



UV/VIS SPECTROPHOTOMETER

**UVISCO**

DOMINIQUE DUTSCHER SAS



## UV-3xxx Scanning Spectrophotometer

UV-3 Series is an advanced single beam design consisting of 10 models. They differ in bandwidth and wavelength accuracy, but provide excellent performance for measurements in the range of 190nm to 1100nm.

They are suitable for clinical lab applications, pharmaceutical, and bio-chemical, as well as routine applications such as Quantitative analysis, Kinetics, Wavelength Scan, Multi-Wavelength, and DNA/Protein analysis.

UV-Vis Analyst application software based Microsoft Windows makes these instruments versatile. All instruments provide excellent performance for measurements. They are divided into two types: PC models and stand-alone models

- In Stand-alone models, all software methods are included as built-in standard; this eliminates the need of software.
- Online software update via internet.
- Data can be downloaded.
- The PC models come standard with Windows\* based application software UV-Vis Analyst.

### Features

- Fixed or variable slits (bandwidths)
- Sealed, solvent-resistant tactile keypad with alpha-numeric entry for file names and units.
- Pre-aligned deuterium lamp for easy lamp replacement. The status of the lamps may be monitored
- Powerful built-in program or PC Windows\* based software UV/Vis Analyst including sophisticated utility programs.
- Data Download-to-PC software for stand-alone models (optional)
- Real-time clock for date and time stamping of results

### Specifications

Model	UV-3000 UV-300PC	UV-3100 UV-310PC	UV-3200 UV-320PC	UV-3200S UV-320PCS	UV-3300 UV-330PC
Wavelength Range	190-1100nm				
Spectral Bandwidth	4nm	2nm	1.8nm	0.51/2/4nm	1nm
Optical System	Single Beam, Grating 1200 lines/mm				
Wavelength Accuracy	±0.5nm				
Wavelength Repeatability	0.3nm				
Scan Speed	Hi, MED, LOW, MAX, 3000nm/min				
Photometric Accuracy	±0.5%T or ±0.003A@1A				
Photometric Range	-0.3 - 3A, 0-200%T				
Stray Light	≤0.05%T@220nm, 360nm				
Stability	±0.002A/h @500nm				
Display	5 inches LCD(320x240 dots)				
Baseline Flatness	±0.002A(200-1000nm)				
Standard Cell Holder	Standard 10mm pathlength cuvette				
Light Source	Halogen & Deuterium lamp(pre-aligned)				
Output	USB Port & Parallel Port(printer)				
Power Requirement	AC 110/220V 50/60Hz				
Dimensions(WxDxH)	480x360x160mm				
Weight	14kg				
	20kg				

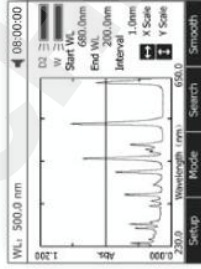
## UV-3xxx Series Local Control Software

All methods are included as built-in standard; this eliminates the need of software. Online software update via internet. The local control software includes functions such as: Photometry, Quantitative, Wavelength Scan, Kinetics, DNA/Protein, Multi-wavelength and System Utilities.



### Standard Curve

Up to 10 standard solutions may be used to establish calibration equation curve. There is a choice of four methods for fitting curve through the calibration points: Linear fit, Linear fit through zero, square fit and cubic fit.



### Wavelength Scan

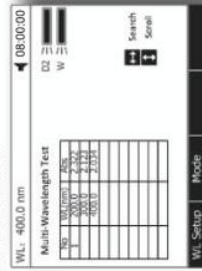
The Wavelength Scan intervals are 0.1, 0.2, 0.5, 1, 2, 5nm, and High, Medium and Low scan speeds are available. Scan speeds vary from 100 to 1000 nm/min. Wavelengths are scanned from high to low so that the instrument stand-by at high wavelength. This minimizes the degradation of UV sensitive samples. Precise control of filter and lamp changes means that their effects are not seen on the final scan. Post-run manipulation includes re-scanning axes, curve tracking and peak picking.

### Kinetics

This mode may be used for time course scanning or reaction rate calculations. Abs. vs. time graphs is displayed on the screen in real time.

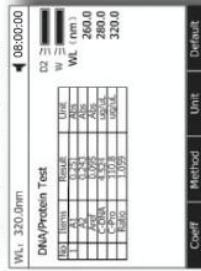
Wait time and measurement time up to 12 hours may be entered with time intervals of 0.5, 1, 2.5, 10, 30, seconds and 1 min.

Post-run manipulation includes re-scaling, curve tracking and selection of the part of the curve required for the rate calculation. Rate is calculated using a linear regression algorithm before multiplying by the entered factor.



### Multi-Wavelength

Up to 10 wavelengths may be entered, allowing the measurement of multiple wavelengths on a series of Samples.



### DNA/Protein Test

Concentration and DNA purity are calculated absorbance ratios 260nm/280nm or 260nm/230nm with optional subtracted absorbance at 320nm

DNA Concentration=62.9\*A<sub>260</sub>-36.0\*A<sub>280</sub>

Or 49.1\*A<sub>260</sub>-3.48\*A<sub>280</sub>

Protein Concentration=1552\*A<sub>260</sub>-757.3\*A<sub>280</sub>

Or 183\*A<sub>260</sub>-75.8\*A<sub>280</sub>

Other wavelengths and factors may be entered.

