

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 | < 1×10 ⁻⁵ AU |
| Drift | < 2.5×10 ⁻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

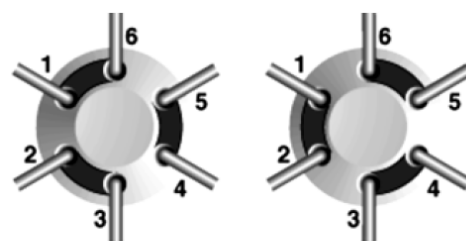
High Performance Liquid Chromatograph

Column Switching Valve

2-Position, 6-Port

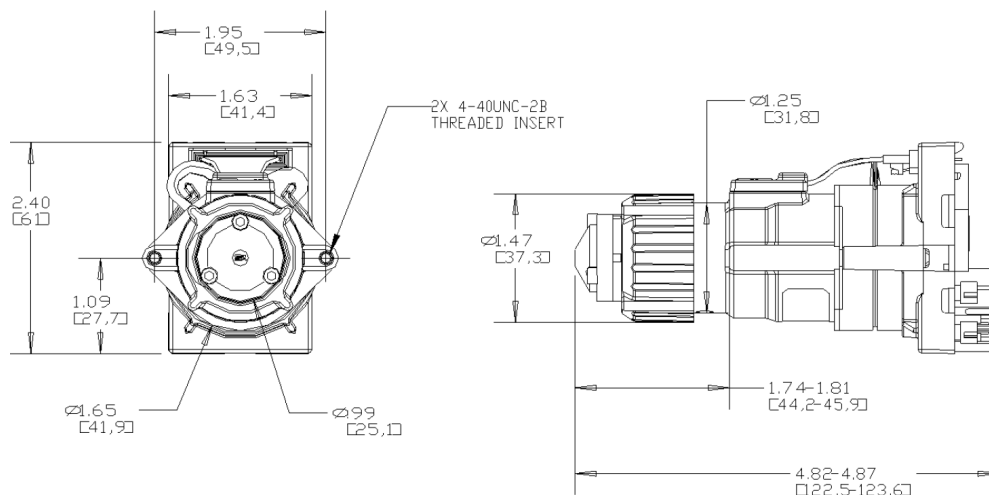
Specifications

| 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 |
| 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 | 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 |

