

Thermostatic mixing valve MMV-S for solar systems



- designed specifically for SOLAR systems with continuous high temperatures
- internal coating to prevent scale deposit
- locking cap preventing the end user from adjusting the temperature
- rapid shut-off of mixed water supply if either the hot or cold supply fails (complies with EN1111 and EN1287).
- simplified compact design and construction, ensures reliability, longevity and safety

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A Division of Watts Water Technologies Inc.



Application :

Thermostatic mixing valve are used in solar 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 around 95°C before the safety valve or the pressure and temperature safety valve are actuated.

At these temperatures, the hot water cannot be used directly, because of the scalding risk.

Features and benefits :

MMV-S has been designed specifically for systems requiring high flow rates and can function continuously at the high temperatures of the incoming hot water from solar storage tank.

- Wax thermostat technology for high temperature up to 110°C
- Excellent temperature stability
- Rapid shut-off of mixed water supply if either the hot or cold supply fails (complies with EN1111 and EN1287).
- Internal coating to prevent scale deposit
- Locking cap preventing the end user from adjusting the temperature.
- Handwheel with set position (graduated scale Min to Max - 5 setting positions)
- Robust and low complexity construction providing superior reliability, longevity and safety

Range MMV-S	Cap	Finish	Code ref.
body 1" with G 1/2" male union threaded	graduated scale	self colour brass	97500
body 1" with G 3/4" male union threaded	graduated scale	self colour brass	97501
body 1" - DN 25 male threaded	graduated scale	self colour brass	97560
body 1" with G 1/2" male union threaded	graduated scale	nickel plated	97530
body 1" with G 3/4" male union threaded	graduated scale	nickel plated	97531
body 1" - DN 25 male threaded	graduated scale	nickel plated	97561

Specifications :

- Temperature : accurate to within +/-2°C of chosen temperature (with balanced dynamic pressure).
- Head loss under dynamic pressure at the mixer inlets is shown by the curve.
- Maximum static pressure : 10 bar.
- Operating pressure : 0,2 to 5 bar.
- Hot temperature supply : 52* - 110°C, *differential minimum hot/mix temperature must be 10°C.
- Cold temperature supply : 5 - 25°C.
- Temperature setting range : 30 to 65°C.
- Factory temperature setting 50°C.
- Flow rate at 3 bar : 63 l/min.
- Flow mini : 5 l/min



Installation :

MMV-S mixing valves must be installed in accordance with the application diagram here after and take into account all current applicable local standards and code of practice.

MMV-S can be installed in any position, either vertical or horizontal.

Adjustment and commissioning :

The thermostatic controller is supplied factory pre set at 50°C.

However, installation conditions will dictate, that the product be adjusted on site. With both the hot and cold supplies turned fully on and the terminal fitting open, adjust the temperature to the required setting.

To adjust the temperature supply :

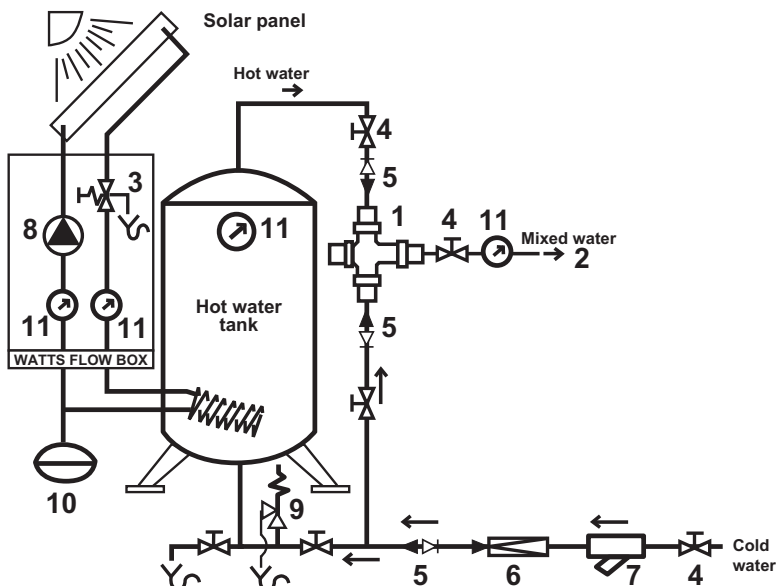
Simply unscrew the locking screw on the top of the handwheel, lift the cap and turn it to set the valve :

- To increase the temperature turn anti-clockwise.
- To decrease the temperature turn clockwise.

The temperatures and pressures must be stabilised and checked before commissioning (allow mixed water to flow for 1 minute prior final setting). All parameters must be in accordance with the specifications of the valve.

