

Waters® 2487 Dual λ Absorbance Detector

Waters 2487 detector is the most sensitive and versatile absorbance detector available for HPLC. With easy programming from the front panel keypad, timesaving qualification derived from the built-in cuvette capability, and dual wavelength operation, the 2487 detector will enhance the productivity of any chromatography laboratory. The 2487 detector can operate either as a stand-alone, modular UV/Vis absorbance detector or an integral component of several Waters HPLC Systems. All performance specifications are for the 2487 detector following a warm-up period of one hour.

Operating Specifications

Wavelength Range	190-700 nm
Light Source	Deuterium arc lamp, 2000-hour warranty
Bandwidth	5 nm
Wavelength Accuracy	± 1 nm
Wavelength Repeatability	± 0.1 nm
*Linearity	$\leq 5\%$ at 2.5 AU propylparaben, 257 nm
*Baseline Noise, Single Wavelength	$< \pm 0.35 \times 10^{-5}$ AU, dry cell, 254 nm, 1 sec. TC
*Baseline Noise, Dual Wavelength	$< \pm 2.5 \times 10^{-5}$ AU, dry cell, 254, 280 nm, 2 sec. TC
Drift	1×10^{-4} AU/hour
Measurement Range	0.0001 - 4.0000 AUFS
Filter Setting, Single Wavelength Mode	0.1-5 seconds (Hamming) 1-99 seconds (optional RC)
Filter Setting, Dual Wavelength Mode	1-50 seconds (Hamming) 1-99 seconds (optional RC)
Flow Cell Design	TaperSlit™ (patented**)
Path Length	10 mm (standard analytical cell)
Cell Volume	10 μ L (standard analytical cell)
Pressure Limit	1000 psi (standard analytical cell)
Wetted Materials	316 stainless steel, fused silica, Teflon®
Optional TaperSlit Flow Cells	Semi-preparative, Inert (Titanium) High pressure for LC/MS, Microbore
Memory	10 time-programmed methods, 5 complete spectra
Analog Outputs	Two, software selectable: Absorbance Energy, Log Absorbance, RatioPlot, MaxPlot
Inputs	Remote Chart Mark, Auto Zero, Lamp On/Off, and Inject Start
IEEE-488 Bus	Standard for use with Waters Data Products, System Controllers, and Instruments
Power-up Diagnostics	Optics and electronic diagnostic routine
Lamp On/Off Timer	Front panel, remote event input, or time programmable
Deuterium Lamp	Warranty: 2000 hours or 1 year, whichever comes first
Power-up Wavelength Verification	Automatic on power up via internal erbium filter (patent pending) and D ₂ lamp
4-Point Wavelength Calibration	On demand via internal erbium filter and D ₂ lamp

*ASTM E1657-94

** Patent Number: 5,883721 (U.S.)

Physical/Environmental Specifications

Dimensions	Width: 11.2 inches (28.4 cm) Height: 8.2 inches (20.8 cm) Depth: 19.8 inches (50.3 cm) Weight: 20.5 pounds (9.3 kg)
Operating Temperature	+4° C to 40° C
Operating Humidity	20 to 80%, non-condensing
Audible Noise	<70 dB (A)

Electrical Specifications/Needs

Power Requirements	100 VAC (85-110 V) 120 VAC (102-132 V) 220 VAC (187-242 V) 240 VAC (204-264 V)
Line Frequency	50 Hz (47 to 53 Hz) 60 Hz (57 to 63 Hz)
Power Consumption	145 VA (nominal)

Ordering Information

2487 Dual λ Absorbance Detector (Analytical TaperSlit cell standard)	WAT081110
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Optional TaperSlit Flow Cells:

Semi-preparative 3 mm path length, 2.6 μ L volume	WAT081158
Inert (Titanium), Analytical 10 mm path length, 10 μ L volume	WAT081157
Microbore 3 mm path length, 2.6 μ L volume	WAT081159
High Pressure for LC/MS (3000 psi) 10 mm path length, 10 μ L volume	WAT081321

Waters 2487 Detector Qualification Workbooks	WAT520-01
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Absorbance Detector Cuvette Kits:

Linearity Cuvette Kit	WAT047691
Wavelength Accuracy Cuvette Kit	WAT047690
Two Cuvette Set (empty)	WAT047689

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