



Thermo Scientific™ Prelude LX-4 MD™ HPLC and
Prelude LX-4 MD software version 1.1

Run more samples with ease

Intended Use

- The Prelude MD instrument is intended to chromatographically isolate and separate analytes such as drugs and endogenous compounds from a sample solution and introduce these separated drugs or compounds into a detector.
- It is for *in vitro* diagnostic use.

The Thermo Scientific™ Prelude LX-4 MD™ HPLC is a medical device for *in vitro* diagnostic use designed to quickly and cost-effectively deliver accurate, reproducible laboratory-developed tests results you can be confident in day after day. Four automated HPLC channels deliver up to four different separations to a single mass spectrometer, streamlining LC-MS workflows and reducing idle time. Your lab is able to be more productive by deploying LC-MS instruments, laboratory space and technical staff more effectively. Combine the Thermo Scientific™ Endura MD™ mass spectrometer with the Prelude LX-4 MD HPLC and your laboratory can obtain the quantitative accuracy of LC-MS, easily and confidently.

Hardware features

UHPLC (Ultra-high-performance liquid chromatography)

The Prelude LX-4 MD instrument contains eight pumps that force the solvents through the UHPLC or HPLC columns, and then to the detector. The pumps can reach pressures up to 1000 bar (15,500 psi). Each pump operates by using a single-piston syringe, which draws 3 mL of fluid and dispenses it according to the method instructions. The UHPLC syringe pump technology uses less solvents compared to traditional HPLC pumps with reciprocating pistons, saving money and time.

Multi-Channel LC

Four LC channels operate independently synchronized to a single detector. Each LC channel uses two pumps to blend and dispense two solvents. This allows for step and gradient solvent changes during each method.

Cross-sequential optimization

Software logic setting that maximizes efficiency by running four LC channels and up to four different LC methods simultaneously using only one detector.

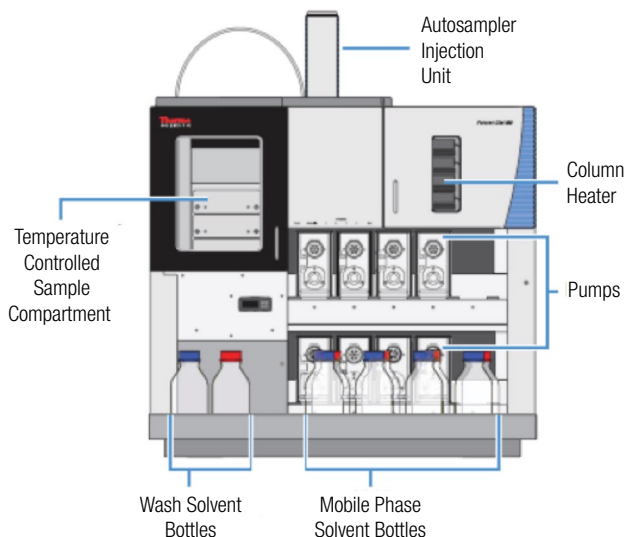


Table 1. Prelude LX-4 MD HPLC specifications

Sample Compartment - 3 drawer temperature controlled (4-40 °C)	
Sample Tray Type	Capacity
2 mL vials	54 vials per tray, two trays per drawer, 6 trays total
96-deep-well plates	2 plates per drawer, 6 plates total
Instrument and table dimensions	
Component	Dimensions
Instrument (without table)	97.4 × 112 × 77.4 cm (38.3 × 44.1 × 30.5 in.) (w × h × d)
Table	132.0 × 73.8 × 78.7 cm (52.0 × 29.0 × 31.0 in.) (w × h × d) Required space between back wall and table = 15.25 cm (6.0 in.)
Instrument and table	132.0 × 185.8 × 78.7 cm (52.0 × 73.1 × 31.0 in.) (w × h × d)
Environmental specifications or recommendations	
Environmental condition	Specification or recommendation
Location	Indoor use only
Relative humidity range	40–80% noncondensing
Temperature	18–27 °C (64.4–80.6 °F)
Column temperature control specifications	
Minimum injection volume	1 µL
Maximum injection volume	100 µL
Recommended sample volume range	10–80 µL
Pump operating specifications	
Specification	Description
Maximum operating pressure	1000 bar (15,500 psi)
Minimum programmable flow rate	10 µL/min
Flow rate range	10–2000 µL/min
Pressure signal accuracy	0.25% of full scale
Residual pulsation	< 1% for flow > 10 µL/min
Flow rate accuracy	0.5% of set point (optimal range)
Gradient composition accuracy	±0.5% of set point (5–95%)
Gradient composition range	0–100%
Electronic specifications	
Specification	Description
Communications	LAN and USB
Power	120/230 Vac ±10%, 50/60 Hz, 6.7 A Maximum voltage fluctuation not to exceed ±10% of the nominal voltage

For in vitro diagnostic use.
Not available in all countries.

Find out more at thermofisher.com/preludeLX-4MD

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