

Micro-Perfusion Pump Features:

- Compact
- Usable as either single or dual channel
- Precise speed setting feature
- Flow rates of 0.2 to 180 ml/hr
- Compatible with 1/16" tubing
- External DC power supply with internal 9 volt backup battery
- Can be operated on internal battery if desired
- Computer interface available

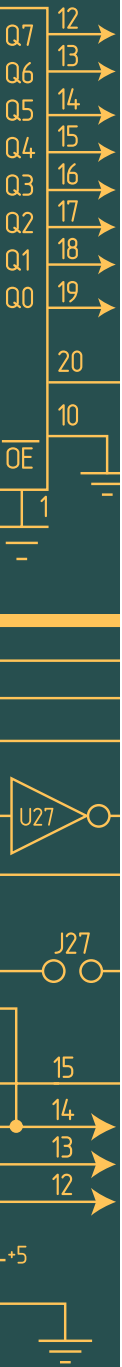
Program and record perfusion flow and temperature over USB.



Perfusion Pump and Software

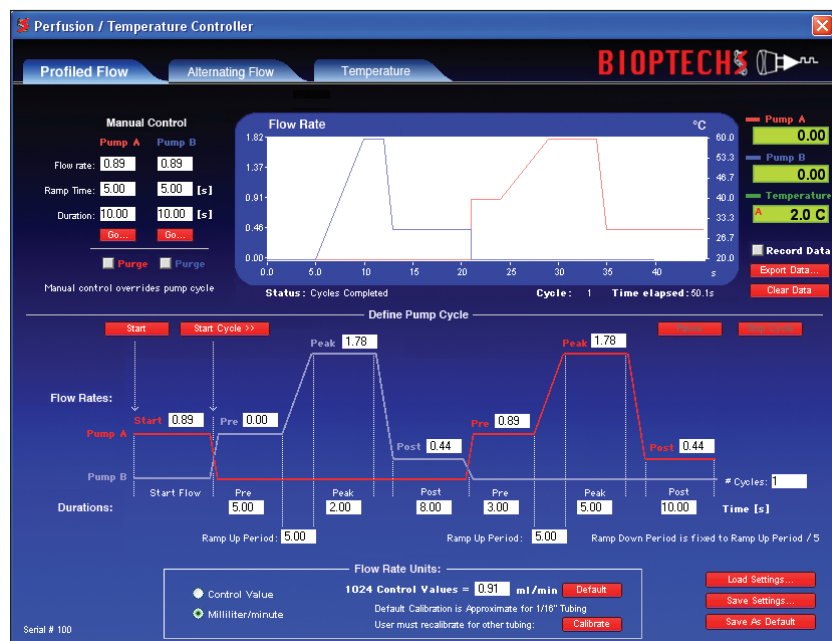
When imaging cells in a rigid structure such as a chamber having a coverslip as an observation surface, one must appreciate the fact that any rapid changes in flow rate will translate to microdynamic changes in pressure within the optical cavity of the chamber. This causes the coverslip to behave like a diaphragm thus flexing out of focus due to the narrow depth of field of the microscope objective. To eliminate this problem at the lower flow rates and significantly reduce it at higher flow rates, Biotech's recommends the Micro-Perfusion pump for use with all its micro-observation systems.

The Micro-Perfusion Pump is a miniature, single or dual, channel, full-featured peristaltic pump designed specifically for low-flow rates. Unlike most peristaltic pumps that are driven by stepper motors, the Micro-Perfusion pump is driven by a tachometer regulated, multi-stage DC gear motor. This assures a smooth analog rotation of the roller spindle, free of instantaneous steps. It is regulated by either the internal control circuitry adjustable from 0.2-180 ml/hr or it can be interfaced with a computer through a DAIO port. Biotech's provides a kit for this purpose that includes all cabling, software, and hardware needed for a dual pump setup. The pump comes with an external 9 volt AC adapter and also contains an internal 9 volt battery which can function as the primary power supply if needed.



The pump includes a single .062" I.D. tube and a dual tube that has two .062" I.D. tubes for use as a dual channel pump. Although other tubing sizes are available, this size is generally best suited for imaging applications. The pump tubes are available in silicone rubber and C-Flex. They are terminated with a 1/16" tubing barb. The base of the pump is threaded for easy mounting to a stand or fixture near the microscope.

Perfusion / Temperature Control Computer Interface



The live-cell microscopy Perfusion and Temperature Control Interface from Biotech's™ features:

- Extreme ease of use with precise and repeatable control
- Dual or single micro-perfusion pumps
- Flow profile to reduce dead volume delays
- Temperature and perfusion recording
- Data logging of perfusion and temperature
- Multi flow-rate calibration
- Temperature profiling and cycling
- Saving and reloading settings
- Graphic display of events

Ordering Information

Part No.	Perfusion Pump
Bi-60319131616	Micro-Perfusion Pump -specify desired flow rate(s)
Bi-13161603-13	Perfusion/ Temperature Controller (USB interface)
Bi-60319192016	Single Channel Pump Tubing Assembly (4/pk) C-Flex
Bi-16181303	Perfusion Pump Rod Mounting Clamp
	Complete Biotech's product line available.

U.S./Canada prices shown. International prices add 15%. Email or visit web store for latest prices.

800.998.MATE | www.autom8.com | 812 Page Street, Berkeley, CA 94710 USA
tel 510.845.6283 | fax 510.280.3795 | e-mail info@autom8.com

This intuitive control interface system is optimized for time lapse imaging of live-cell activity. It provides a convenient, accurate, reliable, and repeatable method of controlling fluid and temperature for chemically or thermally induced change experiments in live-cell chambers. It is WYSIWYG on both Mac and Windows platforms!

USB Data Acquisition Function Module

Plugs into the USB port on Windows or Macintosh computers.

Pumps

Plug the pumps into the USB Data Acquisition Function Module and control two separate perfusion sources.

Computer Control

Control and Record Experiments!

Plug the FCS2, Delta T or Objective Heater into the USB Data Acquisition Function Module and have temperature control of your experiment, with the ability to record temperature data.

