

Specifications

Column Oven	
Temperature range	(Ambient + 10°C) ~ 400°C (using liquid CO ₂ gas*: -50°C ~400°C)
Dimensions	250 (W) × 360 (H) × 175 (D) mm
Oven capacity	15.8L
Temperature accuracy	Set value (K) ± 1% (calibration at 0.01°C increments)
Temperature deviation	2°C max. (on 200mm dia. circumference 30mm from rear)
Temperature variation coefficient	0.01°C/°C
Temperature program steps	Up to 20 (cooling program possible)
Programmed rate setting range	-250°C ~ 250°C/min
Total time for all steps	9999.99 minutes max.
Linear heating range	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 (at 25°C ambient temperature)
Cooling rate	300°C ~ 50°C in 6 min max. (at 25°C ambient temperature)
Columns accepted	Capillary columns: 2 Packed columns for GC14B: 4 (Glass columns: 2)

*Optional parts are required to use liquid CO₂ gas.

Sample Injection Unit	
Temperature range	Up to 400°C
Heating settings	1°C steps
No. of units installed simultaneously	Up to 3 units
Sample injection unit types	Dual packed, single packed, split/splitless, direct, direct (AMC)

Carrier Gas Flow Controller	
For Packed / Dual	
Flow rate setting range	0 ~ 100mL/min
Programmable steps	7
Programmed rate setting range	-400 ~ 400mL/min
Correction function	Maintains column flow rate during column oven heating
For Capillary Split/Splitless, Direct	
(Split/splitless injection mode)	
Pressure setting range	0 ~ 970kPa
Programmable steps	7 (pressure-decreasing program possible)
Programmed rate setting range	-400 ~ 400kPa/min
Split ratio setting range	0 ~ 9999.9
Total flow rate setting range	0 ~ 1200mL/min
Correction function	Maintains column average linear velocity during column oven heating (for capillary only)
(Pressure mode direct injection)	
Pressure setting range	0 ~ 970kPa/min
Programmable steps	7
Programmed rate setting range	-400 ~ 400kPa/min
Correction function	Maintains column average linear velocity during column oven heating (for capillary only)
(Flow-rate mode direct injection)	
Flow rate setting range	0 ~ 1200mL/min
Programmable steps	7
Programmed rate setting range	-400 ~ 400mL/min
For Single Packed, Direct (AMC)	
Flow rate setting range	0~100mL/min
Correction function	Maintenance column flow rate during column oven heating

Detectors	
Temperature range	400°C max. (FID, TCD, ECD, FTD) 350°C max. (FPD)
Temperature setting	1°C steps
No. of units installed simultaneously	Up to 4 units (restricted depending on detector type)
Detector type	FID, TCD, ECD, FPD, FTD for capillary/packed
Flame Ionization Detector (FID)	
System	Dual flow rate differential system
Temperature range	400°C max.
Minimum detected quantity	3pgC/s (dodecane)
Dynamic range	10 ⁷
Nozzle	Quartz glass Standard: for packed, Option: for capillary
Thermal Conductivity Detector (TCD)	
System	Dual flow rate differential system
Temperature range	400°C max.
Dynamic range	10 ⁵
Sensitivity	40,000mV · mL/mg (built-in pre-amplifier, with 10 × amplification)
Electron Capture Detector (ECD)	
System	Fixed current system using ⁶³ Ni370MBq radiation source
Temperature range	400°C max.
Minimum detected quantity	0.1pg/s (γ-BHC)
Dynamic range	10 ⁴
Flame Photometric Detector (FPD)	
Temperature range	350°C max.
Dynamic range	P: 10 ⁴ S: 10 ³
Minimum detected quantity	P: 0.5pgP/s (tributyl phosphate) S: 8pgS/s (dodecane thiol)
Flame Thermionic Detector (FTD)	
	(Two types, one for capillary and one for packed. The specification are the same.)
Temperature range	400°C max.
Dynamic range	N: 10 ³ P: 10 ³
Minimum detected quantity	N: 0.4pgN/s (azobenzene) P: 0.05pgP/s (malathion)

Display
240 × 320 dot graphics display (30 characters × 16 lines)

Dimensions, Weight, Power Requirements (GC main unit)	
Dimensions	400 (W) × 690 (H) × 607 (D) mm
Weight	48kg (GC-2014AF model)
Power Requirements	AC100V/120V 230V 1800VA (GC-2014AF model, AC100V/120V) or 2600VA (GC-2014AF model, AC230V), 50/60Hz