

Performa™ Cv Control Valves

273 and 278 Configurations



Pentair Water® offers a full range of Autotrol® Control Valves to meet a wide range of water conditioning applications.

Logix™ Series

742 Time Clock

- Simple, economic electronic time clock (chronometric)
- 7- or 99-day regeneration setting
- 12-volt operation
- Filter or conditioner setting in one control
- Fully programmable cycle times
- Salt setting in 1-pound increments
- Operates 255, 263, 268, 273, 278, and Magnum® IT with one controller

762 Demand

- Simple, economic electronic demand (volumetric)
- Calendar override
- 12-volt operation
- 28-day variable reserve
- Automatic capacity calculations
- Fully programmable cycle times
- Salt setting in 1-pound increments
- Operates 255, 263, 268, 273, 278, and Magnum IT with one controller

764 Demand

- Same features as the 762, plus:
- Multi-tank applications (twin alternating, multi-tank parallel)
 - Control lockout
 - Remote regeneration

Specifications

Electrical

Controller Operating Voltage	12 Volt – AC (Requires use of Pentair Water®-supplied transformer)
Input Supply Frequency	50 or 60 Hz (Controller configuration dependent)
Motor Input Voltage	12 Volt – AC
Controller System Power Consumption	3 Watts average

Transformer – All Controllers

All Controllers require the use of a Pentair Water-supplied transformer.

Transformer Output Voltage	12 Volt – AC 400mA		
Transformer Input Options	115 Volt – AC 50/60 Hz; 230 Volt – AC 50/60 Hz; 100 Volt – AC 50/60 Hz		
Transformer Plug Options	Indoor North American Plug 	Taiwan/Korea Plug 	
	Outdoor North American (UL Listed for outdoor use) 	Australian Plug 	
	Japanese Plug 	United Kingdom Plug 	
		Mainland Europe Plug 	

Additional transformers may be available – call for more information.

Design Specifications/Ratings

Valve Body	Glass-filled thermoplastic – NSF Listed material
Rubber Components	Compounded for cold water – NSF Listed material
Valve Materials Certification	WQA Gold Seal Certified to ORD0902 and NSF/ANSI 44 Rated component for material safety
Weight (Valve with Control)	5.34 lbs (2.42 kg)
Recommended Operating Pressure	20 - 120 psi (1.38 - 8.27 bar)
Canada	20 - 100 psi (1.38 - 6.89 bar)
Hydrostatic Test Pressure	300 psi (20.69 bar)
Water Temperature	35° - 100°F (2° - 38°C)
Ambient Temperature*	35° - 120°F (2° - 48.9°C)

*Recommend use of outdoor cover for direct sunlight applications.

Options

Turbine for Demand Systems	Internal Standard Autotrol® 1-inch (25 mm) turbine
Bypass Valve, Model 1265	Thermoplastic, 1-inch flow path
<i>Bypass Fitting Kits:</i>	
Copper, Sweat Tube Adapter	1-1/4-inches, 1-inch or 3/4 inch (32 mm, 25 mm or 19 mm)
CPVC, Solvent Weld Tube Adapter	1-inch or 3/4-inch (25 mm or 19 mm)
Plastic NPT or BSPT Pipe Adapter	1-inch male or 3/4-inch male (25 mm or 19 mm)
Stainless Steel NPT or BSPT Pipe Adapter	1-inch male or 3/4-inch male (25 mm or 19 mm)
Brine Refill Controls	.33 gpm (1.25 lpm) fixed; .74 gpm (2.8 lpm) fixed; 1.3 gpm (4.92 lpm) fixed
Compatible with Regenerants/Chemicals	Sodium chloride, potassium chloride, potassium permanganate, sodium bisulfite†, sodium hydroxide†, hydrochloric acid†, chlorine†† and chloramines††

†See owners manual for specific concentrations. ††Valve for use on potable water supply.

