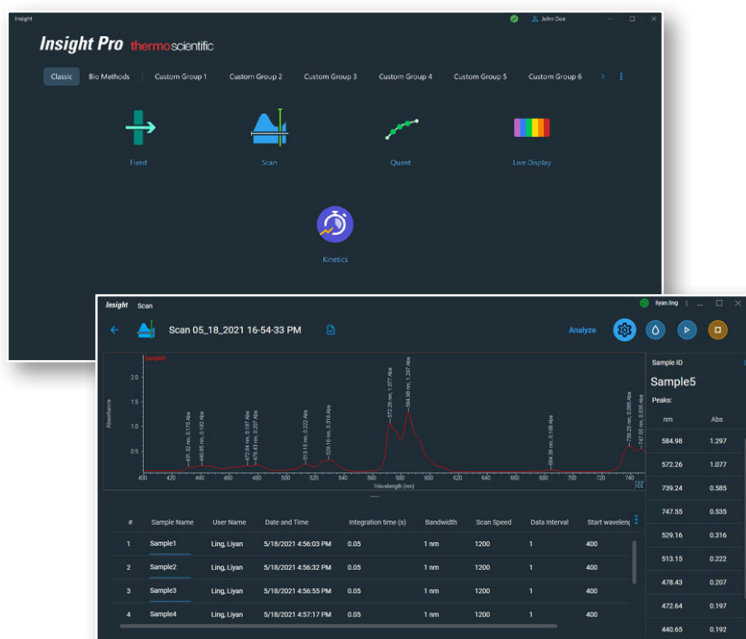


Evolution One and One Plus UV-Visible Spectrophotometers

Typical performance specifications



The Thermo Scientific™ Evolution™ One Series UV-Visible (UV-Vis) Spectrophotometers offer unrivaled features and performance with a modern, double-beam design; large, room-light resistant sample compartment; and complete line of accessories. Thermo Scientific™ Insight™ Pro Software streamlines your workflows and provides maximum support for all your analytical needs with comprehensive and versatile Fixed, Scan, Quant and Rate applications.

Evolution One features a 1.0 nm spectral bandwidth for high-resolution data in routine quality control and basic research applications.

Evolution One Plus increases the versatility of your system with a selectable bandwidth option for a wider variety of applications. Use with fiber optic probes and integrating spheres for optimal performance with these accessories.



Typical performance specifications

		EVOLUTION One UVA-Vis Spectrophotometer	EVOLUTION One Plus UVA-Vis Spectrophotometer
Optical design		<ul style="list-style-type: none"> • Double-beam with sample and reference cuvette positions • Czerny-Turner Monochromator 	<ul style="list-style-type: none"> • Double-beam with sample and reference cuvette positions • Application Focused Beam Geometry • Czerny-Turner Monochromator
Spectral bandwidth(s)		1.0 nm	Variable: 1.0 nm; 2.0 nm; AFBG Microcell optimized; AFBG Fiber optic optimized; AFBG Materials optimized
Light source		Xenon Flash Lamp, 3-year warranty (7 years typical lifetime)	
Detector		Dual Silicon Photodiodes	
Scan ordinate modes		Absorbance, % Transmittance, % Reflectance, Kubelka-Munk, log (1/R), log (Abs), Abs*Factor, Intensity	
Wavelength	Range	190–1100 nm	
	Accuracy	±0.2 nm (541.9 nm xenon, 546.1 nm mercury lines) ±0.5 nm (full range 190–1100 nm)	
	Reproducibility	≤0.01 nm (546.1 nm mercury line, SD of 10 measurements)	
Scanning speed		<1 to 6000 nm/min; variable	
Data intervals		10, 5, 2, 1.0, 0.5, 0.2, 0.1 nm	
Photometric	Range	>3.5 A	
	Display Range	-0.3 to 4.0 A	
	Accuracy—Instrument*	1A: +/- 0.002A 2A: +/- 0.004A Measured at 440 nm using neutral density filters traceable to NIST	
	Repeatability	1A: ± 0.0002A	
	Noise	0A: ≤ 0.00015 A 1A: ≤ 0.00010 A 2A: ≤ 0.00025 A 260 nm, 1.0 nm SBW, RMS	
	Drift (Stability)	<0.0005 A/hr 500 nm, 1.0 nm SBW, 1 hour warm-up	
Stray light		KCl, 198 nm: ≤0.40% T NaI, 220 nm: ≤0.027% T NaNO ₂ , 340 nm: <0.025% T	
Baseline flatness		±0.0006 A 200–800 nm, 1.0 nm SBW, smoothed	
Dimensions (W × D × H)		593 × 475 × 266 mm (23.3" × 18.7" × 10.6")	
Weight		14.5 kg (32 lb)	
Electrical supply		100–240 V, 50–60 Hz, selected automatically 150 W maximum	

*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.

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