



USER MANUAL

**910018CC**

*Thermostatic Mixing Valve*

Safe storage and distribution of domestic hot water is imperative in any application. We provide a complete line of thermostatic mixing valves to ensure safe, tempered water is delivered from source to use

## Feature

Thermostatic protection

Single piece thermostatic cartridge construction

Automatic shut off in the event of hot or cold water failure

High flow rate, low pressure drops

Adjustable outlet temperature

Temperature stability  $\pm 2^{\circ}\text{C}$

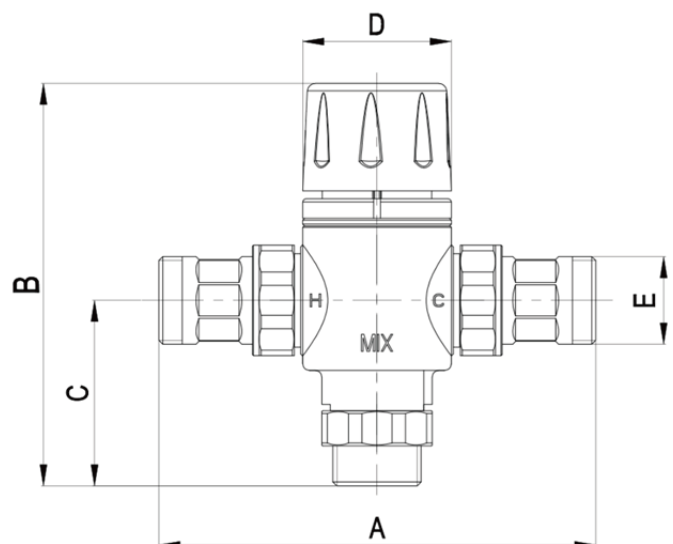
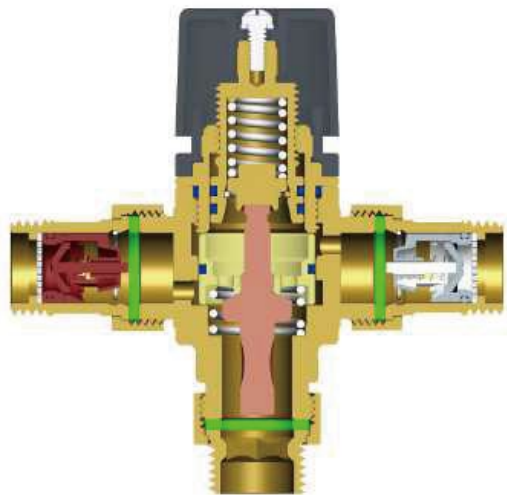
Integral Check Valves and Strainers

