

**Product Name :**  
Double Beam Spectrophotometer**Product Code :**  
ELABANALYTICAL0005**Description :**

Double Beam Spectrophotometer

**Technical Specification :**

Double Beam Optics  
Scanning UV-VIS Spectrophotometer  
24 x 2 Line Alphanumeric Backlit LCD  
Compact, Modular And Economical  
Automatic Wavelength Calibration  
Data Saving And Retrieval Facility  
Programmable Lamp Change Over Wavelength  
Microprocessor Based With Printer Interface  
Optional PC Compatibility With RS-232C Interface  
Automatic 6-Position Cuvette Holder For 10 mm Pathlength Cuvettes  
Fully Automatic, User Friendly And Menu Driven Software  
Self Check And Self Diagnostic Features

Double Beam UV-VIS Spectrophotometer is a compact and easy to operate instrument for spectrophotometric analysis of any concentration.

The output is available on a 24 x 2 line alphanumeric backlit LCD display in terms of %Transmission (%T), Absorbance (Abs.), and Concentration (Conc.).

The instrument has 1000 sample storage memory, printer output for printing data with any dot matrix printer. interface for computer can be provided on request.

The use of microcontroller had made it an extremely versatile and state-of-the-art instrument.

---

Facility for using 10 mm pathlength cuvette is provided.

The instrument operates at wavelength between 190 to 1100 nm.

The use of diffraction grating in the monochromator produces a linear spectrum.

The use of grating having very high resolution of 1200 lines/mm ensures a narrow bandwidth.

Deuterium lamp (D2) is used in the range 190 to 380 nm and Tungsten Halogen lamp (W) is used in the range 380 to 1100 nm.

Range: 190 - 1100 nm

Bandwidth: 2 nm

Accuracy:  $\pm 0.5$  nm

Readability: 0.1 nm

Repeatability:  $\pm 0.2$  nm

#### PHOTOMETRIC

Range: %T: 0 - 100.0 %, Abs: 0 to  $\pm 3.000$

Accuracy:  $\pm 0.005$  Abs @ 1.0 Abs,  $\pm 0.010$  Abs @ 1.5 Abs

Readability: %T: 0.1, Abs: 0.001

Repeatability:  $\pm 0.002$  Abs @ 1.5 Abs

Stray Light: Less than 0.1 %T @ 260 nm with KI 10 g/l

System: Double Beam Optics

Light Sources: Deuterium Lamp (D2), Tungsten Halogen Lamp (W)

Monochromator: Czerny-Turner type with 1200 lines/mm

Detector: Wide range highly sensitive photodiode

#### OPERATIONAL

Baseline Correction: Automatic baseline correction

Measuring Mode: Scan (%T & Abs.), Photometric (Multi-? and Serial-?), Concentration & Time Scan (Kinetics)

Scan Speed: Slow, Medium, & Fast

Scan Interval: 5 - 99 seconds

Sample Holder: Automatic 6-Position cuvette holder for 10 mm path-length cuvettes

Filters: Auto, in-built filter wheel

Data Storage: 1000 samples storage memory

#### DATA PRESENTATION

Control: Microcontroller based

Display: 24 x 2 line alphanumeric backlit LCD display

Printer Interface: Available for any dot matrix centronics printer

Power: 230 V  $\pm 10\%$  AC, 50Hz, 150VA

Accessories: Quartz cuvettes of 10 mm path-length: A set of 2, Polystyrene Cuvettes 10 mm path-length: A set of 5, Mains Lead, Operation Manual and Dust Cover

---

 **LAB ENGINEERING**

**Elab Engineering Equipments Manufacturers**