ExiGo Microfluidic Pump

Pulse-Free Syringe Pump for Low Flow Microfluidic Applications

SUPERIOR PERFORMANCE

A high-resolution stepper motor drive mechanism with patented pulse damping method and active feedback via a flow sensor results in a microfluidic syringe pump with superior performance

MODULAR

Up to 4 ExiGo microfluidic pumps racked together allowing simultaneous control and independent programming of each pump's flow profile.

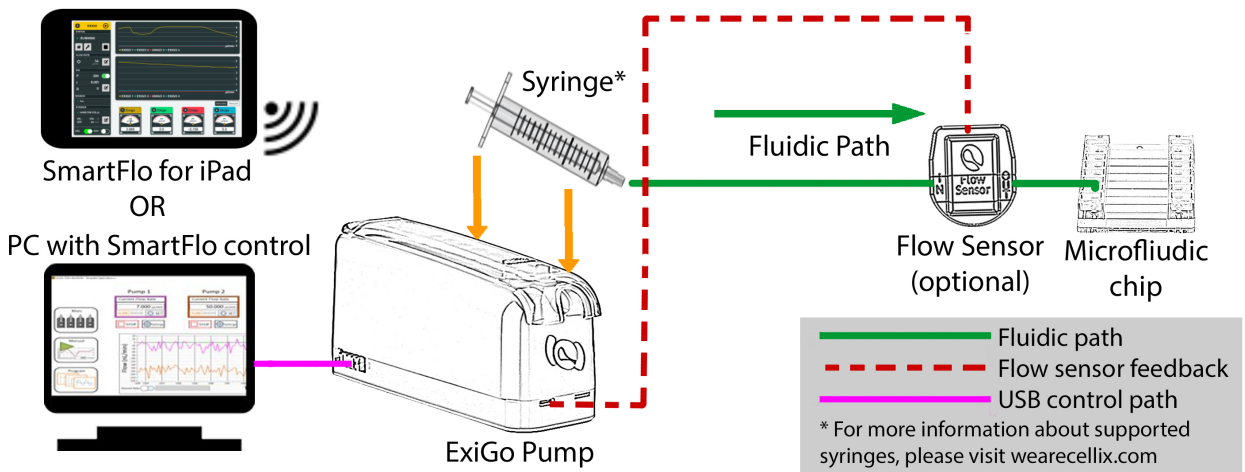
EASY TO USE

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

MAIN BENEFITS

FAST	Not all syringe pumps are slow! Response time as low as 50ms(1)	**PROGRAMMABLE**	Program your own flow profile with any combination of constant, ramp, sine and step.
PULSE FREE	Achieve pulse-less flow rates down to the nL/min range thanks to the active feedback provided by our flow sensors.	**EASY INTEGRATION**	Integrate the pump control on your own software using LabVIEW, C++, Python, etc.
VERSATILE	If you are working with whole blood or other biological samples, benefit from a stable and pulse-free flow without a flow sensor.	**CLOSED-LOOP FEEDBACK**	Integrates a plug-and-play flow sensor for active feedback and increased 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 / Pull)
Pulse-free flow rate for microfluidic applications	10nL/min - 1mL/min (± 20nL/min)(2) 100nL/min - 13mL/min (± 40nL/min)(3)
Flow rate stability	± 0.25% FS (4)
Working Pressure	2 bars of 30PSI maximum
Dimensions	225mm (L) x 69mm (W) x 122mm (H)
Weight	~1.3kg
Power Requirements	110/220V - 50/60Hz | 60W

(1) Recorded for a set point change from 0 to 10 µL/min using a flow sensor with active feedback. Fluidic resistance dependent.
(2) Using a 250µL glass syringe.
(3) Using a 5mL plastic syringe.
(4) Measured using a 250µL glass syringe and a 7µL /min Flow sensor (FS7.0).

APPLICATIONS

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

What's included?

	INCLUDED	OPTIONAL
ExiGo pump	✓	
Flow Sensor (6)		✓
iPad Mini (7)		✓
Fluidic Manifold		✓

(6) More information available on www.wearecellix.com/flowsensors
(7) SmartFlo is controlled via iPad or PC. Please contact Cellix for more information.