Easy installation

EN1111 EN1999 and QB2606-2006 standard

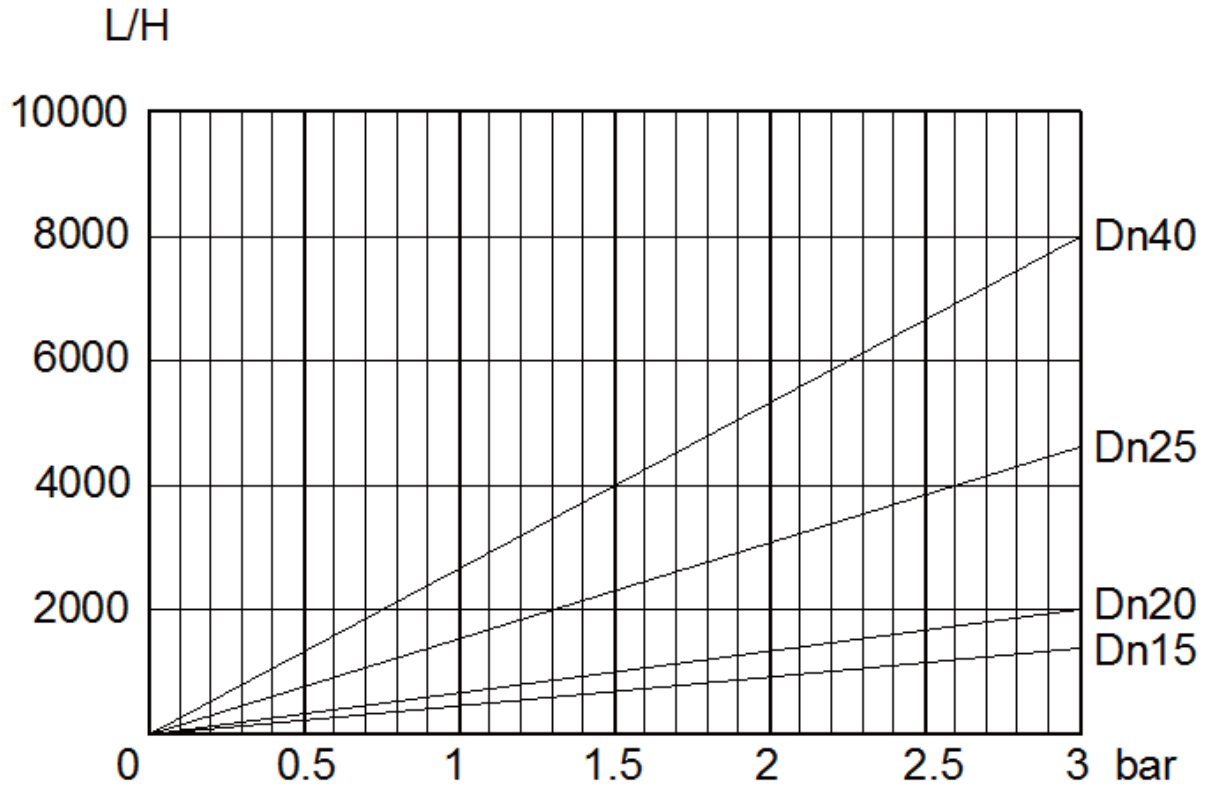
Brass valve body

## Dimension



Model	A	B	C	D	E
DN15	110mm	108mm	52mm	33mm	G1/2
DN20	134mm	115mm	60mm	38mm	G3/4
DN25	165mm	135mm	70mm	45mm	G1
DN40	229mm	1163mm	90mm	45mm	G11/2

## Flow characteristics



## Technological parameters

Valve body material	Nickel plated brass	Material of valve core	Total copper	Material of handle	Retardant ABS	Material of spring	SUS304
Temperature adjustment	30°C~65°C	Accuracy	±2.0°C	Highest working temperature		95	
Maximum static pressure	10bar	Maximum dynamic pressure	5bar		Minimum dynamic pressure	0.5bar	
Extreme differential pressure	1/6	Minimum flow	Stabilized flow 1/20				

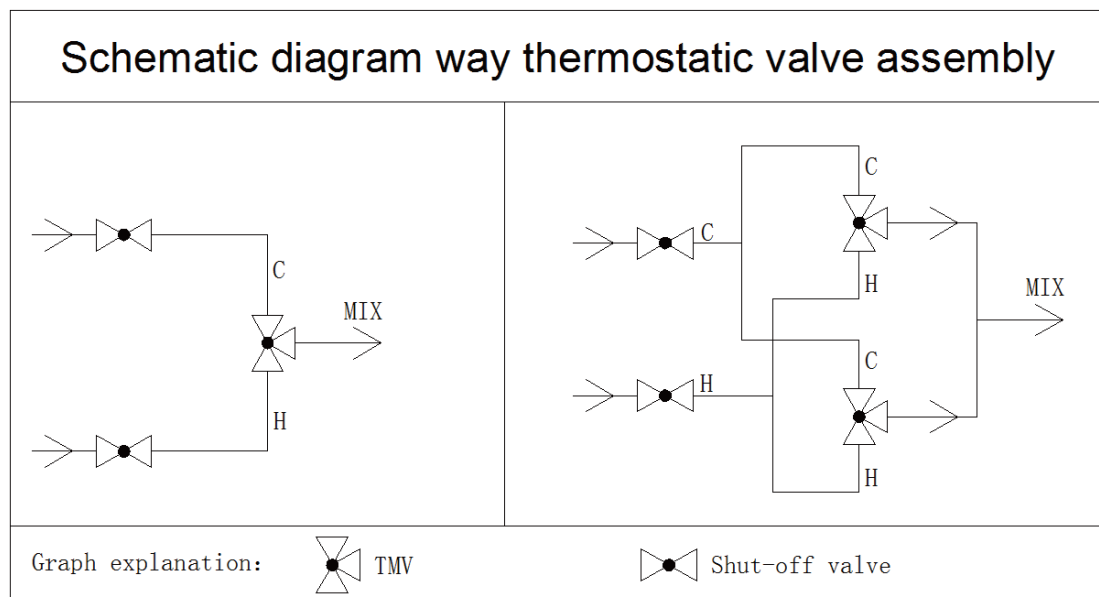
## Installation and commissioning

1. First of all, according to water consumption of all water use equipment, calculate total water consumption per hour and take features of both cold and hot water sources into account to select water mixing value of proper specifications. When flow of one single valve cannot meet demand, multi-valve parallel connection can be applied. Under multi-valve parallel connection, minimum flow will be accumulated. When water use equipment has requirement of small flow, please contact sales department of our company. Our company will provide technological support.

