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Installation and Maintenance Instructions



Euromixer[®] Thermostatic Mixing Valves



A high flow rate thermostatic mixing valve for multiple outlet shower or basin installations where stable outlet temperatures at varying flow rates are important.

Contents

Reliance Worldwide Corporation (UK) Ltd.....	2
General Function.....	3
Specifications.....	3
Dimensions.....	4
Installation.....	5
Commissioning.....	6
Maintenance.....	8
Troubleshooting.....	10

TROUBLE SHOOTING

I can only get hot or cold water from the outlet

- Check that the valve is connected up correctly, with the hot & cold supplies connected to the corresponding fittings on the valve.
- Check that the supplies are both working correctly.
- Check non-return valves and strainers in inlet fittings for blockages and clean if necessary.
- Check that supply conditions are within those stated in the working parameters at the beginning of this booklet.

I am getting fluctuating mixed outlet temperature

- Debris is fouling the valve causing it to become sluggish. Service valve as per maintenance instructions.
- Check non-return valves and strainers in inlet fittings for blockages and clean if necessary.
- Minimum flow rate isn't being met refer to working parameter and specifications section.

I am getting fluctuating and/or poor flow rates

- Check non-return valves and strainers in inlet fittings for blockages and clean if necessary.
- Check isolation valves are fully open.
- Check that supply conditions are within those stated in the working parameters at the beginning of this booklet.

I am getting cross flow of hot water into the cold water supply or vice versa

- Check non-return valves and strainers in inlet fittings for blockages and clean if necessary.
- Check that supply conditions are within those stated in the working parameters at the beginning of this booklet.

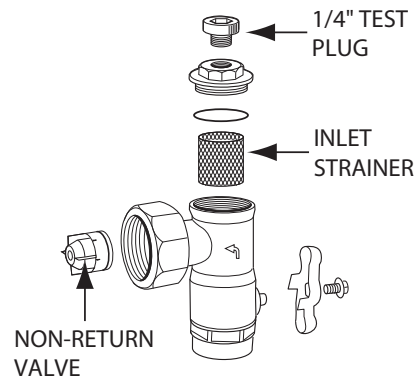
The valve will not shut down

- Check that the hot supply to mix temperature differential is a minimum of that stated in the working parameters.
 - Debris is fouling the valve causing it to stick. Service valve as per maintenance instructions.
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7. Line strainers should be removed from the inlet fittings and rinsed in clean water. The pipework should then be flushed to remove any contamination that has fallen back down into the pipe.
8. If it is thought that cross flow is taking place, the check valves should be removed from the inlet fittings, rinsed in clean water and then replaced. The check valves can be removed by using a pair of long nosed pliers, pulling them evenly on one of the fins. Do not attempt to lever the check valves out, as this will damage them.

After cleaning and re-assembly, the valve should be reset and tested.

The inlet fittings can be stripped down and cleaned. Care should be taken with the check valve as not to damage it when removing, otherwise it may need to be replaced.



In-service tests and any necessary maintenance should be carried out on a regular basis, at least once a year. A record of the results should be retained for future checks.

One family of brands, one complete solution

RWC and its family of brands develop safe, sustainable and efficient solutions to help shape a better world. We engineer and innovate products to integrate seamlessly within the modern built environment. We make our customers' lives easier with a range of solutions to help them deliver, control, optimise and solve in simple, more efficient and safer ways every day.

From improving plumbing and heating performance to syncing smart homes and transforming the delivery of liquid, air and data, RWC shapes a better world for millions of people around the globe. Incorporating our industry-leading brands, Reliance Valves give you precise control over the delivery of water through a robust range of potable and non-potable plumbing products. We specialise in water pressure, temperature and thermostatic mixing valves that protect and safeguard hot and cold water systems, while creating safe and comfortable homes and workspaces.

Our extensive range of combination valves are designed to make installers' jobs easier. Reliance Valves are suitable for all kinds of projects from residential to commercial and industrial applications. Reliance Valves invented the world's first packaged unvented water heating storage system and low pressure relief valve over 70 years ago, and we are still pioneering solutions to this day for the plumbing and heating industry.

Our products can be used alongside our SharkBite and JG Speedfit brands to create a single solution from meter to fixture from one manufacturer.

