

Agilent 1260 Infinity Variable Wavelength Detector

Features, Technical Details, Specifications and Ordering Details



Highest sensitivity for HPLC and RRLC

The Agilent 1260 Infinity Variable Wavelength Detector (VWD) provides time-programmable wavelength switching for optimum sensitivity and selectivity for your applications. New electronics and optics offers lowest detector noise $< \pm 2.5 \mu\text{AU}$ and lowest baseline drift $(< 1 \times 10^{-4} \text{ AU/h})$ for precise quantification of trace levels.

Features

- High sensitivity with lowest baseline drift achieved by significant hardware improvements over the most successful predecessor Agilent 1200 Series VWD.
- Electronic temperature control (ETC) – maximum baseline stability and practical sensitivity under fluctuating ambient temperature and humidity conditions.
- Up to 100% resolution gain in fast LC by 80 Hz data acquisition rate.
- Wide linear range – for reliable, simultaneous quantification of primary compounds, by-products and impurities.
- Stop-flow wavelength scanning for quick wavelength optimization.
- Radio frequency identification (RFID) technology for flow cells and lamps - a new level of data traceability.
- Automatic wavelength verification by built-in holmium oxide filter.
- Extensive diagnostics, error detection and display with Instant Pilot controller and Agilent Lab Advisor software.
- Early maintenance feedback (EMF) for continuous tracking of instrument usage in terms of lamp burn-time with user-settable limits and feedback messages.
- Front access to lamps and flow cells enables fast and convenient maintenance for maximum uptime.

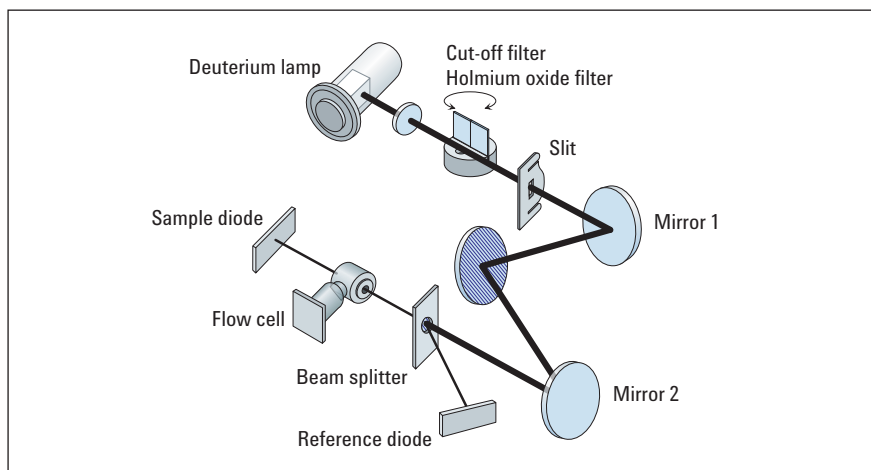


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Technical Details – Agilent 1260 Variable Wavelength Detector

