3000PC Photometric stability ±0.02 A/h @ 500 nm V-3000PC Power requirements 120V V-3000PC Results storage 200 V-3000PC Scan speed (nm/min) Low, medium, high (max. 3000 nm/min) V-3000PC Spectral bandwidth (nm) 2 4 Stray light ±0.05% T @ 220, 360 nm ±0.05% T at 360 nm Wavelength range (nm) 190 - 1100 320 - 1100 Wavelength repeatability (nm)			
InterfacesUSB port to PC / parallel port to printerLanguagesEN, DE, ES, FRLight sourceDeuterium/tungsten halogenTungsten halogenModelUV-3100PC UV-VISV-3000PCNo. of standards200 standard curvesOptical systemSingle beam, grating 1200 lines/mm, silicon photodiode detectorPhotometric accuracy≤±0.5% T or 0.005 A at 1 APhotometric range-0.3 to 3 A; 0 - 200% T; 0 - 9999 ConcPhotometric stability±0.2% TPhotometric stability±0.002 A/h @ 500 nmPower requirements120VResults storage200Scan speed (nm/min)Low, medium, high (max. 3000 nm/min)Spectral bandwidth (nm)24Stray light±0.05% T @ 220, 360 nm±0.05% T at 360 nmWavelength accuracy (nm)±0.5Wavelength range (nm)190 - 1100320 - 1100Wavelength repeatability (nm)≤0.2Weight (kg)1412	Baseline flatness	±0.002 A (200 - 1000 nm)	±0.002 A (320 - 1000 nm)
Languages EN, DE, ES, FR Deuterium/tungsten halogen Tungsten halogen V-3000PC V-3000PC No. of standards Optical system Single beam, grating 1200 lines/mm, silicon photodiode detector Photometric accuracy ≥±0.5% T or 0.005 A at 1 A Photometric range −0.3 to 3 A; 0 - 200% T; 0 - 9999 Conc Photometric stability ±0.2% T Photometric stability ±0.002 A/h @ 500 nm Power requirements 120V Results storage 200 Scan speed (nm/min) Low, medium, high (max. 3000 nm/min) Spectral bandwidth (nm) 2 Stray light ±0.05% T @ 220, 360 nm ±0.05% T at 360 nm Wavelength range (nm) 190 - 1100 320 - 1100 Wavelength repeatability (nm) Selectic light	Display	5" graphic LCD (320 \times 240 pixels)	
Light source Deuterium/tungsten halogen Tungsten halogen Model UV-3100PC UV-VIS V-3000PC No. of standards 200 standard curves V-3000PC Optical system Single beam, grating 1200 lines/mm, silicon photodiode detector Single beam, grating 1200 lines/mm, silicon photodiode detector Photometric accuracy ≤±0.5% T or 0.005 A at 1 A Photometric range -0.3 to 3 A; 0 - 200% T; 0 - 9999 Conc Photometric reproducibility ±0.2% T Photometric stability ±0.002 A/h @ 500 nm Power requirements 120V Results storage 200 Scan speed (nm/min) Low, medium, high (max. 3000 nm/min) Spectral bandwidth (nm) 2 4 Stray light ±0.05% T @ 220, 360 nm ±0.05% T at 360 nm Wavelength range (nm) 190 - 1100 320 - 1100 Wavelength repeatability (nm) ≤0.2 Weight (kg) 14 12	Interfaces	USB port to PC / parallel port to printer	
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Optical system Single beam, grating 1200 lines/mm, silicon photodiode detector Photometric accuracy ≤±0.5% T or 0.005 A at 1 A Photometric range −0.3 to 3 A; 0 - 200% T; 0 - 9999 Conc Photometric reproducibility ±0.2% T Photometric stability ±0.002 A/h @ 500 nm Power requirements 120V Results storage 200 Scan speed (nm/min) Low, medium, high (max. 3000 nm/min) Spectral bandwidth (nm) 2 Stray light ±0.05% T @ 220, 360 nm ±0.05% T at 360 nm Wavelength accuracy (nm) ±0.5 Wavelength range (nm) 190 - 1100 320 - 1100 Wavelength repeatability (nm) ≤0.2 Weight (kg) 14 12	Model	UV-3100PC UV-VIS	V-3000PC
silicon photodiode detector Photometric accuracy ≤±0.5% T or 0.005 A at 1 A Photometric range -0.3 to 3 A; 0 - 200% T; 0 - 9999 Conc Photometric reproducibility ±0.2% T Photometric stability +0.002 A/h @ 500 nm Power requirements 120V Results storage 200 Scan speed (nm/min) Low, medium, high (max. 3000 nm/min) Spectral bandwidth (nm) 2 Stray light ±0.05% T @ 220, 360 nm ±0.05% T at 360 nm Wavelength accuracy (nm) ±0.5 Wavelength range (nm) 190 - 1100 320 - 1100 Wavelength (kg) 14 12	No. of standards	200 standard curves	
Photometric range -0.3 to 3 A; 0 - 200% T; 0 - 9999 Conc Photometric reproducibility ±0.2% T Photometric stability ±0.002 A/h @ 500 nm Power requirements 120V Results storage 200 Scan speed (nm/min) Low, medium, high (max. 3000 nm/min) Spectral bandwidth (nm) 2 Stray light ±0.05% T @ 220, 360 nm ±0.05% T at 360 nm Wavelength accuracy (nm) ±0.5 Wavelength range (nm) 190 - 1100 320 - 1100 Wavelength repeatability (nm) ≤0.2 Weight (kg) 14 12	Optical system		
Photometric reproducibility ±0.2% T Photometric stability ±0.002 A/h @ 500 nm Power requirements 120V Results storage 200 Scan speed (nm/min) Low, medium, high (max. 3000 nm/min) Spectral bandwidth (nm) 2 Stray light ±0.05% T @ 220, 360 nm ±0.05% T at 360 nm Wavelength accuracy (nm) ±0.5 Wavelength range (nm) 190 - 1100 320 - 1100 Wavelength repeatability (nm) ≤0.2 Weight (kg) 14 12	Photometric accuracy	≤±0.5% T or 0.005 A at 1 A	
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Power requirements 120V Results storage 200 Scan speed (nm/min) Low, medium, high (max. 3000 nm/min) Spectral bandwidth (nm) 2 4 Stray light ±0.05% T @ 220, 360 nm ±0.05% T at 360 nm Wavelength accuracy (nm) ±0.5 Wavelength range (nm) 190 - 1100 320 - 1100 Wavelength repeatability (nm) ≤0.2 Weight (kg) 14 12	Photometric reproducibility	±0.2% T	
Results storage 200 Scan speed (nm/min) Low, medium, high (max. 3000 nm/min) Spectral bandwidth (nm) 2 Stray light ±0.05% T @ 220, 360 nm ±0.05% T at 360 nm Wavelength accuracy (nm) ±0.5 Wavelength range (nm) 190 - 1100 320 - 1100 Wavelength repeatability (nm) ≤0.2 Weight (kg) 14 12	Photometric stability	±0.002 A/h @ 500 nm	
Scan speed (nm/min) Low, medium, high (max. 3000 nm/min) Spectral bandwidth (nm) 2 4 Stray light ±0.05% T @ 220, 360 nm ±0.05% T at 360 nm Wavelength accuracy (nm) ±0.5 320 - 1100 Wavelength range (nm) 190 - 1100 320 - 1100 Wavelength repeatability (nm) ≤0.2 Weight (kg) 14 12	Power requirements	120V	
Spectral bandwidth (nm) 2 4 Stray light ±0.05% T @ 220, 360 nm ±0.05% T at 360 nm Wavelength accuracy (nm) ±0.5 Wavelength range (nm) 190 - 1100 320 - 1100 Wavelength repeatability (nm) ≤0.2 Weight (kg) 14 12	Results storage	200	
Stray light ±0.05% T @ 220, 360 nm ±0.05% T at 360 nm Wavelength accuracy (nm) ±0.5 Wavelength range (nm) 190 - 1100 320 - 1100 Wavelength repeatability (nm) ≤0.2 Weight (kg) 14 12	Scan speed (nm/min)	Low, medium, high (max. 3000 nm/min)	
Wavelength accuracy (nm) ±0.5 Wavelength range (nm) 190 - 1100 320 - 1100 Wavelength repeatability (nm) ≤0.2 Weight (kg) 14 12	Spectral bandwidth (nm)	2	4
Wavelength range (nm) 190 - 1100 320 - 1100 Wavelength repeatability (nm) ≤0.2 Weight (kg) 14 12	Stray light	±0.05% T @ 220, 360 nm	±0.05% T at 360 nm
Wavelength repeatability (nm) ≤0.2 Weight (kg) 14 12	Wavelength accuracy (nm)	±0.5	
Weight (kg) 14 12	Wavelength range (nm)	190 - 1100	320 - 1100
	Wavelength repeatability (nm)	≤0.2	
W×D×H (mm) 490 × 360 × 240	Weight (kg)	14	12
	W×D×H (mm)	490 × 360 × 240	



