

MXV-1



JWWA approval

The MXV-1 mixing valve is a temperature regulating valve that mixes hot water and cold water to make water of desired temperature. The valve is controlled by expansion/compression of the wax thermoelement to provide mixed water of stable temperature. This product has built-in check valves.



■Features

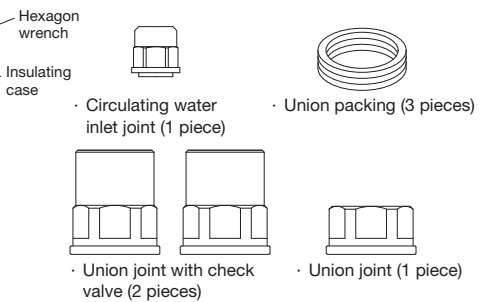
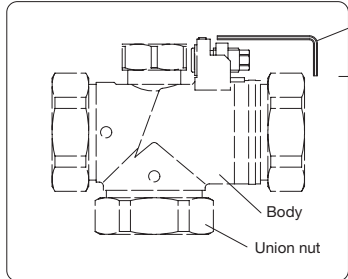
- 1. Set temperature range is 38 to 65°C, so applicable for wide usage.
- 2. Check valves are incorporated in inlet connection parts so that piping can become compact and components amount can be saved.
- 3. Applicable for circulation piping by using the attached circulating water inlet joint.

■Specifications

Model		MXV-1
Nominal size		25-50A
Application		Cold and hot water
Working pressure		1.0 MPa or less
Minimum closing pressure of check valve		3 kPa
Supply pressure difference between cold water and hot water		Within 0.05 MPa
Set temperature range		38-65°C
Initial set temperature		48°C
Working temperature		90°C or below (no freeze condition)
Difference between cold water temperature and set temperature		10°C or more
Difference between hot water temperature and set temperature		10°C or more
Installation posture		Vertical or horizontal installation
Material	Body	Brass
	Union joint	CAC
	Union packing	FKM
Connection		JIS Rc screwed
Connection for circulating water inlet		JIS G 1/2 screwed

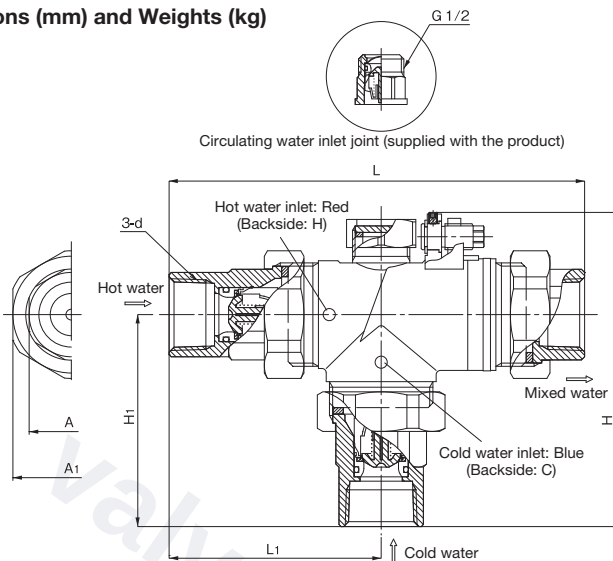
■Package Content

Please confirm that the package includes the following parts:



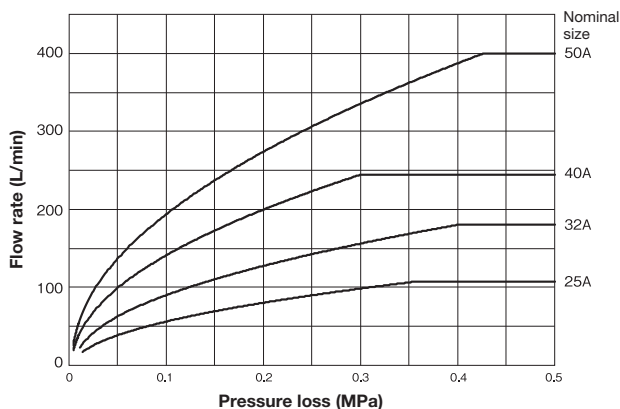
- Body (with 3 pieces of union nut installed)
- Insulating case
- Hexagon wrench (1 piece) (attached on the surface of the insulating case)
- Band

■ Dimensions (mm) and Weights (kg)



Nominal size	d	L	L ₁	H	H ₁	A	A ₁	Weight
25A	Rc 1	192	110	145	98	39	54	2.3
32A	Rc 1-1/4	225	130	172	114	49	66	4.0
40A	Rc 1-1/2	256	150	189	128	56	73	5.4
50A	Rc 2	292	180	221	144	69	90	9.4

■ Flow Characteristics Chart



This chart shows the flow characteristics obtained when the supply pressures of hot water and cold water are the same (if these pressures are different, regard pressure difference between the lower one and the mixed water as the pressure loss).

The values which this chart shows include pressure loss due to check valves.

* Chart of the flow rate is a reference value.

