

1.3 Specifications

◆ Column oven

Item	Specification
Dimensions (mm)	250 (W) × 360 (H) × 175 (D)
Volume (L)	15.8
Temperature range	Room temperature + 10°C to 400°C –50°C to 400°C (When using liquid carbon dioxide gas.)
Temperature accuracy	±1% (K) (Calibration possible at 0.01°C)
Temperature deviation	Within 2°C (on a 200mm diameter column holder)
Temperature stability	Within ±0.05°C
Temperature coefficient	0.01°C/°C
Range of linear temperature increase	115 V model 30°C/min up to 150°C 20°C/min up to 250°C 10°C/min up to 380°C 7°C/min up to 400°C 230 V model 60°C/min up to 150°C 40°C/min up to 250°C 20°C/min up to 380°C 15°C/min up to 400°C
Cooling speed	To cool from 300°C to 50°C, approx. 6 minutes.
Overheat protection	Programmable up to 420°C (Also, you have another protection separately: fixed at 500°C.)

1

◆ Temperature program

Item	Specification
Program ramps	20 ramps in total (Heating and cooling available)
Setting	0.1°C increments
Program rate	–250 to 250°C/min, 0.01°C/min increments
All program total time	Maximum 9999.99 minutes

◆ Injection port

Item	Specification
Temperature range	Up to 400°C
Temperature setting	1°C increments
Overheat protection	Programmable up to 420°C
Injection unit	Split/Splitless injection, Packed injection (direct)

◆ **Detector**

Item		Specification
● Hydrogen flame ionization detector (FID)		
Temperature range		Up to 400°C, 1°C increments
Overheat protection		Programmable up to 420°C
Minimum detection		3pg C/s
Dynamic range		10 ⁷
Jet material		Fused quartz
Time constant		4 ms to 2 s selectable
● Thermal conductivity detector (TCD)		
Amplifier		Differential amplifier of half diffusion line equipped with 4 devices of tungsten rhenium filament. (Filament protective circuit is equipped)
Power		Constant current
Dynamic range		10 ⁵
Sensitivity		4000mV·ml/mg
Maximum operation temperature		400°C
Range switching		×1, ×10 (Preamplifier built-in)

◆ **Auxiliary heated zone**

Item		Specification
AUX3 to AUX5		Available (optional)

◆ **Carrier gas flow control unit****AFC (for SPL)**

Item		Specification
● Split/Splitless mode (Capillary column connected)		
Range		0 to 970 kPa (The maximum pressure limit is the primary pressure minus 10 kPa.)
Pressure setting		0.1 kPa increments
Program ramps		7 ramps possible
Program rate		–400 to 400 kPa/min, 0.01 kPa/min increments
Split ratio setting		0 to 9999.9, 0.1 increments
● Direct injection mode		
Pressure mode	Range	0 to 970 kPa (The maximum pressure limit is the primary pressure minus 10 kPa.)
	Pressure setting	0.1 kPa increments
	Program ramps	7 ramps possible
	Program rate	–400 to 400 kPa/min, 0.01 kPa/min increments

Item		Specification
Flow rate mode	Range	0 to 1200 ml/min (When primary pressure is 980 kPa)
	Pressure setting	0.1 kPa increments
	Program ramps	7 ramps possible
	Program rate	–400 to 400 ml/min/min, 0.01 ml/min/min increments

Dual AFC (for packed INJ)

Item		Specification
Flow rate mode	Range	0 to 100 ml/min
	Program ramps	7 ramps possible
	Program rate	–400 to 400 ml/min/min

- ◆ **Detector gas flow control unit**
Manual pressure governor (Constant pressure control: standard)

APC (optional)

Item	Specification
Range	0 to 1000 ml/min (Air), 0.1 ml/min increments 0 to 200 ml/min (H ₂) 0 to 100 ml/min (Makeup He)

- ◆ **Display**

Item	Specification
Type	Back-light LCD 240 × 320 dots, 16 lines The display can be switched between Japanese and English.

- ◆ **Dimensions, weight, and power supply**

Item	Specification
Dimensions (mm)	400 (W) × 690 (H) × 607 (D)
Weight	50 kg
Power supply	115 VAC, 1950 VA (GC-2014ATF model), 50/60Hz 230 VAC, 2750 VA (GC-2014ATF model), 50/60Hz