Waters
THE SCIENCE OF WHAT'S POSSIBLE.™

ACQUITY UPLC Binary Solvent Manager PLUS for HDX Automation LC Accessory Kit

The Waters™ ACQUITY™ UPLC™ Binary Solvent Manager PLUS is targeted for investigative analysis where retention time variability is minimized and throughput is critical and is perfectly suited for configurations in systems supporting any MS-based application. This Binary Solvent Manager (BSM) is designed to offer the lowest dispersion performance and is suitable for running 1.0 mm columns, the standard for the HDX application.

BINARY SOLVENT MANAGER OPERATING SPECIFICATIONS

Number of solvents	Up to four, in combination of two: A1 or A2 and B1 or B2
Solvent conditioning	Integrated vacuum degassing, five lines with one allocated for purge solvent
Gradient formation	High pressure mixing, binary gradient
Gradient profiles	11 gradient curves (including linear, step [2], concave [4], and convex [4])
Maximum operating pressure	18,000 psi up to 1 mL/min 12,000 psi up to 2 mL/min
Primary check valves	Intelligent Intake Valves (*i²Valve*)
Flow accuracy†	±1.0% of set flow rate at 0.500 mL/min as per Empower™ SystemsQT
Flow precision†	≤0.075% RSD or ± 0.01 min SD, (0.2 to 2.0 mL/min), whichever is greater using premixed solvent
Composition ripple† (baseline noise)	≤1.0 mAu
Composition precision†	Composition precision† ≤0.15% or ±0.01 min SD, whichever is greater (from 0.2 to 2.0 mL/min)
Pump compositional accuracy†	±0.5% absolute from 5% to 95%, 0.2 to 2.0 mL/min
Pressure pulsation†	≤0.4% or 25 psi, whichever is greater
Compressibility compensation	Automatic, no user intervention required
Priming	Wet priming runs at a flow rate of 4 mL/min
Pump seal wash	Equipped with a programmable active wash system to flush the rear of the high-pressure seals and the plungers
Flow ramping	Automatic
Primary wetted materials	316L stainless steel, UHMWPE blend, MP35N, titanium alloy, gold, sapphire, ruby, zirconia, Nitronic 60, DLC, fluoropolymer PEEK, and PEEK blend
Mixing options	Standard: 50 µL and 1.0 mm x 50 mm Optional: 100 µL and 380 µL
Analog output (I/E)	-2.0 to +2.0 V full scale (selectable diagnostic channel output)
Digital I/O connectors (rear panel)	1x Gradient Start TTL input, 1x Stop Flow TTL input, 1x Run Stop output, 3x contact closure outputs (programmable), 2x Auxiliary TTL output

ENVIRONMENTAL SPECIFICATIONS

Usage	For indoor use only
Altitude	<2000 m
Operating temp. range	10–40 °C (indoor use only)
Operating humidity range	20% to 80% RH

ELECTRICAL SPECIFICATIONS

Voltage range	100-240 VAC auto-sensing
Voltage fluctuation	Input voltage of 100-200 VAC, +/-10%,
Line frequency	50/60 Hz
Power requirements	200 VA

PHYSICAL SPECIFICATIONS

Weight	26.5 Kg (58.5 lbs.)
Width	34.3 cm (13.5“)
Height	22.9 cm (9.0“)
Depth	66 cm (26.0“)
Safety and EMC compliance	CE Mark CSA C-tick and UL
Audible noise	≤62 dBA
Transportation and storage temp	-30 to 60 °C
Transportation and storage humidity	20 to 85%, non-condensing

†*For specific test conditions, contact your Waters sales representative.*

ORDERING INFORMATION

HDX Automation LC Accessory Kit	Part Number 176016035
ACQUITY UPLC Binary Solvent Manager PLUS	Part Number 185015082

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