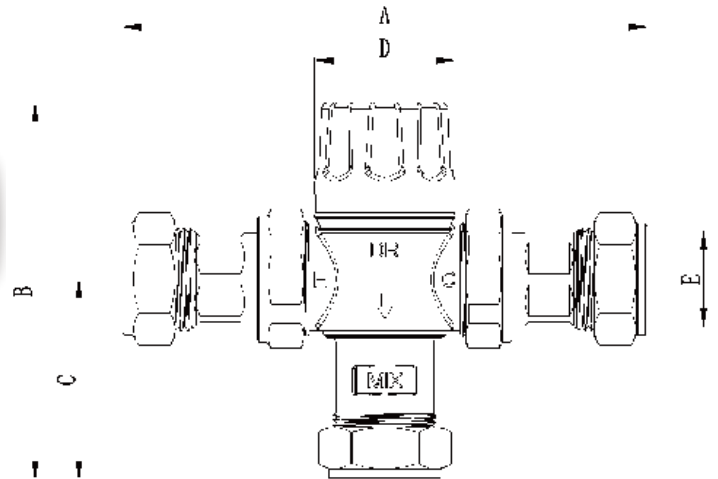


# 910010CC/910011CC

## Thermostatic mixing valve

Thermostatic mixing valves (15MM TMV3&22MM TMV3) are specified to meet the specification D 08: thermostatic mixing valves (healthcare premises), comfort and economy as demanded by today's users. All Smlege products are designed, manufactured and supported in accordance with accredited ISO 9001:2015 Quality Systems.



### Feature:

Resist against fluctuation of pressure and temperature

Water-break safety and burn prevention

Anti-scale and resistance against wear

### Dimensions:

Model	A	B	C	D	E
15MM	130mm	103mm	55mm	38mm	15mm
22MM	137mm	102mm	54mm	38mm	22mm

### Technical Parameters:

Valve body material	DR brass	Accuracy	±2.0 °C	Factory Temperature Setting	38 °C
Maximum static pressure	10bar	Flow pressure (High pressure)	1bar to 5bar	Flow pressure (Low pressure)	0.2bar to 1bar
Hot supply temperature	55 °C to 65 °C		Cold supply temperature		5 °C to 20 °C

## Instructions:

1. Ensure to achieve minimum valve of mixed water outflow when thermostatic water mixing valve is used normally. When actual flow is lower than the minimum one, temperature of outflow water will be significantly reduced and become instable. Minimum flow of thermostatic water mixing valve takes up 1/20 to measured flow.
2. If water supply is fed by gravity then supply pressures should be verified to ensure the conditions of use are appropriate for the valve.
3. The final stable mixed water temperature should not exceed the valves in the table below:

Application	Mixed water temperature
Bidet	38 °C
Shower	41 °C
Washbasin	41 °C
Bath(44°C fill)	44 °C
Bath(46°C fill)	46 °C

## Installation:

1. As directed in assembly diagram, connect thermostatic water mixing valve, stop valve and other facilities. At inlet and outlet of hot and cold water of thermostatic valve, stop valve, filter screen and loose joint are assembled for convenient maintenance and repair. Correctly link connectors of cold and hot water's inlet connectors: link it to the inlet marked with "H" for hot water and inlet marked with "C" for cold water.
2. Operating pressure range 0.1 bar to 1 bar (low pressure) or 0.5 bar to 5.0 bar (high pressure), and ensure that the temperature range of hot water is 55°C to 65°C, the temperature of cold water is below 25°C, the valve may perform adequately outside these conditions but the TMV3 scheme approval does not apply.
3. The valve's internal mechanism should be exercised at least 3 times by alternately isolating the hot and cold supplies. This will cause the piston to travel its full stroke and will ensure that the valve is operating correctly. If the set temperature has drifted after this operation, then the commissioning operation should be repeated. Digital hand-held thermometer should be used to measure the outlet temperature correctly.
4. Only high pressure (HP) valves are allowed, and if the water supply system is supplied by gravity, the water supply pressure should be verified to ensure that the service conditions are suitable for the valve.
5. In a situation where one or both of the water supply pressures are excessive, it is possible to fit a pressure reducing valve to reduce the pressure to within the limits as quoted above.
6. The TMV3 must never exceed 46° at a terminal fitting, this is the maximum water temperature from the bath, it takes into account the allowable temperature tolerances inherent in the thermostatic mixing valve and temperature losses in metal baths. It is not a safe bathing temperature for adults or children. The British Burns Association recommends 37°C as a comfortable bathing temperature for children.
7. The valve must be installed in accordance with the Water Supply (Water fittings) Regulations 1999 and any relevant building regulations, specific to the application.
8. Once the valve has been commissioned a cold water supply shut off test should be performed:
  - a). Isolate the cold supply, the flow should reduce to a trickle within a second or two.
  - b). Restore the cold supply and check that the set temperature has not altered.
9. To meet the TMV3 approval, the TMV3 should be tested annually after installation based on initial performance results. When the test expires, the following performance checks should be performed:
  - a) Use a handheld thermometer to measure the mixed water temperature at the outlet;
  - b) Carry out the cold fail-safe shut off tests by isolating the cold water supply to the TMV3. Wait for five seconds, if the water is still flowing check that the temperature is below 46 °C;
  - c) If the set outlet temperature does not change more than 2 °C compared with the original set temperature, and the cold and hot water failure function is normal, it means that the valve works normally, no further maintenance is required.