GENERAL FUNCTION

A high flow rate thermostatic mixing valve for group mixing applications. Primarily used for multiple outlet shower or basin installations (up to 10 outlets) where stable outlet temperatures at varying flow rates are important. Adjustable or lockable, giving complete flexibility to the installer. Comes complete with 4in1 fittings, consisting of a full flow, chrome-plated ball type isolating valve and high flow barrel type strainer protecting the check cartridge/non-return valve from any system contamination. Also includes a 1/4" BSP test point for monitoring system conditions such as temperature, pressure and cross-flow.

WORKING PARAMETERS AND SPECIFICATIONS

Minimum flow pressure:	0.5 Bar
Test pressure static:	10 Bar
Maximum pressure loss ratio:	2:1
Maximum hot water temperature at the inlet:	85°C
Recommended hot temperature:	60°C
Minimum hot/blend temperature difference to ensure shut-off on cold supply failure:	15°C
Factory setting at 2 bar equal pressures:	40°C ± 3°C
Minimum flow rate:	630 - 15 lpm 640 - 20 lpm

At flow pressures when the differential is >2:1, it is recommended that a pressure reducing valve be fitted in the supply line(s).

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- Refit the cap with the 40°C marking lining up with the index mark on the body is between the two lugs on the cam.
 - Refit the cap with the 40°C marking lining up with the index mark on the body.
 - Check that the cap moves between the maximum and minimum marking.

Record the system conditions and valve settings so that they can be used for valve maintenance.

MAINTENANCE

If water conditions or installation conditions are severe, and the valve is sluggish in operation, it is possible that there is a build up of scale within the valve. The valve can then be stripped down and cleaned very easily.

1. Isolate the hot and cold supplies and remove the main body of the valve from the installation.
2. Remove the control knob and cam.
3. Remove the headwork using a spanner. If using an adjustable spanner ensure it is correctly adjusted to avoid damage to the headwork. The headwork can now be removed.
4. The thermostatic element and piston can be lifted out. This leaves the return spring, which can then also be lifted out. Ensure you note the orientation of all the components so that they can be re-assembled in the correct order.
5. With the spring removed the 'O' ring seal can be inspected, cleaned and re-greased. If the 'O' ring is damaged it must be replaced.
6. The components removed should be inspected and if any are damaged they must be replaced.

1. Setting the preset temperature in the non-adjustable form.

- Remove the cap and the cam.
- Refit the cap and, at approx. 50% flow rate, adjust the temperature to 40°C.
- Remove the cap and refit the cam so that the index mark on the body is between the two lugs on the cam.
- Refit the cap with the index mark on the body between the Max and Min markings on the cap and check the temperature at the maximum and minimum flow rates. There should be no more than a 3°C difference from the nominal temperature setting.
- The cap should be locked in position.

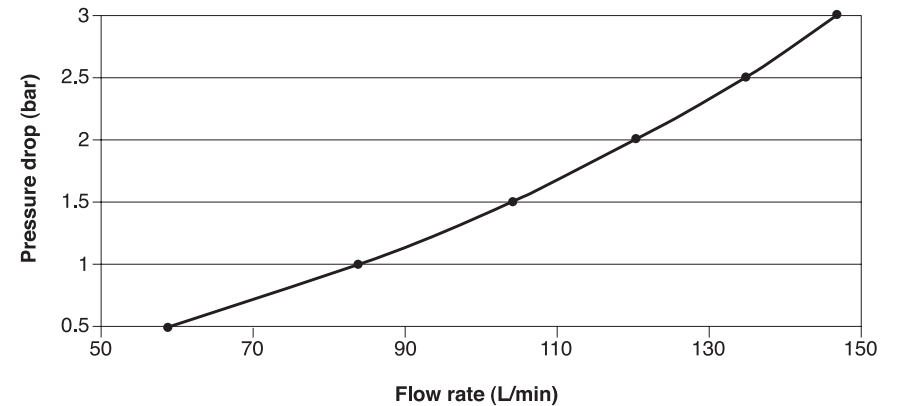
2. Setting the maximum temperature in the adjustable form with a maximum preset temperature.

- Remove the cap and the cam.
- Refit the cap and, at approx. 50% flow rate, adjust the temperature to the required maximum temperature.
- Refit the cap with the figures on the cap indicating the max. temperature aligned with the index mark on the body.
- Mark on the body of the valve (use a felt tip or similar temporary marker) the point between the Max & Min marks.
- Remove the cap and fit the cam so that the outer edge of the clockwise lug lines up with the temporary mark.
- Refit the cap with the maximum temperature figure aligned with the index mark. The cap should not be able to rotate anti-clockwise.
- Check the maximum temperature is correct.

