



TECHNICAL SHEET

AUTOTROL

255 CONTROL VALVE - 460 SERIES





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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

* Recommend use of outdoor cover for direct sunlight applications



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 m ³ /h (15.5 gpm)
Backwash @ 1.72 bar (25 psi) drop	1.36 m ³ /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	2-½ inches – 8, male	Brine Line	¼ or ⅜ inch NPT, male; air check built into valve
Inlet/Outlet Manifold (brass or thermoplastic)	1 inch NPT or BSPT, female ¾ inch NPT or BSPT, male (thermoplastic) ½ inch NPT or BSPT, male (thermoplastic) ½ inch NPT or BSPT, male (thermoplastic)	Distributor Tube (diameter)	27 mm (1.050 inch) or 20.6 mm (13/16 inch)
Drain Line	½ inch (manifold dependent)	Distributor Tube (length)	29 mm ± 3 mm (1-1/8 ± 1/8 inch) above top of tank

OPTIONS

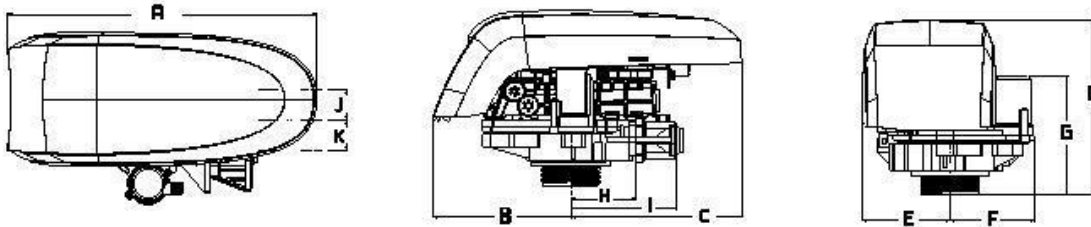
- Thermoplastic 1-inch flow path, 13mm (½ inch) NPT male, drain bypass

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)



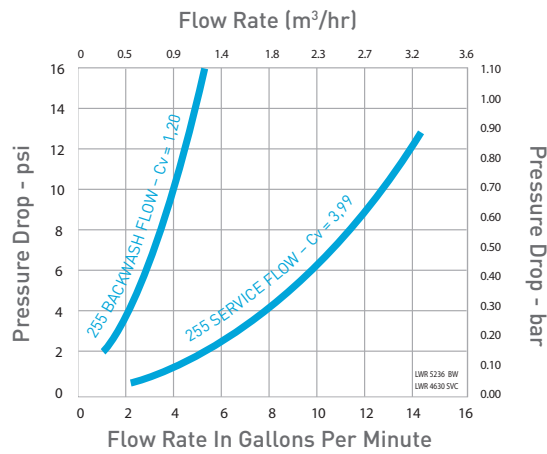
DIMENSIONS



Units	A	B	C	D	E	F	G	H	I	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 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

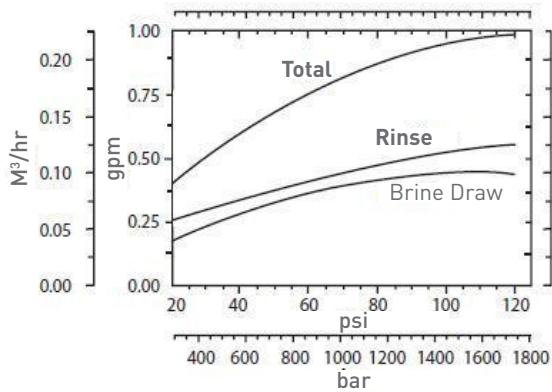
*Backwash flow controls sized for 5.0 gpm/ sq. ft.



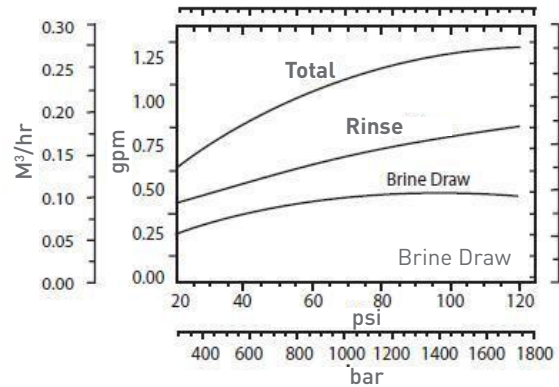
INJECTOR* PERFORMANCE

460 SERIES CONTROLLERS

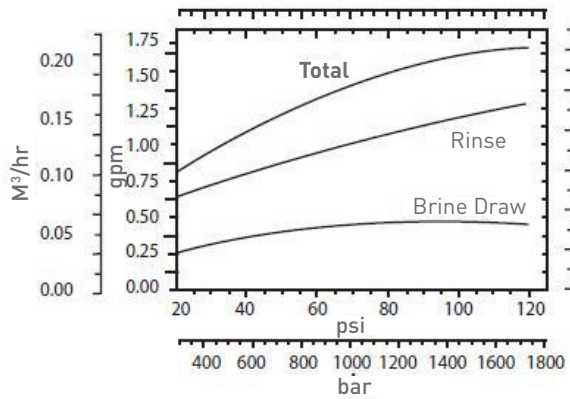
Injector « A »
White



Injector « B »
Blue



Injector « C »
Red



*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).

Contact us:

By mail

Commercial support

commercial.prfemea@pentair.com

Technical support

techsupport.water@pentair.com

Marketing support

marketing.prfemea@pentair.com

By phone

Tel. +41 21 623 69 69