

Model 500 Variable UV/Vis Detector

Precise ♦ Reliable ♦ Affordable



A Flexible, High-Performance UV/Vis Detector

Maximize sensitivity through continuously variable wavelength optimization

A standard deuterium lamp and optional tungsten lamp cover the entire UV/Vis spectrum, giving you the ability to work at λ_{max} . Both lamps are prealigned.

Convenient front panel controls

A front panel mechanical drive lets you quickly and accurately select and display on the readout any wavelength in the lamp's range. Push-button diagnostics add to the user-friendliness of this detector.

Manual or remote autozero

Rezeroing the baseline is done at the push of a button or through a remote-controlled event for automated systems.

High sensitivity for your most demanding applications

A 12-position front panel switch allows range settings from 0.0005 to 2.0 AUFS. The second-order Bessel filter, fiber optics, and proprietary circuitry make this the most sensitive detector available.

Flow cells for every application

Flow cells are available in Type 316 stainless steel or chemically inert, biocompatible Kel-F®*, for applications from microbore to preparative scales. Superior design gives unmatched versatility and performance.

Easy access and maintenance

Easy access to the flow cell and lamp ensure quick maintenance and minimum down-time.

* Kel-F is a registered trademark of 3M Company

Model 500 Variable UV/Vis Detector

Product description

Variable wavelength, high sensitivity, and a selection of flow cells make the Model 500 Detector ideal for liquid chromatography applications from microbore to preparative scales.

A direct mechanical drive on the unit's front panel sets the desired wavelength. The standard deuterium lamp covers UV wavelengths; an optional tungsten lamp is available for visible wavelengths. The lamps are prealigned, readily accessible, and can be easily changed.

The Model 500 features 12 switch-selectable absorbance ranges. Low-noise electronics, high-noise rejection filtering, and low-loss optics preserve the detector's high sensitivity and ensure low-noise, low-drift performance.

Flow cells are available to support a full range of applications, from microbore to prep. These cells eliminate dead volume and minimize refractive index contributions. The standard is a 6 mm, 9 μ L, Type 316 stainless steel cell for analytical HPLC applications. Kel-F® flow cells are available for biocompatible applications; flow cells for microbore and capillary electrophoresis applications are also available. A variable path length (0-3 mm) prep cell can be used to adapt the Model 500 to preparative or large-scale separations. The flow cell compartment is located outside the main instrument housing for easy access.

The Model 500 also features autozero and event marking using front and rear panel controls. The unit can be zeroed manually from the front panel or automatically using an event switch connected to the rear panel.

A variety of flow cells and other detector accessories are available for the Model 500. Contact your distributor for more information.

Specifications

Range	UV, 190-360 nm (deuterium lamp) Visible, 360-800 nm (optional tungsten lamp)
Monochromator	Holographic grating
Bandwidth	6 nm
Wavelength Accuracy (Mechanical drive)	± 1 nm
Wavelength Reproducibility	± 0.1 nm
Noise	$\pm 1 \times 10^{-5}$ AU, typical
Drift	2×10^{-4} AU/hr.
Absorbance range	0.0005 to 2.0 AUFS (12 range settings)
Integrator outputs	1 V/AU
Recorder outputs (Full scale)	10 mV, 100 mV, 1V
Rise times	0.025, 0.1, 0.3, 1.0, or 3.0 seconds
Dimensions	9.75" (24.8 cm) W 6.25" (16.6 cm) H 13.25" (33.7 cm) L
Weight	20 lbs. (9.1 kg)
Power	100, 110, 220/240 Vac; 50/60 Hz; 125 W

Ordering information

Description	Part No.
Model 500 Detector, Bioclean flow cell, 120V	200346
Model 500 Detector, Stainless flow cell, 120V	200344
Model 500 Detector, Stainless flow cell, 220V	200345
Lamps	
Replacement Deuterium Lamp (UV)	201305
Optional Tungsten Lamp (Vis)	201306
Flow Cells	
Analytical HPLC, 6 mm, 9 μ L, Stainless	201313
Biocompatible, 6 mm, 9 μ L, Kel-F®	201307
HP Microbore, 2 mm, 250 nL, 7000 psi, Stainless	201341
Capillary electrophoresis (capillary-dependent)	201308