HAMILTON

Duo Syringe Pump

Independent Dual-Drive Syringe Pump



Independent Control for Advanced Fluidic Workflows

The Hamilton Duo Syringe Pump combines two independently controlled syringe drives, an integrated touchscreen, and a flexible syringe mounting system in a compact benchtop design. Each channel can be configured independently, allowing researchers to perform separate dispensing tasks or coordinated workflows with precise control over flow direction, dispensing parameters, and target values.

Designed for research laboratories, the Hamilton Duo Syringe Pump supports analytical chemistry, microfluidics, life sciences, materials science, and other applications that demand accurate and reproducible liquid handling.

Features

- Two independently controlled syringe drives for precise infusion and withdrawal.
- Compatible with syringe volumes from 0.5 µL to 50 mL.
- 7-inch touchscreen with an adaptive interface for horizontal or vertical operation.
- Configurable methods for routine procedures and advanced multi-step workflows.

General Specifications		
Dimensions (L x W x H)		28.7 x 29.7 x 16.6 cm (11.30 × 11.69 × 6.54 inches)
Accuracy		± 0.25%
Reproducibility		± 0.05%
Maximum Linear Force (per drive)		34 kgf (±15%) approximately 333 N (±15%) when 100% Force Selected
Syringe Size		0.5 µL to 50 mL
Flow Rate	Minimum 0.5 µL Syringe (0.103 mm minimum inner diameter of the syringe barrel)	4.97 pL/ min
	Maximum 50 mL Syringe (32.573 mm maximum inner diameter of the syringe barrel)	220 mL/ min
Drive Motor		Two independent stepper motors 1.8° MicroStepper Motor
Motor Drive Control		Microprocessor with 1/32 microstepping
Step Rate	Minimum	6 sec/ µstep
	Maximum	13.18 µsec/ µstep
Step Resolution		0.0579 µm/ µstep
Display		7" TFT Color Display with Touch Screen
Modes of Operation		Simple Mode
		Complex Methods
Real-time Clock		Yes, with battery backup (battery included)
Connectors		Power- Barrel connector
		USB - Type A
		Footswitch Connections - Jack 3.5 mm x1
Power Supply		Input 100-240 VAC, 50/60 Hz, Output 24VDC, 2.71 A, 65W
Weight		6.2 Kg
Operating Temperature		4°C to 40°C
Storage Temperature		-10°C to 70°C
Operating Humidity		Maximum relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40 °C
Storage Humidity		20% to 80% RH, non-condensing
Pollution		Degree 2
Accessories		Footswitch, Dual-Syringe Holder, Solenoid Valve with Pressure Sensor, Bubble Sensor
EMC Classification		Class B Equipment tested for use in a Basic Electromagnetic Environment according to IEC 61326-1
Certifications		CE, CSA, KC

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