



# Semi-prep HPLC-505

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## SEMI-PREP HPLC-505

Semi-prep HPLC-505 is equipped with 4 sets of high pressure pumps providing a flow rate variance of 50 ml / min or 100 ml / min and a UV-Vis detector with a wavelength range of 190 to 800 nm. Equipped with a mixing chamber to enhance homogenization and reciprocating pump for consistent flow. With a column size of 10 x 250 mm and particle size of 5 µm or 10 µm, the retention, resolution and selectivity is optimized.

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### Features

- Solvent flow rate is 2 ~ 4 ml / min
  - Selectable sample of volume loop by injector according to end user need
  - Normal and reverse phase compatibility
  - Compatibility for medium and low pressure application
  - PEEK pump head and detector for bio-purification
  - Compatible for fraction collector and fraction valve
  - Built-in UV , RI , DAD
  - Degasser ( optional )
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### Applications

Used in up scaling of small scale production, purification of small amount of substances (mg) , in pharmaceutical analysis, food nutrient analysis of amino acids and sugars, chemical product purity analysis

## Pump Specifications

Model No	SPH-A10	SPH-A11
Flow rate range	0.001 - 50 ml / min	0.001 - 50 ml / min
Maximum pressure	30 MPa	30 MPa
Flow rate accuracy	± 0.35	± 0.5
Flow rate repeatability %	≤ 0.1	≤ 0.15
Column size	10 x 250 mm	10 x 250 mm
Sample loading	35 - 60 mg	35 - 60 mg
Pressure pulsation	1 % at 10 MPa	1.5 % at 10 MPa
Gradient accuracy %	± 2	± 2
Gradient repeatability %	≤ 0.2	≤ 0.2
Dimension	465 x 315 x 180 mm	455 x 265 x 190 mm
Power	150 W	150 W
Power supply	90 V ~ 240 V / 50 Hz	90 V ~ 240 V / 60 Hz
Weight	11.6 kg	11.2 kg

Model No	SPH-A12	SPH-A13
Flow rate range	0.001 - 100 ml / min	0.001 - 100 ml / min
Maximum pressure	15 MPa	10 MPa
Flow rate accuracy	± 0.5	± 0.5
Flow rate repeatability %	≤ 0.1	≤ 0.15
Column size	10 x 250 mm	10 x 250 mm
Sample loading	35 - 60 mg	35 - 60 mg
Pressure pulsation	1.5 % at 10 MPa	1.5 % at 10 MPa
Gradient accuracy %	± 2	± 2
Gradient repeatability %	≤ 0.2	≤ 0.2
Dimension	465 x 315 x 180 mm	465 x 315 x 180 mm
Power	150 W	150 W
Power supply	90 V ~ 240 V / 50 Hz	90 V ~ 240 V / 60 Hz
Weight	11.6 kg	11.6 kg

## Detector Specifications

Model No	SPH-A20	SPH-A21	SPH-A22
Wavelength range	190 to 800 nm	190 to 800 nm	190 to 800 nm
Wavelength accuracy	± 0.5 nm	± 1 nm	± 0.75 nm
Wavelength repeatability	0.15 nm	0.3 nm	0.2 nm
Band width	8 nm	8 nm	8 nm
Optical path	Semi flow / analytical	Semi flow / analytical	Semi flow / analytical
Baseline noise ( Static ) Au	≤ ± 0.35 x 10 <sup>-5</sup>	≤ ± 0.5 x 10 <sup>-5</sup>	≤ ± 0.5 x 10 <sup>-5</sup>
Baseline drift ( Static ) Au / h	≤ 1 x 10 <sup>-4</sup>	≤ 1.5 x 10 <sup>-4</sup>	≤ 1.5 x 10 <sup>-4</sup>
Minimum detection limit	≤ 4 x 10 <sup>-8</sup>	≤ 4 x 10 <sup>-8</sup>	≤ 4 x 10 <sup>-8</sup>
Power	150 W	150 W	150 W
Power supply	90 V / 50 ~ 60 Hz	90 V / 50 ~ 60 Hz	90 V / 50 ~ 60 Hz
Dimension	465 x 315 x 180 mm	465 x 315 x 180 mm	460 x 265 x 190 mm
Weight	9.5 kg	9.5 kg	9.2 kg

## Column Specifications

Inner diameter	100 mm , 20 mm , 30 mm , 50 mm
Column length	100 mm , 150 mm , 250 mm , 300 mm
Particle size	5 μm , 10 μm

### Standard Accessories

Accessory	Quantity
Semi-prep pump	2
UV-Vis detector ( without flow cell )	1
Semi-prep flow cell	1
Injection valve	1
2 ml sample loop	1
Solvent tray	1
Binary gradient kit	1

### Optional Accessories

Accessory	Quantity
Autosampler	1
Fraction collector ( 144 tubes , 12 mm test tubes )	1
Fraction valve ( 6 channel )	1