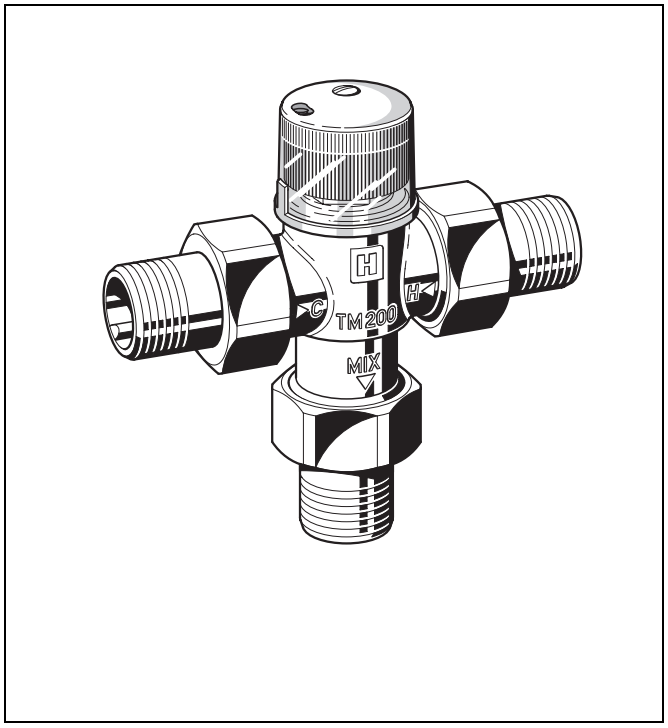
Honeywell

TM200

Thermostatic mixing valve with scald protection

Product specification sheet



Construction

The thermostatic mixing valve comprises:

- Housing
- Threaded or soldered union connectors
- Adjustment knob
- Protective cap for locking the set mixed temperature
- Thermostat

Materials

- Dezincification resistant brass housing
- Brass threaded connections
- Moving parts of high-quality, scale-resistant synthetic material
- Transparent plastics protective cap
- High quality-synthetic material adjustment knob
- NBR seals
- Stainless steel spring

Application

Thermostatic mixing valves of this type provide control of the water temperature and are used:

- For centralised control on hot water supply units or for localised control adjacent to point-use outlets
- In heating systems with underfloor heating or for limiting boiler return temperatures

A cold water break can be fitted in the circulation line in water heater systems, which prevents cold water from mixing at the extraction point via the circulation line.

Special Features

- Highly sensitive thermal element with good all-round water-temperature sensing, even at low flow rates
- Simple setting of the required water temperature
- Scald protection - the hot water inlet is automatically cut off if the cold supply fails provided that the hot water inlet temperature is at least 10 K higher than that of mixed water setting
- The cold water inlet is automatically cut off if the hot supply fails
- Meets KTW recommendations for potable water
- Inner components are of scale-resistant materials

Range of Application

Medium	Water
Operating pressure	Max. 10 bar
Maximum pressure difference between hot and cold inlet supplies	2.5 bar

Technical Data

Installation position	Arbitrary
Hot water inlet temperature	Max. 90 °C
Connection size	R $^{3}/_{4}$" or ∅ 22
Setting range	30 °C - 60 °C Set during manufacture 40 °C
Flow rate at 1.0 bar pressure differential across valve approximately	27 l/min
Control accuracy	< ± 4 K

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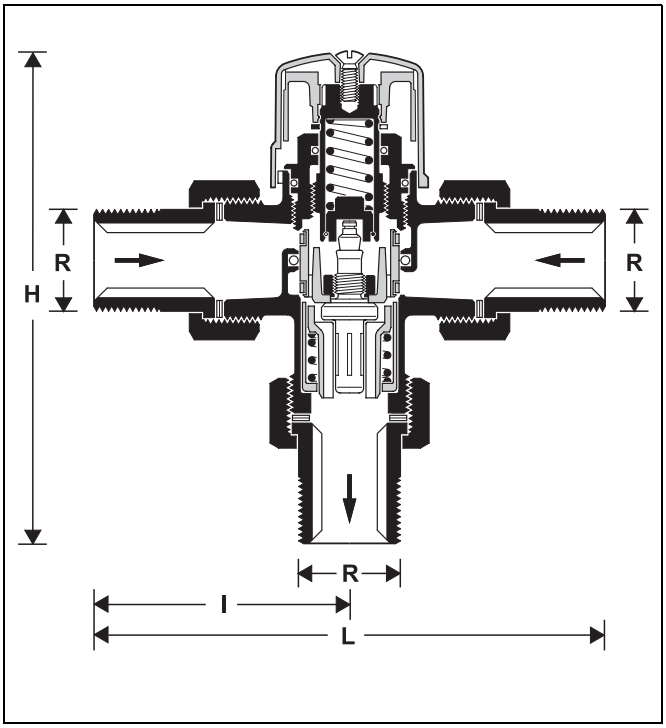


