

MetroMix

Pre-piped Electronic Mixing Valve with Safeguard*



*Engineered specifically for domestic hot water.





MetroMix Control Specifications

Voltage Input:	120 VAC 60 Hz
Maximum Input Rating:	48 VA Max
Fuse:	20 mm 2.5 Amp
Display:	Graphical Display
Display Units:	Temperature (°F and °C)
Alarm Set Point:	80°F/27°C to 200°F/93°C
Set Point:	60°F/16°C to 180°F/82°C
Offset:	0°F/0°C to 80°F/44°C
Gain:	From -10 to +10
Modulation Output Signal:	0-10V, 2-10V, 0-5V, 1-5V, 4-20mA
LED:	3 (Actuator Signal, No Flow, Alarm Status)
Inputs:	System Temperature, Flow Prove, Remote Set point (4-20mA)
Buttons:	4 (buttons' functions vary)
Dimensions:	11" L x 9" H x 3 3/4" W
Weight:	2.5 pounds

Electronic Mixing Valve Control with Safeguard

- Electronic mixing valve control for domestic hot water
- Stainless steel motorized valves
- Optional alarm condition safeguard with optional safety solenoid valve
- Optional communication over the Internet or BACnet

Designed For Temperature Critical Applications

The MetroMix accurately regulates the water temperature using its modulating stainless steel motorized valve.

Typical uses include:

- Domestic hot water temperature control
- Heating and cooling applications
- Industrial processes

Safeguard Against High Temperature System Conditions

When the temperature reaches a critical point, the MetroMix activates an optional solenoid valve to shut the hot water supply close. In addition, it can trigger two alarm outputs.

Manual Reset

To resume normal operation after an alarm condition, the MetroMix must be reset manually by pressing the Manual reset button.

Built-in Setback Schedule

By having the capability to lower the target temperature during low usage periods, the MetroMix is now greener than ever. It is equipped with a 7-day setback schedule to increase savings during off-peak periods. You can adjust up to 4 setback schedules per day.

Stainless Steel Valves

The MetroMix is packaged with a rugged stainless steel valve body and a reliable electronic actuator. These valves are designed to provide lead-free domestic hot water use. These valves have passed some of the most stringent code requirements.

Internet Communication Capability

The MetroMix can provide alarm alerts via the internet or cellular connectivity. With the installation of the optional MetroMail Communication Module the user can receive alarm messages via text or email over Ethernet or WIFI connectivity. For installations where Ethernet or WIFI are not available MetroCloud cellular dialer services are available, monthly cellular service charges will apply.

BACnet Communication Capability

The MetroMix connects to building automation system networks giving you the capability to change settings and monitor sensors. An optional BACnet Communication Module is required and provides communication via MSTP or Ethernet (IP) Protocols.

Optional Power/Communication Loss Protection

For critical service applications the MetroMix valve can be outfitted with an actuator that includes two super capacitors. These maintenance free capacitors will be charged from the actuator supply voltage. Upon the loss of power or communication from the MetroMix controller the super capacitors will drive the valve to a "safe" position, which is field selectable.

In a domestic hot water application it would be configured to stroke "cold" preventing any hot water from leaving the mixing valve until power or communication is restored to the actuator.

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MetroMix Control Module Specifications

Voltage Input: 120 VAC 60 Hz
 Maximum Input Rating: 48 VA max
 Display: Graphic Display
 Display/Temperature Unit: °F and °C
 Modes of Operation: ETV,TMC,ETV+TMC Combo
 MetroMix Set point: 40°F/4°C to 200°F/93°C
 Alarm Set Point: 40°F/4°C to 200°F/93°C
 Modulation Output Signal: 0-10V, 2-10V, 0-5V, 1-5V, 4-20mA
 LED Indicators: 3(Actuator Signal, No Flow, Alarm Status)
 Inputs: Sensors(Hot, Cold, Mixed), Flow Prove, EMS 4-20mA
 Dimensions: 11"W x 9"H x 3¾"D
 Weight: 2.5Lbs.