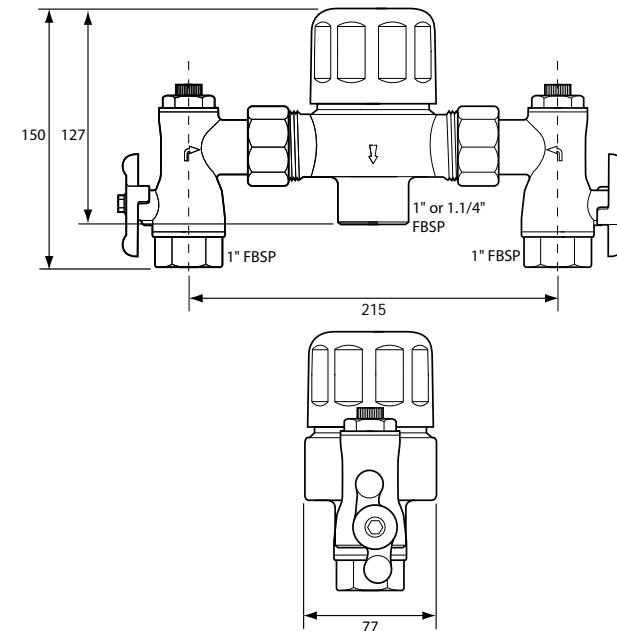
3. Commissioning in an adjustable form with no preset maximum temperature.

- Remove the cap and the cam.
- Refit the cap and, at approx. 50% flow rate, adjust the temperature to 40°C.
- Remove the cap and refit the cam so that the index mark on the body is between the two lugs on the cam.

PERFORMANCE GRAPH

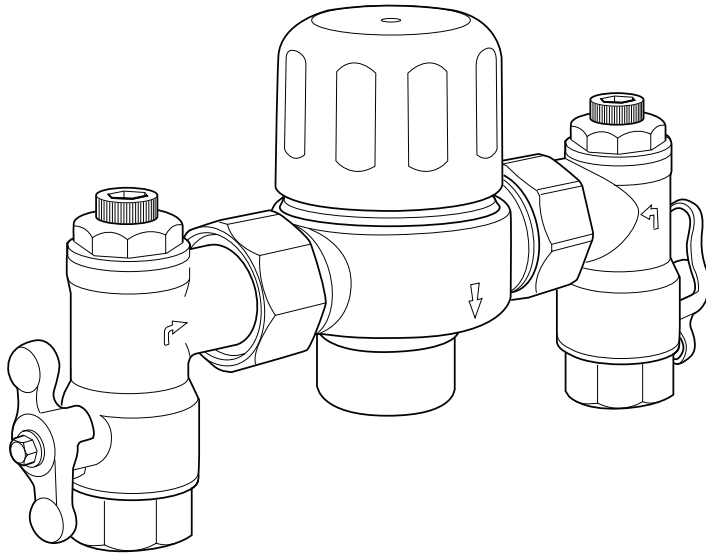


DIMENSIONS



All dimensions in mm unless stated.

PACK CONTENTS



Included in the pack is:

- Base valve with either 1¼" x 1" or 1¼" x 1¼" FBSP outlet connection.
- 1" FBSP hot and cold inlet fittings incorporating strainer, non-return valve, isolation function and test port.
- 1¼" nitrile washers for between the inlet fittings and valve body
- 3/32" Hex allen key for removing the cap for adjustment.
- Installation and maintenance instructions.

INSTALLATION

Prior to installation please ensure the system has been flushed free of any debris.

Thermostatic mixing valves are temperature sensitive appliances so must not be subjected to extreme temperatures (either hot or cold) in use or installation. **Brazing or soldering on or near the main valve body must be avoided.** The valves should be fitted where they can be easily accessed for commissioning and maintenance.

COMMISSIONING

The Euromixer® thermostatic mixing valve is supplied factory set at 41°C with 2 bar equal pressures in a non adjustable form. There are three forms in which this valve can be commissioned:

1. It can be commissioned at any fixed non-adjustable temperature between 35°C and 50°C.
2. It can be commissioned in an adjustable form with a set maximum temperature.
3. It can be commissioned in an adjustable form with no preset maximum temperature.

General

Ensure that both water supplies are turned on and that the hot water temperature is 55-60°C minimum. Check that the dynamic water pressure on both hot and cold supplies is within the working parameters of the valve at the installations maximum and minimum flow rates. If the hot cold and cold water pressure differential is greater than 2 : 1 then pressure reducing valves may be required.