

MMV-S Series

Thermostatic mixing valves for solar energy systems

Technical Data Sheet



Description

MMV-S Series thermostatic mixing valves are used in solar energy systems for the production of domestic hot water. In these systems the temperature of the water in the storage tank can vary considerably depending on the season and the degree of solar radiation, and can reach very high temperatures over long periods. Especially in summer, and if there is little water usage, the hot water at the storage tank outlet can reach temperatures of around 95°C before the safety valve is actuated, and at these temperatures, hot water cannot be used for domestic purposes. It is therefore necessary to use a mixing valve to reduce the maximum domestic hot water flow temperature to the users.

MMV-S

Thermostatic mixing valve for solar energy systems.

Nickel-plated brass body. PN10. Thanks to the 5 setpoint positions, the valve ensures accurate mixing (+/-2°C) of the water from the solar storage tank. Operating pressure: 0.2÷5 bar. Hot water operating temperature: 52÷110°C. Cold water operating temperature: 5÷25°C. Control range: 30÷65°C. Flow rate at 3 bar: 63 l/min. Minimum flow rate: 5 l/min.

Compliant with EN1111/00 and EN 1287/02.



Type	Part No.	DN	Finish	Weight (g)
MMV-S	97500	1" with 1/2" M fitting	Brass	746
MMV-S	97501	1" with 3/4" M fitting	Brass	782
MMV-S	97560	1" M	Brass	419
MMV-S	97530	1" with 1/2" M fitting	Nickel-plated	746
MMV-S	97531	1" with 3/4" M fitting	Nickel-plated	782
MMV-S	97561	1" M	Nickel-plated	419

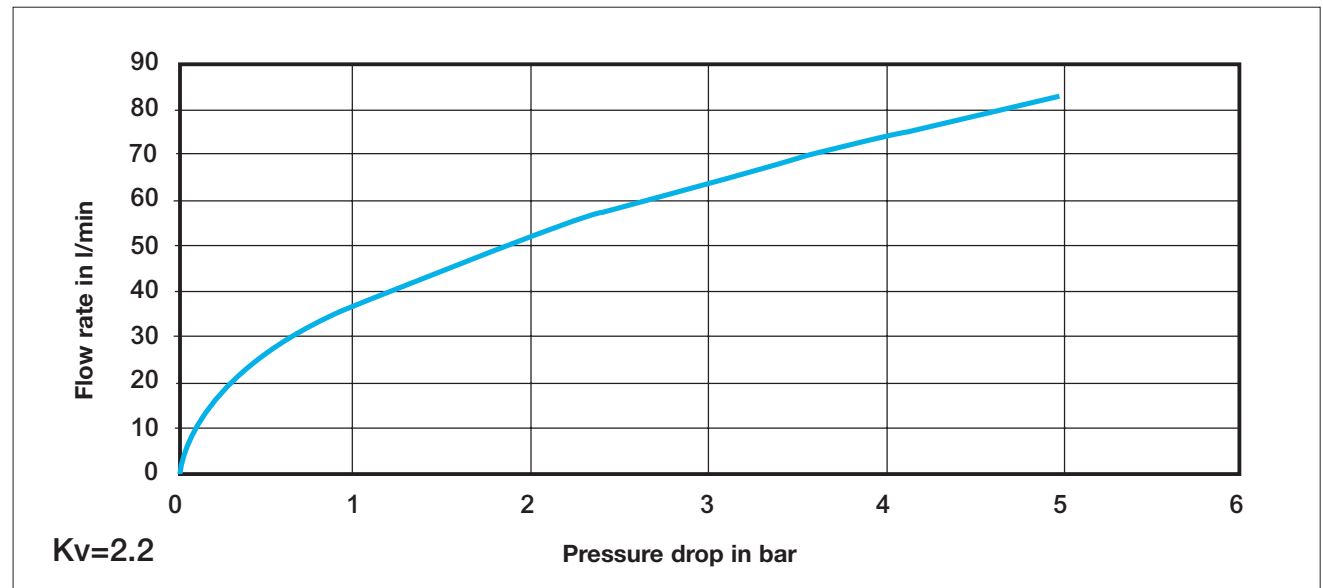
Technical features

Temperature accuracy	+/-2°C (with balanced dynamic pressures)
Pressure drop	see flow curve
Maximum pressure	10 bar
Operating pressure	0.2÷5 bar
Hot water inlet temperature	52÷110°C (minimum hot/mixed differential up to 10°C)
Cold water inlet temperature	5÷25°C
Mixed water temperature control	30÷65°C
Mixed water factory-setting	50°C
Flow rate at 3 bar	63 l/min
Minimum flow rate	5 l/min

Design characteristics

Body	CW602N nickel-plated brass
Finish	brass or nickel-plated
Spring	stainless steel
Other parts	CW614N brass
Piston	PSU (polysulfone polymer)
Internal coating	PTFE
Seat and O-ring	EPDM
Handwheel	PA with fibreglass

