

HZ-9760A
Portable Chromatograph For
Transformer Oil

Dear user:

Thank you for choosing HZ-9760A Portable Chromatograph For Transformer Oil.

We hope that this instrument can make your work easier and more enjoyable, so that you can get the feeling of office automation in the test and analysis work.

Before using the instrument, please read this manual, and operate and maintain the instrument according to the manual to prolong its service life. "Just a light press, the test will be completed automatically" is the operating characteristics of this instrument.

If you are satisfied with this instrument, please tell your colleagues; if you are not satisfied with this instrument, please call (0312) 6775656 to tell you to serve you at all times-Baoding Huazheng Electric Manufacturing Co., Ltd., our company will definitely make you satisfied !

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I. Technical parameters

1、Detection limit (Unit μL/L) :

Component	Detection limit	Component	Detection limit
H ₂	2	CH ₄	0.05
CO	2	C ₂ H ₄	0.05
CO ₂	2	C ₂ H ₆	0.05
O ₂	5	C ₂ H ₂	0.05
N ₂	5	—	—

2、Detector technical indicators:

Thermal conductivity detector (TCD)	Flame Ionization Detector (FID)
Adopt semi-diffusion structure	Cylindrical collector structure, quartz nozzle,
The power supply adopts constant current control mode	Automatic ignition; stabilization time: ten minutes
Sensitivity: \10000mV. ml/mg (benzene)	Detection limit: ≤8 x 10 ⁻¹² g/s (n-hexadecane/iso-octane)
Baseline noise: w20uV	Baseline noise: w2x1C) T3a
Baseline drift: ≤100uV/30min	Baseline drift: ≥2×10 ⁻¹² A/30min
Linearity: ≥10 ⁴	Linearity: ≥10 ⁶

3、Temperature control index:

Temperature control	Temperature control range	Temperature control accuracy
Oven	8°C-400°C at room temperature	±0.1°C
Hydrogen flame (FID)	8°C~400°C at room temperature	±0.1°C
Thermal conductivity	8°C~400°C at room temperature	±0.1°C
Ni catalyst converter	8°C-400°C at room temperature	±0.1°C

4. Other parameters:

Dimensions: 625 x500 x297mm

Power supply: 220V±22V, 50Hz

Weight: <15kg

Power: ≤600W

II. Technical characteristics

1. Highly integrated integrated design:

The HZ-9760A transformer oil special portable chromatograph adopts a new integrated design. Four gas sources, including nitrogen, hydrogen, air, and standard gas, as well as a computer and a chromatographic workstation are all built into the instrument. There is no need for an external gas source and computer. The box adopts the original imported storm trolley box, and the anti-drop height is more than 1 meter.

2. Three-detector process technology to achieve complete separation of all components:

HZ-9760A transformer oil special portable chromatograph adopts three-detector process technology, equipped with a TCD detector and two FID detectors, which overcomes the influence of a large amount of CO and CC₂ on hydrocarbon gases, especially the influence on C₂H₂, and shortens the detection. At the same time, the detection sensitivity is greatly improved.

3. The carrier gas adopts back pressure control technology, which greatly reduces the influence of injection peaks on hydrogen analysis:

Due to the short peak time of hydrogen, it is more susceptible to the interference of the injection peak. The HZ-9760A transformer oil special portable chromatograph adopts the back pressure valve control technology, which can effectively reduce the interference of the injection peak to the hydrogen peak and reduce the artificial The influence of factors on hydrogen detection greatly improves the accuracy of hydrogen detection.

4. Chromatographic column technology with mixed fillers is used to greatly improve the chromatographic peak response and extend the service life of the chromatographic column:

HZ-9760A special portable chromatograph for transformer oil adopts chromatographic column and ERIC tubing equipped with a new type of mixed packing, which avoids the adsorption of samples to the greatest extent, and increases the response of hydrocarbon gas by about 20 times, and the response of 50ppm ethane The value can reach about 15mv, and the detection limit of ethanediol can reach 0.05ppm.

5. The use of high-sensitivity thermal conductivity detector greatly improves the detection sensitivity of hydrogen:

Different from the traditional thermal conductivity detector, the HZ-9760A transformer oil special portable chromatograph is equipped with a high-sensitivity thermal conductivity detector with a rhenium tungsten wire resistance value of 130 Ω . It has the characteristics of small cell size and fast response. The detection limit can reach 2ppm.

6. Using computer anti-control technology to realize the digital operation and one-key boot of the instrument:

The analysis parameters of the portable chromatograph for HZ-9760A transformer oil, including the setting or display of carrier gas pressure, sample pressure, temperature, etc., are all carried out through the workstation. The operation is simple and the analysis conditions can be grasped in real time. The heating and cooling of the instrument can be realized by clicking the mouse on the workstation, completely abandoning the cumbersome operation in the laboratory chromatogram, and basically realizing a one-key boot.

7. Digital electronic zero adjustment technology to enhance the anti-interference ability of the instrument:

The detector signal zero adjustment of HZ-9760A transformer oil special portable chromatograph adopts electronic zero adjustment technology, uses high-precision digital circuit for base current compensation, realizes electronic adjustment of output signal level, reduces parasitic parameters, and has strong the anti-interference ability.

8. Using computer anti-control technology to realize the control of the oscillator

Through a connection signal line, the HZ-9760A transformer oil special portable chromatograph can provide power for the small oscillator, and can operate the whole process of the oscillator through the workstation, such as heating, starting the oscillation, stopping, and buzzing at the end.

9. Automatic shut-off protection function to ensure the safe operation of the detector

The HZ-9760A transformer oil special portable chromatograph has a gas cut-off protection function. When the carrier gas flow is lower than the set threshold, the instrument will automatically turn off the thermal conductivity current to prevent the thermal conductivity detector from burning and improve the safety of the instrument.

10. The instrument comes with an aging program, and the user can automatically aging the instrument by directly selecting it without complicated settings.

The detector signal zero adjustment of HZ-9760A transformer oil special portable chromatograph adopts electronic zero adjustment technology, uses high-precision digital circuit for base current compensation, realizes electronic adjustment of output signal level, reduces parasitic parameters, and has strong the anti-interference ability.