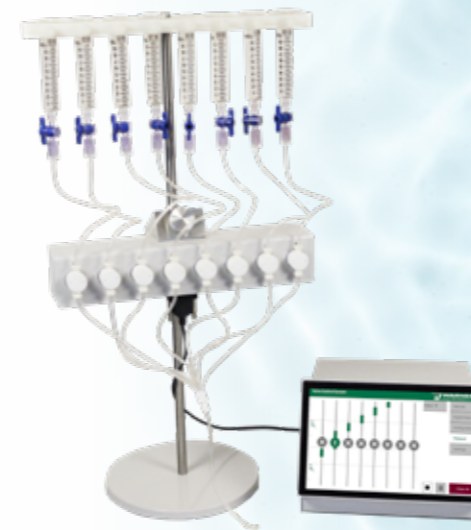


Touch and PC Software Controlled Valve Control Systems

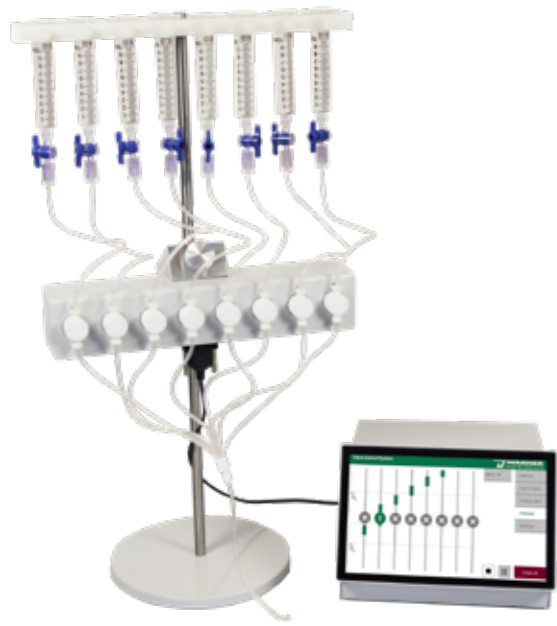


- Up to 8 channels
- Choice of 3 valve types:
Pinch, PTFE, or Miniature Lee Valves
- Low noise
- Low self-heating design
- Just one analog signal to control all valves

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The Valve Control Systems lie at the heart of a multi-valve perfusion system designed to automate and control the delivery of solutions to imaging and recording chambers. The flexible design of these systems allows it to be used in diverse applications. The VCS systems are configured to control up to 8 Pinch-, PTFE-, or Mini- valves.

Uncomplicated and Easy to Operate

Each valve is individually accessed by a manual touch display, the included PC software, an external analog signal, or an external digital signal (TTL).

An event marker pulse, generated each time a valve is switched on, is provided for chart recordings. A synchronization pulse can be generated by use of the trigger/sync connector (digital I/O, TTL) to line up valve triggering and recordings for optimum data analysis.

PTFE Valve Systems

PTFE valves are available for applications where resistance to chemicals is a concern. The valves are 2-way (either on or off).

Pinch Valve Systems

They are the simplest to maintain as the solution never comes in contact with the valve and tubings are easily changed. Valves are dual acting (3-way) with both normally open and closed sides. A “Y” connector at the valve input permits solution flow to waste with the valve off.

Mini-Valve Systems

These systems are designed for slow flow perfusion where smaller diameter tubing is used. The mini-valves mount directly to a compact PTFE/Delrin manifold. The 3-way valves allow for solutions to flow to waste if desired. The system is ideally suited for use with the SF-77C perfusion stepper systems.

Key Features

- Digital and analog switching for Patch Clamp applications
- UI to define and program valve protocols with phase sequences (phase duration, valve state, move to next, etc.)
- Save and load protocols on hard drive or download protocols to valve controller for permanent storage
- Run and monitor protocols (highlight current phase, show countdown, break current phase and move to next—if desired)

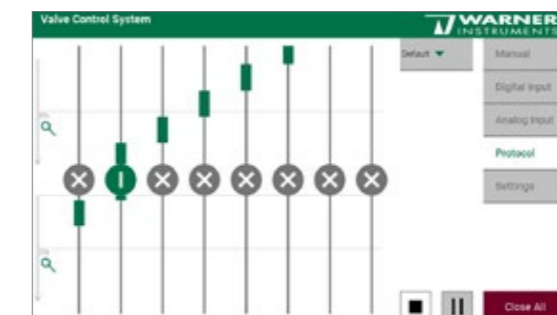
Software

The system can be operated directly via touch display or via provided PC software. An SDK (.NET DLL) is available for programming functionality into your own software.

Phase	Unit	Valve 1	Valve 2	Valve 3	Valve 4	Valve 5	Valve 6	Valve 7	Valve 8	Time left
100	s	0	0	0	0	0	0	0	0	
5	min	1	0	0	0	0	0	0	0	
5	min	0	1	0	0	0	0	0	0	
10	min	0	0	1	1	0	0	0	0	08:13
100	s	0	0	0	0	0	0	0	0	
5	min	0	0	0	0	1	0	0	0	
5	min	0	0	0	0	0	1	0	0	
10	min	0	0	0	0	0	0	1	1	

7" Touch Display

- Comfortable handling directly at the device
- Allows for standalone operation by saving protocols directly on valve controller
- Change between manual, digital in, analog in and programmatic operation mode



Valve Stands

- Software controllable for easy phase control
- Available in all corresponding system sizes
- Custom design for Pinch-, PTFE-, or Mini- Valves



Connector Options

- Digital I/O (for TTL)
- Analog in
- Trig/Sync
- Valve connector
- USB 3.0 for computer control

