



# **TMV2** Requirements

## **IMPORTANT**

**Installer:** This Manual is the property of the customer and must be retained with the product for maintenance and operational purposes.

#### General

The information contained in this TMV2 Requirements Manual is supplementary to and must be read in conjunction with the Installation and User Guide (IUG) or Product Manual supplied with your thermostatic mixing valve.

Where there is conflicting information (e.g. Maximum Temperature Setting) then you must follow the instructions laid down in this manual.

Where products have been certified as a TMV2 approved valve they shall only be used for applications covered by their approved designations. Refer to the IUG or Product Manual supplied with your valve to confirm the approved designation.

#### **Guide to Designations**

HP High Pressure

LP Low Pressure

S Shower

B Bidet

W Washbasin
T Bath/Tub

SE Shower having an Economy flow rate

BE Bidet having an Economy flow rate

WE Washbasin having an Economy flow rate

Installation and commissioning must be carried out in accordance with these instructions, and must be conducted by designated, qualified and competent personnel.

The installation must comply with the "Water Supply Regulations 1999 (Water Fittings)" or any particular regulations and practices, specified by the local water company or water undertakers.

### Type 2 Valves

#### **Conditions of use for Type 2 Valves**

	High Pressure (HP)	Low Pressure (LP)
Maximum Static Pressure - Bar	10	10
Flow Pressure, Hot and Cold - Bar	0.5 to 5	0.1 to 1
Hot Supply Temperature - °C	55 to 65	55 to 65
Cold Supply Temperature - °C	Equal to or less than 25°	Equal to or less than 25°

Valves operating outside these conditions cannot be guaranteed to operate as Type 2 Valves.

Where the valve is approved for designation of use HP only, and if the water supply is fed by gravity, then the supply pressure should be verified to ensure the conditions of use are appropriate for the valve.

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## **Recommended Outlet Temperatures**

The BuildCert TMV scheme recommends the following set maximum mixed water outlet temperatures for use in all premises:

44°C for bath fill, but see notes below;

41°C for showers;

41°C for washbasins:

38°C for bidets.

The mixed water temperatures must never exceed 46°C.

The maximum mixed water temperature can be 2°C above the recommended maximum set outlet temperatures.

Note! 46°C is the maximum mixed water temperature from the bath tap. The maximum temperature takes account of the allowable temperature tolerances inherent in thermostatic mixing valves and temperature losses in metal baths.

It is not a safe bathing temperature for adults or children.

The British Burns Association recommends 37 to 37.5°C as a comfortable bathing temperature for children. In premises covered by the Care Standards Act 2000, the maximum mixed water outlet temperature is 43°C.

The thermostatic mixing valve will be installed in such a position that maintenance, commissioning and testing of the TMV can be undertaken.

If isolation valves are not integral to the valve then they must be fitted as close as practicable to the water supply inlets of the thermostatic mixing valve.

## **Commissioning Notes for Thermostatic Mixing Valves**

The first step in commissioning a thermostatic mixing valve is to check the following:

The designation of the thermostatic mixing valve matches the application.

The supply pressures are within the valves operating range.

The supply temperatures are within the valves operating valve.

Isolating valves (and strainers preferred) are provided.

If all of these conditions are met, proceed to set the temperature as specified in the Installation and User Guide or Product Manual supplied with your valve.

It is a requirement that all TMV2 approved valves shall be verified against the original set temperature results once a year. When commissioning/testing is due the following performance checks shall be carried out.

Measure the mixed water temperature at the outlet.

Carry out the cold water supply isolation test by isolating the cold water to the TMV, wait for five seconds if water is still flowing check that the temperature is below 46°C.

If there is no significant change to the set outlet temperature (±2°C or less change from the original settings) and the fail-safe shut off is functioning, then the valve is working correctly and no further service work is required.

**Notes!** If there is a residual flow during the commissioning of the valve or the annual verification (cold water supply isolation test), then this is acceptable providing the temperature of the water seeping from the valve is no more than 2°C above the designated maximum mixed water outlet temperature setting of the valve.

Temperature readings should be taken at the normal flow rate after allowing for the system to stabilise.

The sensing part of the thermometer probe must be fully submerged in the water that is to be tested.

Any TMV that has been adjusted or serviced must be re-commissioned and retested in accordance with the instructions given in this guide.

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### References

BS EN 1287:1999, Sanitary tapware – Low pressure thermostatic mixing valves – General technical specifications.

BS EN 1111:1999, Sanitary tapware - Thermostatic mixing valves (PN10) – General technical specifications.

The Building Regulations 2000, Part G: Sanitation, hot water safety and water efficiency.

## Notes

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