

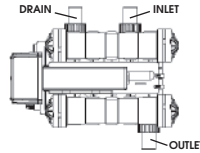
# CONTROL VALVES



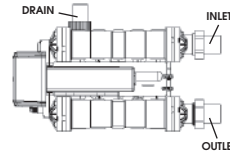
## AUTOTROL MAGNUM IT COMMERCIAL SOFTENER VALVES



**Magnum IT 764  
Softener Valve**



**Magnum Cv  
Top View  
(FOR REF. ONLY)**



**Magnum IT  
Top View**



**Magnum IT 764  
Twin Alternating**

### Optional

Top mount or side mount configuration available.

### Valve Connections

Tank Thread ..... 4 inch 8 UN  
 Inlet/Outlet ..... 1.5 or 2 inch NPT or BSPT, Female, CPVC  
 Brine Line ..... 0.75 inch NPT  
 Drain Line ..... 1.5 inch NPT or BSPT, Female, CPVC  
 Riser Tube Diameter ..... 1.5 inch  
 Riser Installation ..... Above top of tank 0.625 inch (±0.125)  
 Pilot Drain & Aux  
 Hydraulic Output ..... 0.25 inch tube fitting

### Flow Rates (Valve Only)

Service @ 15 psi (1.03 bar) drop ..... 76 gpm (17.3 m<sup>3</sup>/hr)  
 Backwash @ 25 psi (1.72 bar) drop ..... 89 gpm (20.2 m<sup>3</sup>/hr)  
 Service ..... Cv = 19.5 (Kv = 17)  
 Backwash ..... Cv = 17.8 (Kv = 19.9)

### Design Specifications

Working Pressure ..... 25 – 100 psi (1.7 – 6.9 bar)  
 Water Temperature ..... 35 – 120°F (2 – 49°C)

### Softener Control Valves

Configuration Matrix	Description	Regen. Cycle	Valve I/O Size	Riser Pilot	Approx. Ship. Wt.
MI74S-(BP)(I)(BW)(AI)	Magnum IT 742 Electronic Time Clock Control	7 or 99 Day*	1.5" or 2"	1.5"	28 lbs.
MI76S-(BP)(I)(BW)(AI)	Magnum IT 764 Electronic Metered Control Single Tank or Multi-Single Lockout Capable Recommended max. 4 units linked with UA-3020228	Demand	1.5" or 2"	1.5"	28 lbs.
UA-3020228	Lockout Cable – one less required than units linked	—	—	—	—
MI76TS-N(I)(BW)(AI)	Magnum IT 764MS Twin Valves with Alternating or Parallel Master and Slave Controls with Lockout Cable, No Untreated Water Bypass	Demand	1.5" or 2"	1.5"	57 lbs.

Pilot feed adapter for low pressure applications (< 25 PSI) available. (P/N: UA-1040668)  
 50 Hz available.

\* "7 Day" denotes day of the week; "99 Day" denotes number of days between regenerations (1- 99 days)

### Included Softener Control Valve Options

Option Code (x)	Description
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**Must choose from the following bypass options for all softener valves with 742 & 764 controllers**

(BP) = H	Untreated Water Bypass (Not available for 764MS Twin Valve Controls)
(BP) = N	No Untreated Water Bypass (Required for 764MS Twin Valve Controls)

**Must choose from the following injector size options for all softener valve configurations**

(I) = 14,16,18,21,24,30,36	Injector Nozzle: Value = Tank Diameter (Softener Applications Only)
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**Must choose from the following backwash options for all softener valve configurations**

(BW) = 05 to 40	Internal Backwash Flow Control: 5 gpm to 40 gpm (Increments of 1 gpm)
(BW) = 41 to 89	External Backwash Flow Control: Up to 89 gpm @ 25 psid (Increments of 1 gpm)

