

ExionLC MD system

System specifications

The ExionLC MD system delivers high-performance UHPLC separation with the robustness and reproducibility required for clinical workflows, empowering your lab to generate consistent, high-quality data with confidence. Designed for demanding biological matrices, it helps you achieve the throughput, sensitivity, and reliability needed for routine and complex assays alike.



Pre-configured systems

Core system

Includes:

- 1 x ExionLC MD controller
- 2 x ExionLC MD pump
- 1 x ExionLC MD autosampler
- 1 x ExionLC MD column oven
- 1 x ExionLC MD degassing unit
- 1 x ExionLC MD reservoir tray

Trap and elute system with isocratic loading

Includes:

- 1 x ExionLC MD controller
- 3 x ExionLC MD pump
- 1 x ExionLC MD autosampler
- 1 x ExionLC MD column oven
- 2 x ExionLC MD degassing unit
- 2 x ExionLC MD reservoir tray

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System controller

Compatible software	Analyst MD software version 1.7.4 and later SCIEX OS software version 4.2 and later
Number of connectable units	8
Communication	Ethernet
Dimensions (w x d x h)	W 260 x D 500 x H 72 mm
Weight	5 kg
Operating temperature range	4°C to 35°C
Power supply	Voltage: AC 100–240 V Power consumption: 50 VA Frequency: 50/60 Hz

Pump

Pumping method	Parallel-type double plunger (approx. 10 µL/1 stroke)
Allowable maximum pressure	18,800 PSI
Flow rate settings range	0.0001 to 3 mL/min (up to 18,800 PSI) 3.0001 to 5 mL/min (up to 11,600 PSI) 5.0001 to 10 mL/min (up to 3,200 PSI)
Flow rate accuracy	≤ ± 1% [1 mL/min when water is pumped at 11,600 PSI, with water and room temperature constant between 20 to 30°C]
Flow rate precision	≤ 0.06% RSD or 0.02 minute SD, whichever greater
Gradient mode	High-pressure gradient [2 or 3 solvents]
Gradient range of set concentrations	0% to 100% [0.1% step]
Gradient concentration accuracy	± 0.5% [1 mL/min, 11,600 PSI]
Wetted materials	Stainless steel [SUS316L], Hastelloy C, PEEK, PE, sapphire, ruby
Available pH range	1 to 14
Automatic rinsing kit	Standard equipment
Degassing unit	1 unit connectable
Dimensions (w x d x h)	W 260 x D 500 x H 140 mm
Weight	12 kg
Operating temperature range	4°C to 35°C
Power supply	Voltage: AC 100–240 V Power consumption: 150 VA Frequency: 50/60 Hz

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Degassing unit

Number of degassed solvents	5
Degassed flow line capacity	400 μ L/1 line
Dimensions (w x d x h)	W 260 x D 500 x H 72 mm
Weight	4 kg
Operating temperature range	4°C to 35°C
Power supply	Supplied from solvent delivery pump

Autosampler

Injection method	Total-volume injection, variable volume injection method (zero sample loss by injection)
Allowable maximum pressure	18,800 PSI
Injection volume	0.1–50 μ L [standard] 0.1–2000 μ L [optional]
Injection volume accuracy	$\leq \pm 1\%$ [5 μ L injection, n = 20]
Linearity	≥ 0.9999
Injection cycle time	≤ 6.7 seconds*
Samples for processing	1152 [microtiter plate, 384 well x 3 plates] 288 [microtiter plate, 96 well x 3 plates] 252 [1 mL sample vial, 84 x 3 plates] 162 [1.5 mL sample vial, 54 x 3 plates] 84 [4 mL sample vial, 28 x 3 plates] 36 [10 mL sample vial, 12 x 3 plates] 72 [1.5 mL micro tube, 24 x 3 plates]
Injection volume reproducibility	RSD $\leq 1.0\%$ [0.5 to 0.9 μ L] RSD $\leq 0.5\%$ [1.0 to 1.9 μ L] RSD $\leq 0.25\%$ [2.0 to 4.9 μ L] RSD $\leq 0.15\%$ [More than 5.0 μ L] RSD < 0.5% [typically, 0.5 μ L] RSD < 0.25% [typically, 1.0 μ L]
Carryover	$\leq 0.0015\%$ [without rinse]* $\leq 0.0003\%$ [with rinse, typically]*
Dip rinsing outside the needle and injection port rinsing	Standard equipment
Pumping rinse outside the needle	Standard equipment

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Autosampler [continued]

Internal rinsing (3 dil)	Standard equipment
Sample cooler	Standard equipment (air-circulation temperature control type)
Sample cooler temperature setting range	4°C to 45°C (room temperature needs to be less than 30°C with humidity at less than 70% to go down to 4°C)
Sample cooler temperature accuracy	±2°C (sensor position ±0.5°C)
Wetted material	Stainless steel (SUS316L), DLC, PEEK, GFP, PTFE, FEP, ETFE, sapphire, ceramic, PPS, FFKM
Available pH range	1 to 14
Dimensions (w x d x h)	W 260 x D 500 x H 280 mm (protrusion adds 140 mm to the depth)
Weight	24 kg
Operating temperature range	4°C to 35°C
Power supply	Voltage: AC 100–240 V Power consumption: 400 VA Frequency: 50/60 Hz

Column oven

Temperature control type	Forced air circulation
Temperature control range	From 10°C below room temperature up to 100°C
Temperature precision	0.1°C (±0.05°C)
Containable column size and number	Up to 250 mm L. column x 6 or 300 mm L. column x 3
Dimensions	W 260 x D 500 x H 415 mm
Weight	21 kg
Operating temperature range	4°C to 35°C
Power supply	Voltage: AC 100–120 V / 220–240 V (automatic switching) Power consumption: 400 VA Frequency: 50/60 Hz

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