

# 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.

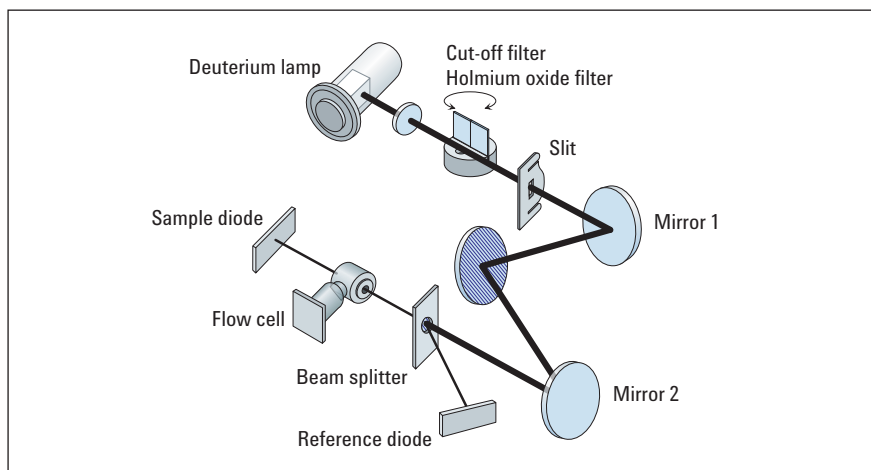


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# Technical Details – Agilent 1260 Variable Wavelength Detector

## Reliability and robustness

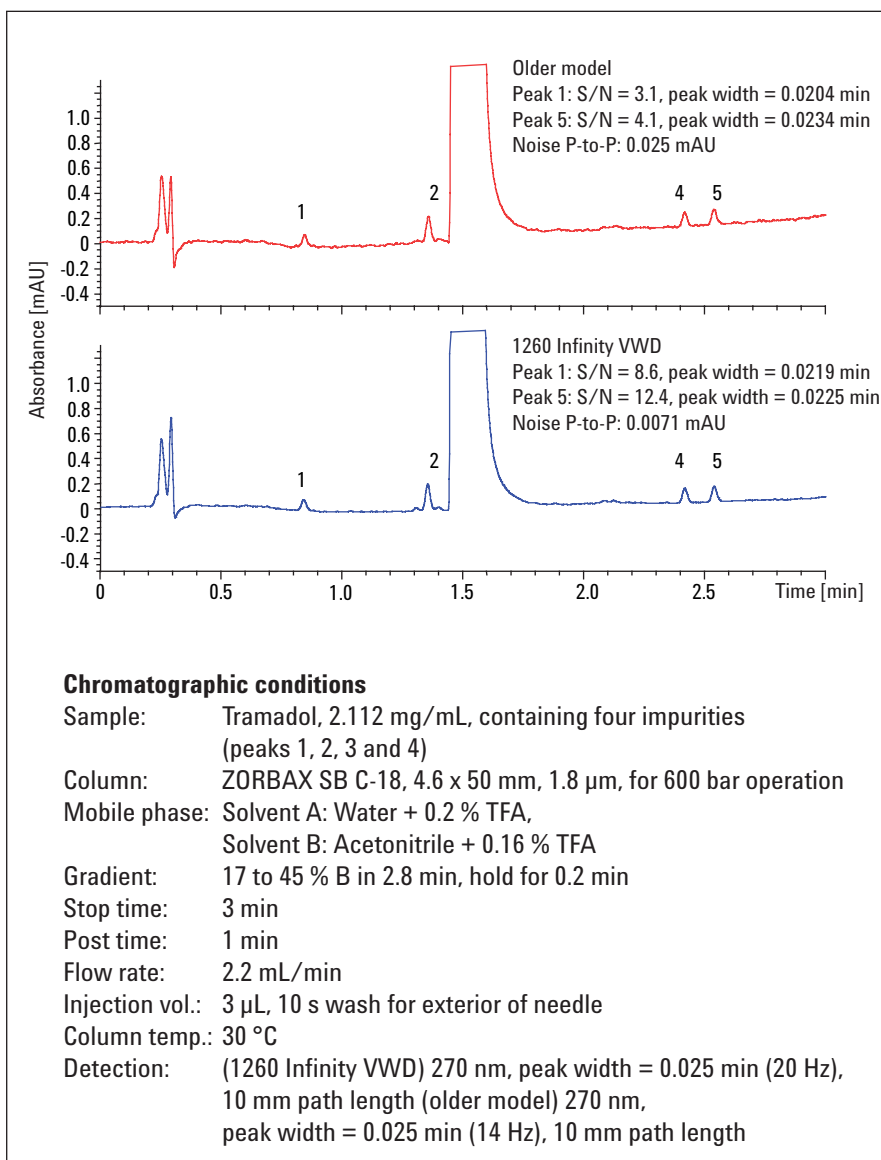
Based on the proven design of the 1200 Series VWD the 1260 Infinity VWD includes reworked parts for significant improvements in performance. The electronic temperature control (ETC) provides maximum baseline stability and practical sensitivity under fluctuating ambient temperature and humidity conditions.



