



# Agilent 1260 Infinity II Fluorescence Detector

## Data Sheet



### Product Description

The Agilent 1260 Infinity II Fluorescence Detector enables detection sensitivity and selectivity optimization for your specific applications, offering time-programmable excitation and emission wavelength switching. The proven optical and electronic design provides highest sensitivity for the analysis of trace-level components. High-speed detection with up to 74 Hz data rates helps you keep pace with the analysis speed of fast LC.

### Features

- Lowest limits of detection - with a Raman S/N > 3000 (using dark signal noise reference).
- Optimized baseline stability - simplified optical design.
- Up to 100 % resolution gain in fast LC - using a 74 Hz data acquisition rate.
- Highest sensitivity - Long-life xenon flash lamp (> 4000 hours), lamp reference system, and efficient light collection ensure constant lamp energy for maximum excitation of fluorophores.
- Fast and easy maintenance - easy front access and optimized housing and door design enables fast inspection or exchange of the flow cell.
- Documentation of instrument parameters - Automatic recognition of all flow cell cartridges provides documentation of instrument parameters and helps to comply with GLP.
- Extensive analytics, error detection and display - with Instant Pilot controller and Agilent Lab Advisor software.



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## Specifications

**Table 1** Physical Specifications

Type	Specification	Comments
Weight	11.9 kg (26.2 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	70 VA, 60 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** Performance Specifications Agilent 1260 Infinity II Fluorescence Detector (G7121A)

Type	Specification	Comments
Detection type	One signal wavelength (excitation and emission)	Programmable single wavelength (excitation and emission) fluorescence detector
Performance specifications	Single wavelength operation: <ul style="list-style-type: none"> <li>• RAMAN (H<sub>2</sub>O) &gt; 500 (noise reference measured at signal) Ex=350 nm, Em=397 nm, dark value 450 nm, standard flow cell</li> <li>• RAMAN (H<sub>2</sub>O) &gt; 3000 (noise reference measured at dark value) Ex=350 nm, Em=397 nm, dark value 450 nm, standard flow cell</li> </ul>	Reference conditions: Standard cell 8 µL, response time 4 s, HPLC-grade water and restriction capillary.
Light source	Xenon Flash Lamp, normal mode 20 W, economy mode 5 W, lifetime 4000 h	
Pulse frequency	296 Hz for single signal mode 74 Hz for economy mode	
Maximum data rate	74 Hz	

**Table 2** Performance Specifications Agilent 1260 Infinity II Fluorescence Detector (G7121A)

Type	Specification	Comments
Excitation monochromator	Range: settable 200 nm - 1200 nm and zero-order Bandwidth: 20 nm (fixed) Monochromator: concave holographic grating, F/1.6, blaze: 300 nm	
Emission monochromator	Range: settable 200 nm - 1200 nm and zero-order Bandwidth: 20 nm (fixed) Monochromator: concave holographic grating, F/1.6, blaze: 400 nm	
Reference system	in-line excitation measurement	
Timetable programming	Single signal wavelength, response time, PMT Gain, baseline behavior (append, free, zero)	
Wavelength characteristic	Repeatability +/- 0.2 nm Accuracy +/- 3 nm setting	
Flow cells	Standard: 8 µL volume and 20 bar (2 MPa) pressure maximum, fused silica block	
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
Analog outputs	Recorder/integrator: 100 mV or 1 V, output range > 100 LU, two outputs	100 LU is the recommended range, see <i>"FLD Scaling Range and Operating Conditions"</i>
Communications	Controller-area network (CAN), USB Extended Remote Interface: ready, start, stop and shut-down signals	
Safety and maintenance	Extensive support for troubleshooting and maintenance is provided by the Instant Pilot, Agilent Lab Advisor, and the Chromatography Data System. Safety-related features are leak detection, safe leak handling, leak output signal for shutdown of pumping system, and low voltages in major maintenance areas.	
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, using the Raman band of water.	
Housing	All materials recyclable.	

## Ordering Details

Description	Product Number
<b>1260 Infinity II Fluorescence Detector</b> For programmable single wavelength detection (excitation and emission) up to 74 Hz data rate. Includes standard flow cell, 8 $\mu$ L.	G7121A
<b>Additional flow cells</b>	
Semi-micro flow cell 4 $\mu$ L for FLD	G1321-60015
Standard flow cell 8 $\mu$ L for FLD	G1321-60005
Bio-inert flow cell 8 $\mu$ L for FLD	G5615-60005
FLD Wavelength Calibration kit	G7121-68001

[www.agilent.com/chem/infinitylab-lc-series](http://www.agilent.com/chem/infinitylab-lc-series)

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