

**SL 342**

PRODUCT SPECIFICATION SHEET

# Spectrophotometer



Double Beam UV-VIS  
Spectrophotometer

# SL 342



Double Beam



Touchscreen



Cuvette



PC

7" High Resolution Touch Screen LCD Color Graphical Display with Built in PC .

Supports USB-Pen Drive to Store/Retrieve Mass Spectral Data.

Smallest form factor Double Beam Spectrophotometer.

## SALIENT FEATURES

- Built in Windows® Based PC Control.
- Stand alone unit offers an advanced technology with data processing features for Scanning, Discrete Wavelength, Concentration determination by standards and  $\epsilon$ -factor method, k-factor, multi standards, Time scan with minimum time interval of 1.0 sec, Auto-zero facility, Self check and Self diagnostic modes.
- Data in the form of graph and table can be printed directly on to a printer.
- Built in advanced Data Processing capabilities like 4<sup>th</sup> order Derivate Spectra, Overlay of maximum ten Spectra, Peak Picking Facilities, % Concentration mode, Auto Zero Facility, Spectra Zooming, Smoothing, Data Saving, Retrieval and Printing.
- Supports USB printing with PCL 5e class printers.
- Networking Connectivity through TCP/IP Interface.

## OPTIONAL

- Variable Bandwidth with incremental steps of 0.5 nm
- Automatic wavelength calibration and programmable wavelength for lamp change over.
- Lamp selection enables conserving the life of the lamps.

## FEATURES SOFTWARE

- Software is 21 GLP Part 11 compliant with password method protection, Instrument logbook etc. cCFR compliance addressed.



Chemical



Agriculture



Pharmaceutical



MicroNutrients



Soil



Pesticide



Academic



Metals



Fertilizer



Cement



Dyes



Food & Beverages



Glass



Mines & Geology

## APPLICATIONS

- For any Spectrophotometric or Colorimetric measurement where applications require very high-resolution bandwidth and cGLP compliance is mandatory.
- Enzyme Kinetics.
- Organic compounds in Biological matter.
- Glucose, Fructose, Carbohydrates, Proteins etc., in Foods.
- Edible Dyes, Alcohols etc., in Beverages.
- Purity of constituents in Pharmaceuticals.
- Toxic elements like Cadmium, Lead, Arsenic and Mercury etc., in Effluents.
- Constituents in compositions used in Metallurgy, Fertilizer, Pesticide, Chemical, Petrochemical, Steel, Cement, Glass & Other Industries.
- Micronutrients like N, P, K, S, Ca, Mg, Zn, Cu, B, Mo, etc., in Agricultural soil, Plants etc.
- Life Science Applications.

## SPECIFICATIONS

### SPECTRAL

|                             |                                    |
|-----------------------------|------------------------------------|
| Selectable Wavelength Range | 190 to 1100 nm (or) 340 to 1100 nm |
| Selectable Bandwidth        | 1 nm (or) <2 nm                    |
| Readability                 | 0.1 nm                             |
| Accuracy                    | ± 0.3 nm                           |
| Repeatability               | ± 0.2 nm                           |

### LIGHT SOURCE

Deuterium Lamp (D<sub>2</sub>)\* & Tungsten (W) Halogen Lamp

### PHOTOMETRIC

|                      |                                      |        |
|----------------------|--------------------------------------|--------|
| System               | Double beam optics                   |        |
| Range                | ± 4 Abs                              |        |
| Accuracy             | ± 0.005 Abs at 1.0 Abs               |        |
|                      | ± 0.010 Abs at 1.5 Abs               |        |
| Repeatability        | ± 0.002 Abs at 1.0 Abs               |        |
| Stability (Baseline) | ± 0.003 Abs/hr. after 2 hour warm up |        |
| Stray Light*         | <0.05% T at 220 nm with NaI 10g/L    |        |
| Readability          | %T                                   | 0.01   |
|                      | Abs                                  | 0.0001 |

### MONOCHROMATOR

Czerny Turner with Concave holographic grating (1200 lines/mm)

### CONTROL

Built-in Windows Based PC Control

### PORTS

3 USB Ports - Can be used for Printer, Keyboard, Pen Drive and Mouse

TCP/IP Ethernet, WiFi

PC Port - PC Connectivity

### DETECTOR

Silicon Photo Diode or PMT

### STORAGE

128 GB

### DATA PRESENTATION

|           |  |
|-----------|--|
| Display   | 7" (800 x 480) High resolution graphical display |
| Hard Copy | On Printer (USB interface)                       |
| Soft Copy | Mass Data Storage through USB Pen Drive          |

### PHYSICAL DIMENSIONS

|                    |                 |
|--------------------|-----------------|
| Size (WxDxH) in mm | 500 x 375 x 230 |
| Weight (in kg)     | Approx. 15      |

### POWER REQUIREMENT

90-260 V AC, 50-60 Hz, 1 , 170 VA Max.

### SAMPLE ATTACHMENT

|          |  |
|----------|--|
| Standard | Fixed 10mm path length Holders for Reference and Sample.   |
| Optional | Fixed multi path cuvette holders for Reference and Sample accommodating 10mm to 100 mm cuvettes. |
|          | Fixed cuvette holder for Reference and 6 Position motorized 10 mm path cell holder for Sample.   |
|          | Fixed cuvette holder to accommodate micro cuvettes.  |

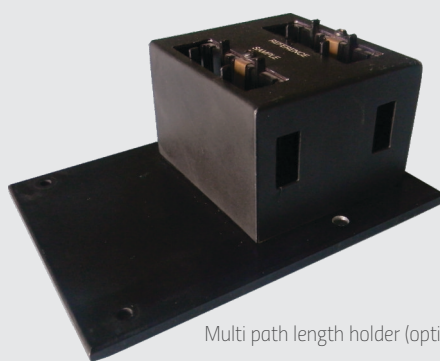
### ACCESSORIES SUPPLIED

|                 |   |
|-----------------|---|
| With Instrument | 10 mm Path length Cuvettes, Built-in UV-VIS Spectratreats® Software   |
| At extra Cost   | Multi Path length Cuvette holder, 10 mm, 20 mm, 40 mm, 50 mm and 100 mm Path length Cuvettes, Micro Cuvettes, USB Pen Drive and Printer |

\* Applicable for wavelength range 190 to 1100 nm



Single cuvette holder (standard)



Multi path length holder (optional)



6 cuvettes holder (optional)

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of our Journey**



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