Reliability and robustness

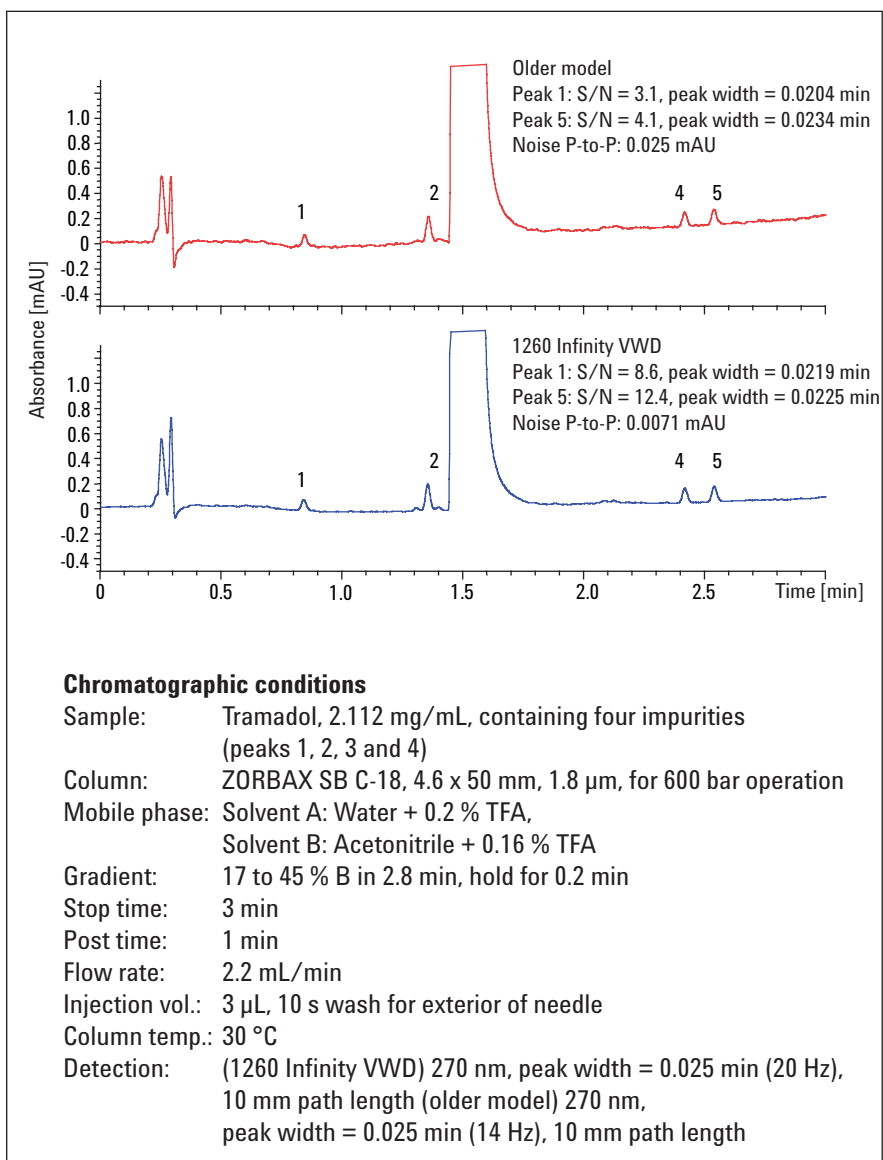
Based on the proven design of the 1200 Series VWD the 1260 Infinity VWD includes reworked parts for significant improvements in performance. The electronic temperature control (ETC) provides maximum baseline stability and practical sensitivity under fluctuating ambient temperature and humidity conditions.



The holmium oxide filter swings into the light path to verify that the wavelength matches the set points.

Superior linear range

With a linear range of up to 2.5 AU the 1260 Infinity VWD allows the reliable, simultaneous quantification of primary compounds, by-products and impurities.



Analysis of impurities at levels <0.03 % of main component.

Specifications – Agilent 1260 Infinity Variable Wavelength Detector

Specifications: Agilent 1260 Infinity Variable Wavelength Detector (G1314F)	
Detection type	Double-beam photometer
Light source	Deuterium lamp
Number of signals	1
Maximum data rate	80 Hz
Noise	$< \pm 0.25 \times 10^{-5}$ AU, at 230 nm*
Drift	1×10^{-4} AU/hr, at 230 nm
Linearity	>2.5 AU upper limit
Wavelength range	190-600 nm
Wavelength accuracy	± 1 nm, self-calibration with deuterium lines, verification with holmium oxide filter
Slit width	6.5 nm typical over whole wavelength range
Time programmable	Wavelength, polarity, peak width, lamp on/off
Flow cells	<p>Standard: 14 μL volume, 10 mm cell path length and 40 bar (580 psi) pressure maximum</p> <p>High pressure (for SFC): 14 μL volume, 10 mm cell path length and 400 bar (5802 psi) pressure maximum</p> <p>Micro: 2 μL volume, 3 mm cell path length and 120 bar (1741 psi) pressure maximum</p> <p>Semi-micro: 5 μL volume, 6 mm cell path length and 40 bar (580 psi) pressure maximum</p>
Spectral tools	Stop-flow wavelength scan
Analog output	Recorder/Integrator 100 mV or 1 V, 1 output
Communication	LAN, Controller-area network (CAN), RS-232C, APG Remote: ready start, stop and shut-down signals
GLP features	Early maintenance feedback (EMF) for continuous tracking of instrument usage in terms of lamp burn time with user settable limits and feedback messages. Electronic records of maintenance and errors. RFID for electronics records of flow cell and UV lamp conditions (path length, volume, product number, serial number, test passed, and usage). Verification of wavelength accuracy with built-in holmium oxide filter.
Safety and maintenance	Extensive diagnostics, error detection and display through Agilent Instant Pilot and Agilent Lab Advisor software. Leak detection, safe leak handling, leak output signal for shutdown of pumping system. Low voltages in major maintenance areas.
Others	Electronic temperature ETC for complete optical unit

*Under specified conditions

Specifications – Agilent 1260 Infinity Variable Wavelength Detector VL (G1314B)