Electric Actuator Specifications

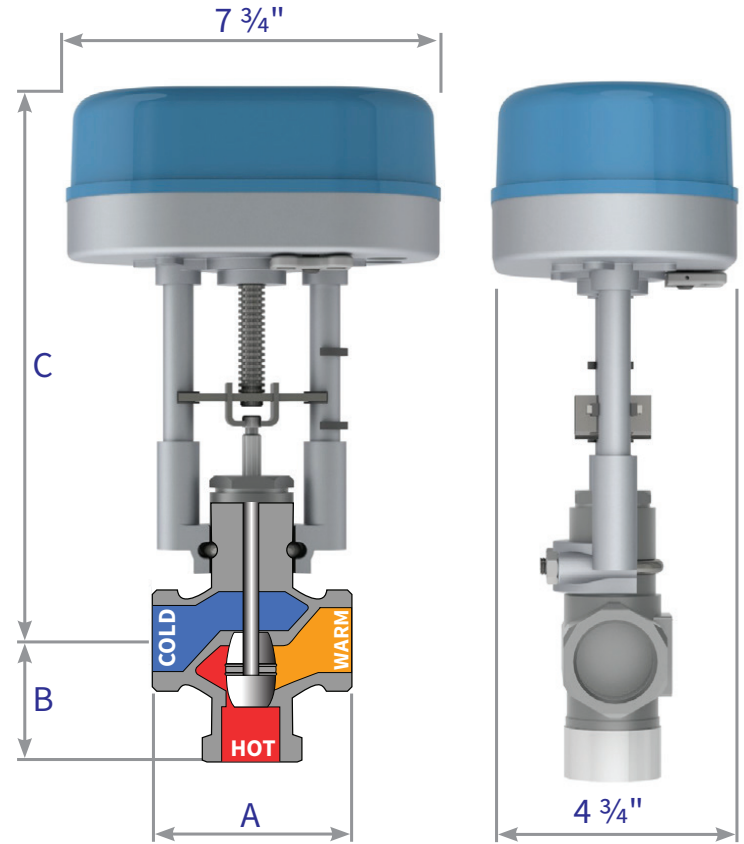
Voltage Input: 24 VAC 60 Hz
 Power Consumption: 0-10V
 Weight: 2.6lbs.

Stainless Steel Valve Specifications

Body & Trim: 304 Stainless
 Maximum Operating Temperature: 300°F / 149°C
 Maximum Working Pressure: 225 psi
 Stem Material: 640 Stainless

Stainless Steel Mixing Valves Conform To:

California Lead Free Plumbing Law
 (Health and Safety Code AB-1953) CSA B 125.3
 (NSF/ANSI 61 Section 8 - 2008) ASSE 1017-2009



MetroMix Valve Sizing Chart

	Valve Size						
Pressure Drop	1/2"	3/4"	1"	1 ¼"	1 ½"	2"	2 ½"
3 psi	8	12	20	32	50	80	126
4 psi	9	15	23	37	58	93	145
5 psi	10	16	26	41	64	103	162
6 psi	12	18	28	45	71	113	178
7 psi	13	20	31	50	78	125	192
8 psi	14	21	33	53	83	132	205
9 psi	15	22	35	56	88	140	218
10 psi	16	23	36	58	91	145	230
	Flow (gpm)						

