



# Osmonics®

## Autotrol® Product Specifications

255/940

### Flow Rates (Valve Only)

- Service @ 15 psi (1.03 bar) drop .....15.5 gpm (58 Lpm)
- Backwash @ 30 psi (2.07 bar) drop.....6.5 gpm (24.6 Lpm)
- Service.....Cv = 3.99 (Kv = 3.35)
- Backwash .....Cv = 1.20 (Kv = 1.02)

Tested with a 3/4-inch Brass Manifold

### Control Operation

- Timer Configuration .....Time Clock, 7 or 12 Day
- Cycles: Length: (Standard)
- Backwash .....12 Minutes
- Brine/Slow Rinse.....55 Minutes
- Fast Rinse.....5 Minutes
- Brine Refill.....2-24 Minutes

### Valve Connections/Dimensions

- Tank Thread .....2 1/2 inches - 8, Male
- Inlet/Outlet Manifold (Brass or Noryl\*).....1-inch NPT or 1-inch BSPT, Female  
.....3/4-inch NPT or 3/4-inch BSPT, Female
- Brine Line .....1/4-inch NPT, Male
- Distributor Tube Diameter .....1.050 inches (27 mm) or 13/16 inch (20.6 mm)
- Distributor Tube Length .....1 1/8 ± 1/8 inches (29 mm ± 3 mm) Above Tank

### Design Specifications/Ratings

- Valve Body .....Glass-Filled Noryl
- Rubber Components .....Compounded for Cold Water
- Weight (Valve with Control).....5 lbs (2.27 kg)
- Transformer Output.....12VAC 400 mA
- Transformer Input.....115V 50/60 Hz, 230V 50/60 Hz  
.....100V 50/60 Hz
- Recommended Operating Pressure.....20-120 psi (1.38-8.27 bar)  
.....Canada ...20-100 psi (1.38-6.89 bar)
- Water Temperature.....35°-100°F (2°-38°C)

### Options

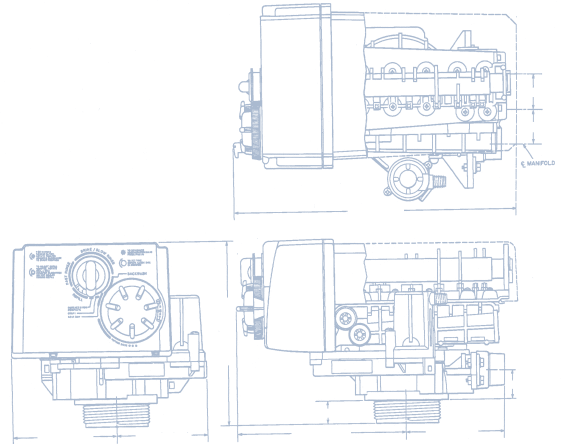
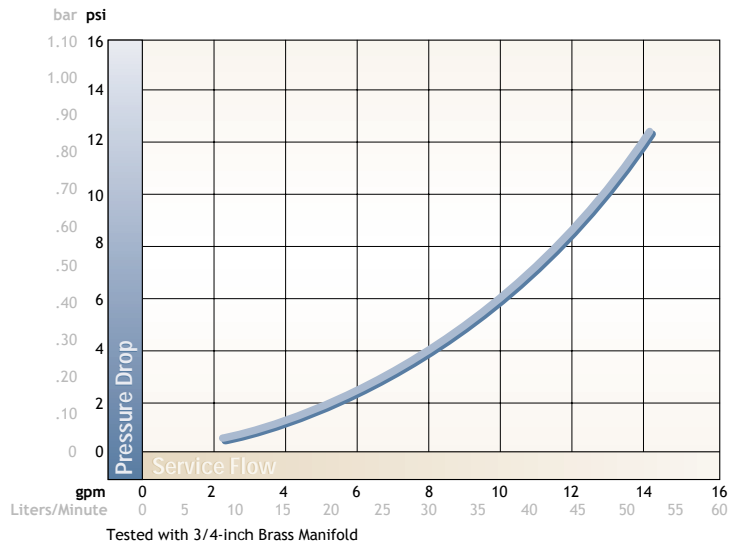
- Bypass Valve .....Noryl, 1/2-inch NPT Male, Drain
- Bypass Inlet/Outlet Fitting Kits:
- Copper, Sweat Tube Adapter .....1 inch or 3/4 inch or 28 mm or 22 mm
- CPVC, Solvent Weld Tube Adapter.....1 inch or 3/4 inch or 25 mm
- Plastic NPT or BSPT Pipe Adapter .....1-inch Male or 3/4-inch Male
- Brass NPT or BSPT Pipe Adapter .....1-inch Male or 3/4-inch Male

### Backwash Flow Control Table

Backwash Number**	7	8	9	10	12	13	14
Tank Diameter (inches/mm)	7/186	8/210	9/235	10/260	12/305	13/334	14/369
Flow Rate (gpm)	1.3	1.7	2.2	2.7	3.4	4.5	5.3
Flow Rate (Lpm)	4.9	6.4	8.3	10.2	12.9	17.0	20.0

\*Noryl is a trademark of General Electric Company.  
\*\*Backwash flow controls sized for 5.0 gpm/ft<sup>2</sup>.

## ■ Pressure Loss Characteristics



## ■ Injector Flow Rate Chart (gpm)

"A" Injector with #7 Backwash Control				"B" Injector with #8 Backwash Control			"C" Injector with #10 Backwash Control		
psi	Draw	Motive	Rinse	Draw	Motive	Rinse	Draw	Motive	Rinse
20	0.15	0.22	0.24	0.17	0.41	0.46	0.20	0.64	0.69
30	0.20	0.27	0.27	0.23	0.48	0.53	0.28	0.69	0.76
50	0.26	0.33	0.33	0.29	0.63	0.66	0.36	0.87	0.91
70	0.32	0.38	0.37	0.37	0.75	0.75	0.41	1.00	1.00
90	0.35	0.42	0.42	0.41	0.83	0.83	0.41	1.13	1.17
120	0.39	0.48	0.48	0.43	0.94	0.93	0.42	1.30	1.32

## ■ Injector Flow Rate Chart (Lpm)

"A" Injector with #7 Backwash Control				"B" Injector with #8 Backwash Control			"C" Injector with #10 Backwash Control		
bar	Draw	Motive	Rinse	Draw	Motive	Rinse	Draw	Motive	Rinse
1.38	0.56	0.83	0.91	0.64	1.55	1.74	0.75	2.42	2.87
2.08	0.75	1.02	1.02	0.87	1.82	2.00	1.06	2.61	2.87
3.46	0.98	1.25	1.25	1.09	2.38	2.50	1.36	3.29	3.44
4.85	1.21	1.44	1.40	1.40	2.84	2.84	1.55	3.78	3.78
6.24	1.32	1.59	1.59	1.55	3.14	3.14	1.55	4.28	4.16
8.32	1.47	1.81	1.81	1.62	3.56	3.52	1.59	4.92	4.99

Note: Injector tested on an empty tank (no resin). Actual injector performance is dependent on type of resin, tank geometry and drain line configuration. Motive flow rate indicates feedwater (excluding brine) through the injector nozzle during the brine draw cycle. Rinse flow rate indicates flow through the injector after closure of the air check.

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