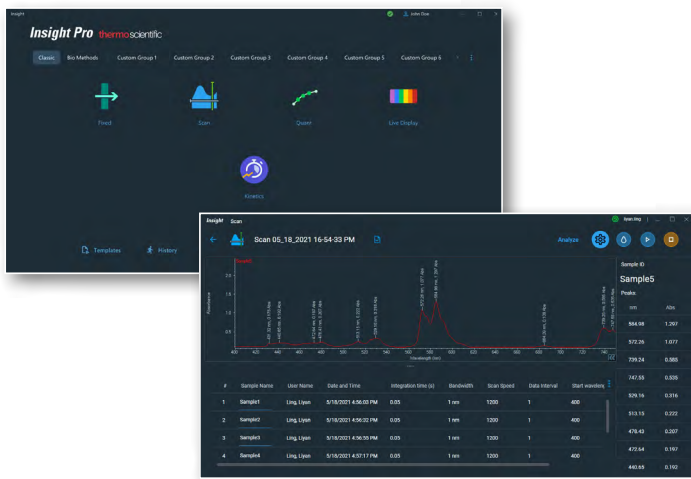


Evolution One and One Plus UV-Visible Spectrophotometers

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 UV-Vis Spectrophotometer	EVOLUTION One Plus UV-Vis Spectrophotometer
Optical design		Double-beam with sample and reference cuvette positions Czerny-Turner Monochromator	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)	
	Repeatability	≤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: ±0.002 A 2A: ±0.004 A Measured at 440 nm using neutral density filters traceable to NIST	
	Repeatability	1A: ±0.0001 A	
	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.

For pharmacopeia specifications and more, please visit

thermofisher.com/evolution

ThermoFisher
SCIENTIFIC

For research use only. Not for use in diagnostic procedures. For current certifications, visit thermofisher.com/certifications.

© 2021 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified. **PS53459_E 0921 M**