2. 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.

3. When no mistake is found in post-installation inspection, water supply debugging can be conducted. When temperature and pressure of both cold and hot water meet requirement, open water use equipment and slowly rotate temperature adjustment handle pursuant to arrow direction of cold and hot water indicated on top of handle till temperature of outflow water to be proper.

\* Note: minimum flow: ensure to achieve minimum value 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.



## Noted

1. Before installing thermostatic water mixing valve, it is a must to comprehensively clean pipelines and remove dirt;
2. According to cold and hot water signs on valve body: "H" for hot water and "C" for cold water. Correctly link it to sources of cold and hot water.
3. In trial operation of water supply, please ensure normal supply of both hot and cold water and their temperature and pressure to be within normal working scope of thermostatic valve.
4. In adjusting temperature, please ensure normal outflow of water at outlet and slowly rotate handle till the temperature of outflow water to be proper.
5. The temperature adjustment handle of the thermostatic mixing valve is preset at 40°C (DN15&DN20) and 50°C (DN25&DN40) before leaving the factory.
6. Do not turn the temperature adjustment handle at will before installation and commissioning.
7. Factory commissioning conditions are hot water temperature 65°C, cold water temperature 15°C, pressure of both hot and cold water is 3bar. Because the actual water supply temperature and pressure are different, the outlet water temperature may deviate from the calibration value, which is a normal phenomenon.

## Common Problems and Solutions

Questions	Related system inspection	Correct handling methods
Outlet water temperature is the same as hot water that is not mixed with cold water	Check whether the cold and hot water inlet of thermostatic mixing valve is installed reversely	Replace the cold and hot water inlet ports
The outlet water temperature is obviously higher than the set temperature	Check whether the cold water pressure is too low (should be greater than 0.5KG) or the cold water pipe is blocked, resulting in abnormal cold water inflow	Increase the water outlet pressure of the cold water pump or replace the large lift water pump to clean the filter screen and remove the pipe blockage
The outlet water temperature is obviously lower than the set temperature	Check whether the hot water pressure is too low (should be greater than 0.5KG) or the hot water pipe is blocked, resulting in abnormal hot water inflow	Increase the water outlet pressure of the hot water pump or replace the large lift water pump to clean the filter screen and remove the pipe blockage
The outlet water temperature is unstable	When the pressure changes suddenly, the outlet water temperature will be adjusted for several seconds, which is normal; If the water temperature cannot be stabilized all the time, check the system pressure.	In case of sudden pressure change caused by frequent opening and closing of water pump, back pressure valve can be installed at the water outlet of water pump or pressure tank. The water pump shall be equipped with a frequency converter or replaced with a variable frequency pump to avoid the sudden change of pressure caused by frequent opening and closing of the water pump.
When the cold water is turned off, the hot water is not automatically turned off within 8 seconds.	When the pressure changes suddenly, the outlet water temperature will be adjusted for several seconds, which is normal; If the water temperature cannot be stabilized all the time, check the system pressure.	Generally, the impurities entering the valve core will affect the sealing of the sealing ring due to the absence of a filter, so a filter is added. Only when the temperature of hot water source is above 50 °C can the effect of anti scalding be achieved.
There is a large pressure drop between the outlet end and the inlet end of the valve.	It is normal if the pressure drop is within 0.3 Bar. It is abnormal if the pressure of hot and cold water is greater than or equal to 2.0 Bar and the pressure drop is greater than 0.5 Bar.	Usually, it is caused by the actual water consumption exceeding the designed maximum flow of the thermostatic water mixing valve. It can be solved by increasing the actual water consumption and paralleling the thermostatic water mixing valve of the same specification.
There is no water at the valve outlet, and the power supply is cut off.	Whether the cold and hot water supply is normal	This product can not be used normally if only one end is supplied with water.

If there are other problems or the above solutions still can not eliminate the problem, please contact our company in time, and we will provide you with more comprehensive technical support!

Solemnly promise: The warranty of all thermostatic water mixing valves is one year.