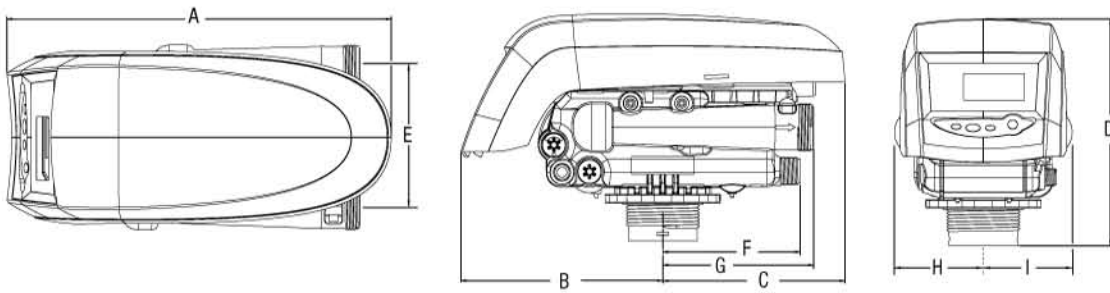


Dimensions

Valve Connections

Tank Thread	2-1/2-inches – 8, male
Inlet/Outlet Threads	1-3/4-inches – 12 UNC-2A male
Drain Line	3/4-inch NPT, male
Brine Line	3/8-inch NPT, male
Distributor Tube Diameter	1.050 inches (27 mm)
Distributor Tube Length	1/2 ± 1/2-inches (13 ± 13 mm) above top of tank

Outline Dimensions



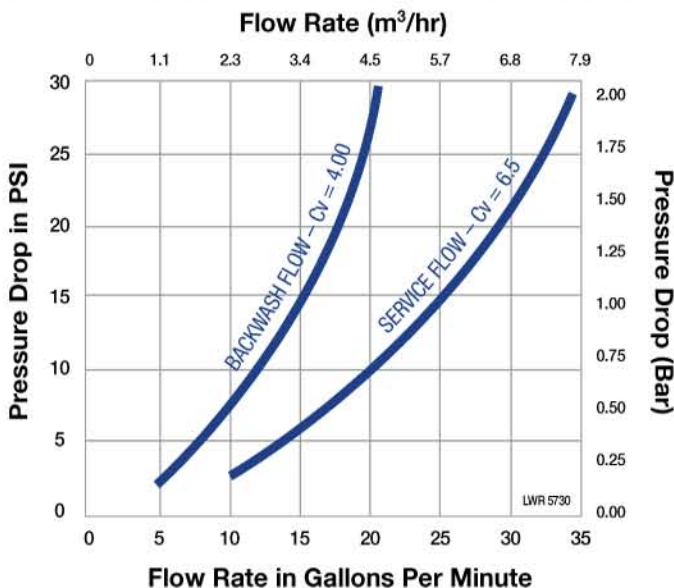
Units	A	B	C	D	E	F	G	H	I
inches	14.9	7.8	7.1	8.5	5.0	5.3	5.8	3.4	3.4
cm	37.8	19.9	17.9	21.5	12.7	13.5	14.8	8.7	8.7

Performance

Flow Rates (Valve Only)

Service @ 15 psi (1.03 bar) drop	25.0 gpm (5.7 m ³ /h)
Backwash @ 25 psi (1.72 bar) drop	20.0 gpm (4.5 m ³ /h)
Service	Cv = 6.50 (Kv = 5.6)
Backwash	Cv = 4.00 (Kv = 3.5)

Logix™ Series Controller Flow Rate Characteristics



Backwash Flow Control Table

Backwash Number*	Flow Rate (gpm)	Flow Rate (lpm)
9	2.2	8.3
10	2.7	10.2
12	3.9	14.76
13	4.5	17.0
14	5.3	20.0

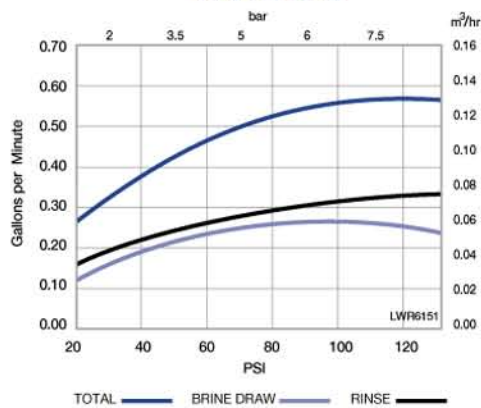
*Backwash flow controls sized for 5.0 gpm/ft².

NOTE: External drain line flow controls available for flow rates from 1.3 gpm (4.9 lpm) to 20 gpm (75.7 lpm).