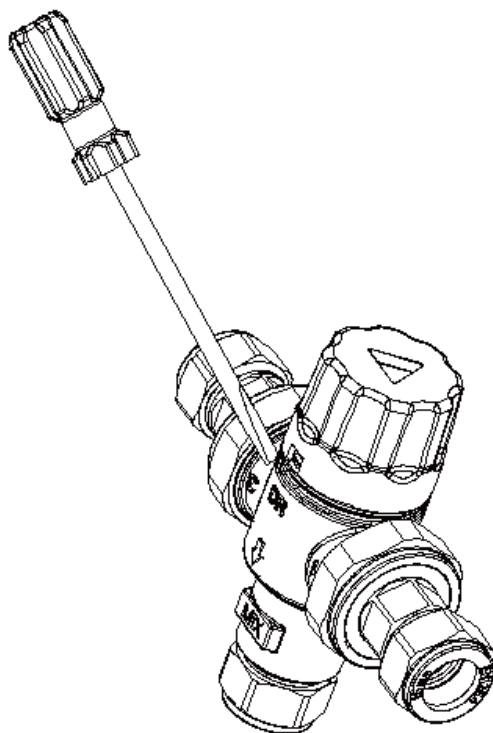
## Approved specification and standards:

Code	Operating Pressure	Application
HP-B	High Pressure	Bidet Temperature 38°C
HP-W	High Pressure	Washbasin Temperature 41°C
HP-S	High Pressure	Shower Temperature 41°C
HP-T44	High Pressure	Bath fill Temperature 44°C
LP-BE	Low Pressure	Bidet Temperature 38°C
LP-WE	Low Pressure	Washbasin Temperature 41°C
LP-SE	Low Pressure	Shower Temperature 41°C

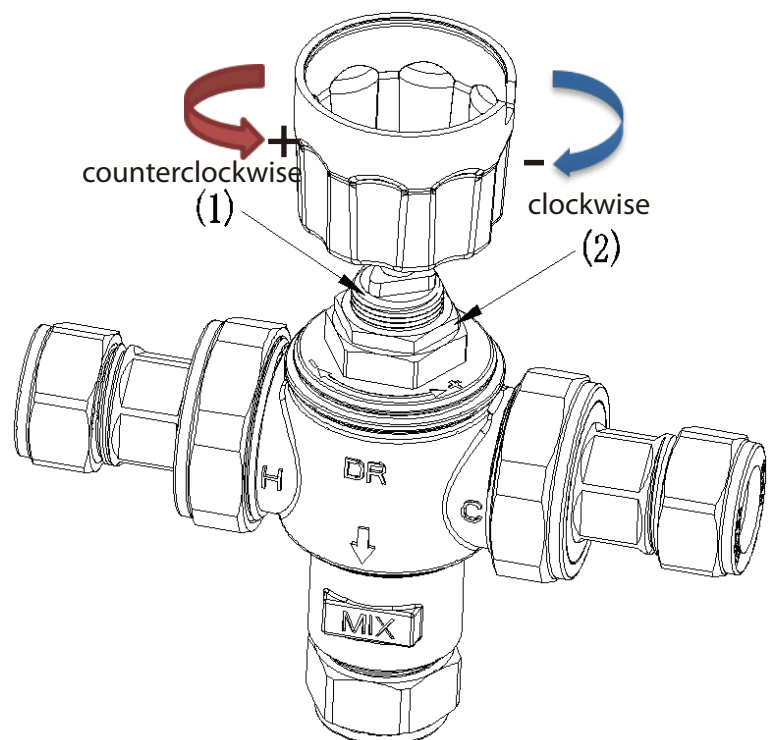
## Setting the mixing valve:

If the mixing valve needs to adjust the temperature, the following steps should be followed:

1. Remove the Plastic Cap from the Valve using a flat tip screwdriver.
2. Loosen, but do not remove the Locking Nut using adjustable wrench. Invert Plastic Cap and align triangular recess in cap to the Adjuster Screw.
3. Set the outlet temperature by turning the Adjuster Screw clockwise to reduce temperature, counterclockwise to increase temperature.
4. When temperature adjustment is complete, tighten lock nut and install plastic cap back on valve body.
5. Ensure that the commissioning of the valve is completed under normal operating conditions.
6. The TMV3 is supplied factory set at 38°C.



Remove the Plastic Cap



Adjust the temperature

## Cleaning the valve:

Cut off the hot and cold water before cleaning the product.

If the internal structure of the main valve body needs to be cleaned, first remove the locking nut and unscrew the large hexagon nut with an adjustable wrench, then remove the internal parts, and using a WRAS approved silicone based waterproof grease, lightly lubricate the o-ring in the body and the external surface of the piston.

Remove the check valves and strainers fitted in the adaptors and check for damage, rinse in clean potable water.

After cleaning the TMV3, reassemble it according to the assembly drawing below, paying special attention to the installation position and direction of the strainer and check valve, and finally adjust the corresponding temperature.

