

Clack®



pHorko®  
Industrial water purification systems

# WS1EI

## WATER SPECIALIST CONTROL VALVE



shown with optional bypass



Certified to NSF/ANSI 44, 61 and 372.

- Solid state microprocessor with easy access front panel settings
- Front panel display for time of day, days until next regeneration, volume remaining, current flow rate and total volume used (Totalizer)
- Four methods to initiate regeneration; meter immediate, meter delayed, time clock delayed or pressure differential
- Optional double backwash feature offers optimum regeneration, cleaning ability and efficiency
- Fully adjustable cycle times with 6-cycle control delivers controlled backwash, downflow brining/slow rinse, second backwash, fast rinse, refill and downflow service
- Coin Cell Lithium battery back-up with an 8 hour carry over
- Backwash and brining ability to 21" diameter tanks
- Downflow or upflow brining regeneration
- 12-volt output AC Adapter provides safe and easy installation
- Control valve design provides optimum service and backwash rates
- Post treated water regenerant refill
- Patented one piece expanding seal spacer stack assembly U.S. Patent 6,402,944
- Patented linearly reciprocating piston operation U.S. Patent 6,444,127
- Reliable and proven DC drive

# Water Specialist 1" EI Control Specifications

Inlet/Outlet Fittings..... 3/4" to 1.5" NPS  
 Cycles ..... up to 6  
 Valve Material ..... Noryl (1) or equivalent  
 Regeneration ..... downflow

## FLOW RATES

Service @15 psi/1 bar drop (includes bypass and meter)..... 102 lpm (6.12 m<sup>3</sup>/h) (27 gpm)  
 Backwash @ 25 psi/1.7 bar drop (includes bypass)..... 102 lpm (6.12 m<sup>3</sup>/h) (27 gpm)

## OPERATING PRESSURES

Minimum/Maximum ..... 20 - 125 psi (1.4 - 8.6 bar)

## OPERATING TEMPERATURES

Minimum/Maximum ..... 40° - 110° F (4° - 43°C)

## METER

Accuracy ..... ± 5%  
 Flow Rate Range..... 0.95 - 102 lpm  
 Volume Range ..... 0.02 - 5,700 m<sup>3</sup>  
 Totalizer ..... 0.001 - 9,999,000 m<sup>3</sup>

## DIMENSIONS & WEIGHT

Distributor Pilot ..... 1.050" OD Pipe (3/4" NPS)  
 Drain Line ..... 3/4" or 1" NPT  
 Brine Line ..... 3/8" or 1/2" OD Poly Tube  
 Mounting Base ..... 2 1/2" - 8 NPSM  
 Height From Top Of Tank ..... 7 3/8" (187 mm)  
 Weight ..... 4.5 lbs. (2 kg)

## ELECTRICAL SPECIFICATIONS

### AC Adapter

	<u>U.S.</u>	<u>International</u>
Supply Voltage .....	120V AC	230V AC
Supply Frequency .....	60 Hz	50 Hz
Output Voltage .....	12V AC	12V AC
Output Current .....	500 mA	500 mA

## TANK APPLICATIONS

Water Softener ..... 6" - 21" Diameter  
 Water Filter (2) ..... 6" - 21" Diameter

## CYCLES OF OPERATION

	<u>Softener</u>	<u>Filter</u>
Cycle	Range of time in minutes	
1. Backwash 1 <sup>st</sup> (upflow) .....	1-95	Backwash 1-95
2. Regenerate Draw/Slow Rinse (downflow) .....	1-180	
3. Backwash 2 <sup>nd</sup> (upflow).....	1-95	Rinse 1-95
4. Fast Rinse (downflow) .....	1-95	
5. Regenerant Refill (in service with treated water).....	0.1-99.0	
6. Service (downflow)		

### Options: Backwash Filter, Weather Cover

Compatible with the following typical concentrations of regenerants or chemicals: Sodium chloride, potassium chloride, potassium permanganate, sodium bisulfite, chlorine and chloramines

1. Noryl is a trademark of Sabic Innovative Plastics IP B.V. Company

2. Filter tank size calculated @ 10 gpm of backwash per square foot of bed area/407 lpm per m<sup>2</sup> of bed area