Data sheet

Hot water balancing

TVM-W

Thermostatic Mixing Valve

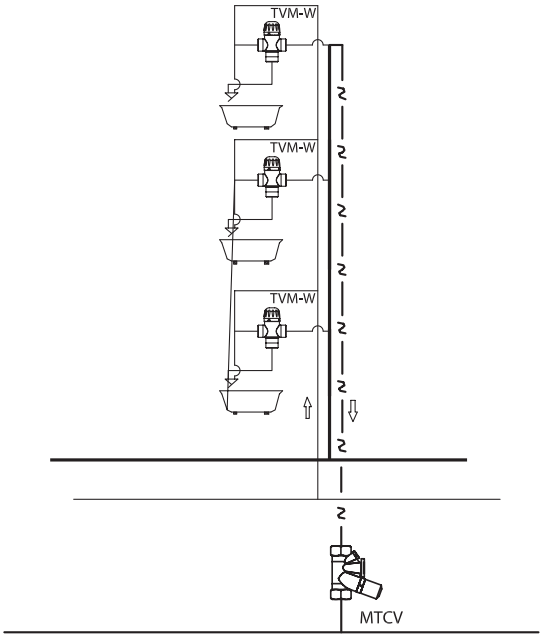
Description

The TVM-W is a self-acting mixing valve, which provides mixed water at a constant temperature. It is used for instant supply of water at a required temperature in domestic hot water applications.

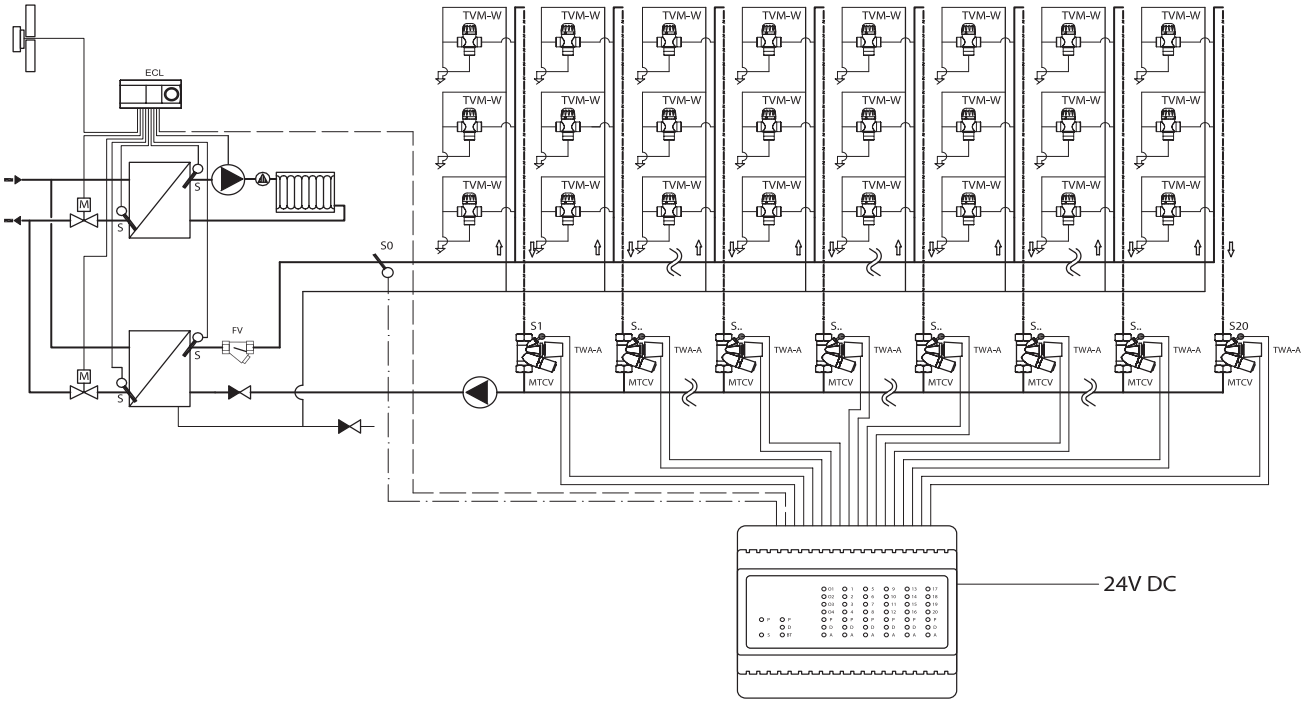
Features & benefits

- The quick reaction of the thermostatic elements ensures accurate temperature control.
- It is suitable for single outlets (e.g. baths, basins, showers and bidets) or small numbers of grouped outlets.
- Its robust and non-complex construction provides superior reliability, improved safety, energy efficiency and user comfort. If the cold supply fails, a total and fast flow shut-off results in greater safety for the enduser. Simplified design and construction, with fewer components, ensures superior reliability, longevity and safety.
- The TVM-W ensures a high level of protection from scalding, which is important especially in hospitals, schools or multi family houses (e.g. in case of legionella disinfections).
- TVM-W "Low lead brass" valves meet the new regulations enforced by the European Drinking Water Directive.

