

**DIODE ARRAY UV-VIS
SPECTROPHOTOMETER**

SA 165

PRODUCT SPECIFICATION SHEET



Diode Array UV-VIS
Spectrophotometer

SA 165



Fast Scan



Touchscreen



Cuvette



PC

Diode array based Spectrophotometer.

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

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



Chemical



Research



Life Sciences



Metals



Pharmaceutical



Food &
Beverages



Clinical



Pharmaceutical



MicroNutrients



Fertilizer



Academic

SALIENT FEATURES

- ▷ Fast Scan Speed.
- ▷ High signal to noise ratio.
- ▷ More rugged (Minimal moving parts)
- ▷ Smallest form factor Spectrophotometer.
- ▷ Lamp selection enables conserving the life of the lamps.
- ▷ Built in Windows® Based PC Control.
- ▷ Data in the form of graph and table can be printed directly on to a printer.
- ▷ Built in advanced Data Processing capabilities like 4th order Derivate Spectra, overlay of maximum ten Spectra, Peak Picking Facilities, % Concentration mode, Auto Zero Facility, Spectra Zooming, Smoothing, Data Saving and Retrieval and exporting of Spectral Data as a CSV File.
- ▷ Supports USB printing with PCL 5e class Printer.
- ▷ Networking Connectivity through TCP/IP Interface.

SOFTWARE FEATURES

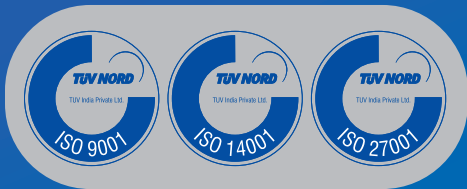
- ▷ Software is 21 CFR Part 11 compliant with password method protection, Instrument logbook etc. cGLP compliance addressed.

APPLICATIONS

- ▷ Fast spectral acquisition makes the first choice for measurement of fast chemical reactions and denaturing materials.
- ▷ 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.
- ▷ Life Science Applications.
- ▷ Determin pK, complexion constants and the constant uniformity of tablets containing two drugs.

SPECIFICATIONS

SPECTRAL		LIGHT SOURCE	
Range	190 to 800 nm	Pre aligned Deuterium Lamp (D ₂) & Tungsten (W) Halogen Lamp	
Bandwidth	< 2 nm	DETECTOR	
Accuracy	± 0.5 nm with Holmium Oxide glass Filter	Diode Array Detector - 1024 pixels	
	± 0.5 nm with 486.1 and 656.2 nm of D ₂ peaks	CONTROL	
Wavelength Resolution	< 0.62 nm per pixel	Built-in Windows Based PC Control	
Resolution Test	>1.4nm	PORTS	
PHOTOMETRIC		3 USB Ports - Can be used for Printer, Keyboard, Pen Drive and Mouse	
Range	± 2 Abs	TCP/IP Port - Network Connectivity	
Accuracy	± 0.01 AU with 60 ppm Potassium Dichromate	PC Port - PC Connectivity	
	± 0.005 AU at 440, 590nm with 0.5 AU of neutral density glass filter	SAMPLE ATTACHMENT	
	± 0.01 AU at 440, 590nm with 1.0 AU of neutral density glass filter	Standard	2 position motorized cell holder to accommodate 10 mm Path Length Cuvettes.
Stability (Baseline)	0.005 AU after 15 minutes warm-up	Optional	2 position motorized cell holder to accommodate multi Path Length Cuvettes.
Stay light	<1% T @ 220 nm with NaI		Fibre Optic Dip probe attachment.
	<1% T @ 340 nm with NaNO ₂		Fibre Optic couple 10mm Path Length cell holder.
DATA PRESENTATION		PHYSICAL DIMENSIONS	
Display	7" (800 x 480) High resolution graphical display	Size (WxDxH) in mm	330 x 310 x 260
Hard Copy	On printer (USB interface)	Weight (in kg)	Approx. 11
Soft Copy	Mass Data Storage through USB Pen Drive	POWER REQUIREMENT	
DATA PROCESSING		90-260 V AC, 50-60 Hz, 1ϕ, 150 VA Max.	
Spectrum, Concentration, Overlay, Time Scan, Discrete Wavelength, Upto 4 th order Derivative, Peak Picking, Spectra Zooming, Smoothing, Averaging, Comparison, Data Saving & Retrieval, Auto Zero facility and Printing.		ACCESSORIES SUPPLIED	
With Instrument	10 mm Path length Cuvettes, Built in UV VIS Spectratreats [®] Software.		
At extra Cost	Multi Path length Cuvette holder for 10 mm, 20 mm, 40 mm and 50 mm Path Length Cuvettes, Transmission Dip Probe, Fibre Optic coupled Cuvette holder, USB Pen Drive, PC, PC Software and Printer.		



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

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