

321/322 HPLC Pumps



Analytical and Semipreparative Chromatography Delivery System

- Heads are easy to access and simple to maintain
- Pumps are stackable to conserve bench space
- 321 functions as a controller with integrated keypad; 322 is remotely controlled via the 321 controller or UniPoint™ System Software
- H1 pump heads are ideal for 2–12 mm ID columns with flows up to 15 mL/min and pressures up to 8,700 psi
- H2 pump heads are ideal for 3–20 mm ID columns with flows up to 30 mL/min and pressures up to 4,300 psi
- High-pressure Adjustable Volume Dynamic Mixer (AVDM™) enables fast gradient response times and homogeneous mixtures for analytical to semiprep applications
- Keypad control: safety files (pressure limits, emergency signal and power failure); anomaly processing procedures with related outcomes; GLP functions: solvent consumption, diagnostic helps, maintenance logs, piston seal installation, mixing test and audit trail
- Software provides control within a complete prep workstation; includes data processing and results reporting

Technical Specifications

Composition and Mixing	Increment: 0.1% Dwell volume: 260–2260 µL, pressure-independent (60 µL excluding mixer volume) Effective mixing volume: 220 µL for 1 mL/min and 0.2 mL mixer volume adjustment Gradient linearity range: 1–98%B for 1 mL/min and higher, mixer volume adjustment set at 0.2 mL
Flow Rate	Flow Rate: 0.15–15 mL/min (8,700 psi) Accuracy: ±4 µL/min Repeatability: ±2 µL/min Selectable units: µL/min and mL/min (default: mL/min) Adjustment increment: 1 µL/min
Front Panel (321 Pump)	25 functional keys including six soft keys
Display Panel (321 Pump)	40-character, eight-line display, adjustable contrast turning off after 0–999 min; default: 10 min
Liquid Contact Materials	316L stainless steel, titanium, FEP, PTFE, PCTFE, ETFE, PEEK, UHMWPE, sapphire, ruby and ceramics
Manufacturing Standards	Meet applicable Safety and EMC certification standards; UL and CE certified
Power Requirements	Frequency: 50–60 Hz Voltage: 90–120 or 220–260V; mains voltage fluctuations not to exceed ±10% of the nominal voltage
Pressure	Nominal range from 0.5 MPa (5 bar, 70 psi) up to 60 MPa (600 bar, 8700 psi) for H1, up to 30 MPa for H2
Pump Options	321-H1*: master pump (w/control panel), 15 mL/min, 60 MPa (8,700 psi) 322-H1: remote control pump (w/o control panel), 15 mL/min, 60 MPa (8,700 psi) 321-H2*: master pump (w/control panel), 30 mL/min, 30 MPa (4,350 psi) 322-H2: remote control pump (w/o control panel), 30 mL/min, 30 MPa (4,350 psi) * H1 and H2 are interchangeable pump heads
Software	Via Gilson TRILUTION™ LC Software, UniPoint™ System Software and 506C interface or GSIOC slave bus
Dimensions (w x d x h)	321: 26 x 41 x 51 cm (10.2 x 16.2 x 20.1 in.) 322: 26 x 41 x 38.7 cm (10.2 x 16.2 x 15.3 in.)
Weight	30 kg (66.1 lbs.)

For applications or additional information, contact your local Gilson Technical Sales Representative or visit www.gilson.com.

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