



Agilent 1260 Infinity II Fluorescence Detector Spectra

Data Sheet



Product Description

Agilent 1260 Infinity II Fluorescence Detector Spectra offers high-sensitivity fluorescence detection and provides quantitative data and fluorescence spectra from a single run. Simultaneous multiwavelength detection improves sensitivity and selectivity. Use the online spectral information for rapid method optimization and verification of separation quality. High-speed detection with up to 148 Hz data rates keeps pace with the analysis speed of ultrafast LC. This detector can be used with any Agilent InfinityLab LC Series system or other LC instrument.

Features

- Multisignal and online spectral data acquisition – without loss in sensitivity with rotating gratings.
- Lowest limits of detection - with a Raman S/N > 3000 (using dark signal noise reference).
- Spectra and quantitative data - from a single run.
- View online spectra - without interrupting the chromatographic run.
- Optimized baseline stability - simplified optical design.
- Up to 100 % resolution gain in fast LC - using a 148 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.



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 SPECTRA (G7121B)

Type	Specification	Comments
Detection type	Multi-signal fluorescence detector with rapid on-line scanning capabilities and spectral data analysis	
Performance specifications	<p>Single wavelength operation:</p> <ul style="list-style-type: none"> • RAMAN (H₂O) > 500 (noise reference measured at signal) Ex=350 nm, Em=397 nm, dark value 450 nm, standard flow cell • RAMAN (H₂O) > 3000 (noise reference measured at dark value) Ex=350 nm, Em=397 nm, dark value 450 nm, standard flow cell <p>Dual wavelength operation: RAMAN (H₂O) > 300 Ex 350 nm, Em 397 nm and Ex 350 nm, Em 450 nm, standard flow cell.</p>	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	148 Hz	
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 programing	up to 4 signal wavelengths, response time, PMT Gain, baseline behavior (append, free, zero), spectral parameters	

Table 2 Performance Specifications Agilent 1260 Infinity II Fluorescence Detector SPECTRA (G7121B)

Type	Specification	Comments
Spectrum acquisition	Excitation or Emission spectra Scan speed: 28 ms per datapoint (e.g. 0.6 s/spectrum 200 – 400 nm, 10 nm step) Step size: 1 – 20 nm Spectra storage: All	
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 Optional: <ul style="list-style-type: none"> • Bio-inert: 8 µL volume and 20 bar (2 MPa) pressure maximum, (pH 1–12) • Semi-Micro: 4 µL volume and 20 bar (2 MPa) pressure maximum 	
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 ERI: 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.	

Table 2 Performance Specifications Agilent 1260 Infinity II Fluorescence Detector SPECTRA (G7121B)

Type	Specification	Comments
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
1260 Infinity II Fluorescence Detector Spectra For multi-wavelength detection, on-line acquisition of Ex and Em spectra, up to 148 Hz data rate. Includes standard flow cell, 8 μ L.	G7121B
Semi-micro flow cell 4 μL option Exchanges std flow cell with semi-micro flow cell in FLD Spectra module	G7121B#216
Bio-Inert flow cell 8 μL option Exchanges std flow cell with bio-inert flow cell in FLD Spectra module	G7121B#228
For additional flow cell ordering:	
Semi-micro flow cell 4 μ L for FLD	G1321-60015
Standard flow cell 8 μ L for FLD	G1321-60005
Bio-inert flow cell 8 μ L for FLD	G5615-60005
FLD Wavelength Calibration kit	G7121-68001

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

This information is subject to change without notice.

© Agilent Technologies, Inc., 2016

Published July 1, 2016

5991-7079EN