OctaFlow™ II

MultiValve, MultiFunction Superfusion/Perfusion System

OctaFlow™ II: ALA's most versatile Drug Application Device for electrophysiology and imaging research.

The **OctaFlow™ II** offers the following user benefits:

- Modular banks of reservoirs for up to 32 samples per experiment
- Choice of valves for rapid exchange or minimal maintenance
- Valve-control of solution flow instead of motorized manipulation of barreled pipettes, minimizing sample losses following solution exchange
- Keyboard solution selection, for exchange "on the fly"
- Trigger in/out for synchronization with 3rd party data acquisition systems

- Preprogrammed solution selection from GUI or manual
- Choice of reservoir sizes (1ml, 5ml, 10ml, or 60ml; 5ml standard). (glass options available)
- Rapid flush mode for easy cleaning of system
- Pressurization of fluids for optimal output
- Programmable analog output reports valve identification, step number or pressure to data acquisition system
- USB 2.0 compatible for fast PC communication
- Windows 10 compatible
- Millisecond solution exchange time

OctaFlow™ II, Software

The OctaFlow™ II s a fully software-controlled system. The software provides five areas of functionality detailed below.

1. Valve and reservoir configurations can be saved for future experiments. Customizations include unique pressures and labels for individual reservoirs as well as unique voltages for individual valves.

2. Perfusion sequence setup includes parameters such as valve open times, duration, flush time, delay time, and output trigger in a flexible, easy-to-use spreadsheet format.

3. Program run control allows for initiation and termination of protocols while monitoring progress and configuration settings.

4. Manual control can be achieved through individual activation. Hot keys are integrated for on-the-fly control without protocol setup. Manual sequences can be saved for use as future macros.

5. Additional tools, available for greater scope of performance, initiate automated cleaning sequences, select global software settings, and create log files.

OctaFlow™ II software offers "on the fly" control of pressure and times settings, switches from single- to dual-valve mode, analog output control, input/output triggers, and lots more!
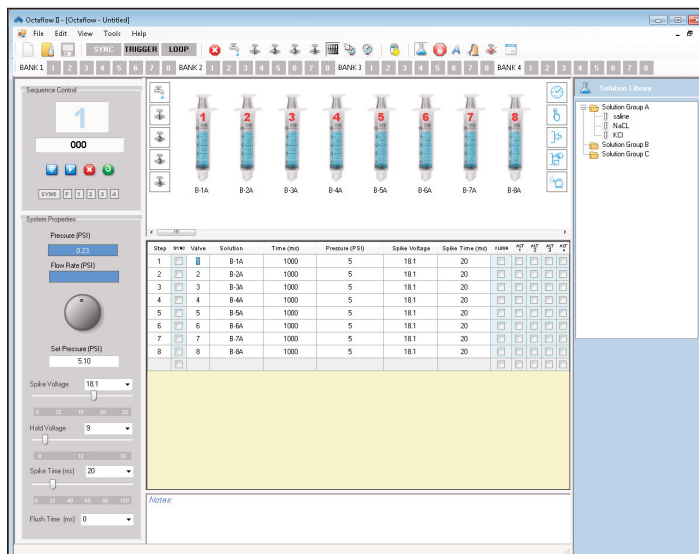
> **Sample pressurized flow rate:**
> **1ml in 9 minutes at 10 PSI/ 70kPa through QMM Micro-manifold® with 100μm ID tubes**

Ordering information key code:

OctaFlowXXY/Z:

XX = # of valves: specify 8, 16, 24, or 32 valves;

Y = type of valve: order **S** for custom Lee solenoid valve or **P** for 3-way pinch valve;

Z = # of **QMM MicroManifolds®** included - Order **1**, **2**, **3** or **4** where:

  1 = QMM type is same as the number of valves ordered - 1 **QMM** included with 1 flush valve

  2 = QMM-16 is included as base and the other is **QMM-8** for 24 valves or **QMM-16** for 32 valves with 2 flush valves

  3 = QMM-8 is included as base and then 2 more **QMM-8**'s for 24 valves or 1more **QMM-8** and 1 more **QMM-16** for 32 valves with 3 flush valves.

  4 = 4 x **QMM-8**'s are included with 4 flush valves.

Examples of ordering code:

OctaFlow32P/4: 32 channel pinch valve system with 4x **QMM-8 MicroManifolds®** and 4 flush valves.

OctaFlow24S/2: 24 channel solenoid valve system with 1x **QMM-16**, 1 x **QMM-8 MicroManifolds®**, and 2 flush valves.

* OctaFlow 32P/1 & 32S/1 are not available. All other 32 channels are available.

OctaFlow™ Specifications*:

Max. # of perfusion valves: 32	Max. suction developed via internal Venturi pump: 199 mmHg nominal
Max. # of valves/Bank: 8 valves/bank, up to 4 banks	Typcial speed of pressure rise: 520mmHg/sec
Max. current output per valve: 100mA (Lee Solenoid) 350mA (Pinch)	Sample flow rate: 1ml in 9 min. @ 520 mmHg w/standard QMM
Max. Voltage Per Valve: 18 volts	Standard QMM: 8 tubes @ 100μm ID, 9th tube @ 200μm ID, 100μm ID tip
Max. ontime per valve: no limit Min. ontime per valve: 2ms @ 12V & 1ms @ 18V	USB 2.0: Support Software is compatible with Windows 7 & 10 (32-& 65-bit)
Max. input pressure: 3970mmHg - other units selectable	Power requirements: 120/220V
Max. pressure applied: ~800mmHg	OctaFlow interface: 19"x3.5"x10" rack mountable, 10 lbs/4.5kg
Max. No. of Sequence Steps: 254	Programmable Voltage Range: 1-18volts/valve
* specifications are subject to change without prior notifications	