Spectrophotometers
Evolution 500 UV-Vis

The Evolution 500 UV-Visible spectrophotometer offers the high performance needed for your most demanding laboratory applications. The superior design ensures an unsurpassed level of data integrity. Automatic alignment of the spectrophotometer occurs at every initialisation guaranteeing the system is optimised. The operation of the Evolution 500 can also be evaluated with a Calibration Validation Unit, which verifies the instrument is working according to factory specifications. The unique Validation Calibration Qualification (VQC) concept used in the development and manufacture of the Evolution 500 provides you with all the tools necessary to prove the quality of data for regulatory requirements.

Product Features

- Double-beam optical design provides complete system stability
- High-quality optical components maximise light throughput
- Single photomultiplier detector (PMT) provides excellent sensitivity
- Local Control and PC control options match your operational needs and lab space requirements.
- Multiple security options address all regulatory needs
- VQC- fully documented, foolproof validation and calibration system

In addition, the Evolution 500 provides a complete suite of software programs and wide range of accessories to meet all of your application needs.

Specifications

Model	Evolution 500
Wavelength Range, nm	190 to 900
Photometric Range	6.0A
Photometric Display	-3.0 to 6.0A
Detector	Single Photomultiplier
Bandwidth	0.2, 0.5, 1.0, 1.5, 2.0, 4.0 nm
Best Data Resolution	0.1 nm
Scan Speeds	1 to 3800 nm/min
Monochromator drive Speed	4000 nm/min
Wavelength Accuracy (using holmium and didymium traceable to National Physical Laboratory (NPL)	±0.3 nm (Typical: ±0.2 nm)
Wavelength Repeatability (across complete wavelength range using holmium and didymium traceable to NPL (Typical - 10 scans of 656.1 nm D2 line)	±0.1 nm (Typical: ±0.03 nm)
Photometric Accuracy (at 546 nm using neutral density glass filters traceable to NPL)	±0.002A (Typical ±0.0012A) @ 1A; ±0.005A (Typical ±0.0015A) @ 2A ±0.008A (Typical ±0.0023A) @ 3A
European Pharmacopoeia Photometric Accuracy (accuracy test with potassium dichromate)	235 nm: 0.748 ±0.010A; 257 nm: 0.865 ± 0.010A 313 nm: 0.292 ±0.010A; 350 nm: 0.640 ±0.010A
Photometric Repeatability (at 546 nm using neutral density glass filters traceable to NPL)	1A: ±0.001A (Typical: 0.0005A): 2A: ±0.002A (Typical: 0.0008A) 3A: ±0.005A (Typical: 0.0010A)
Peak-to-Peak Noise	0A at 1.5 nm: <0.0003A (Typical <0.0001A); 1A at 1.5 nm: <0.0004A (Typical <0.0001A)
Stray Light	KCl solution at 200 nm: >2.0A (Typical: >2.5A); Nal solution at 220 nm: <0.02%T (Typical: <0.003%T); $NaN0_2$ solution at 340 nm: <0.05%T (Typical: <0.001%T)
Baseline Flatness (200 to 800 nm) Stability at 340 nm	±0.001A (Typical: ±0.0007A); >0.0005A/hr (Typical: ±0.0001A/hr)
Dimensions H x W x D mm	230 x 530 x 570
Weight kg (lbs)	32 (70.5)
Elecdtrical Supply	220-240V, 50-60Hz

Ordering Information

Cat No.	Description
10500101	Includes VISIONsecurity PC software
10500201	Includes VISIONpro PC software
10500301	Includes Local Control Firmware