

# E-SP Series

## UV/VIS Spectrophotometers

### Features

- Saves up to 200 groups of data & 200 standard curves
- Data can be restored even after a sudden power failure
- Auto setting of wavelength to calibrate the system
- Wavelength range from 190 to 1100nm. Depending on model
- Automatic Switching between Tungsten & Deuterium lamps. Depending on model.
- System is fully equipped and capable of executing all functions in stand-alone mode
- Large sample for accommodate 5–100mm path length cuvettes with optional holders
- Optional printer to be able to print results
- Wide range of accessories are available



Specifications	E-SP1000-V-P	E-SP1100-V-P	E-SP1000-UV-P	E-SP1100-UV-P
Optical System	Single Beam	Single Beam	Single Beam	Single Beam
Light Source	Tungsten lamp	Tungsten lamp	Tungsten lamp & Deuterium lamp	Tungsten lamp & Deuterium lamp
Spectral Bandwidth	4.0nm	2.0nm	4.0nm	2.0nm
Wavelength Range	325-1000nm	320-1100nm	200-1000nm	190-1100nm
Wavelength Accuracy	±2nm	±0.5nm	±2nm	±0.5nm
Wavelength Repeatability	≤1nm	≤0.3nm	≤1nm	≤0.3nm
Photometric Range	-0.3 - 3.0 A, 0 - 200%T	-0.3 - 3.0 A, 0 - 200%T	-0.3 - 3.0 A, 0 - 200%T	-0.3 - 3.0 A, 0 - 200%T
Photometric Accuracy	±0.003 A @ 0.5 A, ±0.006 A @ 1.0 A, ±0.5%T @ 100%T	±0.002 A @ 0.5 A, ±0.004 A @ 1.0 A, ±0.3%T @ 100%T	±0.003 A @ 0.5 A, ±0.006 A @ 1.0 A, ±0.5%T @ 100%T	±0.002 A @ 0.5 A, ±0.004 A @ 1.0 A, ±0.3%T @ 100%T
Photometric Repeatability	≤0.0015 A @ 0.5 A, ≤0.003 A @ 1.0 A, ≤0.25%T @ 100%T	≤0.001 A @ 0.5 A, ≤0.002 A @ 1.0 A, ≤0.15%T @ 100%T	≤0.0015 A @ 0.5 A, ≤0.003 A @ 1.0 A, ≤0.25%T @ 100%T	≤0.001 A @ 0.5 A, ≤0.002 A @ 1.0 A, ≤0.15%T @ 100%T
Stability	≤0.002 A/h @ 500 nm (after preheat 2 hours)	≤0.002 A/h @ 500 nm (after preheat 2 hours)	≤0.002 A/h @ 500 nm (after preheat 2 hours)	≤0.002 A/h @ 500 nm (after preheat 2 hours)
Stray Light	≤0.2%T @ 360nm	≤0.05%T @ 360nm	≤0.2%T @ 360nm	≤0.05%T @ 220 & 360nm
Standard Sample Compartment	4-position, 10mm pathlength cuvette	4-position, 10mm pathlength cuvette	4-position, 10mm pathlength cuvette	4-position, 10mm pathlength cuvette
Display	LCD	LCD	LCD	LCD
E-SP-PCS Compatible	No	Yes	No	Yes
Output	USB Port & Parallel Port (Printer)	USB Port & Parallel Port (Printer)	USB Port & Parallel Port (Printer)	USB Port & Parallel Port (Printer)
Halogen bulb 12V, 20W	Yes	Yes	Yes	Yes
Milax deuterium bulb 10V, 300mA, 30W	No	No	Yes	Yes
Power Requirements	110/220VAC, 50/60Hz, 80W	110/220VAC, 50/60Hz, 80W	110/220VAC, 50/60Hz, 120W	110/220VAC, 50/60Hz, 120W
Dimension(L×W×H)	490×360×210mm	490×360×210mm	490×360×210mm	490×360×210mm
Weight	12kg	12kg	14kg	14kg

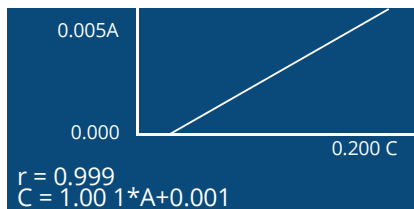
## Applications

Our Spectrophotometer range is highly recommended for live display of ABS & %T, Quantitative analysis (Beer's Law), Reaction monitoring, Colorimetric analysis, Kinetic experiments, Protein and DNA assays, DNA & RNA quantification, Protein quantification and many more applications in advanced teaching labs, industrial, pharmaceutical, life science & Biotechnology research QA/QC labs.

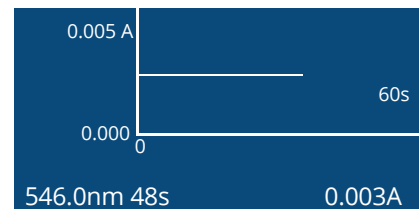
Basic Mode

546.0nm		0.001A
No	WL.	Abs.
1	230.0	0.001
2	340.0	0.000
3	450.0	0.002
4	540.0	0.000
5	620.0	0.003

Quantitative



Kinetics



## E-SP-PCS (PC Software)

Optional application software E-SP-PCS 'Wave Professional' provides computer control, and other functions such as spectrum scan, time scan (kinetics), multiwavelength scanning & Nucleic Acid / Protein measurement. Compatible with E-SP1100-V-P / E-SP1100-UV-P

Holder Code	E-SP-H1WJ-10	E-SP-H4WJ-10	E-SP-H8A-10
Holder			
Type	Water-Jacketed Cuvette Holder	Water-Jacketed Cuvette Holder	Auto Cuvette Changer Holder
No. of Cells	1	4	8
Size of Cell	10mm square	10mm square	1mm / 2mm / 3mm / 5mm rectangular or 10mm square
E-SP Models	E-SP1100-V-P and E-SP1100-UV-P		



Holder Code	E-SP-H4-10	E-SP-H4-50	E-SP-H4-100	E-SP-H1C-D16	E-SP-H1-Micro	E-SP-H1TT-D22	E-SP-H1SS-D3
Holder							
Type	Cuvette Holder	Cuvette Holder	Cuvette Holder	Cylindrical Holder	Micro Cuvette Holder	Test Tube Holder	Solid Sample Holder
No. of Cells	4	4	4	1	1	1	1
Size of Cell	10mm square	10mm square to 50mm rectangular	up to 100mm rectangular	16mm diameter	100µl / 200µl / 500µl	8mm - 22mm diameter	1.5mm - 3mm diameter
E-SP Models	Included, All	All	All	All	All	All	All

NOTE: Various size cuvettes available on request.