



# FLEXCELL<sup>®</sup> HIQ FLOWMATE<sup>™</sup> Fluid Control System

(HIQ-4000-A/B/C)

**Dual syringe pump for controlling fluid flow at the micro, nano and picofluidic levels.**

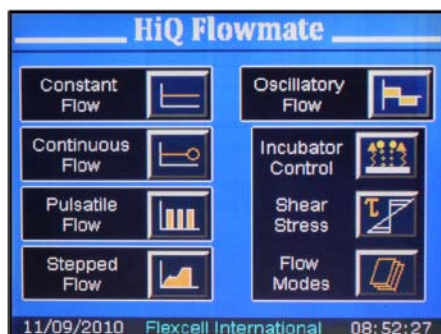
- Dual independent fluid drive system.
- Deliver accurate and precise steady flow rates.
- Broad range of flow rates (Fig. 12).
- Constant steady, pulsatile, continuous, stepped, and oscillating\* flow modes.
- Continuous fluid flow in controlled loop.
- Simultaneous operation of different flow modes.
- Built-in valve unit for continuous and oscillating\* flow.
- On screen calculators for dose, duration, flow rate, and shear stress.
- High resolution touchscreen interface (Fig. 13).
- User friendly, icon driven programming.
- *Coming soon:* Biochip holder for easy docking and tubing connections of pump to chip.
- Available in three different models based on achievable flow rates.
- Multiple applications:
  - Diluting, dispensing, and injecting
  - Animal drug infusion and fluid withdrawal
  - Fluid shear stress
  - Micro and nanofluidics
  - Mixing and proportioning fluids



Fluid Flow Specifications			
Syringe Volume	ID (mm)	Maximum Flow Rate (mL/min)	Minimum Flow Rate (nL/min)
1 µL	0.15	0.0013	0.0008
5 µL	0.33	0.0061	0.0041
10 µL	0.46	0.0119	0.0079
25 µL	0.73	0.09	0.06
100 µL	1.46	0.38	0.25
250 µL	2.30	0.93	0.62
1 mL	4.61	3.76	2.5
5 mL	10.30	18.75	12.50
10 mL	14.57	37.51	25.01
50 mL	32.60	187.81	125.20
100 mL	34.90	215.24	143.49
140 mL	38.40	260.58	173.72
Model	Max Flow Rate with 140 mL Syr. (mL/min)	Min Flow Rate with 0.5 µL Syr. (pL/min)	
A	83.4	4.0	
B	260.6	12.0	
C	260.6	1.2	

\* Oscillatory flow mode operation requires HiQ Flowmate secondary valve unit (sold separately).

**Figure 12.** Fluid flow specifications



**Figure 13.** HiQ Flowmate touchscreen interface

## HiQ Flowmate includes:

- HiQ Flowmate dual syringe pump unit
- Tubing and fittings kit
- Accessory package for syringe clamping
- Instruction manual