

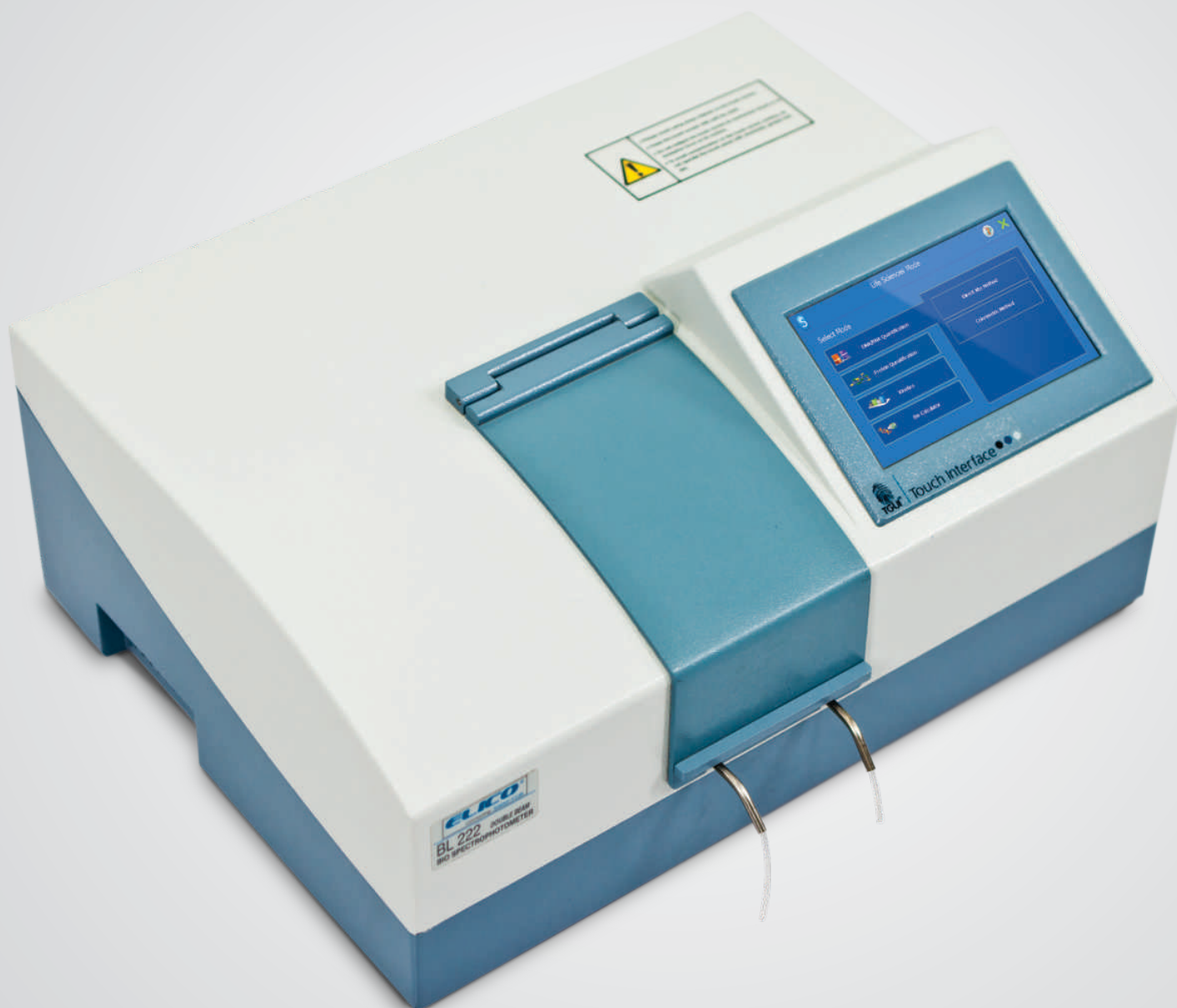
**ELICO**®

Connecting Science & Lab

**BIO  
SPECTROPHOTOMETER**

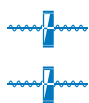
**BL 222**

PRODUCT SPECIFICATION SHEET



Bio Spectrophotometer  
with Touch Screen &  
Built in PC

# BL 222



Double Beam



Touchscreen



Flow Cell



PC

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

Sipper Module with low Volume Flow Cell Attachment.

Supports USB-Pen Drive to store/retrieve Mass Spectral Data.

