



Braukmann TM3400/TM3410

Thermostatic mixing valve
with scald protection

APPLICATION

Standard thermostatic mixing valves TM3400/TM3410 are used in domestic hot water central heating systems with or without recirculation. The aim is to maintain a constant temperature of the mixed water for users, by varying the temperature of the hot water stored. Thermostatic mixing valves also have applications in underfloor heating applications and in alternative energy systems, such as solar and woodchip systems.

SPECIAL FEATURES

- Wide flow
- Light weight
- High degree of adjustment precision
- Scald protection
- Works without external energy
- Direct connection to recirculation circuit (except 1/2")
- Complete with female inlet couplings



TECHNICAL DATA

Media	
Medium:	Drinking water
Connections/Sizes	
Connection size:	1/2" - 2" (TM3400) DN65 - DN80 (TM3410)
Pressure values	
Max. operating pressure:	max. 10 bar
Maximum pressure difference between hot and cold inlet supplies:	2 bar
Operating temperatures	
Max. hot water inlet temperature:	90 °C
Flow rate:	see diagram
Setting range:	30 - 45 °C (Set during manufacture 40 °C) 36 - 53 °C (Set during manufacture 48 °C) 45 - 65 °C (Set during manufacture 55 °C)
Control accuracy:	±1 K

CONSTRUCTION

Overview	Components	Materials	
	1	Housing	Red brass
	2	Adjusting screw	Brass
	3	Cold water seat	Chrome nickel steel
	4	Warm water seat	Red brass
	5	Circulation nozzle	Plastic
	Not depicted components:		
	Regulation gate	Red brass	
	Thermostat	-	
	Valve spool	Red brass	
	Bolt steel	Chrome nickel	

METHOD OF OPERATION

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.

TRANSPORTATION AND STORAGE

Keep parts in their original packaging and unpack them shortly before use.

The following parameters apply during transportation and storage:

Parameter	Value
Environment:	clean, dry and dust free
Min. ambient temperature:	5 °C
Max. ambient temperature:	55 °C
Min. ambient relative humidity:	25 % *
Max. ambient relative humidity:	85 % *

*non condensing

INSTALLATION GUIDELINES

Setup requirements

- The thermostatic mixing valves can be installed in any position
- With any connections to be welded, during welding remove the mixer so as not to damage the thermostat and seals
- It is recommended that interception valves are installed on the connection ways to the mixer
- The polystyrene packaging may be used as insulation for the valve