■Piping Examples

The following symbols are used in the example:



Stop valve



Check valve



Pressure gauge

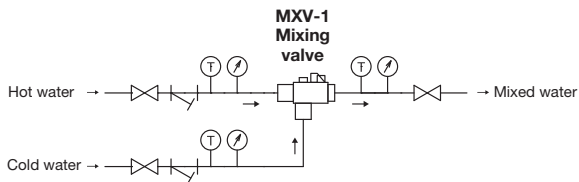


Thermometer

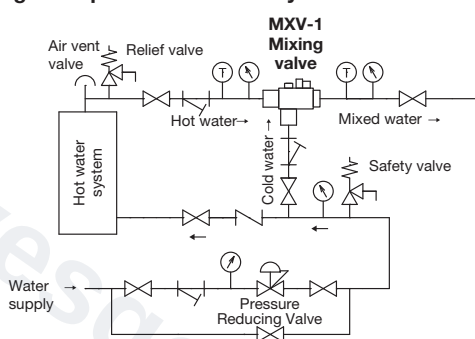


Strainer

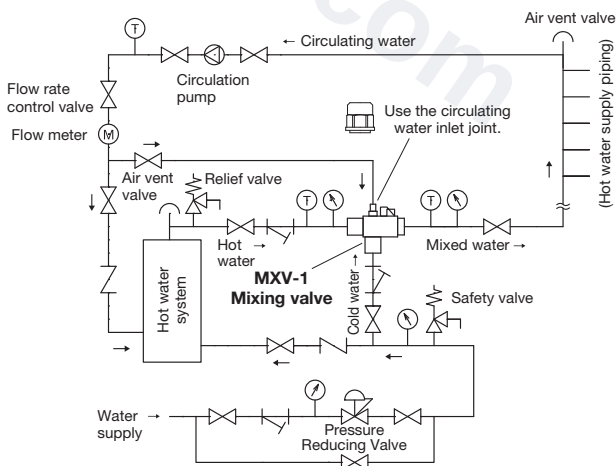
■1. Piping Example



■2. Piping Example for Hot Water System



■3. Piping Example for Circulation Piping



■Precaution for Installation

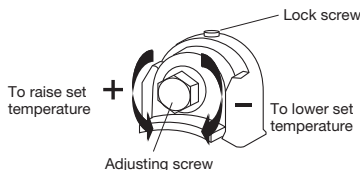
⚠ Warning

- When installing the product, make sure that each connection (for hot water, cold water, and mixed water) is connected to the piping properly, and that two union joints with check valves and one union joint are properly connected to the body.
* Failure to follow this notice may prevent the product from functioning properly resulting in scalds due to hot water.
- Since the product cannot stop water completely, when cold water is not supplied to the product due to water cutoff or any other reasons, only hot water comes out of the mixed water outlet without being cooled. Please take measures against such temperature rise.
* Failure to follow this notice may scald your skin if only hot water comes out of the mixed water outlet.

⚠ Caution

- Before installing the product, remove foreign substances and scale from the piping. Be sure to install a strainer in the piping.
* Failure to follow this notice may prevent the product from functioning properly.
* Since the product cannot be disassembled, the foreign substances inside cannot be removed.
* Copper pipes or stainless steel pipes are recommended to use.
- Do not apply excessive load, torque or vibration to the product.
* Failure to follow this notice may result in malfunction or a drastically shortened service life of the product.
- The temperature of mixed water can change due to pressure fluctuation of hot water and/or cold water or hot water temperature change. When the product is used in a place where the strict temperature control is required for mixed water or where mixed water can contact human body directly, make sure to install a mixing faucet right before a hot water supply inlet for easy temperature control.
- Be sure to install thermometers and pressure gauges in piping.
- Additional check valves are not required because the product has check valves built in each of the hot water inlet, cold water inlet, and circulating water inlet.
- A large pressure difference between hot water and cold water makes temperature control of mixed water unstable because water of lower pressure does not flow into the product. Keep the pressure difference within 0.05 MPa, for example, by installing a pressure reducing valve for each inlet.
- After installing the product, use the case made of polystyrene foam (fire-retarding material) as the insulating case for the product.
- When there is a possibility of freezing or temperature drop in the piping while the product is not used, connect circulation piping to the product by using the circulating water inlet joint. (See "3.Piping Example for Circulation Piping" on page 15-31.)

■How to Adjust Set Temperature



Set temperature is adjusted to 48°C when shipped out from the factory. To change set temperature, turn the adjusting screw. Set temperature range is from 38°C to 65°C. Also, the adjusting screw is fixed by the lock screw when shipped out from the factory.

To change set pressure, use the hexagon wrench (supplied with the product) and another wrench (commercially available) to turn the adjusting screw.

The hexagon wrench is placed on the surface of the insulating case.

Tools and sizes for adjusting temperature

Nominal size	25A	32A	40A	50A
Hexagon wrench (supplied with the product)	2 mm	2.5 mm		
Other wrenches (commercially available)	9 mm	10 mm	12 mm	