

MX-131; MX-132 Large flow Proportional Thermostatic Mixing or Diverting Valve

SPECIFICATION DATA



INSTALLER:

1. Fill in measured discharge temperature on caution label.
2. Attach CAUTION label to MX-131; MX-132.
3. Explain CAUTION label to owner.
4. Leave this instruction sheet with owner or on the job site.

Operation

Automatic operation is provided by thermostatic element. Element will control hot and cold supply based on valve setting. If cold water is shut off, valve reduces mixed flow rate in seconds (speed / residual flow rate varies by size.)

Benefits

MX-131; MX-132 provides energy savings, increased comfort and safety for the user.

APPLICATION:

Any application requiring accurate control of water temperature based on mixing of hot and cold water, such as:

- Domestic water for hotels, schools, hospitals, nursing homes, offices, public facilities,
- commercial and industrial buildings.
- Heat pump systems
- Industrial applications
- Space heating
- Central distribution systems
- Radiant floor heating
- Combo systems

CAUTION

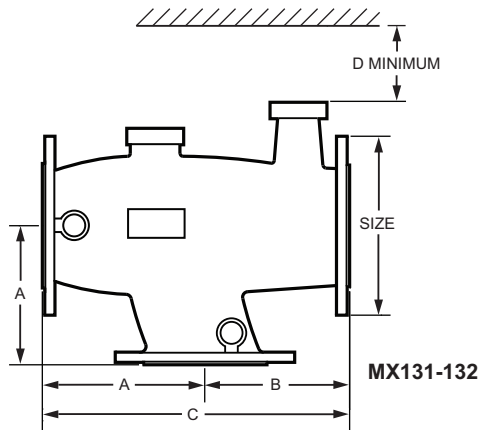
For domestic water application, set temperature not to exceed 120°F. for safety. Do not override calibration. Test temperature with thermometers.



FEATURES

- Dual purpose mixing or diverting valve.
- Constant water temperature under different operating conditions.
- Proportional valve (control of hot and cold water)
- Flow reduction in seconds if cold water supply is interrupted.
- Temperature adjustable.
- Allen wrench for temperature adjustment included.
- Install in any position, heat trapping not required.
- Recirculation connection for fast response.
- Bronze / stainless construction.
- Wear surfaces Teflon coated to prevent lime deposits.
- Tapped flange connections.
- Maximum pressure differential between hot and cold ports 7 psi.
- ISO 9001 facility.

PRODUCT SPECIFICATIONS



Product Number	Size NPT	Recir Port Size	Dimensions Inches (mm)			
			A	B	C	D
MX131	2-1/2" Flange	1 (25)	5-45/64 (145)	5-45/64 (145)	11-13/32 (290)	4 (102)
MX132	3" Flange	1-1/4 (32)	6-7/64 (155)	6-7/64 (155)	12-13/64 (310)	4 (102)

Fig. 1. MX-131; MX-132 Dimensions

Number	Size Flanged	Flow Cv	GPM at 30 psi	Temp. Range	Weight lbs.
MX 131	2 1/2"	34	186	110°-150°F	51
MX 132	3"	50	274	43°-65°C	62

With threaded recirculation adaptor female NPT .
 Max. working pressure 150 psi. (1034 kpa)
 Max. temperature 200°F (93°C)

Minimum temperature difference between hot and mix 10°F (6°C)

Installation note:

The flanges are threaded 5/8 - 11 UNC. Supplied with the valve are 12 D washers and 12 back-up nuts

You must install the D washers and back-up nuts (torqued as necessary) to assure a leak-tight, secure system.

Service

To remove dirt, flush valve. To remove calcium deposits, place valve in vinegar for 24 hours and flush or contact factory for assistance.

Do not attempt to field repair this calibrated valve.

