

UV-VIS  
SPECTROPHOTOMETER

SL 159

PRODUCT SPECIFICATION SHEET



UV-VIS  
Spectrophotometer

# SL 159



Multi Path  
Length

LCD Display



Cuvette



PC

Scanning UV-Visible Spectrophotometer.

Microprocessor based with Printer Interface.

Stable Single Beam Optics.

## SALIENT FEATURES

- ▷ Fully Automatic, user friendly and menu driven.
- ▷ Automatic Wavelength Calibration, Selection of Wavelength and Positioning of the sample holder.
- ▷ Programmable Wavelength for Lamp change over.
- ▷ Automatic 6 position cuvette holder for 10 mm path length cuvettes.
- ▷ Lamp selection enables conserving the life of the lamps.
- ▷ Stand alone unit offers an advanced technology with data processing features for Scanning, Discrete Wavelength, Concentration determination by standards and  $\epsilon$ -factor method, Time scan with minimum time interval of 1.0 sec, Auto-zero facility, self check and self diagnostic modes.
- ▷ 100 User programs- Instrument automatically selects Wavelength depending upon the selection of the method.
- ▷ Compact, Modular & Ergonomically designed.

## SOFTWARE FEATURES

- ▷ Optional Multi Tasking user friendly PC Software provides the Analysis to run all the features available in Standalone Unit and additionally has techniques to view, analyse and display upto 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, Interpretation of Data and Printing.
- ▷ Software is 21 CFR Part 11 compliant with password method protection, Instrument logbook etc. cGLP compliance addressed.



Chemical



Agriculture



Pharmaceutical



MicroNutrients



Soil



Metals



Academic



Fertilizer



Cement



Dyes



Food &  
Beverages



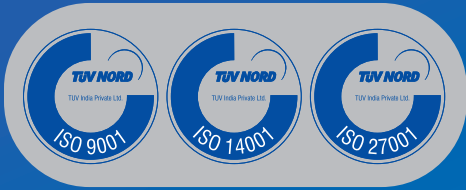
Glass

## APPLICATIONS

- ▷ For any Spectrophotometric or Colorimetric measurement where applications require very high-resolution bandwidth and cGLP compliance is mandatory.
- ▷ Enzyme Kinetics.
- ▷ Micronutrients like N, P, K, S, Ca, Mg, Zn, Cu, B, Mo, etc., in Agricultural soil, Plants etc.
- ▷ 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.
- ▷ Life Science Applications.

## SPECIFICATIONS

<b>SPECTRAL</b>		<b>PHOTOMETRIC</b>		<b>MONOCHROMATOR</b>	
Range	190 to 1100 nm	Range	± 2.500 Abs	Czerny - Turner type with 1200 lines/mm Holographic Diffraction Grating	
Bandwidth	2 nm	Accuracy	± 0.005 Abs at 1.0 Abs ± 0.010 Abs at 1.5 Abs		
Readability	0.1 nm	Repeatability	± 0.003 Abs at 1.0 Abs	<b>CONTROL</b>	
Accuracy	± 0.5 nm	Stability (Baseline)	± 0.003 Abs/hr. after 2 hour warm up	Standalone	Microprocessor & Micro controller
Repeatability	± 0.2 nm	Stray Light	<1% T at 200 nm with KCl 12g/L <1% T at 220 nm with NaI 10g/L	Optional	Through Computer
<b>LIGHT SOURCE</b>		Readability	%T	<b>PC CONNECTIVITY</b>	
Deuterium Lamp (D <sub>2</sub> ) & Tungsten (W) Halogen Lamp			Abs	USB Interface	
<b>DETECTOR</b>					
Silicon Photo Diode					
<b>DATA PRESENTATION</b>			<b>SAMPLE ATTACHMENT</b>		
Display	4 line 20 Character Dot Matrix Backlit LCD Module		Standard	Motorised 6 position Cuvette holder for 10 mm Path Length Cuvettes.	
Hard Copy	On Printer (Centronics)		Optional	Motorised 2 position multi path Length Cuvette holder for 10, 20, 40 & 50 mm Path Length Cuvettes.	
<b>DATA PROCESSING</b>			<b>ACCESSORIES SUPPLIED</b>		
Standalone	Spectrum, Discrete Wavelength, Concentration, ε - Factor, Time Scan, Auto Zero and Printing.		With Instrument	10 mm Path length Cuvettes - 2 nos	
PC Mode	Spectrum, Discrete Wavelength, Concentration, ε - Factor, Time Scan, Enzyme Kinetics, Overlay, Ratiometric, Peak Picking, Upto 4 <sup>th</sup> order Derivative, Spectra Zooming, Smoothing, Data Saving & Retrieving, Auto Zero facility and Printing		At extra Cost	Multi Path length Cuvette holder, 10 mm, 20 mm, 40 mm, 50 mm and 100 mm Path length Cuvettes, Micro Cuvettes, PC, Spectratreats Software and Printer	
<b>POWER REQUIREMENT</b>			<b>PHYSICAL DIMENSIONS</b>		
90-260 V AC, 50-60 Hz, 1φ, 170 VA Max.			Size (WxDxH) in mm	520 x 395 x 180	
			Weight (in kg)	Approx. 17	



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Specifications are subject to change as a process of continual development.

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