

SL 174

PRODUCT SPECIFICATION SHEET

# Spectrofluorometer



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# 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 4<sup>th</sup> 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

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

## LIGHT SOURCE

150 Watt Xenon Arc Lamp

## DETECTOR

High Sensitive Photo Multiplier Tube (PMT)

## DATA PRESENTATION

<b>Display</b>	2 line 24 Character Dot Matrix Backlit LCD Module
<b>Hard Copy</b>	On Printer (Centronics)

## DATA PROCESSING

<b>Microprocessor Mode</b>	Spectrum (Excitation , Emission, Synchronous, PreScan), Concentration, Fluorescence & GLP Compliance.
<b>PC Mode</b>	Spectrum (Excitation , Emission, Synchronous, PreScan), Concentration, Fluorescence, Time Scan, Quantum Yield Measurement & GLP Compliance.

## PHYSICAL DIMENSIONS

<b>Size (WxDxH) in mm</b>	418 x 314 x 115
<b>Weight (in kg)</b>	Approx. 32

## POWER REQUIREMENT

230 V ± 10% AC, 50 Hz, 1φ, 300VA Max.

## FLUOROMETRIC

<b>Sensitivity</b>	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

Standalone	Microprocessor
Optional	Through Computer

## PC CONNECTIVITY

RS 232C Interface

## SAMPLE ATTACHMENT

<b>Standard</b>	Motorised 4 position Cuvette holder for 10 mm Path Length Cuvettes.
<b>Optional</b>	Polarizer module and Absorbance Module.

## ACCESSORIES SUPPLIED

<b>With Instrument</b>	Fluorescence free quartz cells of 10mm pathlength.
<b>At extra Cost</b>	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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B-90, A.P.I.E., Sanathnagar, Hyderabad 500 018, Telangana., India

Tel +91 40 44451234 Fax +91 40 23771639 [info@elico.co](mailto:info@elico.co)

**Ahmedabad**

[ahm@elico.co](mailto:ahm@elico.co)  
+91 98241 75321

**Bengaluru**

[blr@elico.co](mailto:blr@elico.co)  
+91 99000 28741

**Bhopal**

[bpl@elico.co](mailto:bpl@elico.co)  
+91 99930 96876

**Bhubaneswar**

[bbr@elico.co](mailto:bbr@elico.co)  
+91 99371 12105

**Chennai**

[chn@elico.co](mailto:chn@elico.co)  
+91 98402 65797

**Cochin**

[kel@elico.co](mailto:kel@elico.co)  
+91 81291 84400

**Delhi**

[del@elico.co](mailto:del@elico.co)  
+91 98710 06104

**Guwahati**

[gau@elico.co](mailto:gau@elico.co)  
+91 912111 77451

**Hyderabad**

[hyd@elico.co](mailto:hyd@elico.co)  
+91 99896 25457

**Kolkata**

[kol@elico.co](mailto:kol@elico.co)  
+91 912111 77452

**Lucknow**

[lku@elico.co](mailto:lku@elico.co)  
+91 91980 01666

**Mumbai**

[mum@elico.co](mailto:mum@elico.co)  
+91 77100 96111

**Patna**

[pat@elico.co](mailto:pat@elico.co)  
+91 912111 77450

**Visakhapatnam**

[vtz@elico.co](mailto:vtz@elico.co)  
+91 99899 94532

