Agilent 1260 Infinity Binary Pump

Features, Specifications and Ordering Details

For Standard HPLC and Rapid Resolution LC

The Agilent 1260 Infinity Binary Pump is designed for applications with RRHT 1.8 µm particle size column technology using columns with an inner diameter of 2.1 mm. In addition it is also ideally suited for standard HPLC using 4.6 and 3 mm id columns. Gradient formation is based on a high pressure mixing principle and delay volumes (standard or low) can be configured user-defined. The Agilent 1260 Infinity Binary Pump is the pump of choice for reproducible gradients and high performance, for high-throughput and fast separations including the use of STM column technology. It is ideal for applications where high speed and resolution with uncompromised data quality are mandatory.

Features

- Configurable delay volume down to 120 µL together with a flow range up to 5 mL/min provides universal applicability.
- RRLC performance at HPLC price.
- Fast and easy change from standard to low delay volume configuration.
- High gradient performance even at low % B and narrow-bore flow rates.
- Electronic damping control for low baseline noise.
- Perfect choice for fast and precise gradients using LC/MS, as well as UV-only systems.
- Fully exploits the speed and separation potential of ZORBAX Rapid Resolution HT.

Agilent Technologies

Specifications – Agilent 1260 Infinity Binary Pump

Specifications Agilent 1260 Infinity Binary Pump (G1312B) and VL version (G1312C)	
Hydraulic system	Two dual piston in series pumps with servo-controlled variable stroke drive, floating pistons.
Settable flow range	Set points 0.001 - 5 mL/min, in 0.001 mL/min increments.
Flow range	0.05 - 5.0 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 H2O at 10 MPa (100 bar)
Pressure operating range	1260 Infinity Binary Pump: Operating range up to 60 MPa (600 bar, 8700 psi) up to 5 mL/min. 1260 Infinity Binary Pump VL: Operating range up to 40 MPa (400 bar, 5880 psi) up to 5 mL/min.
Pressure pulsation	1260 Infinity Binary Pump: < 2 % amplitude (typically < 1.3 %) or < 0.3 MPa (3 bar), whatever is greater, at 1 mL/min isopropanol, at all pressures > 1 MPa (10 bar, 147 psi) Low delay volume configuration: < 5% amplitude (typically < 2 %). 1260 Infinity Binary Pump VL: < 2 % amplitude (typically < 1.3 %) or < 0.3 MPa (3 bar), whatever is greater, at 1 mL/min isopropanol, at all pressures > 1 MPa (10 bar, 147 psi).
Compressibility compensation	1260 Infinity Binary Pump: Pre-defined, based on mobile phase compressibility. 1260 Infinity Binary Pump VL: 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	High-pressure binary mixing.
Delay volume	1260 Infinity Binary Pump: Standard delay volume configuration: 600 - 800 µL (includes 400 µL mixer), dependent on back pressure; measured with water at 1 mL/min (water/caffeine tracer). Low delay volume configuration: 120 µL 1260 Infinity Binary Pump VL: 600 - 900 µL (includes 400 µL mixer), dependent on back pressure.
Composition range	Settable range: 0 - 100 % Recommended range: 1 - 99 % or 5 µL/min per channel, whatever is greater.
Composition precision	< 0.15 % RSD or < 0.04 min SD, whatever is greater, at 0.2 and 1 mL/min; based on retention time at constant room temperature.
Composition accuracy	1260 Infinity Binary Pump: ± 0.35 % absolute, at 2 mL/min, at 10MPa (100 bar), (water/caffeine tracer). 1260 Infinity Binary Pump VL: < 0.5 % absolute
Control	Agilent control software (e.g. ChemStation, EZChrom, OL, MassHunter) PEEK, PPS.
Local control	Agilent Instant Pilot
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.

Ordering Details – Agilent 1260 Infinity Binary Pump and Binary Pump VL

Description	Product Number
Agilent 1260 Infinity Binary Pump. Maximum pressure 600 bar	G1312B
Tool kit for 1260/1290 LC	G1312B#001
HPLC Starter-Kit incl. 0.17 mm ID capillaries	G1312B#002
HPLC Starter-Kit incl. 0.12 mm ID capillaries	G1312B#003
Lab Advisor	G1312B#004
Active seal wash option	G1312B#030
Solvent selection valve option	G1312B#031
Active seal wash (field upgrade)	G1399A
Solvent selection valve (field upgrade)	G1381A
LAN interface	G1312B#500
Delete option for solvent-cabinet	G1312B#960
Agilent 1260 Infinity Binary Pump VL. Maximum pressure 400 bar	G1312C
Tool kit for 1260/1290 LC	G1312C#001
HPLC Starter-Kit incl. 0.17 mm ID capillaries	G1312C#002
HPLC Starter-Kit incl. 0.12 mm ID capillaries	G1312C#003
Lab Advisor	G1312C#004
Active seal wash (field upgrade)	G1399A
Solvent selection valve (field upgrade)	G1381A
LAN Interface	G1312C#500
Delete option for solvent-cabinet	G1312C#960
Agilent 1260 Infinity Standard Degasser	G1322A
Agilent 1260 Infinity Micro Degasser *(highly recommended for both pumps)*	G1379B

www.agilent.com/chem/1200

Published in USA, July 1, 2010
Publication Number 5990-6098EN

Agilent Technologies