

# Gas Chromatography LGC-B11



Gas Chromatography LGC-B11 is a benchtop unit with advanced flow controller (AFC) technology. System has digital control mode and polar capillary columns to separate polar analytes. GC oven is capable of 9 temperature program ramps and hold steps, and features rapid cooling: 250 °C to 50 °C < 10 minutes. Accurate flow rate control via AFC has higher level repeatability of retention time and peak area, enabling specific level of analysis by means of dual FID detectors.

### Features

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- ◆ 7-inch LCD display specifies temperature, gas flow and heating curve
- ◆ H<sub>2</sub> and N<sub>2</sub> mobile gas phase with AFC and constant pressure gas flow type
- ◆ Equipped with capillary analysis system and capillary split sampler
- ◆ Injection system incorporates diaphragm cleaning, split flow and auxiliary gas adjustment
- ◆ Standard unit for high-speed analysis with polar capillary column
- ◆ PEG-20M and FFAP stationary phase polar capillary columns can be coupled
- ◆ Dual FID detector with automatic flame ignition and baseline signal display
- ◆ Self-diagnostic and automatic fault recognition function
- ◆ Multi-core and 32-bit embedded hardware system ensures the reliable operation
- ◆ Equipped with chromatography workstation software to process data
- ◆ Memory function can store 20 sample test data
- ◆ RS232 interface and LAN port

### Applications

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Suitable for analysis of trace toxic compounds, monitoring and research in environmental protection, atmosphere and water source pollution. It is widely used for petrol-chemistry, environmental protection, epidemic prevention, pharmacology and scientific research.

## Specifications

Model no	LGC-B11	
Oven	Maximum capacity	22 L
	Temperature range	RT + 5 °C to 400 °C
	Temperature accuracy	± 0.1 °C
	Temperature program	9-phase/ 10 platform
	Program total time	9999.9 min
	Maximum temperature heating rate	0.1 to 60 °C/ min
	Maximum cooling rate	< 10 mins (250 to 50 °C)
Sample injector	Temperature range	RT+ 7 °C to 420 °C
	Temperature control	Automatic
	Injector type	Column or split
	Maximum sample inlet	3 pcs
	Carrier gas flow type	Constant pressure
	Pre column pressure range	0 to 400 kPa
	Pre column pressure accuracy	0.1 kPa
	Mobile phase flow range	H2: 0 to 200 ml/min, N2: 0 to 150 ml/min
Detector	Temperature range	RT + 7 °C to 420 °C
	Maximum installation	Dual detector
	Flame ignition mode	Automatic
	Flame Ionization Detector (FID)	Logarithmic amplifier
		High voltage switch control
		Baseline signal display
		Ignition coil control

		Detection limit: $\leq 3 \times 10$ to 12 g/s (Sample: n-hexadecane)
		Baseline noise: $\leq 5 \times 10^{-14}$ A
		Baseline draft: $\leq 6 \times 10^{-13}$ A
		Dynamic range: 10 <sup>7</sup>
		RSD: $\leq 3\%$
Power Supply	AC 220 V $\pm$ 22 V, 50 Hz $\pm$ 0.5 Hz, 3000 W	
Packing dimension	1020 $\times$ 660 $\times$ 740 mm	
Gross Weight	82 kg	
Net weight	70 kg	

## Standard accessories

Accessories no	Accessories name
1.	FID detector system
2.	Capillary injection system
3.	Chromatography workstation software

## Optional accessories

Accessories no	Accessories name
1.	<b>Polar capillary columns PEG-20M</b> Stationary phase: 30 m $\times$ 0.32 mm injector temperature: 250 °C Oven temperature: 165 °C Detector: FID-250 °C Inlet pressure: 0.04 Mpa
2.	<b>Polar capillary columns FFAP</b> Stationary phase: 30 m $\times$ 0.32 mm injector temperature: 250 °C Oven temperature: 165 °C Detector: FID-250 °C Inlet pressure: 0.04 Mpa
3.	Syringe 1 ul
4.	Syringe 5 ul