

# THERMOSTATIC MIXING VALVE

## BASIC SERIES VTA370, VTA570

The ESBE thermostatic mixing valves series VTA370 and VTA570 offer high flow capacity and high functionality in heating applications.

### OPERATION

The series VTA370 and VTA570 are the number one choice for heating and cooling applications. The valves provide a scald safe\* function, which is important in order to protect e.g. under floor heating pipes and also the floor itself from to uncontrolled rise of temperature.

### FUNCTION

The Valves have asymmetrical flow pattern and scaled safe\* function. Depending from valve version a mixing temperature can be set in following ranges: 10-30°C, 20-55°C or 30-70°C. The wax element reacts on the water temperature and moves the cone to mix cold and hot water achieving desired, set mixed temperature.

### VERSIONS

The valves are available with external thread, pump flange and rotary nut. Three different temperature ranges give possibility to choose right valve for the right application, e.g.: 10-30°C for cooling, 20-55°C for underfloor heating or 30-70°C for radiator heating. The valves are equipped with a big setting knob.

### MEDIA

These valves can handle the following types of media:

- Water
- Heating water
- Water with antifreeze additive (glycol ≤ 50% mixture)

\*) Scald safe means that in the case of a cold water failure, the hot water supply shuts off automatically.



VTA370  
External thread



Pump flange/  
External thread



Rotating nut/  
External thread



VTA570  
External thread



Pump flange/  
External thread



Rotating nut/  
External thread

### VALVES ARE DESIGNED FOR

Series	Temperature range			Application
	10 - 30°C	20 - 55°C	30 - 70°C	
VTA370				Potable water, in line
VTA570				Potable water, point of use
VTA370				Solar heating
VTA570				Solar heating
VTA370				Cooling
VTA570	●			Cooling
VTA370		●		Floor heating
VTA570		●		Floor heating
VTA370		○	●	Radiator heating
VTA570		○	●	Radiator heating

● recommended ○ secondary alternative

### TECHNICAL DATA

Pressure class: \_\_\_\_\_ PN 10

Working pressure: \_\_\_\_\_ 1,0 MPa (10 bar)

Differential pressure, mixing:

VTA570 \_\_\_\_\_ max. 0,3 MPa (3 bar)

VTA370 \_\_\_\_\_ max. 0,1 MPa (1 bar)

Max. media temperature:

Temp. range 10-30°C \_\_\_\_\_ 65°C

Temp. range 20-55, 30-70°C \_\_\_\_\_ continuously 95°C

\_\_\_\_\_ temporarily 100°C

Min. media temperature: \_\_\_\_\_ 0°C

Temperature stability:

Temp. range 10-30°C \_\_\_\_\_ ±2°C\*

Temp. range 20-55, 30-70°C \_\_\_\_\_ ±3°C\*\*

Connection: \_\_\_\_\_ External thread (G), ISO 228/1

Material

Valve housing and other metal parts with fluid contact:

\_\_\_\_\_ Dezincification resistant brass, DZR

\* Valid at unchanged cold/return water pressure, minimum flow rate 9 l/min. Minimum temperature difference between cold water inlet and mixed water outlet 3°C and recommended maximum temperature difference between return water and mixed water outlet: 10°C.

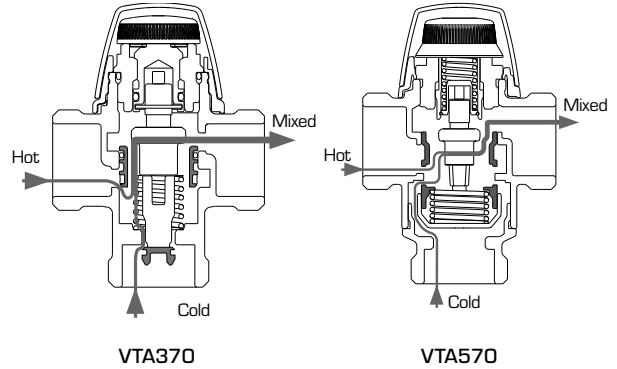
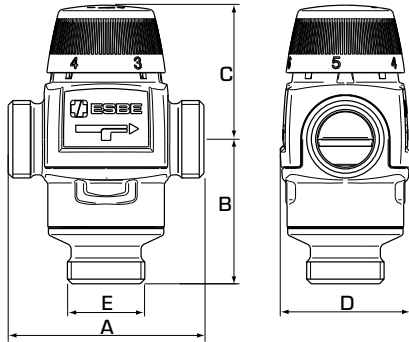
\*\* Valid at unchanged hot/return water pressure, minimum flow rate 9 l/min. Minimum temperature difference between hot water inlet and mixed water outlet 10°C and recommended maximum temperature difference between return water and mixed water outlet: 10°C.

PED 2014/68/EU, article 4.3 / SI 2016 No. 1105 (UK)

Pressure Equipment in conformity with PED 2014/68/EU, article 4.3 and Pressure Equipment (Safety) Regulations 2016, (sound engineering practice). According to the directive/regulation the equipment shall not carry any CE or UKCA mark.

