

## Gas Chromatograph



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### Introduction:

The model employs classic mechanical valve gas path control and is equipped with a high-precision pressure sensor, enabling real-time display of gas path pressure and flow rate information. Its three-chamber and large column oven design offer enhanced expandability, and it provides a variety of detector options to meet diverse analytical needs. Coupled with independently developed chromatography processing software, it supports multiple communication methods, batch processing, customized report templates, and export of chromatographic data to Excel, Word, PDF, and other formats. Its stable, reliable, robust, durable, and easy-to-operate high-performance characteristics make it widely used in petroleum, chemical, environmental protection, food safety, and other fields.

### Features:

- \* Featuring a 7-inch high-definition capacitive touchscreen, it can display spectra, all temperature zones, carrier gas flow rates, detector functions, etc. in real time.
- \* Instrument methods can be edited on-screen, and firmware versions can be upgraded via USB interface.
- \* One-click instrument reset is supported.
- \* Intelligent maintenance tracking and reminders are provided, indicating the replacement time for injection pads, liners, etc.
- \* The pre- and post-chromatographic channels can be controlled and operated synchronously or asynchronously.
- \* It has undergone rigorous functional safety ECM certification, comprehensively enhancing its anti-interference capabilities.

### Technical Parameters:

Model	BK-GC7820N	
Oven	Temperature Range	RT+2~450°C
	Temperature Control Accuracy	0.01°C
	Temperature Program	≥99 levels, 100 platform(expandable)
	Maximum Temperature Heating Rate	250°C/min
	Temperature Control System	An 8-channel independent temperature control system with automatic temperature protection function
Selectable Detector Types	Flame Ionization Detector(FID)	Operating temperature: 450°C
		Detection limit ≤1.1pg C/s(n-hexadecane)
		Baseline drift(30min) ≤2*10 <sup>-13</sup> A
		Baseline noise ≤2*10 <sup>-14</sup> A
		Dynamic linear range ≥10 <sup>7</sup>
	Thermal Conductivity Detector(TCD)	Sensitivity≥10,000mV·mL/mg
		Baseline drift(30min): ≤0.2mV
		Baseline noise: ≤0.05mV
		Dynamic linear range: ≥10 <sup>5</sup>
	Flame Photometric Detector(FPD)	Safety protection: Gas bridging current protection function
		Maximum operating temperature: 450°C
		Limits of detection: P ≤80fg/s(methyl parathion), S ≤8 pg/s(methyl parathion)
Electron Capture Detector(ECD)	Dynamic linear range: P≥10 <sup>3</sup> ; S≥10 <sup>2</sup>	
	Equipped with automatic ignition function	
	Radioactive source: 63Ni	
Nitrogen-phosphorus Detector(NPD)	Maximum operating temperature: 400°C	
	Limit of detection: ≤1.0*10 <sup>-14</sup> g/mL(γ-666)	
	Dynamic linear range: ≥10 <sup>4</sup>	
Nitrogen-phosphorus Detector(NPD)	Maximum operating temperature: 400°C	
	Limit of detection: N: ≤1*10 <sup>-12</sup> g(N)/s(azobenzene); P: ≤5*10 <sup>-13</sup> g(P)/s(malathion)	
	Dynamic linear range: N≥10 <sup>3</sup> , P≥10 <sup>3</sup>	
Selectable Sample Injection Method	It can be used with standard and inert flow path split/splitless capillary injection, septum purge packed column injection, cold column injection, programmable temperature vaporization injection ports, valve injection systems, headspace injection systems, thermal desorption injection systems, etc.	
Standard Accessories	FID detector, chromatography workstation software, capillary sampler	
Optional Accessories	Sample injection system, TCD, ECD, FPD and NPD detector, chromatographic column, nickel catalytic converter	
Power Supply	AC220V, 50/60Hz	
Product Size(W*D*H)	670*580*500mm	
Net Weight	60kg	
Packing Size(W*D*H)	840*720*750mm	
Gross Weight	73kg	

Remark: 3 different types of detectors can be installed simultaneously.