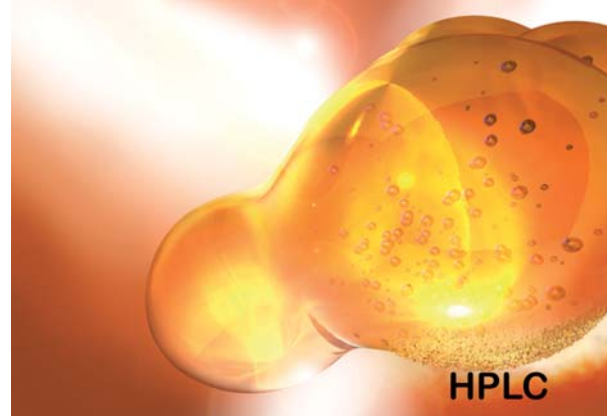


Specification Sheet

LC-20AD

Solvent Delivery Module



Pump type	Micro-volume double plunger pump (approx. 10 μ L/stroke)
Pumping methods	Constant flow delivery and constant pressure delivery
Constant flow pumping	
Flow rate setting range	0.0001 – 5 mL/min [1.0 – 40 MPa] 5.0001 – 10 mL/min [1.0 – 20 MPa]
Flow rate accuracy	\pm 1% or \pm 0.5 μ L/min, whichever is greater (0.01 – 2 mL/min) \pm 2% (2 – 5 mL/min) (when water is pumped at 1 - 40 MPa, with water and room temperature constant between 20 – 30°C)
Flow rate precision	\pm 0.3% (RSD 0.1% and below) (when water is pumped at 0.05 – 5 mL/min, 1 - 40 MPa, with water and room temperature constant between 20 – 30°C)
Constant pressure pumping	
Pressure setting range	1.0 – 40 MPa [0.1 MPa steps]
Pressure accuracy	\pm 10% or 1.0 MPa, whichever is greater
Pressure limits function	Upper and lower limit
Wetted surface materials	SUS316L, PEEK, PTFE, ruby, sapphire, HastelloyC [®]
Suction filter	10 μ m
Line filter	5 μ m mesh, capacity 30 μ L
Time program	Commands for flow rate, pressure, EVENT functions, LOOP (for program repetition); 10 files, total 320 steps
Pressure display accuracy	\pm 2% or \pm 0.5 Mpa, whichever is greater
Plunger rinsing line	Connecting the optional automatic rinsing kit enables automatic rinsing

Specification Sheet: LC-20AD Solvent Delivery Module (2/3)

Size and weight	W 260 x H 140 x D 420 mm, 10 kg
Operating temperature range	4 – 35°C
Power requirements	100-120/220-240 V AC, 150VA, 50/60 Hz

High Pressure Gradient System controlled by System Controller (CBM-20A)

Number of solvents mixed	2 or 3
Gradient profile	Step, linear and exponential functions (only when LCworkstation controls) possible at multiple levels
Maximum program steps	Max. 400 steps per program, 20 program files
Program duration	0.01 – 9999.9 min (in 0.01 min steps)
Mix ratio setting range	0 - 100% (in 0.1% steps)
Concentration accuracy	± 0.5% (for 2-liquid gradient with water/caffeine solution, at 0.05 – 2 mL/min, 1 – 40 MPa)
Flow rates possible	0.0001 – 10 mL/min

High Pressure Gradient System controlled by Pump Unit (LC-20AD)

Number of solvents mixed	2
Gradient profile	Step and linear possible at multiple levels
Maximum program steps	Max. 320 steps per program, 10 program files
Program duration	0.01 – 999.9 min (in 0.01 min steps)
Mix ratio setting range	0 - 100% (in 0.1% steps)
Concentration accuracy	± 0.5% (for 2-liquid gradient with water/caffeine solution, at 0.05 – 2 mL/min, 1 – 40 MPa)
Flow rates possible	0.0001 – 10 mL/min

Low Pressure Gradient System controlled by System Controller (CBM-20A)

Number of solvents mixed	Max. 4
Gradient profile	Step, linear and exponential functions (only when LCworkstation controls) possible at multiple levels
Maximum program steps	Max. 400 steps per program, 20 program files
Program duration	0.01 – 9999.9 min (in 0.01 min steps)
Mix ratio setting range	0 - 100% (in 0.1% steps)
Concentration accuracy	± 1% (for 2-liquid gradient with water/caffeine solution, at 0.1 – 2 mL/min, 1 – 20 MPa)
Flow rates possible	0.0001 – 2 mL/min (rate over 2 mL/min possible, but will shorten life span of low-pressure gradient unit's solvent valves)

Low Pressure Gradient System controlled by Pump Unit (LC-20AD)

Number of solvents mixed	Max. 4
Gradient profile	Step and linear possible at multiple levels
Maximum program steps	Max. 320 steps per program, 10 program files
Program duration	0.01 – 999.9 min (in 0.01 min steps)
Mix ratio setting range	0 - 100% (in 0.1% steps)
Concentration accuracy	± 1% (for 2-liquid gradient with water/caffeine solution, at 0.1 – 2 mL/min, 1 – 20 MPa)
Flow rates possible	0.0001 – 2 mL/min (rate over 2 mL/min possible, but will shorten life span of low-pressure gradient unit's solvent valves)