# Behind every great perfusion system is a reliable valve controller.



#### ValveBank® Controller

 Run experiments automatically – even unattended By running experiments automatically, AutoMate Scientific systems will leave you free to accomplish other tasks - saving you both time and money.

#### Microprocessor-based for accuracy and flexibility

The ValveBank® can store sixteen user programs with 10 millisecond switching accuracy. It includes powerful perfusion commands and capabilities not offered by competing valve drivers: open single or multiple valves, master channel for control/buffer solution, and computer control.

# Low noise & low voltage valve control

Designed for electrophysiology. CE marked for Europe.

#### Manual, TTL (digital), and serial (RS-232) inputs

Control valves manually (by keypad) or by computer - simultaneously thanks to the microprocessor design.

#### Low cost & low profile, simple design

Optional BNC cables and 19" rack-mounting brackets.

"We use the ValveBank in electrophysiology on a Xenopus oocyte recording rig. We have run a twelve-channel manual perfusion delivery system for several years with timed solenoid valves. The ValveBank and accompanying EasyCode Macintosh software allow us to program full wash and delivery sequences in advance with significantly more accurate switching. The new manual perfusion timing option allowed the ValveBank to perform exactly like the controller we had built before. Basically, the ValveBank saves us the worries of monitoring reagentdelivery, and it works."

#### Dr. David Julius

Department of Cellular and Molecular Pharmacology University of California, San Francisco

#### Made to last



Original ValveBank from 1994 still in daily use in David Julius' lab at UCSF. Photo taken July 2013.

# Valuation III

Dimensions: 10" x 7.5" x 2"
Weight: 5 lbs. (2.27 kg.)



- User-selectable for normally open or closed valves
- 1.5 amp, 12V AC power supply included



- · Back-lit LCD display
- Detached 16-key membrane keypad
- Easy menu-driven interface
- 16 or 32 user programs of 256 commands up to 99 hours long

#### EasyCode Software

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	Time: I min	10 nin	20 min	30 mm	40 mm		
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Channel 2 50 JH Thiopertal	valve est loope	1	00:04 00:05 00:07 00:08	C00-02:00 Valve 0n C00-01:800 Valve 0ff C00-02:00 TIL 0n C00-02:00 TIL 0n C00-02:00 TIL 0n C00-03:00 TIL 0n C00-03:00 Valve 0n C013:00 Valve 0n C013:00 Valve 0n C013:00 TIL 0n C015:24:00 TIL 0n C015:24:00 End of List			
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Channel 5 Surgre 1	valve mt taspo		Chann Time CO23	et 3 (2 pm s		_	
Channel 6	velve						

- Program up to sixteen channels of valves and digital outputs.
- Open multiple experiment windows. List sequences to screen or printer. Copy and paste. Zoom in and out of your experiment.

Please see page 20.



All AutoMate Scientific valve controllers switch 12V DC solenoid valves open and closed rapidly using full power, then hold-in at ½ power to prevent thermal transfer to your solutions. Low noise circuitry minimizes recording artifacts in electrophysiology. ValveBanks are designed for use with pClamp, Patchmaster, et al. All AutoMate Scientific products include a one-year warranty.

The ValveBank® remains the only programmable valve controller for physiology that does not require a computer. ValveBanks include digital and manual control, plus programming through their keypad and LCD screen or EasyCode® software from a PC. ValveBanks run user valve sequences without a computer and include eight programmable digital outputs for control of external devices such as stimulators, pumps and recording devices. Entire ValveBank programs can even be triggered by a single TTL pulse.

### EasyCode® - Expand the computing power of your ValveBank

Optional EasyCode software helps you program your ValveBank with a PC-Windows using easy "click-and-drag" time bars. Download your valve sequences into the ValveBank's memory with the included cable. Run programs on the ValveBank, which can be disconnected from the computer.

## ValveBank or ValveLink8.2: Which controller is right for you?

Features	ValveBank	ValveLink8.2
CHANNELS	4 or 8 channels available	8 channels each + USB network to 64 channels
COMPUTER I/O	8 digital in, 8 digital out, serial (RS-232)	8 digital in, USB, analog input, event marker out
DIGITAL INPUTS	One pulse can start a ValveBank program, or TTL inputs each control 1 valve	One TTL input per valve, or demultiplex and control up to 16 valves with 4 inputs
PROGRAMMABLE	Yes- ValveBank keypad, EasyCode software or digital outputs from your data acquisition software	Only using real-time analog or digital outputs from your computer / data acquisition software.
SOFTWARE	Optional "EasyCode" software to pre-program ValveBanks (up to 16 ch.)	Free Windows real-time USB control and networking software for up to 64 valves at once
MANUAL CONTROL	External keypad	Front panel buttons
MANUAL FEATURES	1-on, primary channel, timed open, TTL outputs	1-on, primary channel
SPEED	10 milliseconds	1 millisecond
VALVE POWER	4 watts per channel or 8 watts total	Up to 12 watts (1 amp) per channel, 24 watts (2 amps) total
PRICE	Higher	Lower

# **Ordering Information**

Part No.	ValveBank Controller	
01-01	ValveBank®4 programmable controller	
01-08	ValveBank®8 programmable controller	
01-09	BNC cable - ValveBank to pCLAMP/Digidata, et al., 4 BNC plugs to DB-25	
01-07	Rack-mounting brackets - ValveBank to standard 19" rack	
01-06	ValveBank keypad 6' extension cable	
	Cables for Heka/InstruTECH and LabView	

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