VWR® Double Beam UV-VIS Spectrophotometer

- Standard photometrics absorption, transmission, concentration
- Quantitative analysis and kinetics
- Multi-wavelength scan, spectrum scan
- DNA/RNA and protein analysis







Description	Cat. No.
UV-6300PC Spectrophotometer	10037-442

Specifications

Specifications	
Baseline flatness	0.001 A (200 - 1000 nm)
Control	Internal control via keypad with optional PC control
Display	LCD 320 × 240 pixel
Interfaces	USB and parallel printer interface
Keyboard	Keypad
Languages	English, French, German and Spanish
Light source	Deuterium and tungsten lamps
Model	UV-6300PC
Optical system	Double beam
PC software	UV-Vis Analyst
Photometric accuracy	±0.002 A at 1 A; ≤0.3% T
Photometric range	−0.3 to 3.0 A; 0 to 200% T; 0 - 9999C
Photometric stability	0.001 A/h at 500 nm
Scan	Scan intervals: 0.1; 0.2; 0.5; 1.0 and 5.0 nm
Scan speed (nm/min)	100 - 3000
Spectral bandwidth (nm)	1
Storage capacity	200 results and 200 standard curves
Stray light	≤0.05% T at 220 and 360 nm
Wavelength accuracy (nm)	±0.3
Wavelength range (nm)	190 - 1100
Weight (kg)	26
W×D×H (mm)	590 × 420 × 260

