WARNING **Never use cables other than the ones supplied by Agilent Technologies to ensure proper functionality and compliance with safety or EMC regulations.**

Bench Space

The isocratic pump dimensions and weight (see Table 1) allow to place the isocratic pump on almost any laboratory bench. It needs an additional 2.5 cm (1.0 inches) of space on either side and approximately 8 cm (3.1 inches) in the rear for the circulation of air and electric connections.

If the bench should carry a complete Agilent 1100 Series system, make sure that the bench is designed to carry the weight of all the modules.

NOTE The pump should be operated in a horizontal position!

Environment

Your isocratic pump will work within specifications at ambient temperatures and relative humidity as described in Table 1.

CAUTION Do not store, ship or use your isocratic pump under conditions where temperature fluctuations could cause condensation within the isocratic pump. Condensation will damage the system electronics. If your isocratic pump was shipped in cold weather, leave it in its box and allow it to warm slowly to room temperature to avoid condensation.

Table 1 Physical Specifications

Type	Specification	Comments
Weight	11 kg (25 lbs)	
Dimensions (height × weight × depth)	140 × 345 × 435 mm (5.5 × 13.5 × 17 inches)	
Line voltage	100 – 120 or 220 – 240 VAC, ± 10 %	Wide-ranging capability
Line frequency	50 or 60 Hz, ± 5 %	

Table 1 Physical Specifications (continued)

Power consumption	220 VA	Maximum
Ambient operating temperature	4 – 55 °C (41 – 131 °F)	
Ambient non-operating temperature	-40 – 70 °C (-4 – 158 °F)	
Humidity	< 95 %, at 25 – 40 °C (77 – 104 °F)	Non-condensing
Operating Altitude	Up to 2000 m (6500 ft)	
Non-operating altitude	Up to 4600 m (14950 ft)	For storing the isocratic pump
Safety standards: IEC, CSA, UL	Installation Category II, Pollution Degree 2	

Performance Specifications

Table 43 Performance Specification Agilent 1100 Series Isocratic Pump

Type	Specification
Hydraulic system	Dual piston in series pump with proprietary servo-controlled variable stroke drive, floating pistons and active inlet valve
Setable flow range	0.001 – 10 ml/min, in 0.001 ml/min increments
Flow range	0.2 – 10.0 ml/min
Flow precision	< 0.3 % RSD (typically 0.15 %), based on retention time, at 1 ml/min
Pressure	Operating range 0 – 40 MPa (0 – 400 bar, 0 – 5880 psi) up to 5 ml/min Operating range 0 – 20 MPa (0 – 200 bar, 0 – 2950 psi) up to 10 ml/min
Pressure pulsation	< 2 %amplitude (typically < 1 %), at 1 ml/min isopropanol, at all pressures > 10 bar (147 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
Control and data evaluation	Agilent ChemStation for LC
Control and data evaluation	Agilent ChemStation for LC
Analog output	For pressure monitoring, 2 mV/bar, one output
Communications	Controller-area network (CAN), GPIB, RS-232C, APG Remote: ready, start, stop and shut-down signals, LAN optional
Safety and maintenance	Extensive diagnostics, error detection and display (through control module and Agilent ChemStation), leak detection, safe leak handling, leak output signal for shutdown of pumping system. Low voltages in major maintenance areas.

Table 43 Performance Specification Agilent 1100 Series Isocratic Pump (continued)

GLP features	Early maintenance feedback (EMF) for continuous tracking of instrument usage in terms of seal wear and volume of pumped mobile phase with user-settable limits and feedback messages. Electronic records of maintenance and errors.
Housing	All materials recyclable.

NOTE For use with flow rates below 500 µl/min a vacuum degasser is required.