Temperature Selection

The MX-131; MX-132 is calibrated: 110°-150°F. The factory setting is at 130°F. Change temperature setting with an Allen wrench, which is included. Punch through the center of the temperature range label. By turning the screw clockwise, the mix temperature increases (counter clockwise, it decreases). Each complete turn with the Allen wrench changes the temperature by 3.6°F.

Do not operate valve at temperatures outside of its calibrated range of 110°-150°F.

Use a thermometer to verify temperature.

TYPICAL INSTALLATION DIAGRAMS

1. DOMESTIC WATER MIXING

Use when water temperature produced by heater is hotter than desired at point of use. Many codes require that water supplied to the system be limited to 120° max.

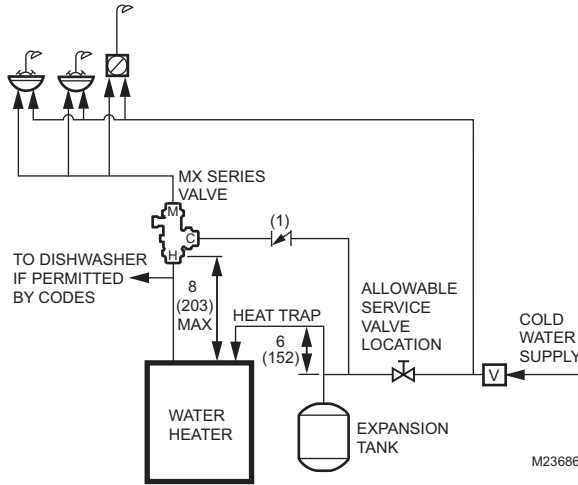


Fig. 2. Water heater without recirculation

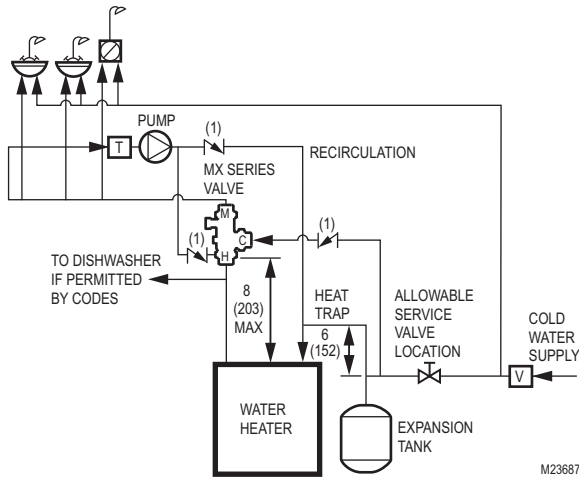


Fig. 3. Water heater with recirculation

RECIRCULATION LOOP

The purpose of a recirculation loop is to supply immediate tempered water to all hot water fixtures. This helps conserve water usage. In the recirculating loop, the hot water supply returns from the furthest fixture from the heating source and is connected to the MX mixing valve recirculation port and the cold supply line of the water heater, storage tank or boiler. The MX Series mixing valve allows easy recirculation connection through the integral recirculation port. A temperature control circulating pump is required to move the tempered water in the recirculation loop. The Honeywell L6006C1018 Aquastat® Control is the recommended temperature control device for the circulator. The Honeywell Aquastat Controller should be set 5° to 10° F (-15° to -12° C) below the set mixed outlet temperature.

- 1. = Check Valve
- 2. = Alternate pump location
- V. = Any device which turns the domestic water system into a closed system, such as backflow preventers, check valves or pressure reducing valves.

NOTE: 1. "V" is optional depending on local codes. If a "V" type valve is used, it is mandatory that a thermal expansion tank be installed as shown. Otherwise dangerously high pressures could result or water heater safety relief valve will frequently expel water. If no "V" device is used, no thermal expansion tank is required.