Minimum Service Clearance

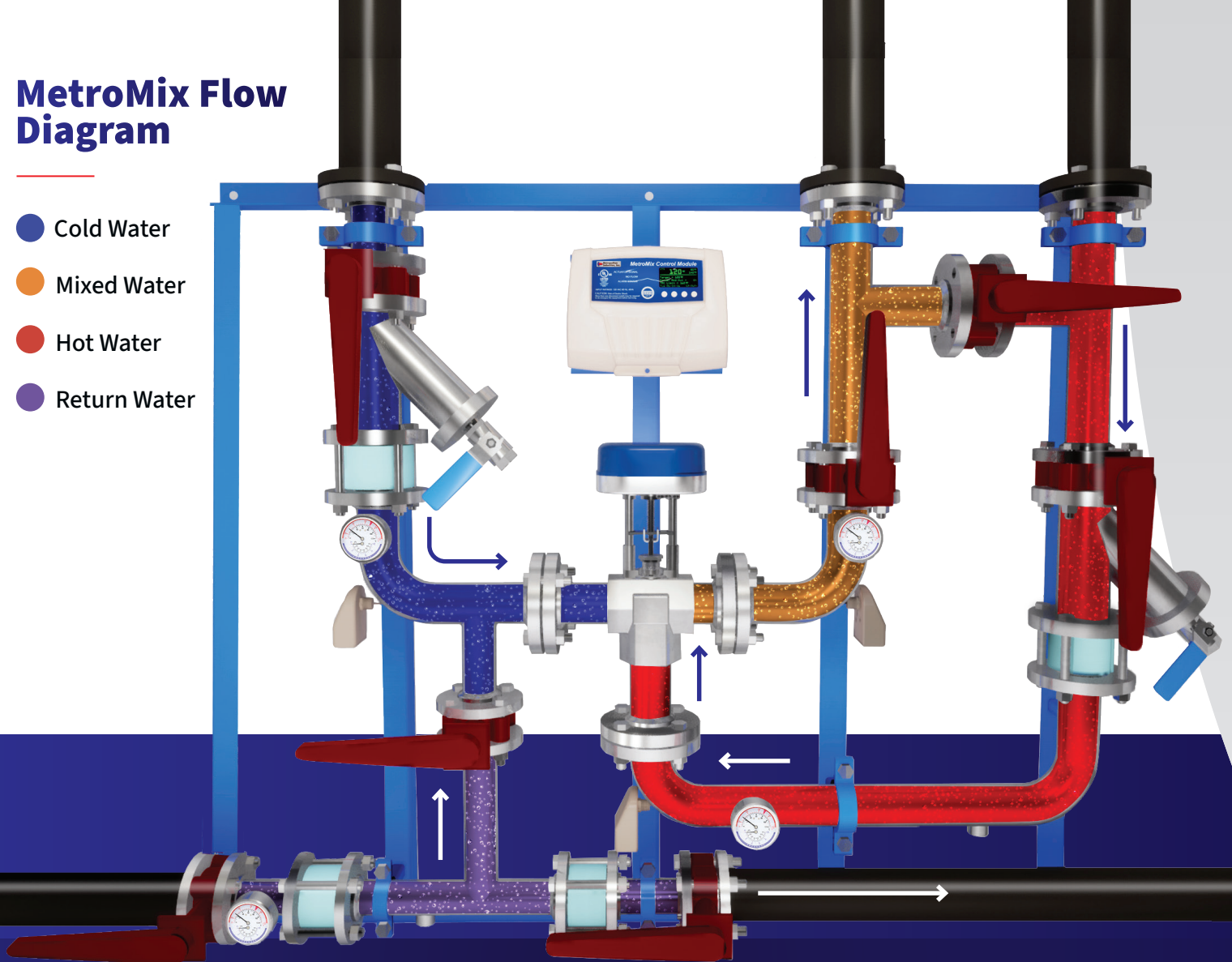
Top	Left	Right	Front	Back
18"	12"	12"	12"	12"

Stainless Steel Valve Dimensions

3-Way Valve Size	A	B	C	Inlet/Outlet Pipe Sizes		
				Mix	Hot	Cold
½"	3 ⅛"	2"	10 ½"	½"	½"	½"
¾"	3 ⅛"	2"	10 ⅝"	¾"	¾"	¾"
1"	4"	2 ⅛"	10 ¾"	1"	1"	1"
1 ¼"	4"	2 ½"	11"	1 ¼"	1 ¼"	1 ¼"
1 ½"	4 ¾"	2 ⅝"	11 ⅜"	1 ½"	1 ½"	1 ½"
2"	5 ½"	3 ⅜"	11 ⅞"	2"	2"	2"
2 ½"	6 ⅝"	4"	2 ¾"	2 ½"	2 ½"	2 ½"

MetroMix Flow Diagram

- Cold Water
- Mixed Water
- Hot Water
- Return Water



Condensate Return Unit

- Include a stainless steel tank, flange mount stainless steel pump(s), electric motor(s), level control and sight glass
- Simplex and duplex units available
- Stainless steel tank and pump as standard
- Custom sizes and configurations available as required



Custom Booster Pump System Solutions

- For Medium to High Pressure Applications
- Utilizes Reliable Multi-Stage Vertical Centrifugal Pumps
- Cartridge-Type Quick Change Shaft Seal
- Stainless Steel Shaft, Impellers, Diffusers and Outer Sleeve
- Requires No Routine Maintenance
- Energy-Saving Variable Speed Controls

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