Applications



Recommended scheme of hot water installation with TVM-W



Recommended installation of hot water and circulation system.

Ordering

Product code numbers

Description	Valve size	Connection types	Temperature setting range [°C] [Min]	Temperature setting range [°C] [Max]	Kvs value with non-return valve [m3/h]	Code number
TVM-W DN 20, thermostatic mixing valve	DN 20	External Thread	35	70	2.10	003Z3145
TVM-W DN 25, thermostatic mixing valve	DN 25	External Thread	35	70	3.30	003Z3146

* *K_{vs} value with non-return valve [m^3/h]: with check valve*

Spare parts code numbers

003Z3138

Non-return valve DN 25 for TVM-W

Non-return valve DN 25 for TVM-W

003Z3139

Thermostatic element for TVM-W

Thermostatic element for TVM-W

003Z3137

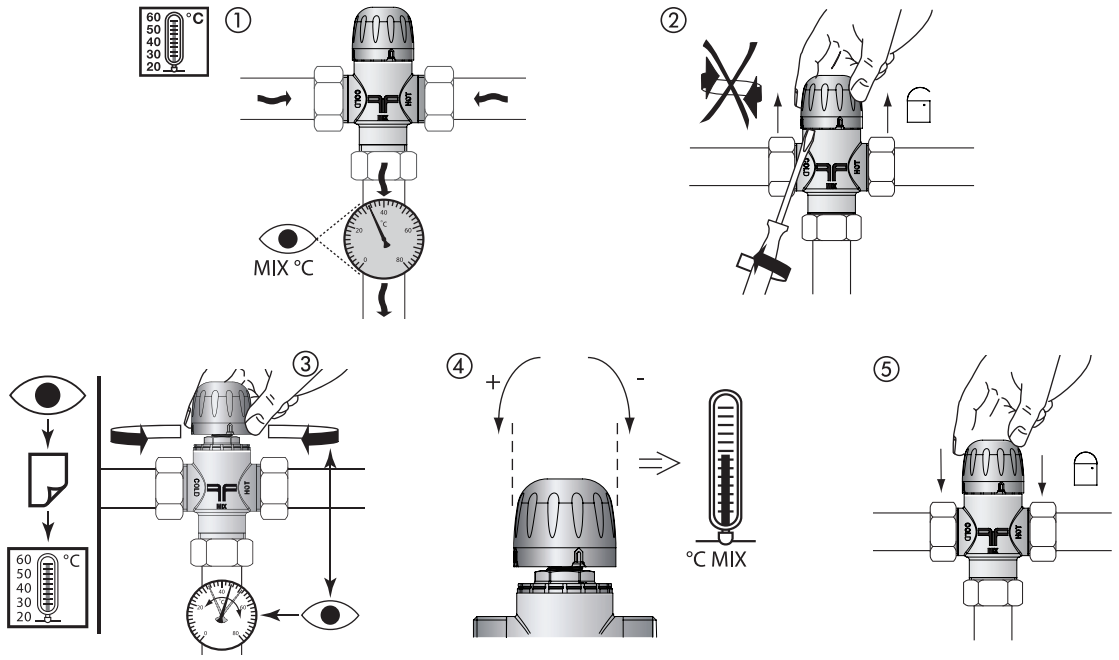
Non-return valve DN 20 for TVM-W

Non-return valve DN 20 for TVM-W

Functions

Presettings

Locking the presetting



Product details

General data

Technical Data

Factory temperature presetting	50 °C
Cold water supply temperature	10 °C
Hot water supply temperature	70 °C
Temperature stability (depend on pressure and temperature) [3]	± 3 °C
Max. hot water temperature	90 °C [1]
Max. operating pressure	10 bar
Min. operating pressure	0.5 bar
Max. inlet pressure diferential [2]	2 bar
Supply pressure, (dynamic)	5 bar

