

SCION LC6000 Specifications

High Performance Liquid Chromatograph





SCION LC6000 Specifications

High Performance Liquid Chromatograph

SCION 6510

Organiser

Physical Specifications

Type	Specification
Dimensions	360×420×200 (mm)
Weight	9kg
Power	AC100 to 240V (50/60Hz), 520VA
Output Power	1 x pump, 1 x autosampler, 2 x detectors, 1 x IFC board
Capacity	6 x 1L Bottles + 3 x 500mL Bottles



SCION LC6000 Specifications

High Performance Liquid Chromatograph

SCION 6410 Ultra-Violet Detector

Physical Specifications

Type	Specification
Dimensions	490×360×174 (mm)
Weight	14kg
Power	24V DC , 2.5A (MAX) / 60W
Communication	CAN



Performance Specifications

Type	Specification
Light source	Deuterium (D2) lamp
Wavelength	190~600nm
Bandwith / Slit width	8nm
Wavelength accuracy	±2nm
Noise	$< 1 \times 10^{-5}$ AU
Drift	$< 2.5 \times 10^{-5}$ AU/h
Offset	0~2 AU (0.001step)
Cell capacity	12µL
Cell pressure	0.1Mpa
Acquisition rate	0.5, 1, 10, 20 Hz
Time program	Maximum 50 steps Maximum 600 min in steps of 0.1 min



SCION LC6000 Specifications

High Performance Liquid Chromatograph

SCION 6430 Diode Array Detector

Physical Specifications

Type	Specification
Dimensions	440×340×140 (mm)
Weight	14kg
Power	24V DC , 3.5A (MAX) / 84W
Communication	E-line (RS242), USB 2.0



Performance Specifications

Type	Specification
Diode elements	1024-bit photodiode array
Light source	D2 lamp, W lamp, Hg lamp (for wavelength check)
Wavelength range	190 to 900 nm (D2&W mode) 190 to 400 nm (D2 mode) 401 to 900 nm (W mode)
Wavelength accuracy	< ±1nm
Slit width	1nm(fine), 4nm(coarse)
Response	0.01, 0.02, 0.05, 0.1, 0.5, 1.0, 2.0 secs. in steps of 7
Noise	< 0.5×10^{-5} AU
Drift	< 0.4×10^{-3} AU/h
Offset	0~2 AU, 0.001 step
Cell capacity	13µL
Cell pressure	14.7Mpa
Thermo cell temp. control	40 °C, fixed (option) (operation temperature range: 4 to 30 °C)



SCION LC6000 Specifications

High Performance Liquid Chromatograph

SCION 6440 Fluorescence Detector

Physical Specifications

Type	Specification
Dimensions	440×340×280 (mm)
Weight	25kg
Power	AC 100 to 240 V (50/60 Hz) / 330VA
Communication	E-line(RS242), USB 2.0



Performance Specifications

Type	Specification
Light source	Xe lamp, Hg lamp (for wavelength check)
Ex wavelength range	200~850nm
Em wavelength range	250~900nm
Ex bandwidth	15nm
Em bandwidth	15nm, 30nm (selectable)
Wavelength accuracy	±3nm
Wavelength precision	±0.5nm
Response	0.01, 0.02, 0.05, 0.1, 0.5, 1.0, 2.0 seconds
Sensitivity	Water Raman peak S/N 3000 (Specified conditions)
Flow Cell	12μL, 1.0 Mpa
Cell temp. control (optional)	40 °C, Fixed (Operation temperature range :4 to 30 °C)
Time programs	9 steps, up to 600mins



SCION LC6000 Specifications

High Performance Liquid Chromatograph

SCION 6460

Refractive Index Detector

Physical Specifications

Type	Specification
Dimensions	440×340×140 (mm)
Weight	12kg
Power	AC100~240V±10%, 50/60Hz,150VA
Communication	USB 2.0



