RLT

Adjustable thermostatic mixing valves

Technical data sheet

watts.eu

Description

L-pattern thermostatic mixing valve for general purpose applications. RLT M2 is often used for safely regulating supply temperature to hand washbasins with infra red tap.

- Immediate fail-safe in case of cold or hot water interruption (mixing valve cut-off with residual flow).
- L-pattern design can aid system configuration and reduce installation time. (see conditions below: temperature difference)
- Provides stable mixed water temperature.
- Free clip-on cap protecting the device from tampering.
- Integral check valves for protection against cross-flow (size Female 1/2" delivered without check-valves).
- Can be fitted in any position.
- Nickel plated finish.

Technical features

Technical features	
Maximum static pressure	10 bar
Maximum dynamic pressure	6 bar
Operating pressure	0,2 to 5 bar
Hot temperature supply *	50°C – 85°C
Cold temperature supply *	5°C – 20°C
Temperature setting range	25°C / 55°C (factory pre-set at 38°C in mixed water)
Flow rate at 3 bar	38 l/min
Flow mini.	5 l/min

* differential minimum hot/mix temperature must be >20°C (ΔT EC/EM > 20°C)

Part number

Part number	Body	Connections	Flow	Setting range	Weight
2297009M2	DN20	M/M/M 3/4"	38 l/min	25/55°C	0,327 kg

With click cover cap

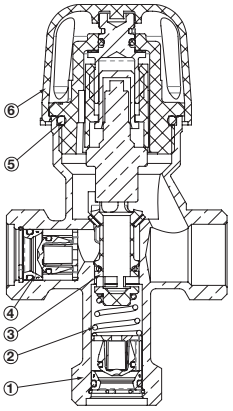
2297019M2	DN20	M/M/M 3/4"	38 l/min	25/55°C	0,321 kg

Without check valve

2297152	DN15	F/F/F 1/2"	38 l/min	25/55°C	0,299 kg

Nomenclature and materials

N°	Designation	Materials	EURO
1	Body	DZR anticorrosion brass	CW625N
	Finish	Nickel plated	
2	Spring	Stainless steel	1.4310 (AISI 301/302)
	Others brass parts		CW617N-4MS
3	Piston	Plastic	Grivory HT1V-4FWA black 9225 (PPA)
4	CO 15 Check valve	POM (seat, valve) + stainless steel (spring) + rubber (seal)	Hostaform C13031 Natural + EPDM 70 Sh + EN10270-3-X10CrNi18-8 (302)
5	O-ring	EPDM & NBR	
6	Head	Plastic	Grivory HT1V-4XFWA black 9225 (PPA)

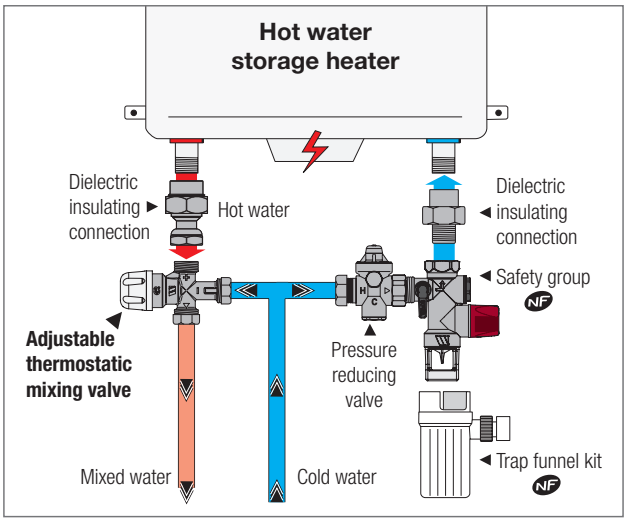


Application

The Thermostatic Limiting Valve allows the reduction of the temperature of small hot water productions in:

Wash basins and hand basins

DHW production output



Installation and setting

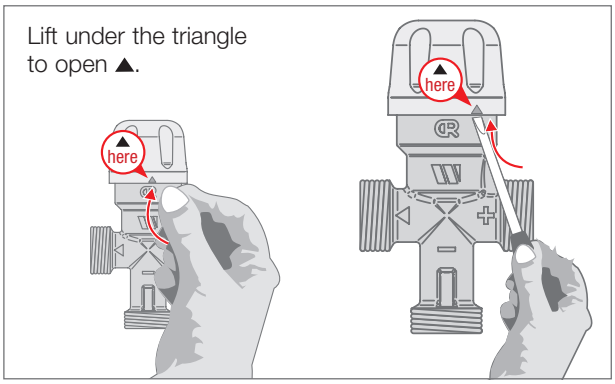
To maintain the performance of the mixing valve, a filter must be installed upstream of the main water supply. The thermostatic mixing valve is supplied factory pre-set at 38°C.

