

4U 4-channel Microfluidic Pump

Accurate and Pulse-Free Flow for Microfluidic Applications

PRECISE

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.

EASY TO USE

Control all the features of the pump with the SmartFlo app running on iPad mini or PC.



MAIN BENEFITS

FAST

Fast response time and settling time

PROGRAMMABLE

Program your own flow profile with any combination of constant, ramp, sine and step.

PULSE FREE

Achieve precise and pulse-less flow.

EASY INTEGRATION

Integrate the pump control on your own software using LabVIEW, C++, Python, etc.

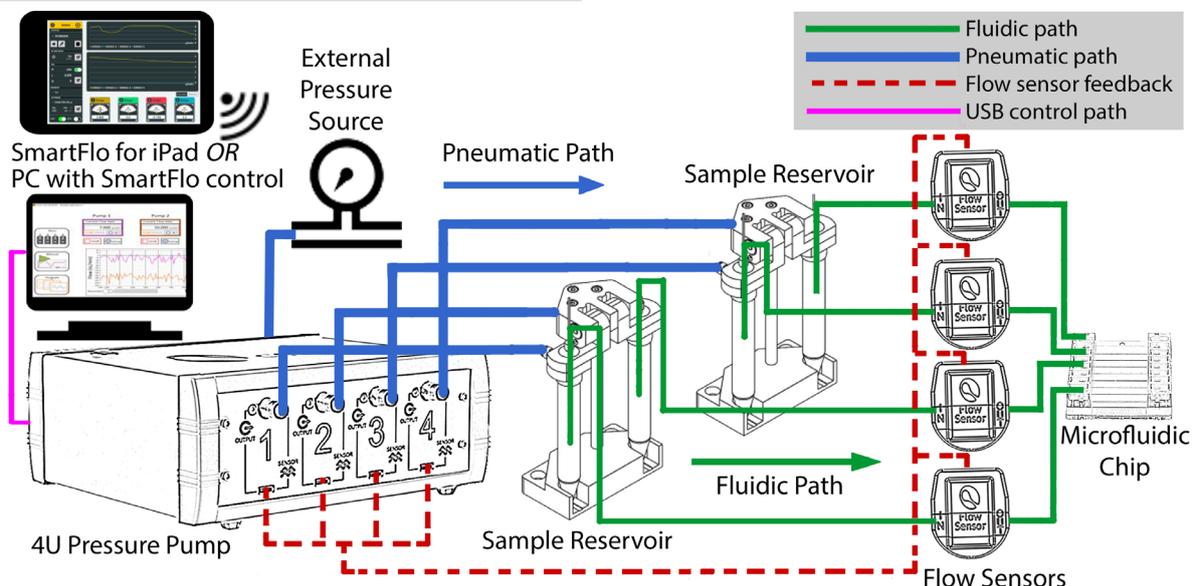
AFFORDABLE

Reduced cost per channel while multiple channels are required.

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)
Pulse-free flow rate for microfluidic applications	1µL/min - 80µL/min (± 120nL/min) ⁽²⁾ 10µL/min - 1mL/min (± 2µL/min) ⁽³⁾
Flow feedback options	Pressure-flow combined or Pressure only
Fast response	<50ms
Software Control	SmartFlo App running on iPad mini or PC
Dimensions	230mm (L) x 193mm (W) x 85mm (H)
Weight	~2.5kg
Power Requirements	110/220V - 50/60Hz 60W

(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	✓	
iPad Mini ⁽⁵⁾		✓
Sample Reservoir		✓
Fluidic Manifold		✓

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

(5) SmartFlo is controlled via iPad or PC. Please contact Cellix for more information.