Performance Specifications

Type	Specification
Flow cell type	2 chamber-type
Measuring method	Deflection type
Refractive Index range	1.00 to 1.75
Measuring range	0.25 to 512μRIU
Drift	0.2μRIU/h (Pure water 1mL/min, PURGE OFF)
Linearity range	≥600μRIU
Noise	≤2.5nRIU (Pure water, response : 1.5sec)
Response	0.1 , 0.25 , 0.5 , 1 , 1.5 , 2 , 3 , 6 sec
Cell volume	8μL
Max. back pressure	50kPa
Flow rate	Usual: 0.2 to 3.0mL/min Max.: 10mL/min (solvent: pure water)
Temp. control	OFF, 30 to 50°C (1°C step), 77°C Temp. fuse
Local control	CompassCDS



SCION LC6000 Specifications

High Performance Liquid Chromatograph

SCION 6310 Column Oven

Physical Specifications

Type	Specification
Dimensions	360×490.5×174 (mm)
Weight	13kg
Power	AC100 to 240V (50/60Hz)
Communication	CAN



Performance Specifications

Type	Specification
Column size and capacity	3 x 250mm column
Temp. control method	Peltier heating / forced-air circulation
Temp. setting range	1~85°C
Temp. control precision	±0.5°C
Temp. stability	±0.1°C
Operation temp. range	4~35°C
Safety measures	Temperature fuse, leak detector & max temperature limit
Optional	Switching valve



LC6000 Specifications

High Performance Liquid Chromatograph

SCION 6320 Column Oven

Physical Specifications

Type	Specification
Dimensions	166×382×610 (mm)
Weight	18kg
Power	AC100 to 240V (50/60Hz)
Communication	CAN

Performance Specifications

Type	Specification
Column size and capacity	250-400mm x 3 columns* or ≤150mm x 6 columns
Temp. control method	Peltier heating / forced-air circulation
Temp. setting range	1~80°C
Temp. control precision	±0.5°C
Temp. stability	±0.1°C
Operation temp. range	4~35°C
Safety measures	Temperature fuse, leak detector & maximum temperature limit
Optional	Switching valve, Housing for manual injector (*maximum column capacity is 3 x 300mm with manual injector)





SCION LC6000 Specifications

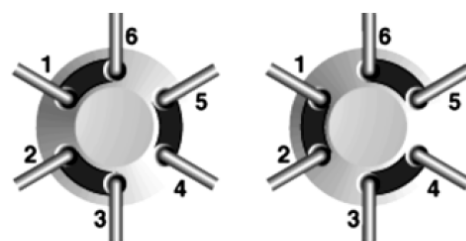
High Performance Liquid Chromatograph

Column Switching Valve

2-Position, 6-Port

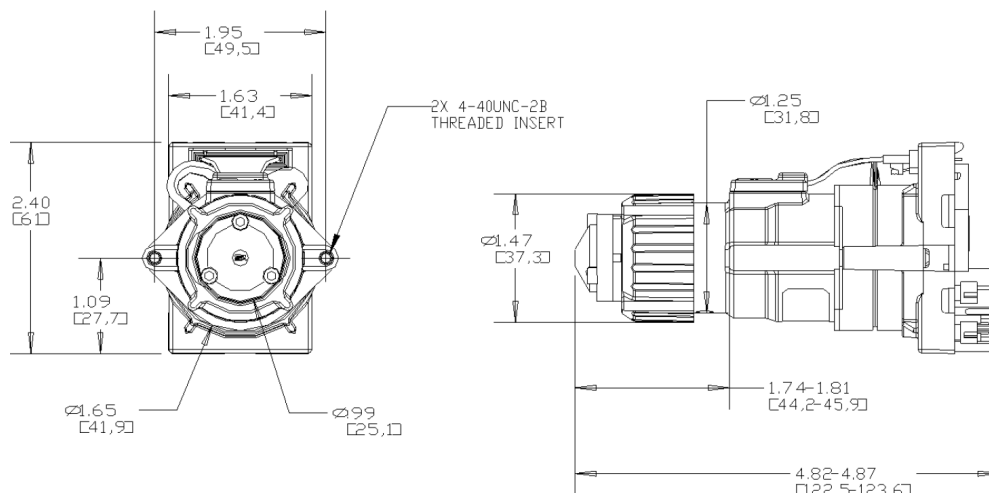
Specifications

Type	Specification
Port Size	Accepts 10-32 male threaded fittings
Flow Passage Diameters	Stator: 0.3mm (0.012"), Rotor Seal: 0.25mm (0.010")
Port to Port Volume	450nL
Maximum Pressure	41 MPa (414 bar, 6000 psi)
Motor	5 ohm, spark-free, 7.5 degree stepper motor
Actuation Time	100ms
Communication	1-Line Level Logic
Power Requirements	24 VDC ± 5% at 1 Amp max
Quiescent Current	20mA
RoHS Compliant	Yes



