Specifications

	Evolution 201 UV-Visible Spectrophotometer	Evolution 220 UV-Visible 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 nm; 2 nm; AFBG Microcell optimized; AFBG Fiber optic optimized; AFBG Materials optimized
Light Source	Xenon flash lamp, 3-year warranty (5 years typical lifetime)	
Detector	Dual Silicon Photodiodes	
Scan Ordinate Modes	Absorbance, % Transmittance, % Reflectance, Kubelka-Munk, log (1/R), log (Abs), Abs*Factor, Intensity	
Resolution	>1.6 (peak-to-valley ratio; toluene in hexane)	
Wavelength		
Range	190–1100 nm	
Accuracy	±0.8 nm (full range 190 to 1100 nm) ±0.5 nm (546.11 nm mercury line)	
Repeatability	≤0.1 nm (546.11 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	0.5 A: ±0.004 A 1A: ±0.006 A 2A: ±0.010 A Measured at 440 nm using neutral density filters traceable to NIST/NPL	
Accuracy – Sealed Solutions (EP/BP/TGA)	±0.010 A (60 mg/L $K_2Cr_2O_7$)	
Noise	0A: ≤0.00015 A 1A: ≤0.00050 A 2A: ≤0.00080 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: ≤1% T NaI, 220 nm: ≤0.05% T $NaNO_2$,340 nm: <0.05% T	
Baseline Flatness	±0.0010 A 200–800 nm, 1.0 nm SBW, smoothing	
Keypad	Sealed Membrane	
Local Control Option		
Display	Touchscreen LCD panel; 800 × 480; 17.8 cm (7 in) diagonal	
Operating System	Microsoft Windows XP embedded	
Dimensions	62.2 cm L × 48.6 cm W × 27.9 cm H (24" L × 19" W × 11" H)	
Weight	14.4 kg (32 lb)	
Electrical Supply	100–240 V, 50–60 Hz, selected automatically 150 W maximum	

www.thermoscientific.com/uv-vis

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