Installation Example

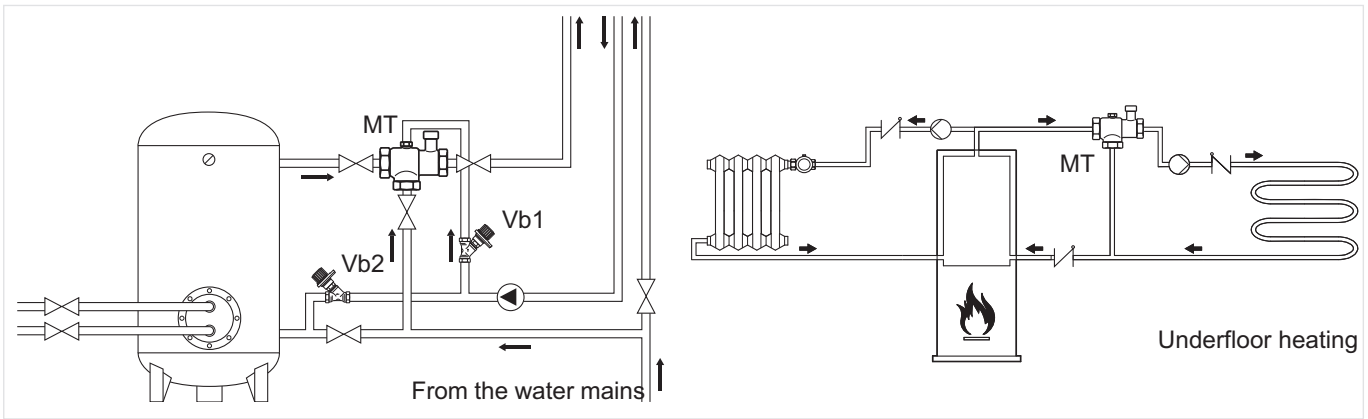


Fig. 1 Standard installation example for the mixing valve

Note: MT = Thermostatic mixer TM3400 - TM3410

Note: Vb1-Vb2 = Kombi-4 balancing valve

TECHNICAL CHARACTERISTICS

Pressure drop characteristics

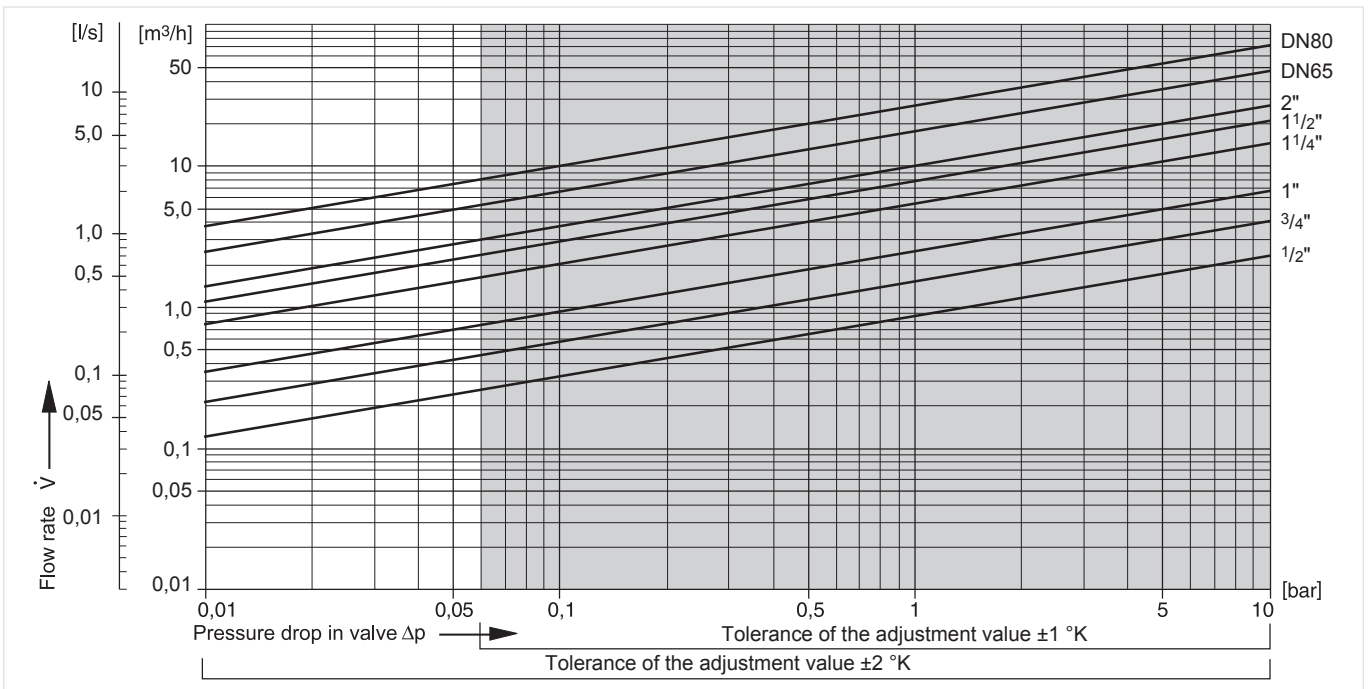
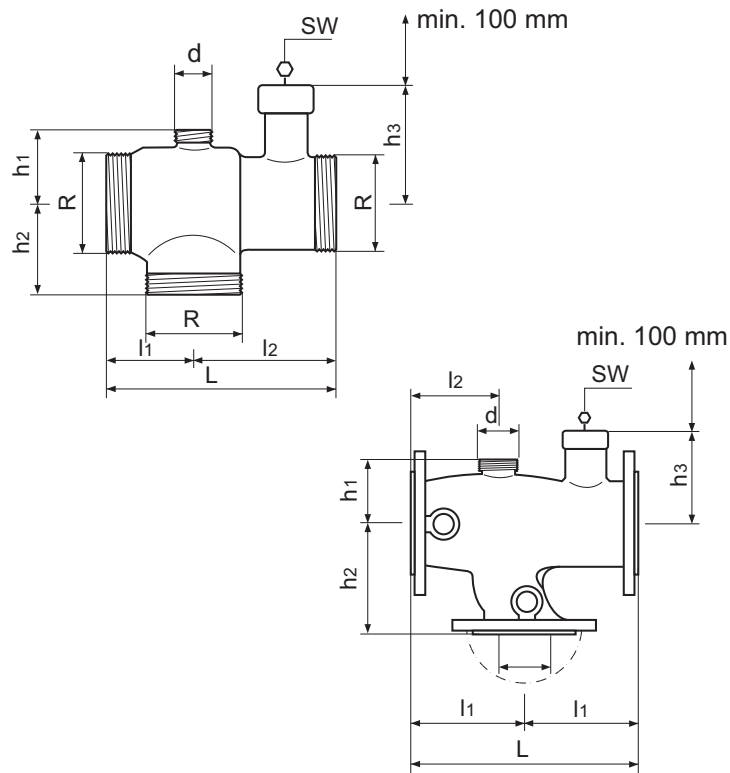