1) 100 °C without Non-return valve

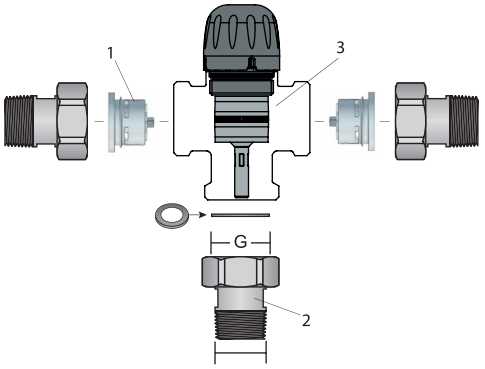
2) Between cold and warm inlets

3) Cold inlet water temperature should not be above 15°C

Design

Spare parts

1. Non-return valve
2. Fitting set
3. Thermostatic element



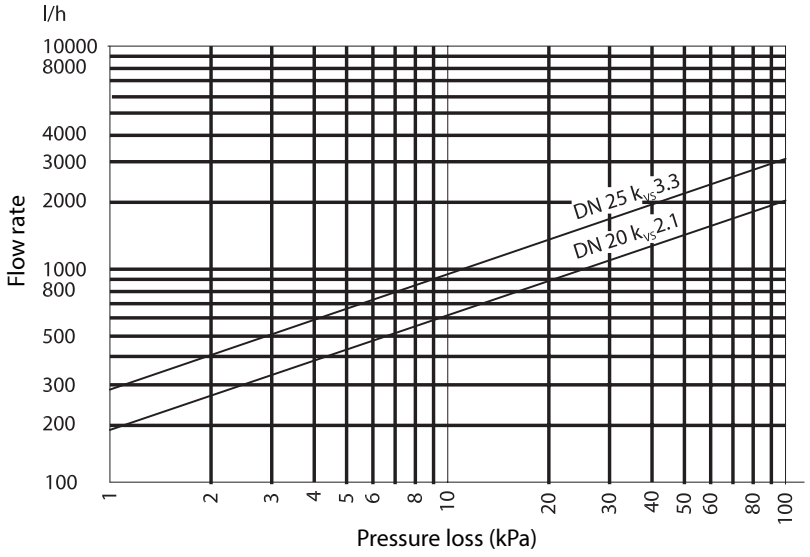
Fitting set

DN	G	
20	1	3/4
25	1 1/4	1

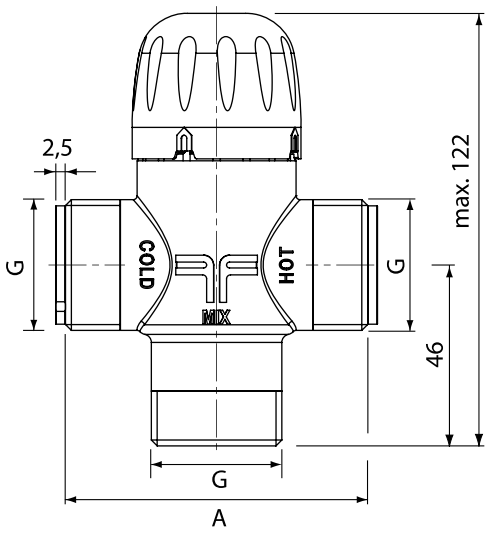
Materials

Body	CW626N (Low Lead brass) + polished surface in functional area
Plastic cap	Polystyrene
Spring	SS steel 1.4301 (inoxydable)
Sealing	EPDM

Pressure and temperature data



Dimensions



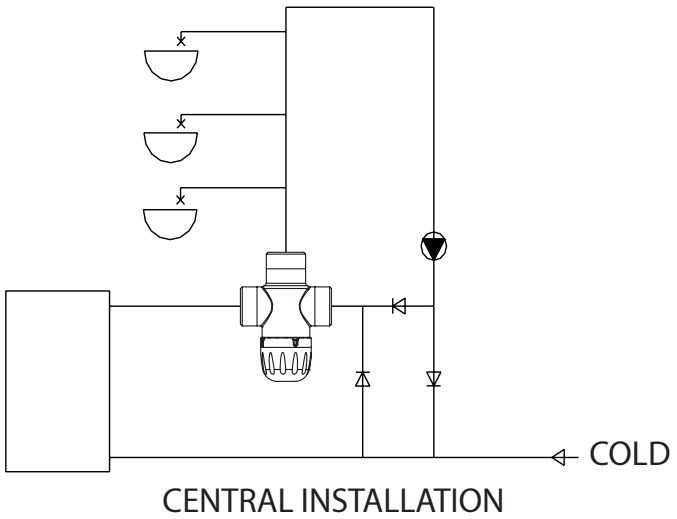
Type	DN	A mm	G "
TVM-W	20	77	1
	25	77	1 1/4

Installation

By mixing hot and cold water to achieve the desired temperature, the valve effectively provides a greater volume of hot water from the given tank size. High temperature water storage prevents the growth of legionella bacteria.

The valve can be installed in any position into the riser:

- In situations where the hot pressure may exceed the cold pressure and on pumped systems, non-return valves must be fitted to both hot and cold inlets.
- A TVM-W will provide optimum performance when installed with hot and cold supplies of equal dynamic pressure, i.e. pressure under flow conditions.
- In order to ensure the correct function of the failsafe and optimum performance it is recommended that the hot supply temperature is at least 10 °C higher than the set temperature.



CENTRAL INSTALLATION