

Performance Specifications Agilent 1260 Infinity Quaternary Pump (G1311B)

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Type	Specification
Hydraulic system	Dual piston in series pump with servo-controlled variable stroke drive, power transmission by gears and ball screws, floating pistons
Setable flow range	Set points 0.001 – 10 mL/min, in 0.001 mL/min increments
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
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
Pressure pulsation	< 2 % amplitude (typically < 1.3 %), 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 µL, dependent on back pressure; measured with water at 1 mL/min (water/caffeine tracer)
Composition range	0 - 95 % or 5 - 100 %, user selectable
Composition precision	< 0.2 % RSD or < 0.04 min SD, whatever is greater, at 1 mL/min; based on retention time at constant room temperature
Integrated degassing unit	Number of channels: 4 Internal volume per channel: 1.5 mL
Control	Agilent control software (e.g. ChemStation, EZChrom, OL, MassHunter)

2 Site Requirements and Specifications

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Local control	Agilent Instant Pilot
Analog output	For pressure monitoring, 2 mV/bar, one output
Communications	Controller-area network (CAN), RS-232C, APG Remote: ready, start, stop and shut-down signals, LAN optional
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

NOTE

For use with flow rates below 500 $\mu\text{L}/\text{min}$ a vacuum degasser is required.