

# TECHNICAL SHEET

AUTOTROL

255 CONTROL VALVE - 460 SERIES







# **AUTOTROL 255 CONTROL VALVE - 460 SERIES**



#### **460 TIME CLOCK CHARACTERISTICS**

- Simple, precise electronic time clock (chronometric)
- 1- or 30-days regeneration setting
- 12 V operation



#### **460i VOLUMETRIC CHARACTERISTICS**

- Same features as the 460 Time Clock, plus
  - Capacity setting
  - Calendar override
- 7 days variable reserve
- 12 V operation
- Standard manifold, 1 inch turbine

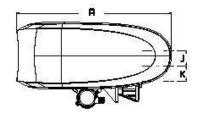
#### **TECHNICAL SPECIFICATIONS**

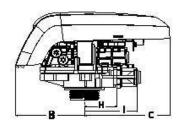
| VALVE SPECIFICATIONS                |   |
|-------------------------------------|---|
| Valve Body                          | Glass-filled thermoplastic – NSF Listed material          |
| Rubber Components                   | Compounded for cold water – NSF Listed material           |
| Valve Materials Certification       | WQA Gold Seal Certified to ORD 0902, NSF/ANSI 44, CE, ACS |
| Weight (Valve with Control)         | 1.8 kg (4 lbs)  |
| Recommended Operating Pressure      | 1.38 - 8.27 bar (20 - 120 psi)                            |
| Hydrostatic Test Pressure           | 20.69 bar (300 psi)                                       |
| Water Temperature                   | 2-38°C (35-100°F)   |
| Ambient Temperature*                | 2-48.9°C (35-120°F)                                       |
| Controller Operating Voltage        | 12 VAC (Requires use of Pentair supplied transformer)     |
| Input Supply Frequency              | 50 or 60 Hz (Controller configuration dependent))         |
| Motor Input Voltage                 | 12 VAC  |
| Controller System Power Consumption | 3 W average   |

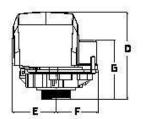
<sup>\*</sup> Recommend use of outdoor cover for direct sunlight applications



#### **DIMENSIONS**



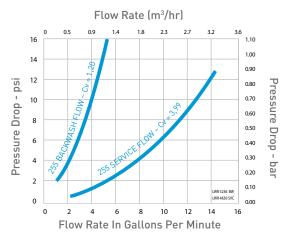




| Units  | А    | В    | С    | D    | E    | F    | G    | Н   | - 1  | J   | K   |
|--------|------|------|------|------|------|------|------|-----|------|-----|-----|
| cm     | 37.8 | 16.8 | 20.8 | 21.3 | 10.7 | 10.2 | 14.5 | 7.9 | 13.0 | 3.8 | 3.8 |
| Inches | 14.9 | 6.6  | 8.2  | 8.4  | 4.2  | 4.0  | 5.7  | 3.1 | 5.1  | 1.5 | 1.5 |

#### **PERFORMANCE**

#### FLOW RATE vs PRESSURE DROP



#### **BACKWASH FLOW CONTROL**

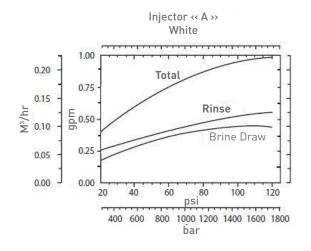
| Backwash<br>number* | Flow Rate (gpm) | Flow Rate (Lpm) |
|---------------------|-----------------|-----------------|
| 7                   | 1.30            | 4.90            |
| 8                   | 1.70            | 6.40            |
| 9                   | 2.20            | 8.30            |
| 10                  | 2.70            | 10.20           |
| 12                  | 3.90            | 14.76           |
| 13                  | 4.50            | 17.00           |
| 14                  | 5.30            | 20.00           |

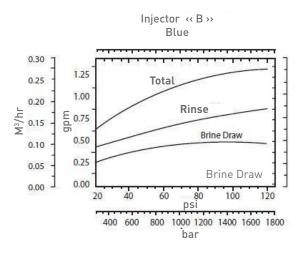
<sup>\*</sup>Backwash flow controls sized for 5.0 gpm/ sq. ft.

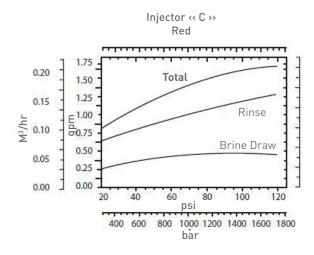


#### **INJECTOR\* PERFORMANCE**

#### **460 SERIES CONTROLLERS**







<sup>\*</sup>New injectors for high-efficiency regeneration sequence are standard with 460 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).



## TRANSFORMER - ALL CONTROLLERS

#### All Controllers require the use of a Pentair supplied transformer.

Transformer Output Voltage 12 VAC 150 mA

Transformer Input Options 230 VAC 50/60 Hz

Transformer Plug Options United Kingdom Plug Mainland Europe Plug

Note: additional transformers may be available – call for more information.

| FLOW RATE (VALVE ONLY)            |                      |
|-----------------------------------|----------------------|
| Service @ 1.03 bar (15 psi) drop  | 3.52 m³/h (15.5 gpm) |
| Backwash @ 1.72 bar (25 psi) drop | 1.36 m³/h (6.0 gpm)  |
| Service                           | Kv = 3.4 (Cv = 3.99) |
| Backwash                          | Kv = 1.0 (Cv = 1.20) |

Note: Tested with a ¾ inch brass manifold

| VALVE CONNECTIONS                                 |   |                                |  |  |  |  |
|---|---|--------------------------------|--|--|--|--|
| Tank Thread                                       | 2-1/2 inches – 8, male  | Brine Line                     | 1/4 or 3/8 inch NPT, male; air check<br>built into valve                       |  |  |  |
| Inlet/Outlet Manifold<br>(brass or thermoplastic) | 1 inch NPT or BSPT, female<br>3/4 inch NPT or BSPT, male (ther-<br>moplastic)<br>1/2 inch NPT or BSPT, male (ther-<br>moplastic)<br>1/2 inch NPT or BSPT, male (ther-<br>moplastic) | Distributor Tube<br>(diameter) | 27 mm (1.050 inch) or 20.6 mm<br>( <sup>13</sup> / <sub>16</sub> inch)         |  |  |  |
| Drain Line  | ½ inch (manifold dependent)   | Distributor Tube<br>(length)   | 29 mm $\pm$ 3 mm (1- $\frac{1}{8}$ $\pm$ $\frac{1}{8}$ inch) above top of tank |  |  |  |

### **OPTIONS**

• Thermoplastic 1-inch flow path, 13mm (½ inch) NPT male, drain bypass

#### Bypass inlet-outlet fitting kits:

Copper, Sweat Tube Adapter: 25 or 19 mm (1 inch or ¾ inch)
 CPVC, Solvent Weld Tube Adapter: 25 or 19 mm (1 inch or ¾ inch)
 Plastic NPT or BSPT Pipe Adapter: 25 or 19 mm male (1 inch or ¾ inch)
 Stainless steel NPT or BSPT Pipe Adapter: 25 or 19 mm male (1-inch or ¾ inch)
 Brine Refill Controllers: 0.33 gpm (1.25 Lpm) fixed

0.14 gpm (0.53 Lpm) fixed (optional for small tank applications)

