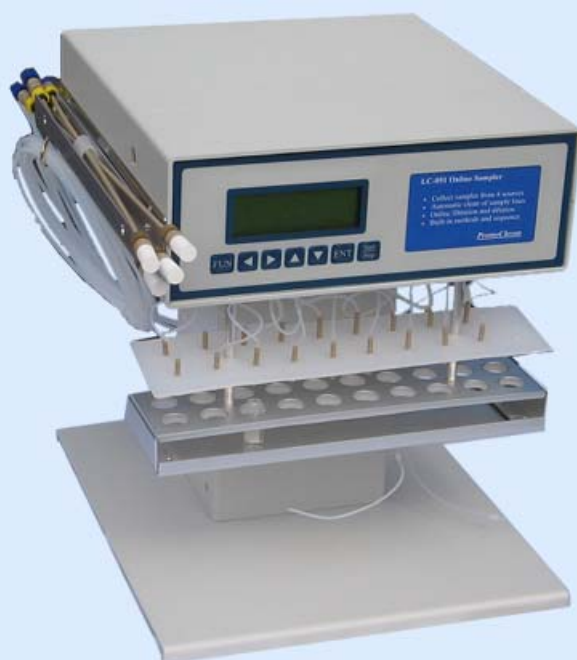


LC-051 Online Sample Collector



PromoChrom Technologies

LC-051 online sample collector is designed for automatic collection of samples from reaction vessels and other fixed locations.

The instrument can collect samples from 4 locations. Samples are filtered and diluted before being collected. A clean function is built in to prevent cross over contamination. The instrument is of small footprint and is computer free. These features make LC-051 an ideal tool for online monitoring of reaction progress and environmental conditions.

Features

1. Easy operation

LC-051 uses built-in methods and sequences for automatic sample collection. The methods and sequences can be easily edited and saved for repeated use. The operation of instrument involves only 7 buttons. Typical routine operation procedures are as follows:

- Place sample collection vials,
- Select right method or sequence,
- Press start button.

The instrument will process the samples either according to the pre set timing or according to trigger signals from the reactors.



2. Full automation

LC-051 uses methods and sequence to automate all the procedures for sample collection. A typical method will first pre wash the tubing, followed by sample collection. The samples are then diluted with a solvent to stop the reaction or to make the sample ready for instrumental analysis. After each sample collection, the sample liquid in the tubing is pushed back to the reaction vessel and the tubing is then washed.

The instrument provides two types of start approaches: active start and passive start. In active start mode, a sequence is used to decide the timing for each collection. In passive start mode, the start is triggered by TTL signals or contact closures from other devices (such as reactor controllers).

3. Small footprint and computer-free operation

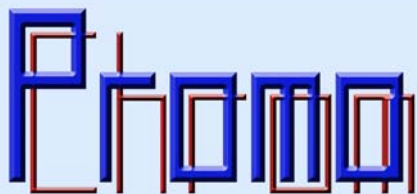
The instrument has a very small footprint and does not need computer. It helps to save precious laboratory space. When volatile or toxic solvents (such as hexane, acetone, and petroleum ether) are used, the instrument can be conveniently placed in a fume hood.

4. Robust and flexible design

LC-051 uses valves for liquid transfer and fraction collection. It does not involve complex XYZ motion control. Only moving parts are the pump plungers and the valve rotors. It helps to lower the cost of the device and make the device very reliable.

Specifications

Number of sample locations	4
Volume of sample collection	0.1 to 99.9 mL per sample
Function of sample handling	Filtration, dilution, fraction collection, and clean of tubing
Number of fractions	18
Material of wetted parts	Stainless steel, Teflon, PEEK
Parameters of sample pump	Accuracy, +/-2%; repeatability, +/-1%; flow rate, 6 mL/min.
System control	Micro controller with panel key pad and LCD as interface
Method	Permanent storage of 3 methods and 2 sequences
Power supply	24 VDC
Current	< 1 A
Weight	4 Kg
Dimension	28 x 30 x 30 cm (width x depth x height)



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