



[Gas Chromatography \(GC112A\)](#)

### Product Description

GC112A is computerized universal gas chromatograph with high performance, low price and brand new design. This instrument has the advantages of high stability and reliability, compact and rational structure, handy operation, elegant appearance, etc. The product is applicable to the environmental protection, the trace detection for atmosphere, water source pollution, etc and the organic chemistry, synthesis research, health quarantine and analysis and research of public hazard detection, and extensively applied in various fields of petrol, chemical industry, environmental protection, medicines, power, mines, scientific research, education, etc

### Features:

1. The instrument's main control circuit employs micro-processor system and large scale integrated circuit. It adopts man-machine dialogue interface and large screen LC character display technology, and is prominent in display, convenient in operation and handy.

2. Stable and reliable temperature control system

It has automatic control circuit, full keyboard operation and five independent high precision control systems. The column oven temperature can realize five-stage temperature programming. It can conduct complex sample analysis with wide boiling points.

Advance back opening technology ensures the instrument to retain great temperature precision when the column oven temperature nears the room temperature.

### 3. Stable and reliable air flow system

the carrier gas circuit employs double-stable gas circuit system that stabilizes pressure first, and then stabilizes flow.

Automatic split and non-split sampling can be realized by flexibly coordinating the capillary split/non-split samplers with circuit control parts.

The split/non-split samplers controlled by backpressure can provide stable pre-column pressure and enhance stability of the capillary system. It's specially applied in capillary analysis.

The capillary sampler has membrane cleaning function, effectively preventing the sampler's ghost peak phenomenon under high temperature.

The flow control valve adopts digital knob adjustment, which is prominent and reliable.

Pre-column pressure is displayed in the pressure gauge.

### 4. Two types of samplers available

the packed column sampler is applicable in analysis of packed column and heavy-caliber capillary column.

The capillary column sampler is applicable in analysis of minor-caliber and heavy-caliber capillary column.

### 5. Various kinds of detector available

Double hydrogen flame detector and single, double amplifier signal output can be furnished; meanwhile TCD (thermal conductivity detector) can be furnished.

The thermal conductivity detector and single hydrogen flame detector can be solely furnished.

#### Specifications:

Temperature index of column oven:

Temperature range of column oven: 5°C~399°C above room temperature  
(increment 1°C)

Temperature control precision of column oven: better than  $\pm 0.1^\circ\text{C}$ (measurement under 200°C)

Temperature programming of column oven: ten stage

Temperature programming rate setting: 0.1°C~40°C/min(increment 1°C),  
measurement under 200°C

Constant temperature hours at each stage: 0~655min(increment 1min)

#### Thermal conductivity detector(TCD):

Sensitivity:  $\geq 3000\text{mv}\cdot\text{ml}/\text{mg}$

Baseline noise:  $\leq 20\mu\text{v}$

Baseline drift:  $\leq 50\mu\text{v}/30\text{min}$

Flow rate stability of carrier gas:  $\leq 1\%$

#### Flame ionization detector(FID):

Detect ability:	$\leq 8 \times 10^{-12} \text{g/s}$
Baseline noise:	$5 \times 10^{-14} \text{A}$
Baseline drift:	$\leq 2 \times 10^{-13} \text{A/30min}$
Temperature index of sampler, detector, thermal conductivity cell:	
Temperature range:	$5^{\circ}\text{C} \sim 399^{\circ}\text{C}$ above room temperature (increment $1^{\circ}\text{C}$ )
Temperature control precision of column oven:	better than $\pm 0.1^{\circ}\text{C}$ (measurement under $200^{\circ}\text{C}$ )
Instrument use requirements:	
Supply voltage:	$220\text{V} \sim \pm 22\text{V}$ $50\text{Hz} \pm 0.5\text{Hz}$
Rated power:	$\leq 1800\text{W}$
Ambient temperature:	$+5^{\circ}\text{C} \sim +35^{\circ}\text{C}$
Relative humidity:	$\leq 85\%$

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