



## Double Beam Microprocessor UV-VIS Spectrophotometer



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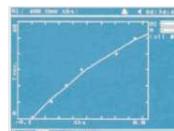
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### BASIC MODE

To measure the Absorbance  
And transmittance



### QUANTITATIVE

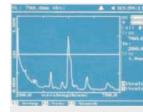
- Coefficient Method
- Standard Curve Up to 10
- Standard sample may be used to establish a curve. Four methods for fitting a curve through the calibration points: Linear fit, Linear through zero, Square and cubic fit.



### DNA/PROTEIN TEST

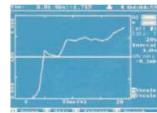
Concentration and DNA purity are quickly and easily calculated:

Absorbance ratios: 260 nm / 280 nm with optional  
subtracted absorbance at 320 nm.  
DNA concentration =  $62.9 \times A_{260} - 36.0 \times A_{280}$   
Protein concentration =  $1552 \times A_{260} - 757.3 \times A_{280}$



### WAVELENGTH SCAN

- The wavelength scan intervals are 0.1, 0.2, 0.5, 1, 2, 5 nm
- High, Medium and Low scan speed are available. They vary from 100 to 3600 nm/min
- Wavelengths are scanned from high to low so that the instrument waits at high WL. And it minimizes the degradation of UV sensitive samples.



### KINETICS

Abs vs time graph is displayed on the screen in real time wait time and measurement time up to 12 hours may be entered with time interval of 0.5, 1, 2, 5, 10, 30 seconds and one min.  
Post-run manipulation includes re-scaling, curve tracking and selection of the part of the curve required for rate calculation.  
Rate is calculated using a linear regression algorithm before multiplying by the entered factor.

## APPLICATIONS

- Medicine/Pharmaceutical Industry
- Environment Monitoring
- Commodity Inspection
- Food Inspection
- Agricultural Chemistry
- Teaching in Colleges & Universities
- Metallurgy
- Geology
- Machine Manufacturing
- Petrochemical Industries
- Water and Waste water Labs
- Food and beverages Labs

## ACCESSORIES

- Control Unit
- Cell holder with Peltier System (it's already pre-loaded into the compartment of the spectrophotometer)
- Control Cable (to connect the Control Unit with the Cell holder with Peltier System).
- Peristaltic pump (it's already pre-loaded into the pump valve of the Control Unit).
- Power Cord.

# Darsun Scientific

## Double Beam Microprocessor UV-VIS Spectrophotometer

### DSB-2802 PS



- The valid temperature range is from 15°C to 65°C
- The valid sampling time range is from 30s to 10min,
- The valid peristaltic pump speed range is from 1 to 12
- The sampling speed is about 50ml/min.
- Power supply is 220±22V@50±1Hz or 110±11V@60±1Z

### Function

- Wide Wavelength range, satisfying requirements various fields.
- Fully automated design, realizing the simplest measurement & satisfying the requirement of pharmacopeia
- Maximum of 9 Wavelength & 8 Sample can be measured at one time
- Automatic change - over Between W lamp & D2 lamp
- Optimized optics and large scale integrated circuits design, light source and receiver
- From world famous measurement methods all add up to high performance and reliability.
- Rich measurement methods: wavelength scan, time scan, multi wavelength Determination multi – order derivative determination, double-wavelength method and triple wavelength methods etc. meet difference measurement requirement
- Automatic 10 mm 8 - cell holder
- Data Output can be obtained via a printer port and a USB interface
- Parameters and data can be saved for user's convenience.
- PC controller measurement can be achieved for more accurate and flexible requirement

Model	DSB-2802 PS
Optional System	Double Beam (1200 Lines/nm Grating)
Wavelength Range	190-1100nm
Mode	Basic/Quantitative/Wavelength Scan/DNA Protein Test/Kinetics/Multi Wavelength Mode
Scanning Speed	Mode Fast/Medium/Low
Band Width	1nm
Wavelength Accuracy	±0.3nm
Wavelength Repeatability	0.2nm
Photometric Accuracy	±0.3% T
Photometric Repeatability	0.2 % T
Photometric Display Range	0-200% T-0.3-3.0A, 0-9999 C
Stability	±0.001A/h @500nm
Baseline Flatness	± 0.001A
Noise	± 0.001A
Stray Light	<0.05%@220nm&360nm
Data Output Port	USB
Printer Port	Parallel Port
Display	Graphic LCD (320 X240 Dots)
Lamps	Deuterium Lamp & Tungsten Halogen Lamp
Detector	Silicon Photo diode
Packing Dimension	860 x 660 x 465 nm
Weight	26 kg

### STANDARD CONFIGURATION

Item	Quantity
Glass Cell	4 Nos.
Quartz Cells	2 Nos.
Instruments Cover	1 No.
Software CD	1 No.
USB Cable	1 No.
Operational Manual	1 No.
Software Manual	1 No.
Software Key	1 No.
Flow Cell	1 No.