## SALIENT FEATURES

- ▶ Smallest form factor Double Beam Spectrophotometer with a high-resolution bandwidth.
- ▶ Automatic wavelength calibration and programmable wavelength for lamp change over.
- ▶ Lamp selection enables conserving the life of the lamps.
- ▶ Built in Windows® Based PC Control.
- ▶ 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.
- ▶ Data in the form of graph and table can be printed directly on to a printer.
- ▶ Built in advanced Data Processing capabilities like 4<sup>th</sup> order derivatives Spectra, Overlay of maximum ten Spectra, Peak Picking Facilities, % Concentration mode, Auto Zero Facility, Spectra Zooming, Smoothing, Data Saving, Retrieval and Printing.
- ▶ Supports USB printing with PCL 5e class printers.
- ▶ 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.



Life Sciences



Pharmaceutical



Chemical



Food & Beverages



Clinical



Agriculture



Academic



Research

## APPLICATIONS

- ▶ DNA/RNA Quantification- Nucleic Acid Purity by Absorbance ratio and concentration by factor method.
- ▶ PROTEIN Determination - By UV Absorbance, Lowry, Biuret, CBB and BCA methods.
- ▶ Enzyme Kinetics.
- ▶ For any Spectrophotometric or Colorimetric measurement where applications require very high-resolution bandwidth and cGLP compliance is mandatory.
- ▶ Organic compounds in Biological matter.
- ▶ Glucose, Fructose, Carbohydrates, Proteins etc., in Foods.
- ▶ Edible dyes, alcohols etc., in Beverages.
- ▶ Purity of constituents in Pharmaceuticals.
- ▶ and others.

## SPECIFICATIONS

<b>SPECTRAL</b>		<b>PHOTOMETRIC</b>		<b>MONOCHROMATOR</b>	
Range	190 to 1100 nm	System	Double beam optics		Concave holographic grating with 1200 lines/mm
Bandwidth	1.8 nm	Range	± 3 Abs		
Readability	0.1 nm	Accuracy	± 0.005 Abs at 1.0 Abs		<b>CONTROL</b>
Accuracy	± 0.5 nm		± 0.010 Abs at 1.5 Abs		
Repeatability	± 0.2 nm	Repeatability	± 0.002 Abs at 1.0 Abs		Built-in Windows Based PC Control
<b>LIGHT SOURCE</b>		Stability (Baseline)	± 0.003 Abs/hr. after 2 hour warm up		<b>PORTS</b>
Deuterium Lamp (D <sub>2</sub> ) & Tungsten (W) Halogen Lamp		Stray Light	<0.05% T at 220 nm with NaI 10 g/L		
<b>DETECTOR</b>	Silicon Photodiode	Readability	%T	0.01	3 USB Ports - Can be used for Printer, Keyboard, Pen Drive and Mouse
			Abs	0.0001	TCP/IP Port - Network Connectivity
					PC Port - PC Connectivity

<b>DATA PRESENTATION</b>	
Display	7" ( 800 x 480) High resolution graphical display
Hard Copy	On printer ( USB interface)
Soft Copy	Mass Data Storage through USB Pen Drive

<b>DATA PROCESSING</b>	
Spectrum, Concentration, Protein Analysis - DNA /RNA Purity, Concentration by Factor, Enzyme Kinetics, Overlay, Time Scan, Discrete Wavelength, Ratiometric, Peak Picking, Spectra Zooming, Smoothing, Data Saving & Retrieval, Auto Zero facility and Printing	

<b>POWER REQUIREMENT</b>	
90-260 V AC, 50-60 Hz, 1φ, 170 VA Max.	

<b>FLOW CELL</b>	
Size ( WxDxH ) in mm	12.5 x 12.5 x 35
Flow Cell Volume	195 µL

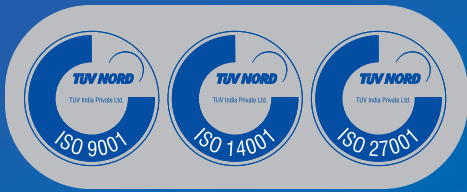
<b>SAMPLE ATTACHMENT</b>	
Standard	5mm path length Sipper module with 10 to 50°C Temp. controlled holder
Optional	Fixed 10mm to 100 mm long path length cuvette holder

<b>PHYSICAL DIMENSIONS</b>	
Size (WxDxH) in mm	500 x 375 x 230
Weight (in kg)	Approx. 15

<b>ACCESSORIES SUPPLIED</b>	
With Instrument	10 to 50°C Temperature controlled flow through Cell with Sipping System.
At extra Cost	10 to 100 mm long path cuvette holder and cuvettes, UV-VIS Spectratreats® Software with 21 CFR Part 11 compliant, USB Pen Drive & Printer.



Temperature Controlled Flow Cell Module



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

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