Fig. 2 Pressure drop within the valve in dependency of the flow rate and the used connection size

DIMENSIONS

Overview



Parameter		Values							
		TM3400						TM3410	
Connection sizes:	R	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"		
	DN							65	80
Weight:	kg	0.57	0.65	0.87	1.60	2.10	3.37	23.00	28.00
Dimensions:	L	90	100	110	130	150	180	290	310
	l1	35	40	43	52	58	70	145	155
	l2	55	60	67	78	92	100	-	-
	h1	-	32	36	41	50	60	82	92
	h2	35	40	43	52	58	70	145	155
	h3	47	49	51	75	77	85	121	127
	d	-	1/2"	3/4"	3/4"	3/4"	3/4"	3/4"	1 1/2"
SW		5	5	5	5	5	5	8	8

Note: All dimensions in mm unless stated otherwise.

ORDERING INFORMATION

The following tables contain all the information you need to make an order of an item of your choice. When ordering, please always state the type, the ordering or the part number.

Options

Setting range 30 - 45 °C Set during manufacture 40 °C	
TM3400.912	with external thread connections 1/2"
TM3400.922	with external thread connections 3/4"
TM3400.932	with external thread connections 1"
TM3400.942	with external thread connections 1 1/4"
TM3400.952	with external thread connections 1 1/2"
TM3400.962	with external thread connections 2"
TM3410.605	with flange connections DN65, PN10 VSM/DIN
TM3410.805	with flange connections DN80, PN10 VSM/DIN
Setting range 36 - 53 °C Set during manufacture 48 °C	
TM3400.914	with external thread connections 1/2"
TM3400.924	with external thread connections 3/4"
TM3400.934	with external thread connections 1"
TM3400.944	with external thread connections 1 1/4"
TM3400.954	with external thread connections 1 1/2"
TM3400.964	with external thread connections 2"
TM3410.606	with flange connections DN65, PN10 VSM/DIN
TM3410.806	with flange connections DN80, PN10 VSM/DIN
Setting range 45 - 65 °C Set during manufacture 55 °C	
TM3400.916	with external thread connections 1/2"
TM3400.926	with external thread connections 3/4"
TM3400.936	with external thread connections 1"
TM3400.946	with external thread connections 1 1/4"
TM3400.956	with external thread connections 1 1/2"
TM3400.966	with external thread connections 2"
TM3410.608	with flange connections DN65, PN10 VSM/DIN
TM3410.808	with flange connections DN80, PN10 VSM/DIN



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