



4U 4-channel Microfluidic Pump




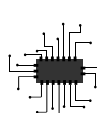


Technical note

Accurate and Pulse-Free Flow for Microfluidic Applications

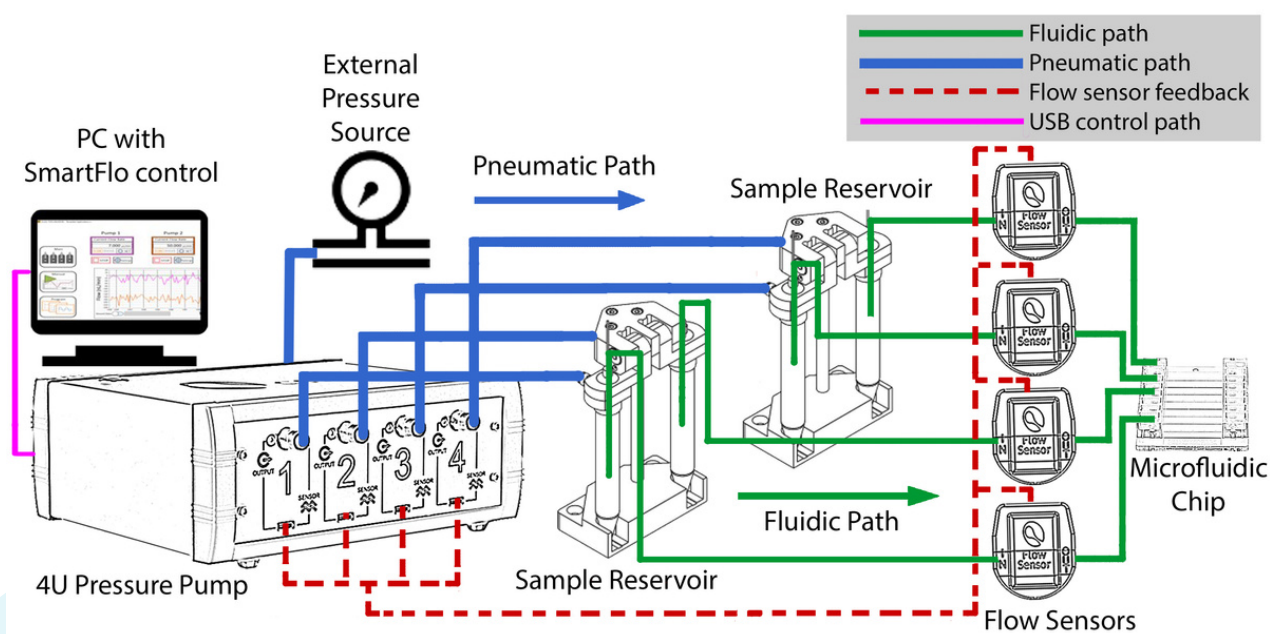
4-CHANNEL MICROFLUIDIC PUMP

4U 4-channel microfluidic pump is a precision pressure pump for a variety of microfluidic applications, where accurate and stable flow rate delivery is required. You can control all the features of the pump with the SmartFlo app running on a PC.

MAIN BENEFITS

-  **FAST:** Fast response time and settling time.
-  **PULSE FREE:** Achieve precise and pulse-less flow.
-  **AFFORDABLE:** Reduced cost per channel while multiple channels are required.
-  **PROGRAMMABLE:** Program your own flow profile with any combination of constant, ramp, sine and step.
-  **EASY INTEGRATION:** Integrate the pump control on your own software using LabVIEW, C++, Python, etc.
-  **CLOSED-LOOP FEEDBACK:** Integrates a plug-and-play flow sensor for active feedback and precise flow control.

HOW DOES IT WORK?



TECHNICAL SPECIFICATIONS

Input Pressure	Up to 10 bar or 145PSI or vacuum -0.9bar ¹
Volumetric Flow Rates	1µL/min to 1mL/min
Flow Direction	Unidirectional (Push or Pull)
Flow feedback options	Pressure-flow combined or Pressure only
Fast response	<50ms
Software Control	SmartFlo running on a PC
Dimensions	230mm (L) x 193mm (W) x 85mm (H)
Weight	2.5 kgs
Power Requirements	110/220V - 50/60Hz 60W
Pulse-free flow rate for microfluidic applications	1µL/min - 80µL/min ($\pm 120\text{nL/min}$) ² 10µL/min - 1mL/min ($\pm 2\mu\text{L/min}$) ³

(1) External compressor or vacuum required.

(2) Using a 80µL/min sensor (FS80.0)

(3) Using a 1mL/min sensor (FS-1000).

APPLICATIONS

- ✓ Droplet Generation
- ✓ Organ-on-chip studies
- ✓ VOC experimental set-ups
- ✓ Shear based cell rolling, adhesion and transmigration assays on ligand-coated surfaces or endothelial cells
- ✓ Cell and particle manipulation
- ✓ Precise multichannel mixing
- ✓ Bacterial biofilm formation on solid surfaces

WHAT'S INCLUDED

	INCLUDED	OPTIONAL
4U pump	✓	
Flow Sensor ⁴ x4		✓
Sample Reservoir		✓
Fluidic Manifold		✓

(4) More information available on www.wearecellix.com/flowsensors



Place your order by emailing sales@cellixltd.com



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Unit 1, Longmile Business Park,
Longmile Road, Dublin 12
D12 EK79, Ireland



info@wearecellix.com



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