Specifications: Agilent 1260 Infinity Variable Wavelength Detector VL (G1314B)	
Detection type	Double-beam photometer
Light source	Deuterium lamp
Number of signals	1
Maximum data rate	13 Hz
Noise	$< \pm 0.5 \times 10^{-5}$ AU, at 230 nm*
Drift	3×10^{-4} AU/hr, at 230 nm
Linearity	>2.0 AU upper limit
Wavelength range	190-600 nm
Wavelength accuracy	± 1 nm, self-calibration with deuterium lines, verification with holmium oxide filter
Slit width	6.5 nm typical over whole wavelength range
Time programmable	Wavelength, polarity, peak width, lamp on/off
Flow cells	<p>Standard: 14 μL volume, 10 mm cell path length and 40 bar (580 psi) pressure maximum</p> <p>High pressure (for SFC): 14 μL volume, 10 mm cell path length and 400 bar (5802 psi) pressure maximum</p> <p>Micro: 2 μL volume, 3 mm cell path length and 120 bar (1741 psi) pressure maximum</p> <p>Semi-micro: 5 μL volume, 6 mm cell path length and 40 bar (580 psi) pressure maximum</p>
Spectral tools	Stop-flow wavelength scan
Analog output	Recorder/Integrator 100 mV or 1 V, 1 output
Communication	LAN, Controller-area network (CAN), RS-232C, APG Remote: ready start, stop and shut-down signals
GLP features	Early maintenance feedback (EMF) for continuous tracking of instrument usage in terms of lamp burn time with user settable limits and feedback messages. Electronic records of maintenance and errors. Verification of wavelength accuracy with built-in holmium oxide filter.
Safety and maintenance	Extensive diagnostics, error detection and display through Agilent Instant Pilot and Agilent Lab Advisor software. Leak detection, safe leak handling, leak output signal for shutdown of pumping system. Low voltages in major maintenance areas.

Specifications – Agilent 1260 Infinity Variable Wavelength Detector VL Plus (G1314C)

Agilent 1260 Infinity Variable Wavelength Detector VL Plus (G1314C)	
Detection type	Double-beam photometer
Light source	Deuterium lamp
Number of signals	1
Maximum data rate	55 Hz
Noise	$< \pm 0.5 \times 10^{-5}$ AU, at 230 nm*
Drift	$< 3 \times 10^{-4}$ AU/hr, at 230 nm
Linearity	>2.0 AU upper limit
Wavelength range	190-600 nm
Wavelength accuracy	± 1 nm, self-calibration with deuterium lines, verification with holmium oxide filter
Slit width	6.5 nm typical over whole wavelength range
Time programmable	Wavelength, polarity, peak width, lamp on/off
Flow cells	<p>Standard: 14 μL volume, 10 mm cell path length and 40 bar (580 psi) pressure maximum</p> <p>High pressure (for SFC): 14 μL volume, 10 mm cell path length and 400 bar (5802 psi) pressure maximum</p> <p>Micro: 2 μL volume, 3 mm cell path length and 120 bar (1741 psi) pressure maximum</p> <p>Semi-micro: 5 μL volume, 6 mm cell path length and 40 bar (580 psi) pressure maximum</p>
Spectral tools	Stop-flow wavelength scan
Analog output	Recorder/Integrator 100 mV or 1 V, 1 output
Communication	LAN, Controller-area network (CAN), RS-232C, APG Remote: ready start, stop and shut-down signals
GLP features	Early maintenance feedback (EMF) for continuous tracking of instrument usage in terms of lamp burn time with user settable limits and feedback messages. Electronic records of maintenance and errors. Verification of wavelength accuracy with built-in holmium oxide filter.
Safety and maintenance	Extensive diagnostics, error detection and display through Agilent Instant Pilot and Agilent Lab Advisor software. Leak detection, safe leak handling, leak output signal for shutdown of pumping system. Low voltages in major maintenance areas.

Ordering Details – Agilent 1260 Infinity Variable Wavelength Detector

Description	Product Number
Agilent 1260 Infinity Variable Wavelength Detector Includes CAN cable, LAN interface with cable. Must order one flow cell.	G1314F
Standard flow cell 10-mm path length, 14 μ L volume, 40 bar maximum pressure.	#018
Semi-micro flow cell 6 mm path length, 5 μ L volume, 40 bar maximum pressure.	#016
Micro Flow Cell 3 mm path length, 2 μ L volume, 120 bar maximum pressure.	#010
High pressure flow cell (for SFC) 10-mm path length, 14 μ L volume, 400 bar maximum pressure.	#021

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