

UV-VIS Double Beam Spectrophotometer

IG-27DS



IGENE LABSERVE

Innovative • Interactive • Intuitive

FEATURES & SPECIFICATIONS

DESCRIPTION

IG-27DS spectrophotometer is an instrument which measures the amount of light that a sample absorbs. The spectrophotometer works by passing a light beam through a sample to measure the light intensity of a sample. These instruments are used in the process of measuring concentration of any unknown solution and used for monitoring absorption accuracy throughout production.

FEATURES

Wide Wavelength range, satisfying requirements of various fields. Fully

- ❖ automated design, realizing the simplest measurement & as per requirement of pharmacopoeia.

Upgradable to 8 samples to be measured at one time.

- ❖ Automatic change-over between T lamp & D2 lamp.
- ❖ Optimized optics and large-scale integrated circuits design, light source and receiver from world famous measurement methods all add up to high performance and reliability.

Rich measurement methods: wavelength scan, time scan multi-wavelength determination, multi-order derivative determination,

- ❖ double-wavelength methods and triple-wavelength methods etc., meet difference measurement requirement.

Data Output can be obtained via a printer port.

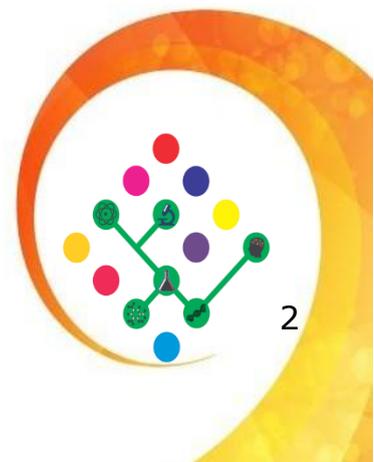
Parameters and data can be saved for user's convenience.

- ❖ PC controller measurement can be achieved for more accurate and flexible requirement.

Glass Cell: 4 Nos

Quartz Cell: 2 Nos

- ❖ Software, Instrument Cover, USB Cable, Software Manual, Instrument Manual



Basic Mode (To measure the Absorbance and transmittance)

Quantitative

1. Coefficient Method
2. Standard Curve Up to 10 Standard sample may be used to establish a Curve. Four methods for fitting a curve through the calibration points: Linear fit. Linear fit through zero, Square fit and cubic fit.

DNA/Protein Test

Concentration and DNA purity are quickly and easily calculated: Absorbance ratios 260 nm / 280 nm with optional subtracted absorbance at 320nm. DNA concentration = $62.9 \times A_{260} - 36.0 \times A_{280}$ Protein concentration = $1552 \times A_{260} - 757.3 \times A_{280}$

Wavelength Scan

1. The wavelength scan intervals are 0.1, 0.2, 0.5, 1, 2, 5 nm
2. High, Medium and low scan speed are available. 100 to 3600 nm/min
3. Wavelengths are scanned from high to low so that the instrument waits at high. WL and it minimizes the degradation of UV sensitive samples.

Kinetics

This mode may be used for time course scanning or reaction rate calculations.

SPECIFICATIONS

Optical System	Double Beam, Grating 1200 lines/mm
Wavelength Range	190nm - 1100nm
Spectral Bandwidth	Fixed 1.0nm
Wavelength Accuracy	$\leq \pm 0.3 \text{ nm}$ (656.1nmD2), $\leq \pm 0.5 \text{ nm}$ (full wavelength Range)
Wavelength Repeatability	0.1nm
Wavelength Display Setting	0.1 nm increment
Photometric Accuracy	$\pm 0.3\%T$ (0~100%T)
Photometric Repeatability	0.001Abs (0~0.5Abs)
Wavelength Slew rate	15000 nm/min
Photometric Range	-3A~3A
Transmittance	0-100% T
Stray Light	$\leq 0.02\%T$ (220nm, nal, 340nm NaMO2)
Stability	$\pm 0.0004 \text{ A/H}$ @500nm
Baseline Flatness	$\pm 0.001A$
Scanning Speed	Fast, Mid, Slow
Wavelength Setting	AUTO
Keyboard	Membrane Keypad
Light Source	Deuterium & Tungsten Lamp
Wavelength Resolution	0.1nm
Photometric Mode	A, T and C
Detector	Imported Silicon Photodiode
Interface	USB Port and parallel port (Printer)
Power	AC 220V/50Hz or AC 110V/60Hz
Dimension	590x460x220mm
Weight	25kg
Drift	$\leq \pm 0.0004A \text{ bs/h}$
Cell Holder	2 Cell Holder