Position A

Position B





SCION LC6000 Specifications

High Performance Liquid Chromatograph

SCION 6210/6220 Autosampler

Physical Specifications

Type	Specification
Dimensions	520×340×320 (mm)
Weight	23kg/26kg (Thermo unit)
Power	24V DC, 2.1A
Communication	E-line (RS242)



Performance Specifications

Type	Specification
Sample Tray	200 (1.5 mL)
	128 (4mL) (option)
	3 (96 micro-well plate) (option)
	3 (384 micro-well plate) (option)
Injection method	Direct injection
Max. pressure	60.0 Mpa
Syringe volume	100µL (standard)
	500µL, 1 mL, 2.5 mL (option)
Injection volume precision	< 0.3% RSD (in 10µL injection)
Injection volume accuracy	±0.8% (50µL, n=10)
Injection linearity	R ² = 0.999
Carryover	< 0.003 % RSD (with 10µL of blank solution injected after 10µL of 60 mg/100mL methylparaben)
Injections per sample	99max
Maximum cycle time	999min

Thermo Unit (6220)

Type	Specification
Temp. setting range	1 to 35 °C (settable in 1 °C steps)
Cooling power	4 to (room temperature - 5)°C
Cooling system	Thermoelectronic system with Peltier



SCION LC6000 Specifications

High Performance Liquid Chromatograph

SCION 6100 Solvent Delivery System



Physical Specifications

Type	Specification
Dimensions	440×340×140 (mm)
Weight	16kg
Power	24V DC , 4.0(max), 96W
Communication	E-line (RS242)

Performance Specifications

Type	Specification
Pulse	Real time feedback system
Pressure	60 Mpa (0.001~2.500 mL/min) 30 Mpa (2.500~5.000 mL/min)
Pressure setting range	0.0~60.0 Mpa
Flow rate setting range	0.001~5.000 mL/min
Recommanded flow range	0.010~2.500 mL/min
Flow rate accuracy	Constant ambient temperature of 20°C, Distilled Water, Solvent delivery pressure at 30 Mpa: ±2 µL (0.010 - 0.100 mL/min) ±1% (0.101 - 2.500 mL/min)
Flow rate precision	RSD <0.05%
Pressure accuracy	±5%
Wetted Material	stainless steel 316, ruby, sapphire, zirconia, PTFE, Carbon PTFE, PEEK, Vespel®

Low Pressure Gradient Unit (Optional)

Type	Specification
Gradient profile	Liner, stepwise
Gradient precision	0.15%
Settable mixing ratio	0~100% (1% step)
Gradient accuracy	5%
Recommended flow range	0.4 – 1.8 mL/min (with conventional mixer) < 0.4 mL/min (with semi micro mixer)
Program number	9
Program time	600min (Max)
Program items	1. Time 2. Flow Rate 3.Mixing Ratio 4.Event Time Output

Dynamic Mixer (Optional)

Type	Specification
Max. pressure	40Mpa
Mixer volume	2000 μ L
Mixture method	Stirring bar
Recommended flow rate	<2.0mL/min

Conventional Mixer

Type	Specification
Max. pressure	60Mpa
Mixer volume	700 μ L
Recommended flow rate	0.4~1.8mL/min

Six-channel Degassing Unit (Optional)

Type	Specification
Channels	Pump: 4 paths; Autosampler: 2 paths)
Max. flow rate	5mL/min
Recommended flow rate	<3mL/min
Chamber volume	510 μ L
Wetted materials	Teflon® AF、PEEK、FEP、PPS

Semi-micro Mixer (Optional)

Type	Specification
Max. pressure	60Mpa
Mixer volume	200 μ L
Recommended flow rate	<0.4mL/min

Plunger Wash Pump (Optional)

Type	Specification
Flow rate	1mL/min
Solvent	Distilled water only
Max. pressure	65Kpa

