

Reveleris® Technologies

Reveleris® X2 Flash Chromatography System

Grace revolutionized flash chromatography in 2009 with the introduction of the Reveleris® flash chromatography system, the first flash system with integrated ELSD detection. Since its introduction, the Reveleris® system has received major industry awards and multiple U.S. Patents. These patented and patent pending technologies make the Reveleris® X2 flash system one of the most innovative flash systems available today.

The Reveleris® X2 flash chromatography system offers the following key benefits:



U.S. Patent Numbers:
8,115,930
8,305,582
8,314,917

Reveleris® X2 Flash Chromatography System

- RevealX™ detection technology that triggers simultaneous fraction collection with advanced signal processing from up to four detector signals - ELSD/UV/Vis (U.S. Patent# 8,115,930)
- Collection of fractions using the ELSD signal when a chromophoric mobile phase obscures the sample signal on the UV/Vis detector (U.S. Patent# 8,305,582)
- Active control of the integrated, optimized ELSD including flow-splitter operation (U.S. Patent# 8,305,581)
- Software selectable ELSD and UV detector sensitivity that actively controls the amount of sample being split to the ELSD (Patent Pending)
- Three variable UV detector channels plus integrated ELSD detection that can selectively be used to trigger fraction collection (UV-Vis upgrade optional)
- Sample recovery greater than 99.9% by directing 50µl/min or less of the sample to ELSD (*Patent Pending*)
- Eluent split to ELSD is delivered using a gas stream; no additional pump or solvent required (*Patent Pending*)
- No optimization of the ELSD required (*Patent Pending*)
- Reveleris® Navigator™ software feature to optimize performance with data from TLC analysis or HPLC columns, saving time and solvent consumption (optional upgrade) (*Patent Pending*)
- Auto-priming of all pumps, helps prevent sample loss (*Patent Pending*)
- Single screen system control and monitoring on a large 12 touch screen display
- Upward solvent flow through flash cartridges for better purging of air during equilibration

Additional Patent Pending Technologies

Flexible, High-recovery fraction collection with multiple detector signals

Specialty Silica for Increased Sample Loading and Resolution

Automatic, accurate flash cartridge and fraction tray identification

Solvent Feed System for Improved Method Performance and Flexibility to Use up to Four Solvents in a Run

Reveleris® X2 Flash Chromatography System

Benefits and Specifications

Benefits	
Set-Up and Control:	Automated solvent line priming
	Auto recognition of Reveleris® cartridges and trays
	Single click gradient adjustment and hold
	Fraction collection triggering based on slope and/or threshold
	User control of the fraction collection tray with manual advance
	Automated software allows fast switching from normal phase to reversed phase
	Color-coded user guidance, status prompts, and alerts
System Safeguards:	Auto run extension on peak detection
	Automatic flow reduction and pressure monitoring cut off
	Use same solvents in multiple reservoirs with rapid auto line switching for extended capacity
	Air purging of used cartridges in flash mode, to help ensure safe disposal
Solvent Options:	Four independent solvent channels offering use of up to four solvents during a run
	No carrier solvent for ELSD required
	High pressure precision HPLC pumping up to 200 psi

Specifications	
Display:	12" Windows® based graphical LCD touch screen with full on screen QWERTY keyboard
Data Entry:	Touchscreen or USB connection to mouse/keyboard
Software:	RevealX™ detection technology with advanced signal processing to combine multiple detector signals
Solvent Delivery System:	High pressure pumps (HPLC); Four independent channels with up to four solvents in a single run. Auto-switches lines when solvent levels run low. Normal phase and reversed phase solvent compatible
Flow Rate:	1–200mL/min (accuracy +/- 3%, precision +/- 0.5% for 4-200ml/min)
Maximum Pressure:	Up to 200psig
Gradients:	Linear, step, isocratic. Four solvent binary. On-screen mid-run gradient adjustment, isocratic hold, pause
Sample Injection:	Liquid or solid sample modes, solid injection up to ~75g
Solid Loader Plunger:	Three sizes fitting into 15mL, 75mL and 150mL solid loaders
Detector Sensitivity:	Selectable sensitivity control high or low, based on concentration of target compound
UV Wavelength Range:	200-500 nm; up to three wavelengths. Optional extension to visible wavelengths, UV-Vis 200-850nm
Accommodates Cartridge Sizes:	4g–330g luer type on system; up to 1500g with an adapter
Triggers:	Combination of up to 3 UV signals plus ELSD with slope and/or threshold detection
Fraction Collection Trays:	Holds two 5"x12" trays; Auto-tray recognition
Power Options:	120/240V, 50/60Hz, 10A
Instrument Dimensions:	16.5" H x 21.5" W x 18.0" D (41.91 cm H x 54.6 cm W x 45.72 cm D)
Instrument Weight:	60 lbs (27 kg)
Certifications:	CE, TÜV®, ISO® 9001

Description	Part No.
Reveleris® X2 Flash Chromatography System	5164931
Included with the system: (2) 18x150 Fraction Collection Trays (1) 3g Adjustable Solid Loader Plunger (1) 3g Filled Solid Loader Solvent tubing, filters and accessories required for installation Installation Hardware Performance Documents	
Reveleris® UV-Vis Optional Upgrade	5167301
Reveleris® Navigator™ Software Optional Upgrade	5156620

Contact your local Grace Representative to request a demo or for more information

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