Connection size	R	$^3/_4$"	∅ 22 mm
Dimensions	(mm)		
	L	134	122
	I	67	61
	H	128	122

Method of Operation

a) As a mixing valve for hot water supply systems and heating systems:

The highly sensitive thermal element located in the outlet of the valve controls a plug which regulates the flow proportions of cold and hot water in relation to the mixed hot water setting selected. Soft seatings are fitted to both hot and cold water inlets.

They provide:

- A positive hot inlet shutoff if the cold water supply is interrupted, provided that the hot water inlet temperature is at least 10 K higher than that of the mixed water setting.
- The cold water supply is cut off if the hot water supply is interrupted.

b) As a diverter valve on central heating systems:

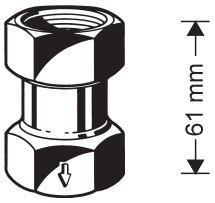
For this application flow through the valve is in the reverse direction compared with its use as a hot water mixing valve. The inlet water passes around the sensing element and regulates the control piston so that for temperatures above the set value the water is returned to the heating circuit and for temperatures lower than the set value the water is diverted to the boiler.

A protective cap is supplied with the valve to lock the mixed temperature setting.

Options

TM200-3/4A = With R $^3/_4$" threaded male connections

TM200-3/4B = With ∅ 22 mm soldered connections



KB191

Accessories

KB191-3/4 Return flow-retarder unit

for fitting to systems which include a hot water circulation circuit - to prevent cold water backfeeding and cooling the mixed water at the outlets.
Operating pressure:max. 10 bar
Operating temperature:max. 90 °C
Installation orientation:Arrow pointing in flow direction

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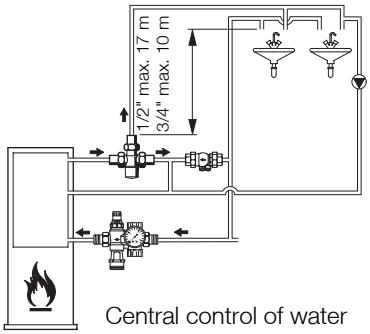
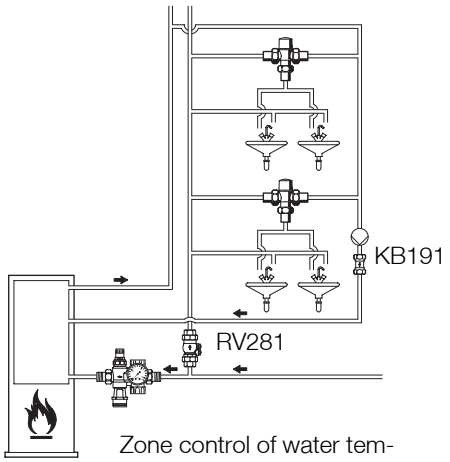
Installation Example

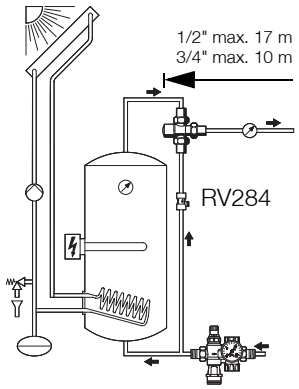
a) Mixing valve in hot water supply systems



Central control of water temperature

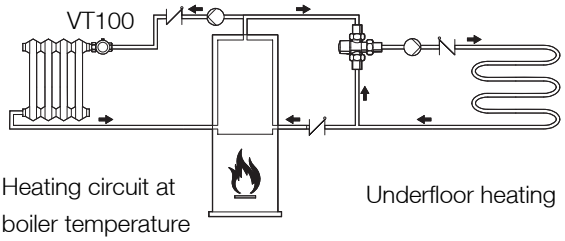


Zone control of water temperatur



Central control of water temperature in solar heated, dual-energy-source systems

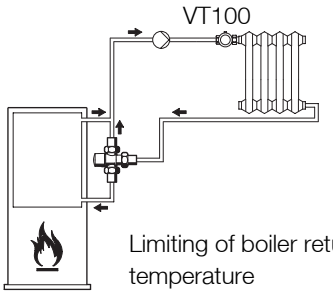
a) Mixing valve in hot water supply systems