## M.Wave Professional PC-Control Software

M.Wave Professional application software is based Microsoft Windows®, the instrument can be controlled by PC software through the built-in USB communication port, which makes the UV/V-1 Series with more functions and easy to control.

### Quantitative

Use up to 20 standards to establish standard curve. Three methods for fitting a curve:

- 1-Linear fit
- 2-Linear through zero
- 3-Square fit

### Kinetics

The Kinetics mode may be used for time course scanning or reaction rate calculations. Abs. Vs. Time graphs is displayed.

### Wavelength Scan

Automatically records peaks and valleys. The quantity of the curves stored is unlimited.

Post-run manipulation and processing includes

1. Re-scaling axes, curve
2. Smoothing, combination, zooming, overlap...
3. 1st to 4th derivative

### Multi-wavelength Test

You can set up to 20 wavelengths to measure a sample.

### DNA/Protein Test

Optional two formulas:

DNA Concentration =  $62.9 \cdot A_{260} - 36.0 \cdot A_{280}$

Or  $49.1 \cdot A_{260} - 75.8 \cdot A_{280}$

You can also enter other wavelengths and factors to calculate.

## UVVis Analyst for UV-3&UV-6 Series

The Windows® based PC application software UVVis Analyst takes the best features of the stand-alone version plus more powerful data processing, expanded data collecting, and storage capability. It comes standard with PC models and is optional to stand-alone models.

### The PC application software offers:

1. Photometric Mode
2. Quantitative test(standard curve)
3. Wavelength Scan
4. Kinetics
5. DNA/Protein
6. Multi-Wavelength
7. System Utility



### • Kinetics (Abs vs. Time)

The Kinetics mode may be used for time course scanning or reaction rate calculations. Abs Vs. Time graphs are displayed on the screen in real time. Waiting time, measurement time and time intervals may be entered.

Post-run manipulation includes re-scaling, curve tracking and selection of the part of the curve required for the rate calculation. Rate is calculated using a linear regression algorithm before multiplying by the entered factor.



### • DNA/Protein

Concentration and DNA purity are quickly and easily calculated. Absorbance ratios 260nm/280nm with optional subtracted absorbance at 320nm.

DNA Concentration =  $62.9 \cdot A_{260} - 36.0 \cdot A_{280}$

Protein Concentration =  $1552 \cdot A_{260} - 757.3 \cdot A_{280}$

Other wavelengths and factors may be entered.



### • Multi-wavelength

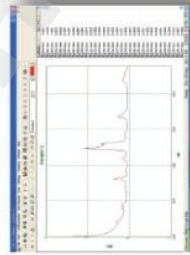
Up to 20 wavelengths can be selected and multiple samples can be measured. (Auto cell changer is required to run multiple samples automatically)



### • Quantitative Test (Standard curve)

Use up to 20 standards to establish standard curve. Four methods for fitting a curve:

1. Linear fit
2. Linear through zero
3. Square fit
4. Cubic fit



### • Wavelength Scan

Automatically record peaks and valleys. The quantity of channels is unlimited; you can simultaneously store as many as desired. Post-run manipulation and processing includes:

1. Re-scaling axes, curve
2. 1st to 4th derivative
3. Smoothing, combination, zooming, overlap.



4-CELL HOLDER FOR 10mm SQ.UVUETTE

900410



4-CELL HOLDER FOR UP TO 50mm SQ.UVUETTE

900420



4-CELL HOLDER FOR UP TO 100mm SQ.UVUETTE

900430



CYLINDRICAL CELL HOLDER

900540



WATER-JACKETED CELL HOLDER

900610



MICRO CELL HOLDER

900210



TEST TUBE HOLDER

900530



8-POSITION AUTO CELL CHANGER

900310



SOLID SAMPLE HOLDER (SINGLE CELL)

900550



10mm WATER-JACKETED 4-CELL HOLDER

900620



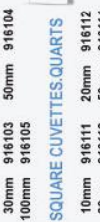
SQUARE CUVETTES, GLASS

10mm 916101 20mm 916102  
30mm 916103 50mm 916104  
100mm 916105



SQUARE CUVETTES, QUARTZ

10mm 916111 20mm 916112  
30mm 916113 50mm 916114  
100mm 916115



MICRO CELL, QUARTZ

100UL 916121  
200UL 916122  
500UL 916123



SELF MASKING CONT.FLOWTHROUGH G.CELL

5mm 916131 10mm 916132  
20mm 916133 30mm 916134  
SELF MASKING CONT.FLOWTHROUGH Q.CELL  
5mm 916141 10mm 916142  
20mm 916143 30mm 916144



HALOGEN LAMP (PHILIPS)



12V20W: 916634

6V10W: 911634

CONSTANT-TEMPERATURE SIPPER SYSTEM

900130



CONSTANT-TEMPERATURE SYSTEM

900120



SIPPER SYSTEM

900110



THERMAL PRINTER

920910



MILAS DEUTERIUM LAMP

916633