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)	
<b>Detection type</b>	Double-beam photometer
<b>Light source</b>	Deuterium lamp
<b>Number of signals</b>	1
<b>Maximum data rate</b>	80 Hz
<b>Noise</b>	$< \pm 0.25 \times 10^{-5}$ AU, at 230 nm*
<b>Drift</b>	$1 \times 10^{-4}$ AU/hr, at 230 nm
<b>Linearity</b>	>2.5 AU upper limit
<b>Wavelength range</b>	190-600 nm
<b>Wavelength accuracy</b>	$\pm 1$ nm, self-calibration with deuterium lines, verification with holmium oxide filter
<b>Slit width</b>	6.5 nm typical over whole wavelength range
<b>Time programmable</b>	Wavelength, polarity, peak width, lamp on/off
<b>Flow cells</b>	<p><b>Standard:</b> 14 <math>\mu</math>L volume, 10 mm cell path length and 40 bar (580 psi) pressure maximum</p> <p><b>High pressure (for SFC):</b> 14 <math>\mu</math>L volume, 10 mm cell path length and 400 bar (5802 psi) pressure maximum</p> <p><b>Micro:</b> 2 <math>\mu</math>L volume, 3 mm cell path length and 120 bar (1741 psi) pressure maximum</p> <p><b>Semi-micro:</b> 5 <math>\mu</math>L volume, 6 mm cell path length and 40 bar (580 psi) pressure maximum</p>
<b>Spectral tools</b>	Stop-flow wavelength scan
<b>Analog output</b>	Recorder/Integrator 100 mV or 1 V, 1 output
<b>Communication</b>	LAN, Controller-area network (CAN), RS-232C, APG Remote: ready start, stop and shut-down signals
<b>GLP features</b>	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.
<b>Safety and maintenance</b>	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.
<b>Others</b>	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)	
<b>Detection type</b>	Double-beam photometer
<b>Light source</b>	Deuterium lamp
<b>Number of signals</b>	1
<b>Maximum data rate</b>	13 Hz
<b>Noise</b>	$< \pm 0.5 \times 10^{-5}$ AU, at 230 nm*
<b>Drift</b>	$3 \times 10^{-4}$ AU/hr, at 230 nm
<b>Linearity</b>	>2.0 AU upper limit
<b>Wavelength range</b>	190-600 nm
<b>Wavelength accuracy</b>	$\pm 1$ nm, self-calibration with deuterium lines, verification with holmium oxide filter
<b>Slit width</b>	6.5 nm typical over whole wavelength range
<b>Time programmable</b>	Wavelength, polarity, peak width, lamp on/off
<b>Flow cells</b>	<p><b>Standard:</b> 14 <math>\mu</math>L volume, 10 mm cell path length and 40 bar (580 psi) pressure maximum</p> <p><b>High pressure (for SFC):</b> 14 <math>\mu</math>L volume, 10 mm cell path length and 400 bar (5802 psi) pressure maximum</p> <p><b>Micro:</b> 2 <math>\mu</math>L volume, 3 mm cell path length and 120 bar (1741 psi) pressure maximum</p> <p><b>Semi-micro:</b> 5 <math>\mu</math>L volume, 6 mm cell path length and 40 bar (580 psi) pressure maximum</p>
<b>Spectral tools</b>	Stop-flow wavelength scan
<b>Analog output</b>	Recorder/Integrator 100 mV or 1 V, 1 output
<b>Communication</b>	LAN, Controller-area network (CAN), RS-232C, APG Remote: ready start, stop and shut-down signals
<b>GLP features</b>	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.
<b>Safety and maintenance</b>	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)	
<b>Detection type</b>	Double-beam photometer
<b>Light source</b>	Deuterium lamp
<b>Number of signals</b>	1
<b>Maximum data rate</b>	55 Hz
<b>Noise</b>	$< \pm 0.5 \times 10^{-5}$ AU, at 230 nm*
<b>Drift</b>	$< 3 \times 10^{-4}$ AU/hr, at 230 nm
<b>Linearity</b>	>2.0 AU upper limit
<b>Wavelength range</b>	190-600 nm
<b>Wavelength accuracy</b>	$\pm 1$ nm, self-calibration with deuterium lines, verification with holmium oxide filter
<b>Slit width</b>	6.5 nm typical over whole wavelength range
<b>Time programmable</b>	Wavelength, polarity, peak width, lamp on/off
<b>Flow cells</b>	<p><b>Standard:</b> 14 <math>\mu</math>L volume, 10 mm cell path length and 40 bar (580 psi) pressure maximum</p> <p><b>High pressure (for SFC):</b> 14 <math>\mu</math>L volume, 10 mm cell path length and 400 bar (5802 psi) pressure maximum</p> <p><b>Micro:</b> 2 <math>\mu</math>L volume, 3 mm cell path length and 120 bar (1741 psi) pressure maximum</p> <p><b>Semi-micro:</b> 5 <math>\mu</math>L volume, 6 mm cell path length and 40 bar (580 psi) pressure maximum</p>
<b>Spectral tools</b>	Stop-flow wavelength scan
<b>Analog output</b>	Recorder/Integrator 100 mV or 1 V, 1 output
<b>Communication</b>	LAN, Controller-area network (CAN), RS-232C, APG Remote: ready start, stop and shut-down signals
<b>GLP features</b>	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.
<b>Safety and maintenance</b>	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
<b>Agilent 1260 Infinity Variable Wavelength Detector</b> Includes CAN cable, LAN interface with cable. Must order one flow cell.	G1314F
<b>Standard flow cell</b> 10-mm path length, 14 $\mu$ L volume, 40 bar maximum pressure.	#018
<b>Semi-micro flow cell</b> 6 mm path length, 5 $\mu$ L volume, 40 bar maximum pressure.	#016
<b>Micro Flow Cell</b> 3 mm path length, 2 $\mu$ L volume, 120 bar maximum pressure.	#010
<b>High pressure flow cell (for SFC)</b> 10-mm path length, 14 $\mu$ L volume, 400 bar maximum pressure.	#021

[www.agilent.com/chem/1200](http://www.agilent.com/chem/1200)

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 Published in USA, July 1, 2010  
 Publication Number 5990-6105EN



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