

RDSP-3401 Transformer Oil Gas Chromatography

Gas chromatography is a technique for separation and analysis of multicomponent mixtures. G Transformer Oil Gas Chromatography uses gas as the mobile phase (carrier gas). When the



sample is sent into the injector and gasified, the carrier gas is carried into the packed column or capillary column. Due to the differences in boiling point, polarity and adsorption coefficient of each component in the sample, each component is separated in the column. Then, the detector connected behind the column detects each component in sequence according to the physical and chemical characteristics of the component. Finally, the converted electrical signal is sent to the chromatographic workstation, and the chromatogram of each component is recorded and analyzed by the chromatographic workstation, so as to obtain the analysis results of each component. RDSP-3401 Transformer Oil Gas Chromatography adopts color LCD touch screen. It has the advantages of high sensitivity, high accuracy, short analysis time, simple analysis method and automatic data processing. It is an ideal special gas chromatograph for power industry, transformer manufacturers and related fields.



Product Features


1. Using the advanced technology of the 10/100M adaptive Ethernet communication interface, and a built-in IP protocol stack, so that the instrument can easily through the intranet, Internet to realize the long-distance data transmission; convenient laboratory erection, simplifies the laboratory configuration and convenient data management;
2. Within the instrument, 3 independent connecting process is designed. which can be connected to the local processing (Laboratory), head of unit (such as quality inspection, production director, chief), as well as the supervisor (such as environmental protection bureau, bureau of technical supervision and so on), can make the unit in charge of the main pipe and the real-time monitoring instrument and data analysis results easily;
3. The NetChrom™ workstation equipped with the instrument can simultaneously support many sets of chromatographs working at the same time, realize the data processing and countercharge, simplifies the document management, and reduce the maximum user laboratory investment and operating costs.
4. The Transformer Oil Gas Chromatography can be connected to the manufacturers through the Internet, to realize the remote diagnosis, remote program update (need user license);
5. Temperature control area can be named by the user, is convenient for the user to use.

6. The instrument uses a multiprocessor parallel working mode, the instrument is more stable and reliable; It can be installed with up to 3 types of detectors at the same time, which can meet the complex sample analysis.
7. The instrument adopts modular structure design. The design is clear, convenient to replacement upgrade and protect the effectiveness of investment;
8. New microcomputer temperature control system, high precision of temperature control, reliability and anti-interference performance; have 8 completely independent temperature control system, can realize the sixteen step temperature-programmed, analysis enables the device to do a greater range of samples; has a pillar box after automatic door system, the temperature control precision is improved, heating-up/ cooling faster;
9. Built-in chromatography machine with low noise, high resolution of 24-bit AD circuit, and has the functions of storage, baseline deduction.
10. Random equipped with workstations is suitable for both Chinese and English WinXP, Win2000, Win7, Win8 operating system.
11. The chromatographic system with completely independent intellectual property rights has the standard interface of MODBUS/TCP and can be easy docking with DCS.



Product Specifications and Technical Parameters

1. Technical Parameters

Picture	
Model	RDSP-3401
Normal Working Conditions Of The Instrument	
Ambient temperature	5 ~ 35 °C
Relative humidity	0 ~ 85%RH
There is no strong electromagnetic interference and corrosive gas around	
The placement table shall be stable without strong vibration	
Power supply	AC 220 V ± 10%, 50 Hz ± 0.5 Hz
Power consumption	About 2.5kW
The Main Technical Indicators	
Temperature control area	8 ways
Temperature control range	-Room temperature above 5 °C ~ 400 °C. - Increment:1 °C. -Accuracy: ±0.1 °C
Temperature-programmed order	16 orders
Temperature-programmed range	0.1 ~ 60°C/min
The gas control	Precision mechanical valve flow control
External events	8 channels; Auxiliary control output (2 channels)
Chromatographic column	Special column for transformer oil
Number of detectors	Up to 3, default to FID and TCD (ECD, FPD and NPD are optional)
Start sampling	Manual, automatic optional
Communication interface	Ethernet IEEE802.3
Detector Technology Index	

1) Hydrogen flame ionization detector (FID)	
The limit of detection	$\leq 5 \times 10^{-12} \text{g/s}$ (sixteen alkyl)
Baseline noise	$\leq 7 \times 10^{-14} \text{A}$
Naseline drift	$\leq 2 \times 10^{-13} \text{A/30min}$
Linear rang	$\geq 10^6$
2) Thermal conductivity detector (TCD)	
Sensitivity	$S \geq 2500 \text{mV} \cdot \text{ml/mg}$ (sixteen alkyl) (1, 2, 3, 4 times enlarged, optional)
Baseline noise	$\leq 20 \mu\text{V}$
Baseline drift	$\leq 30 \mu\text{V/30min}$
Linear range	$\geq 10^4$

2. Minimum detection quantity

Two injections, the injection volume is 1ml, and the minimum detection concentration in transformer oil							
Component name	H2	CO	CO2	CH4	C2H4	C2H6	C2H2
Minimum detection concentration ($\mu\text{L/L}$)	2	1	5	0.1	0.1	0.1	0.1



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