







Scanning Visible Spectrophotometer covering Near UV, Visible and Near IR Spectral Region.

Microprocessor based with Printer Interface.

Stable Single Beam Optics.

#### **SALIENT FEATURES**

- Automatic Wavelength selection and Positioning of the sample holder.
- Automatic 6 position cuvette holder for 10 mm path length cuvettes.
- Stand alone unit offers an advanced technology with data processing features for Scanning, Discrete Wavelength, Concentration determination by standards and ε-factor method, 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.
- Compact, Modular & Ergonomically design.
- Fully Automatic, user friendly and menu driven.

#### 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 Derivates 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.



#### **APPLICATIONS**

- For any Spectrophotometric or Colorimetric measurement where applications are required.
- Enzyme Kinetics.
- Micronutrients like N, P, K, S, Ca, Mg, Zn, 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 and Mercury etc., in Effluents.
- Constituents in compositions used in Metallurgy, Fertilizer, Pesticide, Chemical, Petrochemical, Steel, Cement, Glass & Other Industries.
- Biological Samples.

# **SPECIFICATIONS**

# **SPECTRAL**

Range	340 to 1000 nm
Bandwidth	5 nm
Readability	1 nm
Accuracy	± 1 nm
Repeatability	± 1 nm

# PHOTOMETRIC

Range	± 2 Abs	
Accuracy	± 0.050 Abs at 1.0 Abs	
Repeatability	± 0.010 Abs at 1.0 Abs	
Stability (Baseline)	± 0.010 Abs/hr. after 2 hour warm up	
Stray Light	<0.5 % T at 340 nm	
Readability	%Т	0.01
	Abs	0.0001

# MONOCHROMATOR

Czerny - Turner type with 600 lines/mm Ruled Grating

## CONTROL

Standalone	Microprocessor & Micro controller
Optional	Through Computer

**PC CONNECTIVITY** 

# LIGHT SOURCE

DETECTOR

Tungsten (W) Halogen Lamp

#### Silicon Photo Diode

### **DATA PRESENTATION**

Display	4 line 20 Character Dot Matrix Backlit LCD Module
Hard Copy	On Printer (Centronics)

# **DATA PROCESSING**

Standalone	Spectrum, Discrete Wavelength, Concentration, ε - Factor, Time Scan, Auto Zero and Printing.
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.

# **POWER REQUIREMENT**

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

## **SAMPLE ATTACHMENT**

Standard	Motorised 6 position Cuvette holder for 10 mm Path Length Cuvettes.
Optional	Motorised 2 position multi path Length Cuvette holder for 10, 20, 40 & 50 mm Path Length Cuvettes.

**USB** Interface

# **ACCESSORIES SUPPLIED**

With	10 mm Path length Cuvettes
Instrument	- 2 nos
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.

# **PHYSICAL DIMENSIONS**

Size (WxDxH) in mm	520 x 395 x 180
Weight (in kg)	Approx. 13

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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

Ahmedabad ahm@elico.co +91 98241 75321 Bengaluru blr@elico.co +91 99000 28741

**Bhopal** 

bpl@elico.co +91 99930 96876

Bhubaneswar bbr@elico.co +91 99371 12105

Chennai chn@elico.co +91 98402 65797

Cochin kel@elico.co +91 81291 84400

Delhi del@elico.co +91 98710 06104

Guwahati gau@elico.co +91 91211 77451

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hyd@elico.co +91 99896 25457 Kolkata kol@elico.co +91 91211 77452

Lucknow lku@elico.co +91 91980 01666 Mumbai mum@elico.co +91 77100 96111 Patna pat@elico.co +91 91211 77450

Visakhapatnam vtz@elico.co +91 99899 94532