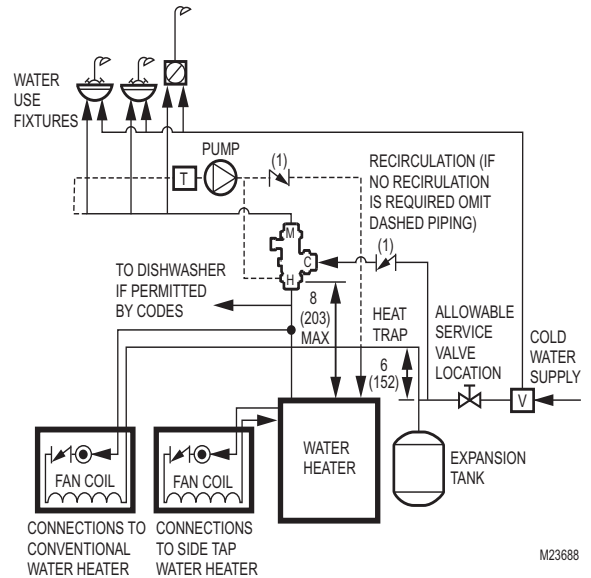


Fig. 4. Water heater used for domestic water and space heating.

2. Space Heating

Boiler must operate at a water temperature higher than the desired temperature in the heating system in order to perform at maximum efficiency.
Example: Radiant floor heating.

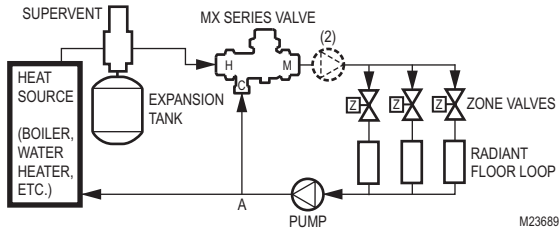


Fig. 5. Single Loop Mixing Applications (constant supply temperature).

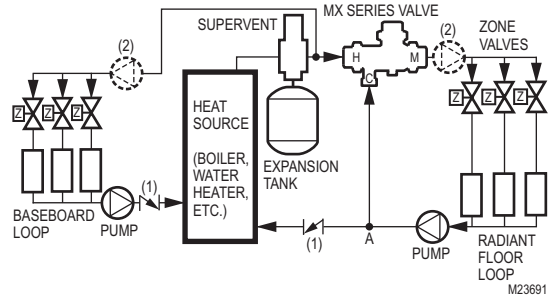


Fig. 7. Multiple Loops Mixing or Diverting Applications (constant supply temperature). One loop operates at boiler water temperature and MX 131; MX-132 loops at lower temperature.

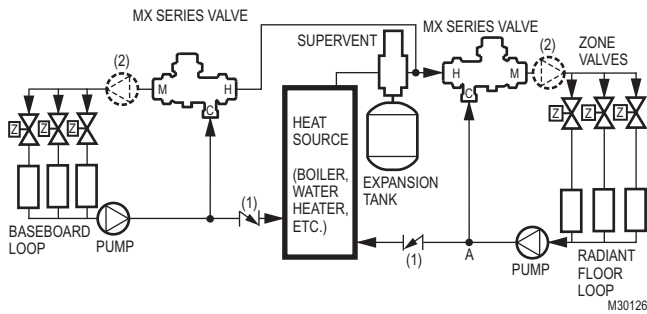


Fig. 6. Multiple Loops Mixing or Diverting Applications (constant supply temperature). Each loop operates at a different temperature.

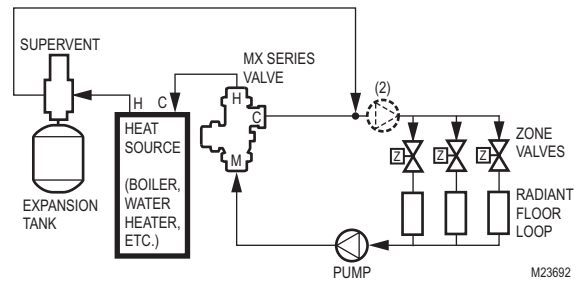


Fig. 8. Single loop for Diverting Applications. For multiple loops refer to Fig. 6 or 7.

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