Accessories for the V-1200, UV-1600PC and the UV-3100PC

Description	Cat. No.
Cell Holders for SPECTRO-16/18 Series, Spectrophotometer	
4-Cell, For Up To 100Mm Square Cuvette	10037-448
For Cylindrical Cell	10037-450
Water-Jacketed Single Cell	10037-452
8-Position Auto Cell Changer	10037-456
Solid Sample Holder, Single Cell	10037-458
10mm Water-Jacketed 4-Cell Holder	10037-460
A-102 Peltier Constant-Temperature System, Beam Height:15mm	10037-540
Ambient Sipper Unit, A-101 Sipper System, Beam Height:15mm	10037-542
A-100 Constant-Temperature Sipper System, Beam Height:15mm	10037-544
Replacement Lamps	
Halogen Lamp, 12V 20W, Philips, For V-1200, UV-1600Pc, UV-3100Pc, V-3000Pc	10037-484
Halogen Lamp, 12V 20W, Osram, For UV-6300Pc	10037-498
Deuterium Lamp, Milas for UV-1600Pc, UV-3100Pc	10037-486

VWR® Spectrosil Spectrophotometer Cells

- Far UV quartz
- Wavelength range of 170-2700 nm
- Matched sets available
- Fully heat-fused construction

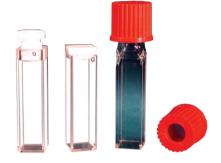
Description	External Dimensions	Internal Dimensions	Cover Type	Pathlength	Sample Volume	Cat. No.
Standard Rectangular	10W x 10L x 52H mm	10W x 10L mm	Screw Cap with Gasket	10 mm	3.5 mL	414004-054
Standard Rectangular	10W x 10L x 52H mm	10W x 10L mm	Screw Cap with Septum	10 mm	3.5 mL	414004-055
Micro, Black Sides	12.5W x 12.5L x 45H mm	2W x 10L mm	Flat Lid	10 mm	0.7 mL	414004-070
Semi-Micro	12.5W x 12.5L x 45H mm	4W x 10L mm	Flat Lid	10 mm	1.4 mL	414004-068
Standard Rectangular	12.5W x 12.5L x 48H mm	10W x 10L mm	Stopper	10 mm	3.5 mL	414004-078



VWR® Spectrosil Fluorometer Cells

- Far UV quartz
- Wavelength range of 170-2700 nm
- Fully heat-fused construction

Exterior Dimensions	Cover Type	Cat. No.
12.5W x 12.5L x 45H mm	Stopper	414004-056
12.5W x 12.5L x 45H mm	Flat Lid	414004-064



VWR® Two-Sided Disposable Plastic Cuvettes

Compatible with most spectrophotometers and photometers, these two-sided disposable cuvettes are ideal for most spectrophotometry applications in the visible and near-UV range. Cuvettes are constructed of high-quality polymethyl methacrylate (PMMA or "acrylic") or polystyrene (PS), and provide accurate, reliable results. Available in macro and semi-macro sizes to accommodate most sample volumes.

Acrylic cuvettes are suitable for assays between 300nm and 900nm. Polystyrene cuvettes are ideal for routine assays between 340nm and 900nm.

Cuvettes have a 10mm lightpath and include an arrow mark to indicate direction of transmission and reduce variation. They are grouped by manufacturing mold cavity number to ensure the lowest variation in extinction coefficient, and are packaged in low-dust, low-scratch material.

Description	Material	Volume Range	Cat. No.
Semi-Micro	Acrylic (PMMA)	1.5–3.0 mL	97000-590
Semi-Micro	Polystyrene (PS)	1.5-3.0 mL	97000-586
Macro	Acrylic (PMMA)	2.5-4.5 mL	97000-588
Macro	Polystyrene (PS)	2.5-4.5 mL	97000-584



VWR® Standard Spectrophotometer Cuvettes

Feature four optical windows that are recessed to prevent scratching.

Description	Volume	LxWxH	Pathlength	Visibility	Cat. No.
Standard Cuvette, PS Grade Polystyrene	4.5 mL	10 x 10 x 45 mm	10 mm	340-800 nm	58017-880
Standard Cuvette, UV Grade Polymethylmethacrylate	4.5 mL	10 x 10 x 45 mm	10 mm	280-800 nm	58017-875
Cap for 4.5 mL Cuvettes with Square Opening, Polypropylene	_	_	_	_	89000-628





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