



# ExionLC™ AD Series

## Specifications

The SCIEX ExionLC AD System offers you expandability and robustness for the most challenging method development and sample analysis applications. With a maximum pressure rating of 1300 bar and an autosampler with up to 3 different wash solvents, the system has exceptional chromatographic resolution with virtually undetectable carryover.

### ExionLC Controller

ITEM	SPECIFICATION
<b>ENVIRONMENTAL</b>	
Working temperature	4°C to 35°C
Relative humidity	20-85%
Dimensions (w x h x d)	260 x 140 x 420 mm
Weight	5.5 kg
<b>ELECTRICAL</b>	
Power supply voltage	AC100 V to 240 V
Power consumption	Less than 400 VA
Rated breaking capacity	40A
Power supply frequency	50 / 60 Hz
<b>COMMUNICATIONS</b>	
External start input (MAN.INJ.)	1
Error input (IN)	3
General purpose output (OUT)	4
Remote connector	8
Ethernet	1
Optical link (PAC)	1
RS-232C	1
AC remote	1
AC output	2
Interface	SCIEX OS Software 1.x, Analyst® Software 1.7

### ExionLC Degasser

ITEM	SPECIFICATION
Type	Membrane based on-line degasser, 5 lines
Volume	Volume approximately 400 µL per line

### ExionLC AD Pump

ITEM	SPECIFICATION	
Pump type	Micro volume double plunger pump (approx.. 10 µL/stroke)	
Pumping methods	Constant flow delivery	
Constant flow pumping	Flow rate setting range	0.0001 to 3 mL/min (10-1300 bar) 3.0001 to 5 mL/min (10-800 bar) 5.0001 to 10 mL/min (10-220 bar)
	Flow rate accuracy	±1% (1 mL/min, 800 bar)
	Flow rate precision	RSD <0.06% or 0.02 min. SD, whichever is larger

## ExionLC™ AD Pump (continued)

ITEM	SPECIFICATION	
High pressure gradient system	# of solvents mixed	2
	Gradient types	Isocratic, binary, ternary
	Gradient profile	Step and linear gradient at multiple levels
	Maximum # of steps	400
	Mix ratio setting range	0-100% (in 0.1% steps)
	Concentration (composition) accuracy	±0.5% (at 0.5-3 mL/min)
	Flow rates possible	0.0001 to 10 mL / min
	Solvent selection (per pump)	2 with optional solvent selection valve, 4 with optional LPGE unit
Low pressure gradient system	# of solvents mixed	Max. 4 with optional LPGE unit
Pressure limit functions		Upper and lower limits
Liquid contacting part materials		SUS316 L, PEEK, ruby, sapphire, Hastelloy C, polyethylene
Suction filter		10 µm
Line filter		5 µm mesh, capacity 70 µL
Pressure display accuracy		Less than ±2% or ±24 bar, whichever is greater
Plunger rinsing		Automatic piston rinsing function
Leak sensor		Detects leakage from pump
<b>ENVIRONMENTAL</b>		
Working temperature		4°C to 35°C
Relative humidity		20-85%
Dimensions (w x h x d)		260 x 140 x 500 mm
Weight		11.8 kg
<b>ELECTRICAL</b>		
Power supply voltage		AC100 V to 240 V
Power consumption		150 VA
Rated breaking capacity		50A
Power supply frequency		50/60 Hz

## ExionLC AD Autosampler

ITEM	SPECIFICATION
Injection method	Variable injection volume flow through design ( no sample loss during injection )
Injection volume setting range	0.1 to 50 µL ( 0.1 to 0.9 µL in 0.1 µL increments, 1 to 50 µL in 1 µL increments )
Samples for processing	<ul style="list-style-type: none"> <li>· With 1.5-2 mL vials: 105</li> <li>· With 96-well microtiter plate: 192</li> <li>· With 384-well microtiter plate: 768</li> </ul>
Injection volume precision	RSD ≤ 0.25% ( at 5 µL injection )
Injection volume accuracy	±1% ( 50 µL, n = 10 ) max
Carryover	0.0015% max ( under specified conditions )
Sample aspiration rate	0.1 to 15 µL /sec ( 0.1 µL /sec increments )
Rinse aspiration rate	Variable 1 to 35 µL/sec, ( 0.1 µL /sec increments )
Rinse solutions	Up to 4 solution types ( up to 2 for needle surface, up to 3 for inner surface )
Maximum allowable pressure	1300 bar
Injection cycle time	14 seconds minimum ( under specified conditions )
Sample cooling system	Direct cooling system ( environment conditions: room temperature below 30°C or lower and humidity 70% or less with cooler set to 4°C ), dehumidification function included

## ExionLC™ AD Autosampler (continued)

ITEM	SPECIFICATION
Cooling range settings	4 to 40°C (under specified conditions)
Temperature accuracy	±3°C (±6°C for microtiter plates and deep-well plates. Not cooled below 1°C)
Liquid contacting part materials	SUS316 L, SUS316, ceramic, sapphire, PTFE, ETFE, FEP, GFP, PEEK, polyimide
pH range	1-9 standard, 1 to 14 optional
Needle stroke	10 to 54 mm (adjustment range dependent on rack type)
Leak sensor	Automatic leak detection
<b>ENVIRONMENTAL</b>	
Working temperature	4°C to 35°C
Relative humidity	20-85%
Dimensions (w x h x d)	260 x 415 x 500 mm
Weight	33 kg
<b>ELECTRICAL</b>	
Power supply voltage	AC100 V to 240 V
Power consumption	300 VA
Rated breaking capacity	63A
Power supply frequency	50/60 Hz

## ExionLC AD Column Oven

ITEM	SPECIFICATION
Heating method	Block heating system
Temperature control range	(Room temperature +5°C) to 150°C
Temperature setting range	4°C to 150°C (in steps of 1°C)
Temperature control precision	±0.05°C (at 25°C)
Column capacity	2 columns at 15 cm max.
<b>ENVIRONMENTAL</b>	
Working temperature	4°C to 35°C
Relative humidity	20-85%
Dimensions (w x h x d)	260 x 210 x 500 mm
Weight	10 kg
<b>ELECTRICAL</b>	
Power supply voltage	AC100 V to 240 V
Power consumption	300 VA
Rated breaking capacity	63A
Power supply frequency	50/60 Hz
<b>SAFETY</b>	
Safety measures	<ul style="list-style-type: none"> <li>• Upper temperature limit can be set to prevent overheating</li> <li>• Equipped with thermal fuses to prevent overheating damage</li> <li>• Equipped with leak sensor for detecting mobile phase leaks</li> </ul>

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