










ExiGo Microfluidic Pump

Technical note

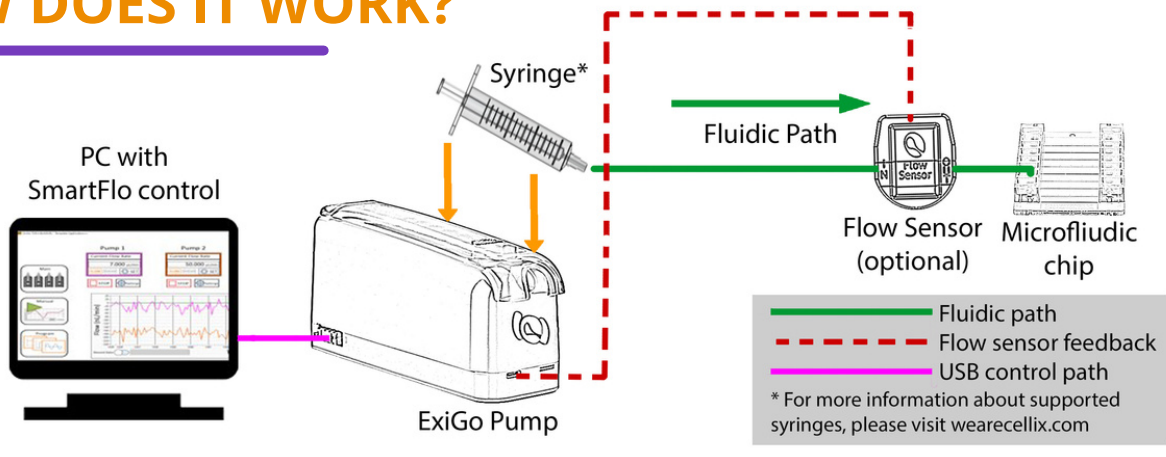
EXIGO MICROFLUIDIC PUMP

ExiGo microfluidic pump is a precision syringe pump comprising a high-resolution stepper motor with patented pulse-damping and active feedback via optional flow sensor. This results in a microfluidic syringe pump with superior performance for a variety of microfluidic applications. You can control all the features of the pump with the SmartFlo software program running on your PC.

MAIN BENEFITS

-  **FAST:** Fast response time, as low as 50ms¹
-  **PULSE FREE:** Achieve pulse-less flow rates down to the nL/min range thanks to the active feedback provided by our flow sensors.
-  **MODULAR:** Up to 4 ExiGo microfluidic pumps can be racked together allowing simultaneous control and independent programming of each pump's flow profile.
-  **VERSATILE:** Combine ExiGo pumps with UniGo pumps to get the best features of both syringe and pressure pumps in one microfluidic set-up.
-  **PROGRAMMABLE:** Program your own flow profile with any combination of constant, ramp, sine and step.
-  **EASY INTEGRATION:** Integrate the pump control with 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

Dynamic Response	50ms max ¹
Volumetric Flow Rates	10nL/min to 13mL/min
Flow Direction	Bidirectional (Push or Pull)
Flow Rate Stability	$\pm 0.25\%$ FS ²
Working Pressure	2 bars of 30PSI maximum
Software Control	SmartFlo running on a PC
Dimensions	225mm (L) x 69mm (W) x 122mm (H)
Weight	1.3 kgs
Power Requirements	110/220V - 50/60Hz 60W
Pulse-free flow rate for microfluidic applications	1 μ L/min - 80 μ L/min (± 120 nL/min) ³ 10 μ L/min - 1mL/min ($\pm 2\mu$ L/min) ⁴

(1) Recorded for a set point change from 0 to 10 μ L/min using a flow sensor with active feedback. Fluidic resistance dependent.

(2) Measured using a 250 μ L glass syringe and a 7 μ L/min flow sensor (FS7.0).

(3) Using a 250 μ L glass syringe.

(4) Using a 5mL plastic syringe.

APPLICATIONS

- ✓ Thrombosis shear flow experiments
- ✓ Shear based cell rolling, adhesion and transmigration assays on ligand-coated surfaces or endothelial cells
- ✓ Cell and particle manipulation
- ✓ Precise multichannel mixing
- ✓ Droplet Generation
- ✓ Hydrodynamic flow focusing

WHAT'S INCLUDED

	INCLUDED	OPTIONAL
ExiGo Pump	✓	
Flow Sensor ⁵		✓
Fluidic Manifold		✓

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



Place your order by emailing sales@cellixltd.com



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