

Multi-Channel Independent Peristaltic Pump

Model No: LabSmart

Flow Rate: 0.02uL/min(0.13*0.86)-48.379mL/min(3*1)



Product Features

- 5" HD Color Touchscreen: Proprietary anti-shake algorithm ensures ultra-responsive control and crystal-clear visuals.
- 10-Roller Pump Head: Significantly reduces fluid fluctuation for smooth flow; custom high-strength polymer extend service life.
- Supports four operating modes: Flow Rate Mode, Timed&Volume, Time&Speed, and Volume&Speed. Multi-channel and multi-mode support, with multi-group recipe storage for complex scenarios.
- High-performance main control chip with mode-specific algorithms for unmatched stability and precision.
- 0.001 rpm Resolution: Custom high-microstep motor with optimized drive logic for delicate and precise micro-volume control.
- Wide-Voltage Design: Robust anti-interference capability ensures stable, continuous operation in harsh environments.
- Spring-Loaded Mechanism: Infinitely adjustable tubing gaps to maximize tubing longevity and dosing accuracy.
- Optional leak detection sensor with a pre-programmed leak response procedure to protect equipment safety.

Product Introduction

Model	Rollers number	Speed	Channel Number	Tubing	Flow rate (μL/min-mL/min)	Tubing maximum pressure (Mpa)	
						Continuous	Intermittent
LabSmart	10 rollers	0.01-150 rpm	4 Channel	1×1	0.503-7.549	0.1	0.1
				2×1	1.835-27.519		
				2.4×0.8	2.542-38.130		
				3×1	3.226-48.379		
				0.13×0.86	0.02-0.289		
				0.19×0.86	0.03-0.439		
				0.25×0.86	0.051-0.759		
				0.51×0.86	0.134-1.999		
				0.89×0.86	0.298-4.470		
				1.14×0.86	0.611-9.159		
				1.42×0.86	1.250-18.750		
				1.52×0.86	1.44-21.599		
				2.06×0.86	1.974-29.599		
2.79×0.86	2.858-42.859						

OSD

The OSD interface displays the following information and controls:

- Operational Status:** Overview of four channels (CH1-CH4) with their respective flow rates and units.
- Date & Time:** 2025-04-10 12:00:00
- Unit ID Display:** CH3
- Detailed Parameters:**
 - Flow rate: 88.50 μL/min
 - Mode: Fixed Volume&Speed
 - Total vol: 500.000 μL
 - Total speed: 3.000mL/min
 - Total time: 1.77sec
 - Repeat: 0000/0002
- Unit Control Area:** Stop, Play/Pause, Refresh, and Next buttons.
- Function Panel:** Home, Play, Settings, Calibration, Lock, and Exit buttons.

Technical Specifications

Flow rate resolution	0.001uL/min
Speed range	0.01-150rpm
Operation method	Touch screen
Flow rate range	0.02uL/min(0.13*0.86)-48.379mL/min(3*1)
Temperature	0-40°C
Power-off memory	Retains pre-power-loss data and parameters upon re-energization
Communication interface	RS232/RS485
Back suction angel	0-360°
Power supply	AC100-240V/100W
Speed resolution	0.01rpm
Common modes	Up to 10 common modes can be saved
External control signals	Passive switch signal: such as a foot pedal switch Active switch signal: compatible with 5-24 V DC input
Relative humidity	<80%
Motor type	Stepper motor
Output interface	Outputs the motor running status and rotation direction (open-collector output)
IP	IP31

Dimension (Unit : mm)