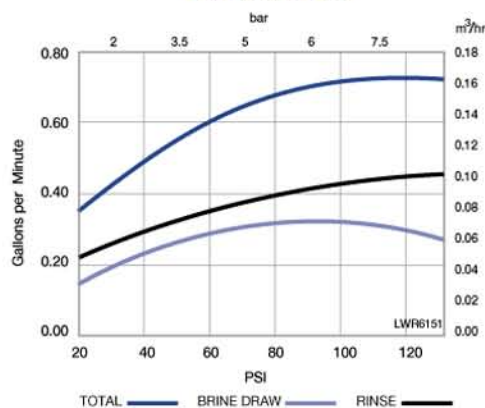
Injector* Performance

Logix™ Series Controllers

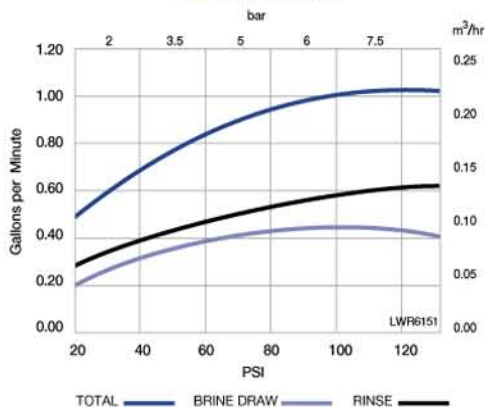
Injector "H" (Light Purple)
For 9-inch Tanks



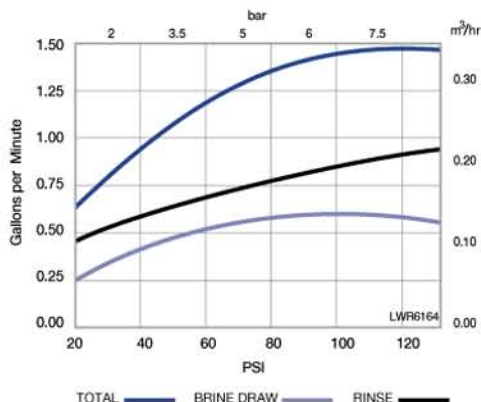
Injector "J" (Light Blue)
For 10-inch Tanks



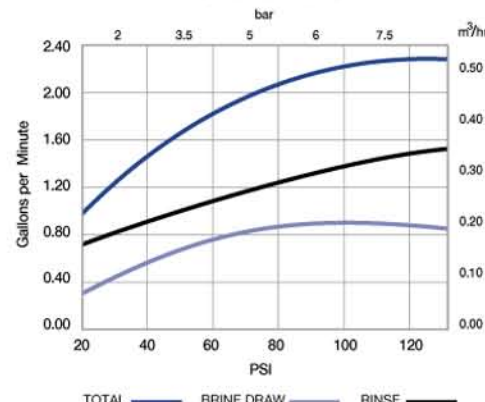
Injector "K" (Pink)
For 12-inch Tanks



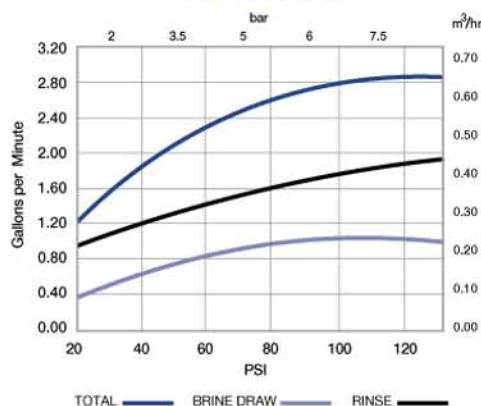
Injector "L" (Orange)
For 13- and 14-inch Tanks



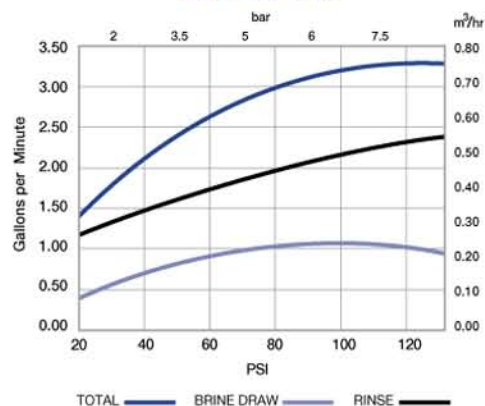
Injector "N" (Green)
For 16-inch Tanks



Injector "Q" (Purple)
For 18-inch Tanks



Injector "R" (Dark Grey)
For 21-inch Tanks



*New injectors for high-efficiency regeneration sequence are standard with Logix Controllers.

NOTE: Actual injector performance is dependent on the resin used, tank geometry, elevated drain, etc. This injector data was taken using an empty tank (no resin).



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