OctaFlow™

MultiValve, MultiFunction Superfusion/Perfusion System

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

The **OctaFlow™** drug-delivery system, the successor to the industry-standard DAD-12, is designed to meet the needs of the basic science researcher or the drug-discovery scientist.

The OctaFlow™ 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).
* 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.

OctaFlow™

Software

The OctaFlow™ GUI organizes all software functions into five sections:

* **Valve and reservoir configuration:** Label reservoirs, select voltages applied to valves, select reservoir pressures, store and retrieve multiple configurations in individual files.

* **Sequence setup:** Enter durations and start times in tabular format, including valve opening, flush time, delay time, output trigger.

* **Run control:** Control initiation and termination of sequences, monitor progress of protocols, display all configurations.

* **Manual control:** Point and click to open and close valves, store manual sequences for use as future macros.

* **Tools:** Test speed and accuracy of pressure changes, initiate automated cleaning programs from cleaning macro, select global software settings, and log file.
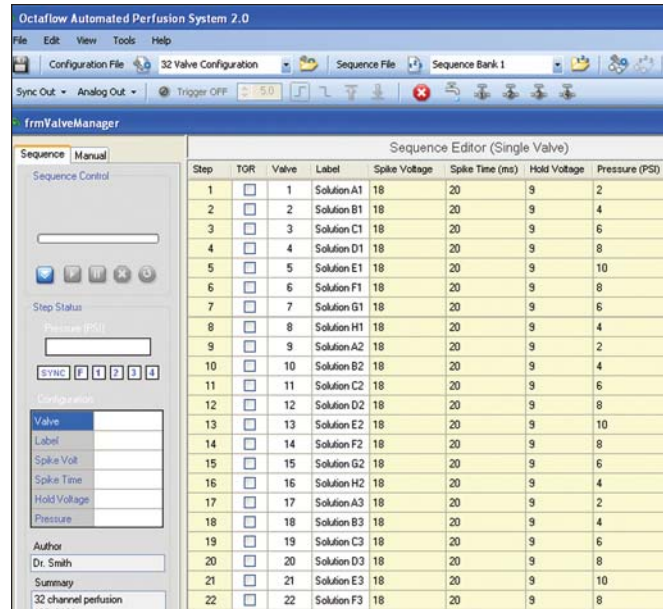
OctaFlow™ software offers "on the fly control" of pressure and times settings, switches from single- to dual-valve mode, analog output control, input/output triggers, and lots more!

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™ 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/ 350mA solenoid/pinch valve	Pressures selectable in mm/Hg in increments of 1 or other units selectable
Max. Voltage Per Valve: 22 volts	Sample flow rate: 1ml in 9 min. @ 520 mmHg w/standard QMM
Max. ontime per valve: 4 hr 40 min Min. ontime per valve: 2ms @ 12V & 1ms @ 22V	Standard QMM: 8 tubes @ 100µm ID, 1 tube @ 200µm ID, 100µm ID tip
Max. input pressure: 3970mmHg - other units selectable	Tip sizes available: 100, 150, 200 µm ID
Max. pressure applied: ~800mmHg	USB 2.0: Support Software is compatible with Windows XP (SP2)/ 2000/ ME
Max. No. of Sequence Steps: 300	Power requirements: 120/220V 360 W
Max. No. of Sequence events with looping: 300[20]	OctaFlow interface: 19"x3.5"x10", 10 lbs/4.5kg
Infinite Step Function in Repeat Mode	Programmable Voltage Range: 1-22volts/valve

*specifications are subject to change without prior notification

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