

# Specifications of LC-2010HT (Pump, Degasser, AS & Oven)

Item		LC-2010CHT (228-45103-3X)	
Pump	Pump type	Serial dual plunger, micro volume (10 $\mu$ L on primary side, 5 $\mu$ L on secondary)	
	Flow rate setting range	0.001-5 mL / min [1.0-35 Mpa / 145-5076psi]	
	Flow rate accuracy	$\pm 1\%$ or $\pm 2\mu$ L / min, whichever is larger (1mL / min, 3-10.0MPa / 435-1450psi, water, ambient temperature at 20 °C, except in gradient solvent delivery), $\pm 2\%$ or $\pm 2\mu$ L / min, whichever is larger (except above condition and in gradient solvent delivery)	
	Flow rate precision	$\pm 0.075\%$ RSD or 0.02min SD, whichever is larger (0.05-2mL / min, 1.0-35Mpa / 145-5076psi, methanol, ambient temperature at 20°C)	
	Pressure display accuracy	$\pm 2\%$ or $\pm 0.5$ MPa, whichever is larger	
	Plunger cleaning	Automatic rinsing mechanism as standard equipment	
	LPGE	Number of solvents and setting range	Up to 4 solvents 0-100%, 0.1% step
Concentration accuracy		$\pm 0.5\%$ (0.1-2mL / min, 1.0-20.0MPa / 145-2900psi, aqueous acetone / water)	
Concentration precision		$\pm 0.1\%$ (0.1-2mL / min, 1.0-20.0MPa / 145-2900psi, aqueous acetone / water)	
Degasser	Type	Membrane on-line degasser, 5 lines (4x mobile phase, 1x autosampler rinsing liquid)	
	Volume	4mL / line for mobile phase, 2mL / line for autosampler rinsing liquid	
Autosampler	Injection method	Full volume injection, variable injection possible (no sample loss)	
	Injection volume setting range	0.1-100 $\mu$ L (standard), 1-2000 $\mu$ L (optional) (0.1-0.9 $\mu$ L in 0.1 $\mu$ L step, 1-2000 $\mu$ L in 1 $\mu$ L step)	
	Sample capacity	1 mL vials	350
		1.5 mL vials	140
		4 mL vials	100
		Microtiter plates	Max.4 plates (up to 384 samples with 96 well or 1536 samples with 384 well plates)
		Deep well plates	Max.4 plates (up to 384 samples with 96 plates)
	Injection volume repeatability	RSD < 0.3% (10 $\mu$ L injection)	
	Carryover	0.01% (under conditions determined by Shimadzu)	
	Injection volume accuracy	$\pm 1\%$ (50 $\mu$ L, n=6)	
	Repetition injection frequency	1-99 / sample	
	Analytical run time setting	0.01-9999.9 min (0.01 min step)	
	Injection condition steps	Max. 202 steps	
	Operating pressure	35.0MPa maximum	
	Rinsing liquid degassing	Standard	
	Sample cooler (LC-2010HT only)	Type	Direct cooling type. (For setting temperature at 4°C, ambient temperature shall be 30°C or lower and humidity 70% or lower.) Dehumidifier incorporated.
Temperature setting range		4-40 °C (For setting temperature at 4°C, ambient temperature shall be 30°C or lower and humidity 70% or lower.)	
Column Oven	Type	Block heating with preheating of the mobile phase	
	Temperature setting range	4-60 °C, 1 °C step	
	Temperature control precision	$\pm 0.1$ °C	
	Temperature control range	(Ambient temperature-15°C) -60 °C	
	Columns accommodated	2 x 250mm columns	
	Preheater volume	4 $\mu$ L (for Semi-micro), and 9 $\mu$ L, 2 channels	