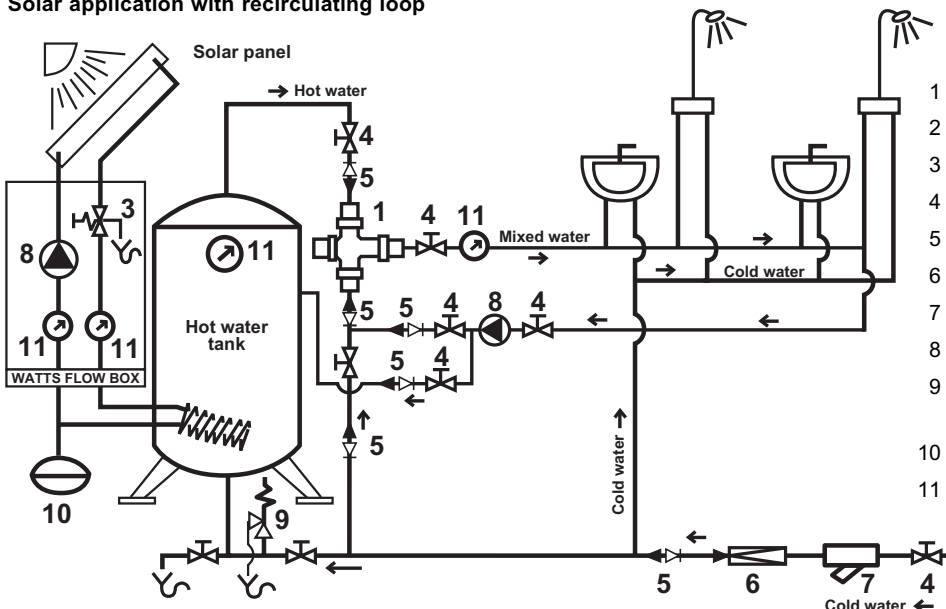
NOTE : After adjustment replace the cap with the screw to lock the valve in position and prevent tampering.

Solar application



- 1 mixing valve MMV-S
- 2 mixed water outlet
- 3 safety valve
- 4 stop valve
- 5 controllable check-valve
- 6 pressure reducing valve
- 7 strainer
- 8 pump
- 9 hydraulic safety group or sanitary safety valve
- 10 expansion vessel
- 11 thermometer

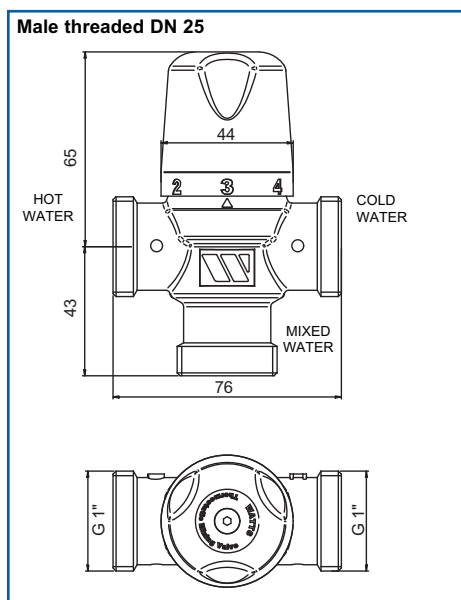
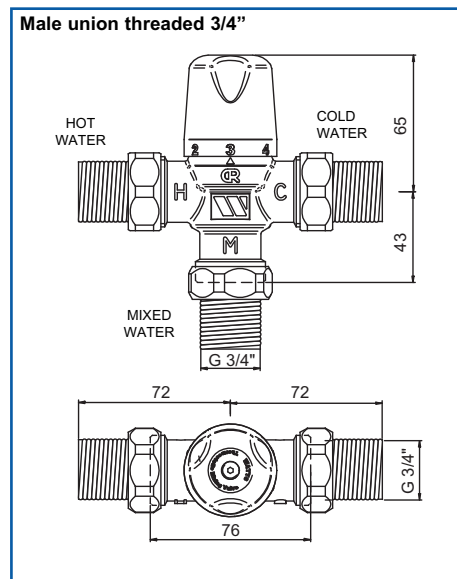
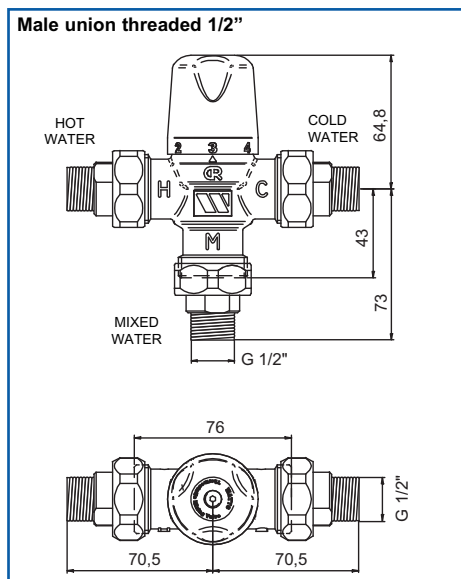
Solar application with recirculating loop



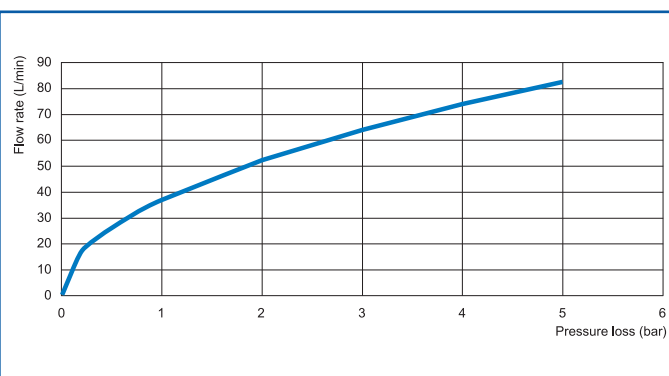
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Materials	
Body	brass DZR - CW602N
Finish	self colour brass or nickel plated
Spring	stainless steel
Other brass parts	CW 614N
Piston	PSU (polysulfone polymer)
Internal coating	PTFE
O-ring and seals	EPDM
Head	PA with glass fiber

Dimensions :



Flow rate : (Kv = 2,2)



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