

# 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



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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	< 1×10 <sup>-5</sup> AU
Drift	< 2.5×10 <sup>-5</sup> 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

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## 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	< $0.5 \times 10^{-5}$ AU
Drift	< $0.4 \times 10^{-3}$ 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)



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## 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

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## 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

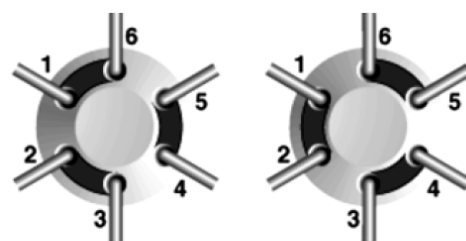
High Performance Liquid Chromatograph

## Column Switching Valve

2-Position, 6-Port

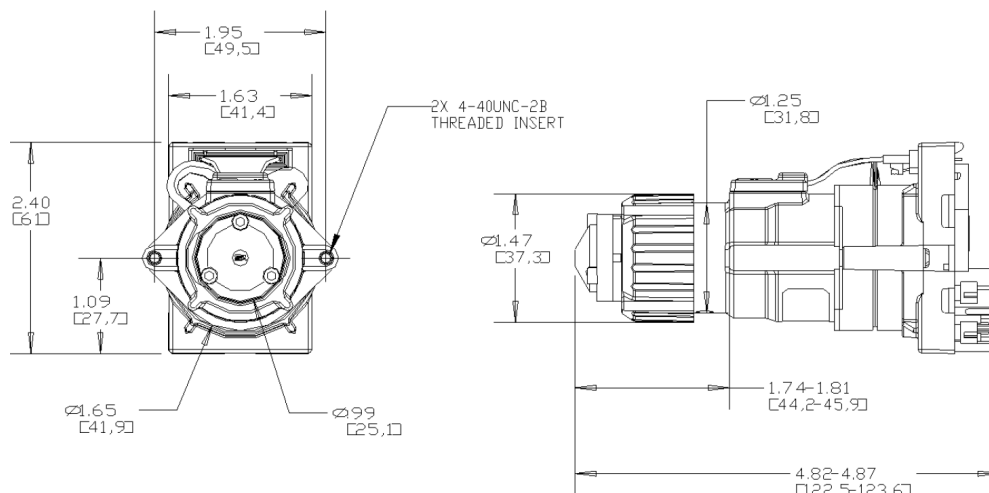
### Specifications

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

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## 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 <sup>2</sup> = 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

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## 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
Recommended 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	2000μL
Mixture method	Stirring bar
Recommended flow rate	<2.0mL/min

### Conventional Mixer

Type	Specification
Max. pressure	60Mpa
Mixer volume	700μL
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	510μL
Wetted materials	Teflon® AF、PEEK、FEP、PPS

### Semi-micro Mixer (Optional)

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

### Plunger Wash Pump (Optional)

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