**Must choose from the following plumbing adapter kit options for all Magnum IT softener valve configurations**

(AI) = UA-3023849	(2) 2" S.S. NPT Adapter w/ Zinc Diecast Nut, (1) 1.5" S.S. NPT Adapter w/ Glass Filled Noryl Nut
(AI) = UA-3023674	(2) 2" S.S. BSP Adapter w/ Zinc Diecast Nut, (1) 1.5" S.S. BSP Adapter w/ Glass Filled Noryl Nut
(AI) = UA-1040784	(2) 2" CPVC Spigot Adapter w/ Zinc Diecast Nut, (1) 1.5" CPVC Spigot Adapter w/ Glass Filled Noryl Nut
(AI) = UA-3023732	(2) 2" to 1.5" S.S. NPT Reducer w/ Zinc Diecast Nut, (1) 1.5" S.S. NPT Adapter w/ Glass Filled Noryl Nut
(AI) = UA-302373	(2) 2" to 1.5" S.S. BSP Reducer w/ Zinc Diecast Nut, (1) 1.5" S.S. BSP Adapter w/ Glass Filled Noryl Nut

# CONTROL VALVES



## AUTOTROL MAGNUM IT COMMERCIAL FILTER VALVES

### Filter Control Valves

Configuration Matrix	Description	Regen. Cycle	Valve I/O Size	Riser Pilot	Approx. Ship.Wt.
MI74F-(BP)(BW)(AI)	Magnum IT 742F Electronic Time Clock Control	7 or 99 Day*	1.5" or 2"	1.5"	28 lbs.
MI76F-(BP)(BW)(AI)	Magnum IT 764F Electronic Metered Control Single Tank or Multi-Single Lockout Capable Recommended max. 4 units linked with UA-3020228	Demand	1.5" or 2"	1.5"	28 lbs.
UA-3020228	Lockout Cable – one less required than units linked	—	—	—	—
MI76TF-N(BW)(AI)	Magnum IT 764FMS Twin Valves with Alternating or Parallel Master and Slave Controls with Lockout Cable, No Unfiltered Water Bypass	Demand	1.5" or 2"	1.5"	57 lbs.

Pilot feed adapter for low pressure applications (< 25 PSI) available. (P/N: UA-1040668)  
50 Hz available.

\* "7 Day" denotes day of the week; "99 Day" denotes number of days between regenerations (1- 99 days)

### Included Filter Control Valve Options

Option Code (x)	Description
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**Must choose from the following bypass options for all filter valves with 742F & 764F controllers**

(BP) = U	Unfiltered Water Bypass (Not available for 764FMS Twin Valve Controls)
(BP) = F	No Unfiltered Water Bypass (Required for 764FMS Twin Valve Controls)

**Must choose from the following backwash options for all filter valve configurations**

(BW) = 05 to 40	Internal Backwash Flow Control: 5 gpm to 40 gpm (Increments of 1 gpm)
(BW) = 41 to 89	External Backwash Flow Control: Up to 89 gpm @ 25 psid (Increments of 1 gpm)

**Must choose from the following plumbing adapter kit options for all Magnum IT filter valve configurations**

(AI) = UA-3023849	(2) 2" S.S. NPT Adapter w/ Zinc Diecast Nut, (1) 1.5" S.S. NPT Adapter w/ Glass Filled Noryl Nut
(AI) = UA-3023674	(2) 2" S.S. BSP Adapter w/ Zinc Diecast Nut, (1) 1.5" S.S. BSP Adapter w/ Glass Filled Noryl Nut
(AI) = UA-1040784	(2) 2" CPVC Spigot Adapter w/ Zinc Diecast Nut, (1) 1.5" CPVC Spigot Adapter w/ Glass Filled Noryl Nut
(AI) = UA-3023732	(2) 2" to 1.5" S.S. NPT Reducer w/ Zinc Diecast Nut, (1) 1.5" S.S. NPT Adapter w/ Glass Filled Noryl Nut
(AI) = UA-3023736	(2) 2" to 1.5" S.S. BSP Reducer w/ Zinc Diecast Nut, (1) 1.5" S.S. BSP Adapter w/ Glass Filled Noryl Nut

### Transformer Specifications

All controllers require the use of a Magnum IT supplied transformer.

Output Voltage . . . . . 12 Volt – AC 400mA

Input Options . . . . . 115 Volt – AC 50/60 Hz  
230 Volt – AC 50/60 Hz  
100 Volt – AC 50/60 Hz

Plug Options . . . . . Indoor North America (P/N UA-1000811)  
 Outdoor North America (P/N UA-1235448)  
 Japan (P/N UA-1000810)  
 Australia (P/N UA-1000812)  
 United Kingdom (P/N UA-1000813)  
 Mainland Europe (P/N UA-1000814)

Additional transformers may be available — call for more information.