Heating circuit at boiler temperature

Underfloor heating

b) Diverter valve in central heating systems



Limiting of boiler return temperature

Installation Guidelines

- Install so that the valve is not strained or twisted
- Fit a return flow-retarder unit where the hot water supply system includes a circulation circuit
- Observe the flow direction arrow when fitting a KB191 return flow-retarder unit
- To prevent the growth of legionella, DVGW-W551 specify that the water volume in the pipework between the mixer valve and the furthest take-off point should not exceed 3 litres. This corresponds to a maximum length of 10 metres for $^{3}/_{4}$" (20 mm) pipework and 17 metres for $^{1}/_{2}$" (15 mm)

Typical Applications

Thermostatic mixing valves of this type can be used within the limits of their specification for the control of hot water supply or central heating systems.

The following are some typical applications:

a) Hot water supply systems:

- o Single and multiple-occupancy households
- o Retirement homes
- o Children's nurseries
- o Schools
- o Hotels
- o Commercial kitchens
- o For industrial applications with control either from a central location or adjacent to point-of-use outlets

b) Central heating systems:

- o As a mixing valve for underfloor heating systems
- o As a diverter valve for limitation of boiler return temperatures

Maintenance

No specific maintenance is necessary under normal operating conditions. However, all moving parts which may be subject to wear can be exchanged.

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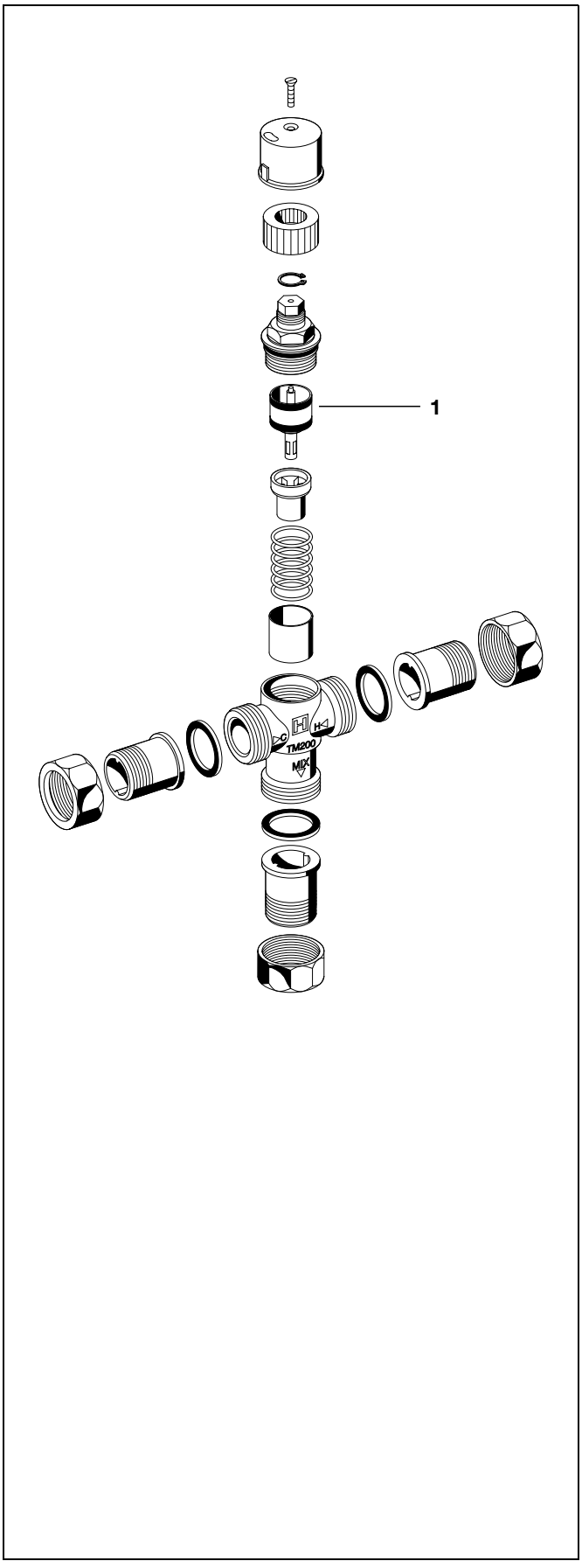

Spare Parts

Thermostatic Mixing Valve TM200, from 1996 onwards

No.	Description	Dimension	Part No.
1	Regulation valve complete		TM200A-30/60

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