PRODUCT SPECIFICATIONS

Precision performance for advanced analysis

Evolution Pro UV-Visible Spectrophotometer



The Thermo Scientific[™] Evolution[™] Pro UV-Visible (UV-Vis) Spectrophotometer is designed to meet the current challenges and requirements of the pharmaceutical, industrial QA/QC, chemical, environmental, materials science, academic, life science, and food and beverage laboratories.

Comprehensive and powerful software completes your Evolution Pro System

- Thermo Scientific[™] Insight[™] Pro Software offers sophisticated tools for data acquisition, analysis, and reporting in general research and quality control environments
- Thermo Scientific[™] Insight[™] Pro Security Software offers advanced security options and complete tools for achieving current 21 CFR Part 11 compliance





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		EVOLUTION Pro UV-Vis Spectrophotometer
Optical design		Modified Ebert Double beam with sample and reference cuvette/accessory positions
Spectral bandwidth(s)		Selectable 0.5, 1.0, 1.5, 2.0, 4.0 nm
Light source		Xenon flash lamp Typical lifetime: >5 years; longer if not using live display Warranty period: 3-year source replacement warranty
Detector		Detector dual-matched silicon photodiodes
Grating		Holographic, 1200 lines/mm, blazed at 240 nm
Beam separation		210 mm
Scan ordinate modes		Absorbance, % Transmittance, % Reflectance, Kubelka-Munk, Log(1/R), Log(Abs), ABS × Factor, Intensity, 1st–4th Derivative
Wavelength	Range	190–1100 nm
	Accuracy	±0.20 nm (546.07 nm Hg emission line) ±0.30 nm (190–900 nm)
	Repeatability	≤0.05 nm (546.1 nm mercury line, SD of 10 measurements)
Scanning speed		Variable, up to 6000 nm/min
Data intervals		10, 5, 2, 1, 0.5, 0.2, 0.1, 0.05 nm
Photometric	Range	>4 A
	Display Range	±6 A
	Accuracy – Instrument*	1A: ±0.004 A 2A: ±0.004 A 3A: ±0.006 A
	Repeatability	1A: ±0.0001 A
	Noise	0A: <0.00018 A 1A: <0.00022 A 2A: <0.00050 A 500 nm, 2.0 nm SBW, RMS
	Drift (Stability)	<0.0005 A/hour 500 nm, 2.0 nm SBW, 2 hour warm-up
Stray light		KCl, 198 nm: ≤0.4% T Nal, 220 nm: ≤0.032% T NaNO₂, 340 nm: <0.01% T
Baseline flatness		±0.0001 A (200–800 nm) 2.0 nm SBW, smoothed
Dimensions (W \times D \times H)		609 × 526 × 270 mm (23.9" x 20.7" x 10.6")
Weight		20 kg (44 lb)
Electrical supply		100–240 V, 50–60 Hz

* Measured at 440 nm using neutral density filters traceable to NIST. When testing instrument performance, the specification used for pass/fail determination is the sum of the instrument specification listed here and the uncertainty in the calibration data for the filter, listed on the calibration certificate.

For pharmacopeia specifications and more, please visit thermofisher.com/evolution

