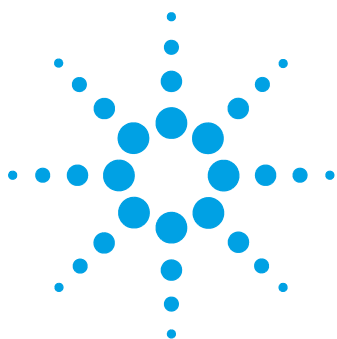




Agilent 1260 Infinity II Diode Array Detector HS

Data Sheet



Product Description

The Agilent 1260 Infinity II Diode Array Detector HS with fixed slit design is based on the Agilent Max-Light cartridge cell with optofluidic waveguides. These improve light transmission to near 100 % efficiency without sacrificing resolution caused by cell dispersions effects. With typical detector noise levels of less than $\pm 0.6 \mu\text{AU}/\text{cm}$, the revolutionary 60 mm flow cell gives up to 10-times higher sensitivity than detectors with conventional flow cells. Any compromising refractive index and thermal effects are almost completely eliminated, resulting in significantly less baseline drift for more reliable and precise peak integration. Multiple wavelength and full spectral detection with up to 120 Hz data rates allows precise identification, quantification, and purity analysis at trace levels for fast LC separations.

Features

- High sensitivity - Universal Agilent Max-Light standard cartridge cell with 10 mm optical path length provides high sensitivity (noise: less than $\pm 3 \mu\text{AU}$) and low peak dispersion for 2.1, 3.0 and 4.6 mm id columns.
- Keeps pace with fast analysis speeds - with multiple wavelength and full spectral detection at a high sampling rate of 120 Hz.
- More reliable and robust peak integration process - through less baseline drift.
- Full spectral detection - for compound identification by spectral libraries or verification of the separation quality with peak purity analysis for ultrafast LC. Simultaneous detection of up to eight signals for increased sensitivity and selectivity.
- New levels of data traceability - with radio frequency identification (RFID) technology for flow cells and lamps.
- Efficient temperature control - next generation electronic temperature control (ETC) provides maximum baseline stability and practical sensitivity under fluctuating ambient temperature and humidity conditions.



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Specifications

Table 1 Physical Specifications

Type	Specification	Comments
Weight	11.5 kg (25.4 lbs)	
Dimensions (height × width × depth)	140 x 396 x 436 mm (5.5 x 15.6 x 17.0 inches)	
Line voltage	100 – 240 V~, ± 10 %	Wide-ranging capability
Line frequency	50 or 60 Hz, ± 5 %	
Power consumption	110 VA, 100 W	
Ambient operating temperature	4 – 40 °C (39 – 104 °F)	
Ambient non-operating temperature	-40 – 70 °C (-40 – 158 °F)	
Humidity	< 95 % r.h. at 40 °C (104 °F)	Non-condensing
Operating altitude	Up to 3000 m (9842 ft)	
Non-operating altitude	Up to 4600 m (15092 ft)	For storing the module
Safety standards: IEC, EN, CSA, UL	Installation category II, Pollution degree 2	For indoor use only.
ISM Classification	ISM Group 1 Class B	According to CISPR 11

Table 2 Agilent 1260 Infinity II Diode Array Detector HS (G7117C) Performance Specifications

Feature	Specification
Detector type	1024-element diode array
Light source	Deuterium
Number of signals	8
Maximum sampling rate	120 Hz (both spectra and signals)
Short-term noise	with 10 mm Max-Light cartridge cell: $< \pm 3 \cdot 10^{-6}$ AU at 230/4 nm, slit width 4 nm, TC 2 s, ASTM with 60 mm Max-Light cartridge cell: $< \pm 0.6 \cdot 10^{-6}$ AU/cm at 230/4 nm, slit width 4 nm, TC 2 s, ASTM
Drift	$< 0.5 \cdot 10^{-3}$ AU/h at 230 nm
Linearity	> 2.0 AU (5 %) at 265 nm Typically 2.5 AU (5 %)

Table 2 Agilent 1260 Infinity II Diode Array Detector HS (G7117C) Performance Specifications

Feature	Specification
Wavelength range	190 – 640 nm
Wavelength accuracy	±1 nm, self-calibration with deuterium lines
Wavelength precision	<±0.1 nm
Diode width	~0.5 nm
Wavelength bunching	Programmable, 2 – 400 nm, in steps of 1 nm
Flow cells	User-exchangeable, self-aligning cartridge cells with RFID tags. Max-Light Cartridge Cell (Standard): 10 mm, $\sigma_V = 1.0 \mu\text{L}$ Max-Light Cartridge Cell (High Sensitivity): 60 mm, $\sigma_V = 4 \mu\text{L}$ Maximum Operating Pressure (MOP) ¹ : 70 bar Maximum Incidental Pressure (MIP) ² : 150 bar
Spectral tools	Data analysis software for spectra evaluation, including spectral libraries and peak purity functions
Analog output	Recorder/integrator: 100 mV or 1 V, output range 0.001 – 2 AU, one output
Instrument Control	Lab Advisor B.02.08 or above LC and CE Drivers A.02.14 or above For details about supported software versions refer to the compatibility matrix of your version of the LC and CE Drivers
Local Control	Agilent Instant Pilot (G4208A) B.02.20 or above
Communications	Controller-area network (CAN), USB Extended Remote Interface: ready, start, stop and shut-down signals
GLP features	RFID for electronics records of flow cell and UV lamp conditions (path length, volume, product number, serial number, test passed, usage) 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 deuterium lines.
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	Second generation of Electronic temperature control (ETC) for the complete optical unit

¹ Maximum operating pressure (MOP): Maximum pressure at which a system can operate continuously under normal conditions.

² Maximum incidental pressure (MIP): The maximum pressure which the system can experience during a short time.

Ordering Details

Description	Product Number
1260 Infinity II Diode Array Detector HS For ultra sensitivity, fast multi-wavelength and spectral analysis. Data rates of up to 120 Hz. RFID tags for cell and lamp. Includes 10 mm Standard Max-Light cartridge cell.	G7117C
60 mm High Sensitivity Max-Light cartridge cell Replacement for standard flow cell.	G7117C#030
Add 60 mm High Sensitivity Max-Light cartridge cell	G7117C#031
Test cell for 1260 Infinity II DAD HS Required for certain performance tests.	G7117C#040

www.agilent.com/chem/infinitylab-lc-series

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