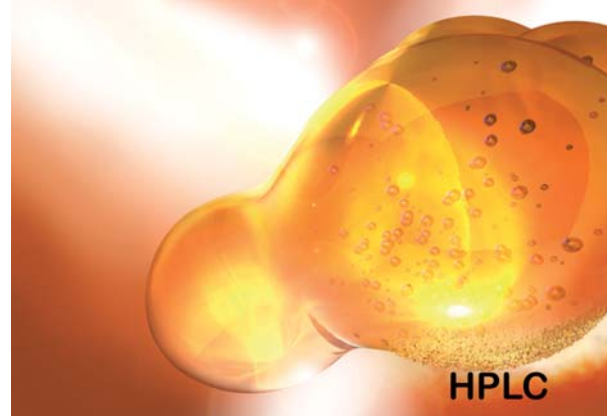


# Specification Sheet

LC-20AT

Solvent Delivery Module



<b>Pump type</b>	Double reciprocating plunger pump
<b>Pumping methods</b>	Constant flow delivery and constant pressure delivery
<b>Constant flow pumping</b>	
<b>Flow rate setting range</b>	0.001 – 5 mL/min [1.0 – 40 MPa] 5.001 – 10 mL/min [1.0 – 20 MPa]
<b>Flow rate accuracy</b>	± 2% or ± 2 µL/min, whichever is greater (when water is pumped at 0.1 – 5 mL/min, 1 - 40 MPa, with water and room temperature constant between 20 – 30°C)
<b>Flow rate precision</b>	± 0.3% (RSD 0.1% and below) (when water is pumped at 0.1 - 5 mL/min, 1 - 40 MPa, with water and room temperature constant between 20 – 30°C)
<b>Constant pressure pumping</b>	
<b>Pressure setting range</b>	1.0 – 40 MPa [0.1 MPa steps]
<b>Pressure accuracy</b>	± 10% or 1.0 MPa, whichever is greater
<b>Pressure limits function</b>	Upper and lower limit
<b>Wetted surface materials</b>	SUS316L, PEEK, PTFE, ruby, sapphire, HastelloyC®
<b>Suction filter</b>	10 µm
<b>Line filter</b>	5 µm mesh, capacity 30 µL
<b>Time program</b>	Commands for flow rate, pressure, EVENT functions, LOOP (for program repetition); 10 files, total 320 steps
<b>Pressure display accuracy</b>	± 2% or ± 0.5 Mpa, whichever is greater
<b>Plunger rinsing line</b>	Connecting the optional automatic rinsing kit enables automatic rinsing
<b>Size and weight</b>	W 260 x H 140 x D 420 mm, 11 kg
<b>Operating temperature range</b>	4 – 35°C
<b>Power requirements</b>	100-120/220-240 V AC, 150VA, 50/60 Hz

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

<b>Number of solvents mixed</b>	2 or 3
<b>Gradient profile</b>	Step, linear and exponential functions (only when LCworkstation controls) possible at multiple levels
<b>Maximum program steps</b>	Max. 400 steps per program, 20 program files
<b>Program duration</b>	0.01 – 9999.9 min (in 0.01 min steps)
<b>Mix ratio setting range</b>	0 - 100% (in 0.1% steps)
<b>Concentration accuracy</b>	± 1% (for 2-liquid gradient with water/caffeine solution, at 0.1 – 3 mL/min, 1 – 40 MPa)
<b>Flow rates possible</b>	0.001 – 10 mL/min

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

<b>Number of solvents mixed</b>	2
<b>Gradient profile</b>	Step and linear possible at multiple levels
<b>Maximum program steps</b>	Max. 320 steps per program, 10 program files
<b>Program duration</b>	0.01 – 999.9 min (in 0.01 min steps)
<b>Mix ratio setting range</b>	0 - 100% (in 0.1% steps)
<b>Concentration accuracy</b>	± 1% (for 2-liquid gradient with water/caffeine solution, at 0.1 – 3 mL/min, 1 – 40 MPa)
<b>Flow rates possible</b>	0.001 – 10 mL/min

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

<b>Number of solvents mixed</b>	Max. 4
<b>Gradient profile</b>	Step, linear and exponential functions (only when LCworkstation controls) possible at multiple levels
<b>Maximum program steps</b>	Max. 400 steps per program, 20 program files
<b>Program duration</b>	0.01 – 9999.9 min (in 0.01 min steps)
<b>Mix ratio setting range</b>	0 - 100% (in 0.1% steps)
<b>Concentration accuracy</b>	± 1% (for 2-liquid gradient with water/caffeine solution, at 0.1 – 2 mL/min, 1 – 20 MPa)
<b>Flow rates possible</b>	0.001 – 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-20AT)**

<b>Number of solvents mixed</b>	Max. 4
<b>Gradient profile</b>	Step and linear possible at multiple levels
<b>Maximum program steps</b>	Max. 320 steps per program, 10 program files
<b>Program duration</b>	0.01 – 999.9 min (in 0.01 min steps)
<b>Mix ratio setting range</b>	0 - 100% (in 0.1% steps)
<b>Concentration accuracy</b>	± 1% (for 2-liquid gradient with water/caffeine solution, at 0.1 – 2 mL/min, 1 – 20 MPa)
<b>Flow rates possible</b>	0.001 – 2 mL/min (rate over 2 mL/min possible, but will shorten life span of low-pressure gradient unit's solvent valves)