



Agilent 1260 Infinity II Quaternary Pump

Data Sheet



Product Description

This versatile and highly reliable pump offers flow rates up to 10 mL/min and pressures up to 600 bar. It is suited for the use of smaller particle size columns giving higher resolution and faster separations. It maintains virtually pulse-free, well mixed and stable solvent flows. Its dual floating, precise servo-controlled pistons adjust the stroke volume according to your chosen flow rate. Offering access to up to four solvents, the 1260 Infinity II Quaternary Pump provides the greatest flexibility in automated solvent blending. It is recommended for a wide range of research and routine applications (especially in the food, environmental and pharmaceutical sectors) as well as for method development.

Features

- Higher resolution, faster separations - the maximum pressure of 600 bar allows you to use smaller particle size columns, longer columns and/or higher viscous solvents as an alternative to acetonitrile.
- Analytical and semi-preparative purifications - the wide flow range (up to 10 mL/min) perfectly supports standard and semi-preparative applications. The perfect choice for 4.6 and 3.0 mm id columns.
- Quicker experiments - the pump offers convenient access to up to four solvents for isocratic or gradient analysis, which can really speed up method development, preparation of mobile phases and system flushing.
- Easy, fast and secure transfer of methods - from conventional to sub-2-micron columns.
- Integrated degasser.
- Longevity and low operating costs - robust materials (stainless steel, titanium, gold, ruby, sapphire, ceramics, PEEK and PTFE) withstand the most demanding applications and keep your pump functioning for years. Our optional seal wash for high-salt mobile phases keeps maintenance to a minimum and reduces operating costs.



Specifications

Table 1 Physical Specifications

Type	Specification	Comments
Weight	14.7 kg (32 lbs)	
Dimensions (height × width × depth)	180 x 396 x 436 mm (7.1 x 15.6 x 17.2 inches)	
Line voltage	100 – 240 V~, ± 10 %	Wide-ranging capability
Line frequency	50 or 60 Hz, ± 5 %	
Power consumption	80 VA, 65 W	
Ambient operating temperature	4–55 °C (39–131 °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 1260 Infinity II Quaternary Pump (G7111B)

Type	Specification
Hydraulic system	Dual piston in series pump with servo-controlled variable stroke drive, power transmission by gears and ball screws, floating pistons
Settable flow range	Set points 0.001 – 10 mL/min, in 0.001 mL/min increments
Recommended flow range	0.2 – 10.0 mL/min
Flow precision	≤0.07 % RSD, or ≤0.02 min SD whatever is greater, based on retention time at constant room temperature ≤0.07 % RSD, or ≤0.02 min SD whatever is greater
Flow accuracy	± 1 % or 10 µL/min whatever is greater, pumping degassed H ₂ O at 10 MPa (100 bar)
Pressure operating range	Operating range up to 60 MPa (600 bar, 8700 psi) up to 5 mL/min Operating range up to 20 MPa (200 bar, 2950 psi) up to 10 mL/min

Table 2 Performance Specifications 1260 Infinity II Quaternary Pump (G7111B)

Type	Specification
Pressure pulsation	< 2 % amplitude (typically < 1.0 %), or < 0.3 MPa (3 bar, 44 psi), whatever is greater, at 1 mL/min isopropanol, at all pressures > 1 MPa (10 bar, 145 psi)
Compressibility compensation	User-selectable, based on mobile phase compressibility
Recommended pH range	1.0 – 12.5, solvents with pH < 2.3 should not contain acids which attack stainless steel
Gradient formation	Low pressure quaternary mixing/gradient capability using proprietary high-speed proportioning valve
Delay volume	600 – 900 μ L, dependent on back pressure; measured with water at 1 mL/min (water/caffeine tracer)
Settable composition range	0 – 100 % in 0.1 % increments
Composition precision	< 0.2 % RSD or < 0.04 min SD, whatever is greater
Integrated degassing unit	Number of channels: 4 Internal volume per channel: 1.5 mL
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), Enhanced Remote Interface: ready, start, stop and shut-down signals, LAN onboard
Safety and maintenance	Extensive diagnostics, error detection and display through Agilent LabAdvisor, leak detection, safe leak handling, leak output signal for shutdown of the pumping system. Low voltage in major maintenance areas.
GLP features	Early maintenance feedback (EMF) for continuous tracking of instrument usage in terms of seal wear and volume of pumped mobile phase with pre-defined and user settable limits and feedback messages. Electronic records of maintenance and errors
Housing	All materials are recyclable

Ordering Details

Table 3 Ordering Details 1260 Infinity II Quaternary Pump

Description	Product Number
Agilent 1260 Infinity II Quaternary Pump 600 bar pressure limit.	G7111B
HPLC System Tool Kit for 1260/1290 Infinity II LC	G7111B#001
Lab Advisor Advanced Software	G7111B#004
1260 Infinity II Max Uptime Kit	G7111B#007
1260 Infinity II Low Dispersion Kit MCT	G7111B#008
Active Seal Wash	G7111B#030
Active Inlet Valve	G7111B#032
Agilent Poroshell 120 EC-C18 4.6x100 mm, 2.7 µm	G7111B#093
Agilent Poroshell 120 EC-C18 3.0x150 mm, 2.7 µm	G7111B#094
Agilent Poroshell 120 EC-C18 3.0x50 mm, 2.7 µm	G7111B#095
Delete Solvent Cabinet	G7111B#960
Agilent 1260 Infinity II Quaternary Pump VL 400 bar pressure limit.	G7111A
HPLC System Tool Kit for 1260/1290 Infinity II LC	G7111A#001
Lab Advisor Advanced Software	G7111A#004
1260 Infinity II Max Uptime Kit	G7111A#007
1260 Infinity II Low Dispersion Kit MCT	G7111A#008
Active Seal Wash	G7111A#030
Active Inlet Valve	G7111A#032
Agilent Poroshell 120 EC-C18 4.6x100 mm, 4 µm	G7111A#090
Agilent Poroshell 120 EC-C18 4.6x50 mm, 2.7 µm	G7111A#091
Agilent Poroshell 120 EC-C18 4.6x150 mm, 4 µm	G7111A#092
Delete Solvent Cabinet	G7111A#960

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