

UV- Visible Spectrophotometer

Purpose

To carry out spectrophotometric measurements in Laboratory in UV range

Specifications:

Brief Description	<ul style="list-style-type: none"> • Computer controlled spectrophotometer which can be used with, rectangular cells of up to at least 10 mm thickness, and sipper flow through cell, having following specifications, dual display system
Optical System	<ul style="list-style-type: none"> • Double beam grating based single detector or dual display system
Wave Range	<ul style="list-style-type: none"> • 190 to 1100 nm
Wave length readability	<ul style="list-style-type: none"> • Better than or equal to 0.2 nm
Accuracy	<ul style="list-style-type: none"> • Better than or equal to ± 0.5 nm
Scan speed	<ul style="list-style-type: none"> • 1-3800 nm/min
Wavelength repeatability	<ul style="list-style-type: none"> • Better than or equal to ± 0.2 nm
Photometric readout	<ul style="list-style-type: none"> • Digital LCD/LED selectable for transmittance T, Absorbance A and Concentration C
Spectral band width	<ul style="list-style-type: none"> • Provisions should include at least 2.0 nm SBW (slit band width)
Scan speed	<ul style="list-style-type: none"> • Should be wide range 1 to 3800 nm/minute (variable)
Photometric Range	<ul style="list-style-type: none"> • Should cover -0.500 A to + 3.0 A range
Photometric Accuracy	<ul style="list-style-type: none"> • Better than 0.5% T or 0.005 A
Noise	<ul style="list-style-type: none"> • Better than 0.0002 A at 500 nm
Data interval	<ul style="list-style-type: none"> • 0.2, 0.5, 1.0, 2.0, 4.0, 10.0 nm
Drift	<ul style="list-style-type: none"> • 0.0002 A/hour after warm up
Cell Holder	<ul style="list-style-type: none"> • For holding upto 50 nm pathlength rectangular cuvette
Interface	<ul style="list-style-type: none"> • RS-232 C/USB
Power Supply	<ul style="list-style-type: none"> • 220 VAC $\pm 10\%$, 47 to 53 Hz AC
Quality Certificate	<ul style="list-style-type: none"> • Installation qualification, operational qualification and performance qualification certificate from NABL Accredited Laboratory or US-EPA certificate of performance
Accessories	<ul style="list-style-type: none"> • Two pairs of square glass cuvettes (10 mm pathlength), Operation and maintenance manual (English), Dust cover, Power cable with

	<p>plug to suit Indian socket</p> <ul style="list-style-type: none"> • Computer (Pentium I3, at least 2 GB RAM, 360 GB HDD with necessary softwares • Printer (internal) Laserjet suitable for graphs/data printing • Rectangular cuvettes (50 mm & 25 mm pathlength) • Other accessories needed for calibration
Consumables	<ul style="list-style-type: none"> • For two years of operation, printer ribbons etc considering the expiry dates
Additional Features	<ul style="list-style-type: none"> • The system should provide facility for the storage of spectra/methods, multi wavelength mode, baseline correction, peak area and other statistical calculations. Software should be provided for water & environmental analysis along with user friendly programme softwares.

