

LIQUID CHROMATOGRAPHY MASS SPECTROPHOTOMETRY

Model Number : GOTT-LCMS-02-S64



DESCRIPTION

The high reliability and practicability of GOTT-LCMS-02-S64 liquid chromatography system ensure the long-term stable operation of the system and can be competent of any quality control and routine analysis. The computerized counter control workstation makes the experiment process easier. Meanwhile, this workstation provides powerful support of daily analysis works in various fields such as medicine, environmental protection, university scientific research, chemical industry, and food industry.

FEATURES

- High Pressure Pump
 - The solvent management system integrates the solvent and the tray, so that it easily expands the binary gradient system from 2 mobile phase to 4 mobile phases.
 - The new solvent management system easily solves the daily tedious problems of mobile phase replacement and system cleaning and maintenance when using binary high-pressure gradient system, and reduce the burden of laboratory personnel.
 - With the inherent advantages of the binary high-pressure gradient, the analysis requirements of sample diversification can be easily fulfilled.
 - Through the time program setting of the chromatography workstation software, it is easy to realize any combination and switch of the four mobile phases, which is convenient to change the mobile phase and flush the system after the detection of different samples.
 - This could provide convenient and excellent experience for users.
- Autosampler
 - Different injection modes and precise metering pump design ensure the excellent injection accuracy and long-term stability of data-analysis.
 - Maintenance-free mechanical structure provides longer lifetime.
 - The sample injection range is from 0.1 to 1000 μL , which ensures the high precision sampling of both large and small volume samples (the standard configuration is 0.1~100 μL).
 - The short sampling cycle and the high repetitive sampling efficiency lead to quick and efficient repetitive sampling, so as to save time.
 - The inner wall of the sample needle can be cleaned inside the autosampler, that is the sample needle flushing mouth can wash the outer surface of the sample needle to ensure very low cross contamination.
 - Optional sample chamber refrigeration provides cooling and heating in the range of 4-40°C for biological and medical samples.
 - The independent control software can match the liquid chromatography system of many manufacturers on the market.
- High Pressure Pump
 - Advanced electronic pulse compensation is adopted to reduce the dead volume of the system and ensure the repeatability of the measurement results.
 - The one-way valve, seal ring, and plunger rod are imported parts to ensure the durability of the pump.
 - The multi-point flow correction curve to ensures the flow accuracy within the full flow range.
 - The independent pump head is easier to be installed and disassembled.
 - Floating plunger design ensures higher lifetime of the seal ring.
 - Open-source computer communication protocol is easy controlled by third-party software.
- UV-Vis Detector
 - The dual-wavelength detector can detect two different wavelengths at the same time, which meet requirements of different wavelength detection items in the same sample simultaneously.
 - The detector adopts imported grating with high precision and imported light source with long lifetime and short stability time.
 - Wavelength positioning uses advanced high-precision stepper motor (imported from the United States) which directly control the wavelength to achieve great accuracy and reproducibility.
 - In a high precision data acquisition chip, the acquisition terminal directly converts analog signal into digital signal, which avoids interference in the transmission process.
 - The open communication protocol of detector is accessible for third-party software. At the same time, the optional analog acquisition circuit is compatible with other domestic chromatography software.

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- Column Oven
 - The column temperature control system adopts international advanced processing chip to ensure high precision and high stability.
 - Independent double column design is suitable for various specifications of chromatographic columns.
 - The high sensitivity sensor achieves the high accuracy of system temperature control.
 - Over temperature protection function makes the column oven safe and reliable.
 - Automatic switch between the double columns (optional).
- Chromatography Workstation
 - Workstation software can fully control all unit components (except some special detectors).
 - Adopts database structure, which has one-key data backup and restore function, to ensure data security.
 - Adopts modular design which has simple and clear operation.
 - The software displays the device status information in real time and provides the function of online modification.
 - A variety of filtering methods are added to satisfy the acquisition and analysis of different SNR data.
 - Integrated meets regulatory requirements, audit trails, access management and electronic signatures.
- Fraction Collector
 - The compact structure is truly suitable for the preparation of complex components and can cooperate with the analysis liquid phase to prepare high purity substances precisely.
 - Using rotary manipulator design to minimize space occupation
 - A variety of tube volume settings meet the needs of different collection volumes
 - Accurate piping design reduces the dead volume and collection error caused by diffusion.
 - High precision bottle cutting technology and independent waste liquid channels make the bottle cutting process without drip leakage and pollution
 - Collection containers can be identified automatically, which prevent misplacing different types of collection containers.
 - Manual/Automatic collection modes make it easy to be operated.
 - Different collection containers are compatible. The maximum allowed collection containers: 120 pcs 13~15mm tubes.
 - Multiple collection modes, such as time, threshold, slope etc., meet the requirements of different collection conditions.
- Favorable Expansibility
 - Autosampler, UV-Vis detector, differential detector, evaporative light-scattering detector, fluorescence detector, and fraction collector are optional to meet the requirements of different samples.

SPECIFICATION

Parameters	Analytical Type	Semi-preparative Type	
Liquid delivery form	Double-piston series reciprocating pumps	Double-piston parallel reciprocating pump	
Flow rate	0.001-10 mL/min, increment	0.01-50 mL/min	0.01-70 mL/min
Flow rate setting step	0.001 mL/min	0.01 mL/min	0.01 mL/min
Flow rate precision	≤ 0.06%	< 0.1%	< 0.1%
Maximum working pressure	48 MPa	30 MPa	30 MPa
System protection	Soft start and stop (below the minimum pressure for 2min), adjustable P _{min} and P _{max} , automatically storage of user's data		
GLP	Automatically record the usage of pump seal ring		
Pump head material	Standard 316 L stainless steel, optional PEEK, titanium alloy, Hastelloy, PCTFE		

Manuals :

- (1) All manuals are written in English
- (2) Model Answer
- (3) Teaching Manuals

General Terms :

- (1) Accessories will be provided where applicable.
- (2) Manuals & Training will be provided where applicable.
- (3) Designs & Specifications are subject to change without notice.
- (4) We reserve the right to discontinue the manufacturing of any product.

Warranty :

2 Years

ORDERING INFORMATION :

ITEM	MODEL NUMBER	CODE
LIQUID CHROMATOGRAPHY MASS SPECTROPHOTOMETRY	GOTT-LCMS-02-S64	830-014

* Proposed design only, subject to changes without any notice.