HPLC SPECIFICATIONS



The Axcend Focus LC[®] high-performance liquid chromatography (HPLC) system is small enough to be easily placed near the sample source and powerful enough to be used in any state-of-the-art laboratory. It's optimized for low solvent consumption, waste reduction, and energy conservation, and delivers the performance and reliability you need for the highest confidence in your daily results.



Compact, Lightweight and Powerful.

The Axcend Focus LC weighs 17.6 pounds and operates at up to 10,000 psi. Reduced diameter columns improve sensitivity by reducing on-column sample dilution.

Take the Lab to the Sample™.

Not only does the Axcend Focus LC deliver in the lab, it also works where other HPLC's cannot - like inside a fume hood, in a glove box, or in the field.

Innovation that Improves Productivity.

Experience the ease of instrument and method transfer with the Axcend Focus LC. And, it has the only commercially available cartridge-based z-type flow cell for enhanced sensitivity capillary LC UV-absorption.

Integration Is Easy.

The award-winning design of the Axcend Focus LC includes low volume interfacing kits for connections to MS and photodiode array (PDA) UV detection. Axcend accessory equipment includes easy-to-use PDA and autosampler.

The Column Choice is Yours.

The Axcend Focus LC operates using any standard capillary HPLC or UHPLC column so you can compare results to your existing LC.

Efficient Control, Acquisition, and Reporting.

Smooth control with AxcendDrive operating system software or drivers available for Agilent OpenLab CDS, Chemstation, and DataApex Clarity.

The Most Environmentally Friendly HPLC.

You'll use under 10 mL per week of solvents and produce roughly the same amount of waste, and energy consumption is a fraction of larger, bench-top LCs. Using the Green Chemistry Institute's Greenness Score, compact HPLC is about 180 times more green than traditional LC systems.

Lowest Cost of Ownership.

Not only is the instrument priced below most, it's optimized for low solvent consumption, waste reduction and energy conservation. Customer costs for solvent and waste are about 1/1000th of analytical-scale systems, so the Axcend Focus LC pays for itself in as little as two years.

More information at www.axcendcorp.com



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Axcend Focus LC		Column & Detector Cartridge	
Dimensions	(width x depth x height): 21.6 x 35.5 x 20.3 cm (8.5 x 14 x 8 in)	Standard cartridge	Dimensions (width x depth x height): 3.6 x 18.5 x 11.5 cm (1.4 x 7.3 x 4.5 in)
Weight	8.0 kg (17.6 lbs)		Weight: < 0.3 kg (0.7 lb) Columns: Capillary: 0.36 mm O.D. UV transparent (i.e. Teflon-coated) fused silica Dimensions: 5 and 10 cm long (0.15 - 0.30 mm I.D.) Packing material particle size: 1.7 - 3.0 µm Stationary phase type: All reverse - and normal-phase media Column fittings: none required On-column UV-absorption detector: Discrete light-emitting diode (LED) light source (235, 255, 275 nm) Path length: 0.15 mm Short term noise: 0.15 x 10 ⁻³ AU at 255 nm Drift: < 2.0 mAU/h at 235, 255, and 275 nm Linear dynamic range: up to 0.6 AU Detection limit: <0.2 ppm (butyl paraben at 255 nm S/N = 3)
Dual syringe principle pumping system	Pump volume: 140 µL each pump (280 µL total) Max. pressure: 689 bar (10,000 psi) Flow rate range: 0.4 - 10 µL/min in 0.01 µL/ min increments Flow rate accuracy and precision Accuracy: ± 0.4 % Precision (isocratic retention time varia- tion): < 0.5 % RSD Gradient program range: 0.5 to 99.5 % A in 0.01 % increments Solvent compatibility: pH range: 2.0 - 10.0 Typical RPLC - NPLC System dwell volume: configurable from 0.25 to 2.1 µL		
Sample introduction	Type: Syringe push-to-fill valve injection loop Volume range: 4 - 2,000 nL Injection volume precision: Internal loop (40 nL): < 1.00 % RSD Timed injection: < 1.00 % RSD for 0.04 min injection	Heated column cartridge	Dimensions (width x depth x height): 3.6 x 28.0 x 11.5 cm (1.4 x 11.0 x 4.5 in) Weight without column: < 0.5 kg (1 lb) Columns: Most commercially available capillary columns (fused silica, PEEK, PEEKsil, and some stainless steel) Dimensions: 5, 10, 15 cm long (0.15 - 0.3 mm I.D.) Column fittings: 360 mm, 1/32 in, or 1/16 in Column oven: Temperature range: 35 - 80°C Accuracy: ±2°C and ±0.5°C precision Micro flow cell UV-absorption detector Discrete light-emitting diode (LED) light sources (235, 255, 275 nm) Path length: 1.2 mm Short term noise: 0.30 10 ⁻³ AU at 255 nm Drift: < 2.0 mAU/h at 235, 255, and 275 nm Linear dynamic range: typically up to 1 AU Detection limit: <0.02 ppm (butyl paraben at 255 nm S/N = 3)
Wetted materials in sample flow path	Stainless steel, fused silica, polyimide, PEEK, DLC, carbon-reinforced PEEK		
Sample carryover	≤0.05 % (40 nL injection of 500 mg/mL pro- pylparaben at 255 nm UV-absorption)		
Mobile phase and waste vial volumes	15 mL		
Computer requirements	Windows PC/Laptop; Minimum: Intel Core i3 2.0GHz 64bit (or equivalent) processor, 8 GB Ram, 160 GB HDD, 1600 x 900 display, 100Mb/1Gb Ethernet RJ45 port, Windows 10 or 11 Pro 64bit (Recommended: Intel Core i5 3.0GHz or better, 16Gb RAM, 256Gb SSD, 1920 x 1080 display)		
Operating/data processing software	Axcend Drive, drivers available for Agilent OpenLab CDS (2.6 or greater), Agilent Open- Lab Chemstation edition, and DataApex Clarity (8.6 or greater)		
Electrical power	120, 220 V AC or battery-powered (12.8 V/85 Ah Li-Fe-PO $_4$)		
Battery run time	Typically >10 h without column heating, 6 h with column heating		

