

SPECTROFLUOROMETER

SL 174

PRODUCT SPECIFICATION SHEET



Spectrofluorometer

SL 174



Attachments



LCD Display



Cuvette



PC

Microprocessor based, User friendly, Menu Driven with Printer Interface.

Dual Monochromator Design.

Four cell turret sample holder for Fluorescence measurement.

SALIENT FEATURES

- ▷ Precise settings of Wavelengths and Slit widths in both Excitation and Emission Monochromators.
- ▷ Compliance with IP/BP/USP standards.
- ▷ Supports Fluorescence Polarization modules (Single Cuvette sample holder)
- ▷ Absorbance, Fluorescence and Polarization. These three varieties of accessories are application oriented and are interchangeable.
- ▷ Optional PC compatibility with RS232C Interface and MS Windows® based Software for Data Acquisition, Processing, Storage, Retrieval & Interpretation of Data.

SOFTWARE FEATURES

- ▷ PC Software provides the features has techniques to view, analyze and display upto 4th order Derivative Spectra, Peak Picking, Spectra Zooming, Smoothing, Data Saving and Printing.
- ▷ Software is 21 CFR Part 11 compliant with password method protection, Instrument logbook etc. cGLP compliance addressed.
- ▷ GLP Protocols for Fluorescence along with audit trail facilities in the software.



Pharmaceutical



Food & Beverages



Research



Chemical



Clinical



Environment & Pollution



Academic



Life Sciences

APPLICATIONS

Analysis of Trace levels of

- ▷ Biological samples in Clinical Examination, Medicine and Bio Chemistry.
- ▷ Constituents in Food.
- ▷ Components immeasurable by AAS in Organic & Inorganic Chemistry.
- ▷ Analysis of Drugs, Quality Control of Pharmaceuticals & Study of metabolism of Medicines in Pharmacy & Pharmacology.
- ▷ Monitoring & Study of Air & Food pollutants, Environmental sanitation etc., in pollution control.
- ▷ Assays requiring Fluorescent Analysis beyond Quantification - Polarization
- ▷ For Anisotropy studies of molecular Dynamics.
- ▷ For complete photophysical model of the molecules (Absorbance, Fluorescence and Polarization Accessories together).

SPECIFICATIONS

SPECTRAL	
Range (Ex & Em)	200 to 900 nm
Bandwidth	2, 5, 10 & 20 nm (selectable)
Readability	0.1 nm
Accuracy	± 2 nm
Repeatability	± 0.2 nm
Scanning Rate	200, 400 & 600 nm/min (selectable)

LIGHT SOURCE	
150 Watt Xenon Arc Lamp	

DETECTOR	
High Sensitive Photo Multiplier Tube (PMT)	

DATA PRESENTATION	
Display	2 line 24 Character Dot Matrix Backlit LCD Module
Hard Copy	On Printer (Centronics)

DATA PROCESSING	
Microprocessor Mode	Spectrum (Excitation , Emission, Synchronous, PreScan), Concentration, Fluorescence & GLP Compliance.
PC Mode	Spectrum (Excitation , Emission , Synchronous, PreScan), Concentration, Fluorescence, Time Scan, Quantum Yield Measurement & GLP Compliance.

PHYSICAL DIMENSIONS	
Size (WxDxH) in mm	418 x 314 x 115
Weight (in kg)	Approx. 32

POWER REQUIREMENT	
230 V ± 10% AC, 50 Hz, 1φ, 300VA Max.	

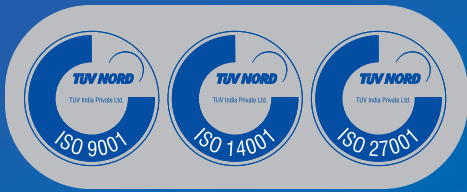
FLUOROMETRIC	
Sensitivity	0.1 ng/mL Quinine Sulphate is detectable with 20 nm bandpass in Ex & Em Monochromator.
	Raman Band of Water with 10nm bandpass at Ex WL 350 nm & Em WL 397 nm, S/N > 150.

MONOCHROMATOR	
Czerny - Turner type with 1200 lines/mm Holographic Grating	

CONTROL		PC CONNECTIVITY
Standalone	Microprocessor	
Optional	Through Computer	
		RS 232C Interface

SAMPLE ATTACHMENT	
Standard	Motorised 4 position Cuvette holder for 10 mm Path Length Cuvettes.
Optional	Polarizer module and Absorbance Module.

ACCESSORIES SUPPLIED	
With Instrument	Fluorescence free quartz cells of 10mm pathlength.
At extra Cost	Polarizer module attachment (with single cuvette & the polarizers (both Ex & Em) can be able to set to every 1° angle from 0° to 360°), Absorbance Module, PC, PC Software and Printer.



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

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