



Uponor

RADIANT HEATING
SYSTEMS

1" ZONE VALVE

TECHNICAL BULLETIN

Application

The Uponor 1" Zone Valve (A3070526) provides flow control for a single-zoned manifold (i.e., a manifold serving one zone). The unit consists of a Motorized Valve

Actuator (MVA) (A3020522) and a valve body. It features 1" sweat connections and has a built-in flow-balancing feature. Additionally, the MVA features an end-switch closure to indicate the valve position.

Specifications

Part Number	A3070526
Weight	2.4 lbs. (1.1 kg)
Maximum Ambient Temperature	104°F (40°C) at 239°F (115°C) water temperature
Maximum Water Temperature	239°F (115°C)
Maximum Working Pressure	125 psi (862 kPa)
Maximum Shutoff Pressure	17.5 psi
C_v	7.0
Connections	1" sweat
Material	Bronze casting, brass stainless trim
Operating Voltage	24VAC nominal
Operating Current	0.25 amps
Time to Open	10 to 12 seconds
Time to Close	3 to 4 seconds
Motor Type	Synchronous motor
End-switch Rating	24VAC, 5 amps resistive, 3 amps inductive
Leads	12"

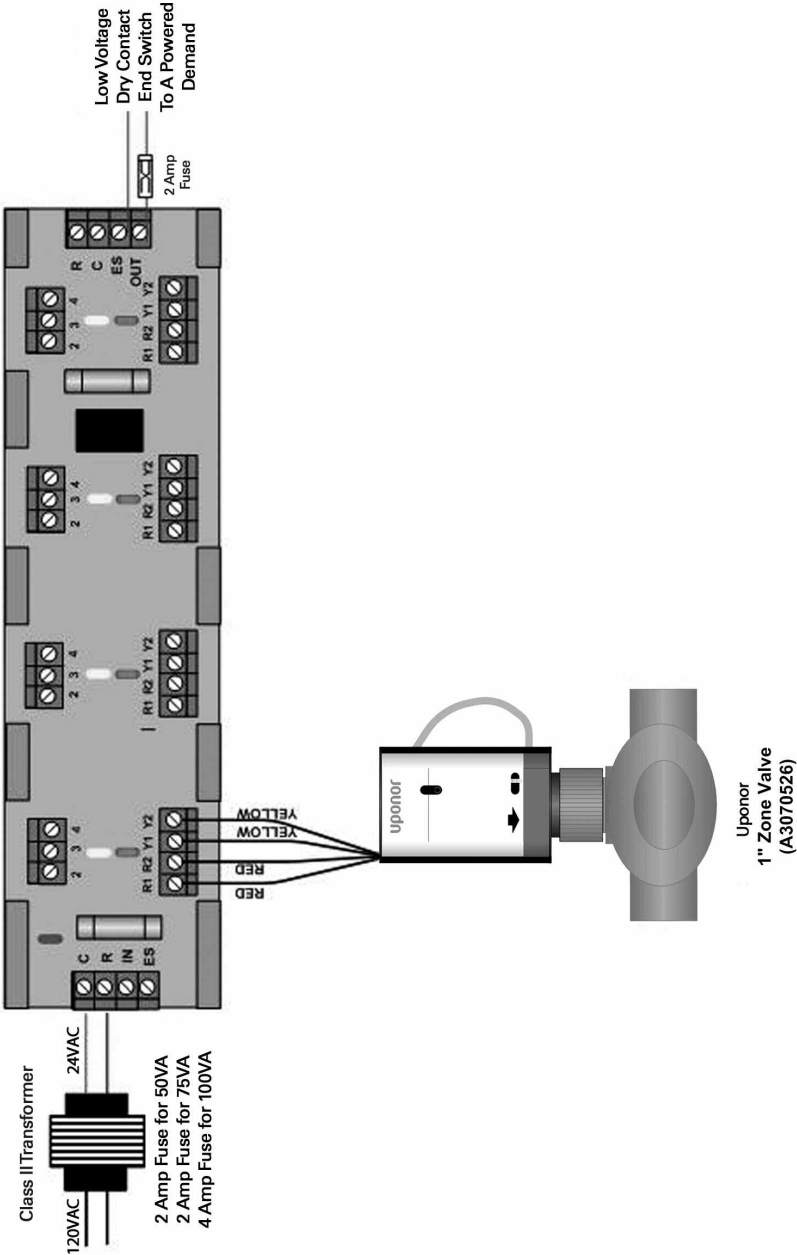
Sequence of Operation

The MVA uses a synchronous motor to release the valve and provide fluid flow through the valve body. The motor overcomes the force of an internal spring to release the valve shaft. When the electrical excitation is removed, the motor force is removed. This allows the spring return in the zone valve body to close the valve. With the valve actuator removed, the zone valve is open and fluid will flow.

Wiring

Four wires (two red and two yellow) connect the MVA to the other control hardware. The yellow wires connect to the Uponor Zone Control Module (A3030003 or A3030004) terminals Y1 and Y2. The yellow wires can also connect to any thermostat. Connect one wire to the W terminal on the thermostat, and connect the other wire to the C terminal on the transformer.

The red wires provide a closed circuit when the 1" Zone Valve reaches an open state. These wires connect to R1 and R2 on the Uponor Zone Control Module (A3030003 or A3030004). The red wires can also connect to a pump through an isolation relay.



NOTE: This drawing is conceptual only and is not an engineered drawing. It is up to the system designer to determine the necessary components for the configuration of the particular system designed, including additional equipment, isolation relays (for loads greater than the control's specified output ratings), and any safety devices which in the judgement of the designer are necessary for the purpose of safety. Mechanical considerations such as pipe spacing, flow control, pipe sizing and pump selection, is the responsibility of the installing contractor. Local codes and trade practices must be followed.	SYMBOLS = Pump = Floating Action Mixing Valve	= Air Separator & Expansion Tank w/ fill = Tempering Valve	= 4-Way Mixing Valve = Heat Exchanger	= Zone Valve = Pressure By-Pass Valve	= Ball Valve = Globe Valve	= Flow Check = Drain Valve	Project: Uponor, Inc. 5925 148th Street W. Apple Valley, MN 55124 Phone: 1-800-321-4739 Fax: 1-952-891-1409 www.uponor-usa.com Drawn by: _____ Checked by: _____ Rep: _____ DATE: _____	

Uponor, Inc.
5925 148th Street West
Apple Valley, MN 55124
Tel: (800) 321-4739
Fax: (952) 891-1409
Web: www.uponor-usa.com
E-mail: learnmore@uponor-usa.com

Uponor Ltd.
655 Park Street
Regina, SK S4N 5N1
Tel: (888) 994-7726
Fax: (800) 638-9517
Web: www.uponor.ca
E-mail: info@uponor.ca

uponor