However, installation conditions will dictate, that the product be adjust on site.

With both hot and cold supplies turned fully on and the terminal fitting open, adjust the temperature to the required setting. Carry out a calibration.

To adjust the temperature, simply unscrew the locking screw on the top of the cap, set the valves and lock with the screw:

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

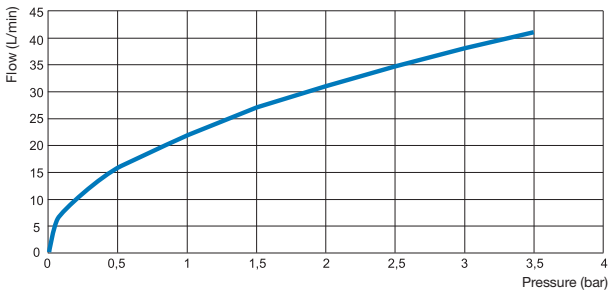


The temperature and pressures must be stabilized and checked before commissioning (allow mixed water to flow for 1 minute prior final setting). All parameters must be in accordance with the technical specifications of the valve. After final adjustment, replace the cap to lock the valve in position and prevent tampering. To ensure proper performance of the thermostatic controller, the isolation valves should always be fully open during operation. Before installing the thermostatic controller, you should thoroughly flush out the hot and cold water supply pipes to remove any dirt which may be in the system. The Instamix thermostatic mixing valve is designed for use in domestic hot water systems, where the water temperature must be kept exact, constant and modifiable at will. To guarantee efficient operation of your systems, optimizing energy performance and extending product life, it is recommended to ensure the quality of the water used. This helps limit damage caused by scaling, corrosion and fouling. Water quality has an impact on the proper operation of all your fittings. We recommend that you check your water hardness regularly and keep it between 15 and 20°f. Water with a TH of between 25 and 50°f is highly susceptible to scaling, and often forms heterogeneous deposits that lead to corrosion. In contrast, water that is too soft is corrosive, eating away at pipe walls and encouraging the formation of leaks. There are very soft waters (<10°f), soft waters (10 to 20°f), hard waters (20 to 30°f) and very hard waters (>30°f). The precision, sensitivity and durability of a thermostatic mixing valve can only be guaranteed if it is perfectly maintained and correctly selected and sized beforehand. If the recommend level of water hardness is exceed, water treatment solutions are available on the market as a preventive measure.

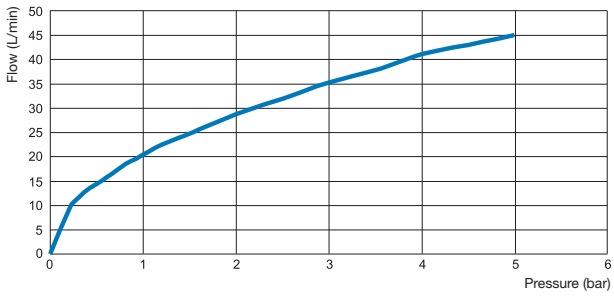
Operating

Headloss chart

- M/M/M 3/4”



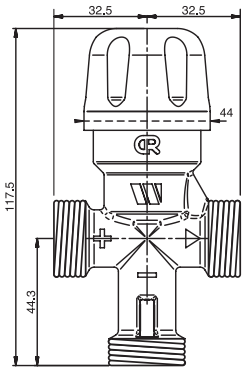
- F/F/F 1/2”



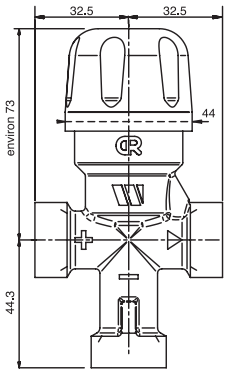
Factory pre-set at 38°C

Sizing (mm)

- M/M/M 3/4”



- F/F/F 1/2”



Follow us
Watts Water Technologies

WATTS INDUSTRIES France
1590 avenue d'Orange • CS 10101 Sorgues 84275 VEDENE CEDEX • FRANCE
Tél. +33 (0)4 90 33 28 28 • Fax +33 (0)4 90 33 28 29/39
contact@wattswater.com • www.watts.eu