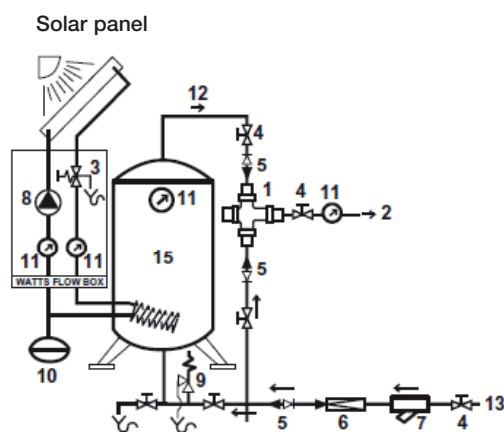
Chart



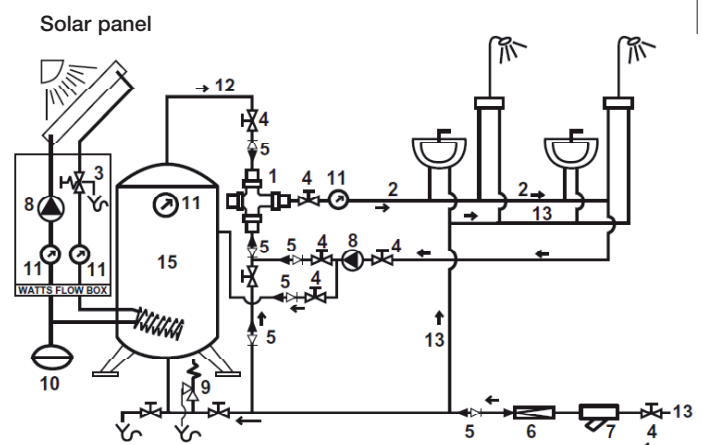
Installation

Install **MMV-S Series** thermostatic mixing valves as shown in the diagram below. These valves can be installed either horizontally or vertically. The mixing valve is supplied factory-set to 50°C. On-site adjustment is necessary, however, to adapt to the specific installation conditions. To correctly set the water outlet temperature to the desired value, the cold and hot water supply valves and the bleed valves on the users must be fully open. To set the supply temperature, simply unscrew the fastening screw on the top of the cap, lift the cap slightly and turn it. Once you have set the desired temperature, lower the cap again and fasten it with the screw. The temperatures and pressures must be stabilised and checked before commissioning (allow the mixed water to flow for 1 minute before final setting).

Solar application



Solar application with recirculation loop

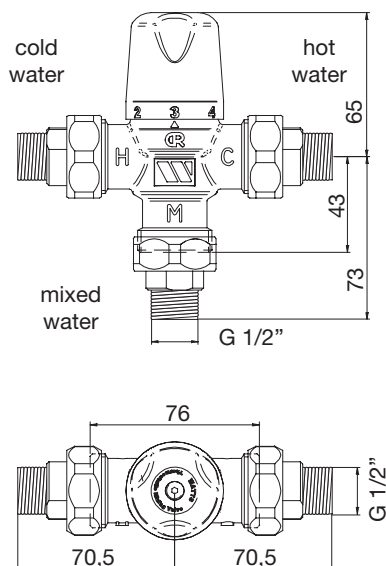


Key

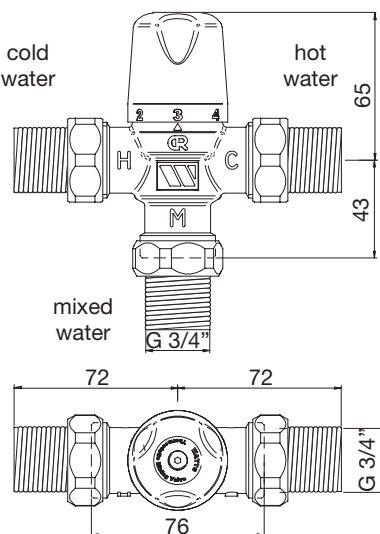
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| 1. MMV-S mixing valve | 8. Pump |
| 2. Mixed water outlet | 9. Safety unit or sanitary valve |
| 3. Safety valve | 10. Expansion vessel |
| 4. Shut-off valve | 11. Thermometer |
| 5. Adjustable anti-contamination valve | 12. Hot water |
| 6. Pressure reducing valve | 13. Cold water inlet |
| 7. Strainer | 15. Electric immersion heater or hot water tank |

Overall dimensions (mm)

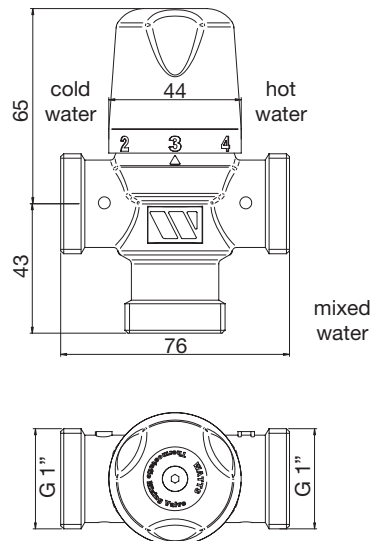
MMV-S 1/2"



MMV-S 3/4"



MMV-S 1"



Specification text

MMV-S Series

Thermostatic mixing valve for solar energy systems **MMV-S Series** – WATTS brand. Diameter 1" with different fittings (1/2" and 3/4"). Brass or nickel-plated brass body. PN10. Thanks to the 5 setpoint positions, the valve ensures accurate mixing (+/-2°C) of domestic water. Operating pressure: 0.2-5 bar. Hot water operating temperature: 52÷110°C. Cold water operating temperature: 5÷25°C. Control range: 30÷65°C. Flow rate at 3 bar: 63 l/min. Minimum flow rate: 5 l/min. Complies with: EN1111/00 and EN 1287/02.

The descriptions and photographs contained in this product specification sheet are supplied by way of information only and are not binding.

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