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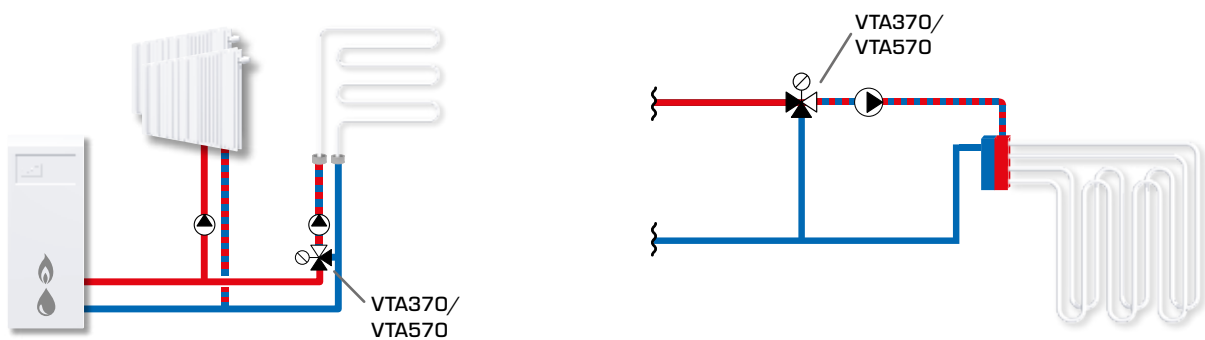
### ➔ SERIES VTA372/VTA572, EXTERNAL THREAD

Art. No.	Reference	Temp. range	Kvs *	Connection E	A	Dimension			Weight [kg]	Replaces
						B	C	D		
31700100	VTA572	10 - 30°C	4,5	G 1"	84	62	60	56	0,86	
31700400			4,8	G 1¼"					0,95	
31200100	VTA372	20 - 55°C	3,4	G 1"	70	42	52	46	0,44	
31702100	VTA572	20 - 55°C	4,5	G 1"	84	62	60	56	0,86	
31702200			4,8	G 1¼"					0,95	
31200400	VTA372	30 - 70°C	3,4	G 1"	70	42	52	46	0,48	31105400
31702500	VTA572	30 - 70°C	4,5	G 1"	84	62	60	56	0,86	31700300
31702600			4,8	G 1¼"					0,95	31700600

\* Kvs-value in m<sup>3</sup>/h at a pressure drop of 1 bar

### INSTALLATION EXAMPLES

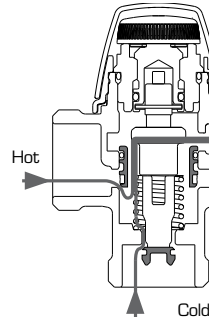
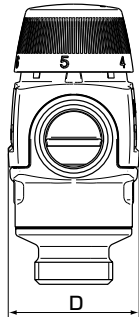
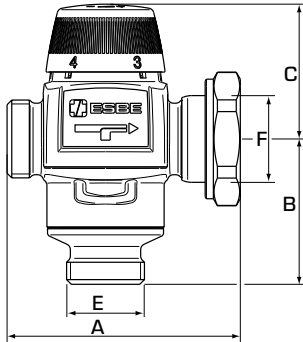
See the catalogue section "How to choose the correct installation/ position" for further information and connection examples.



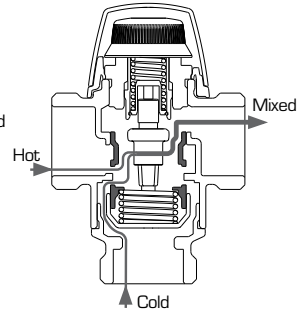
The shown applications are only examples of product use!  
Before using the product in any application, the regional and national regulations need to be checked.

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## BASIC SERIES VTA370, VTA570



VTA370



VTA570

### ➤ SERIES VTA377/VTA577, PUMP FLANGE AND EXTERNAL THREAD

Art. No.	Reference	Temp. range	Kvs*	Connection		Dimension				Weight [kg]	Note
				E	F	A	B	C	D		
31200200	VTA377	20 - 55°C	3,4	G 1"	PF 1½"	86	42	52	56	0,58	
31702300	VTA577		4,5			100	62	60	56	0,99	

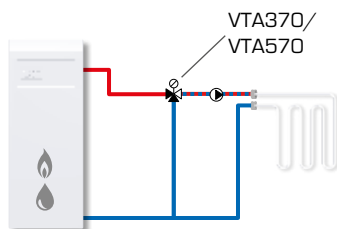
### ➤ SERIES VTA378/VTA578, ROTATING NUT AND EXTERNAL THREAD

Art. No.	Reference	Temp. range	Kvs*	Connection		Dimension				Weight [kg]	Note
				E	F	A	B	C	D		
31200300	VTA378	20 - 55°C	3,4	G 1"	RN 1"	78	42	52	46	0,48	
31702400	VTA578		4,5			93	62	60	56	0,91	

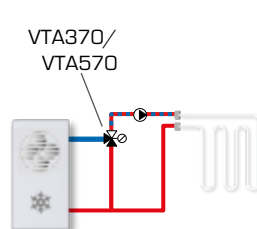
\* Kvs-value in m<sup>3</sup>/h at a pressure drop of 1 bar PF = Pump Flange, RN = Rotating Nut

### INSTALLATION EXAMPLES

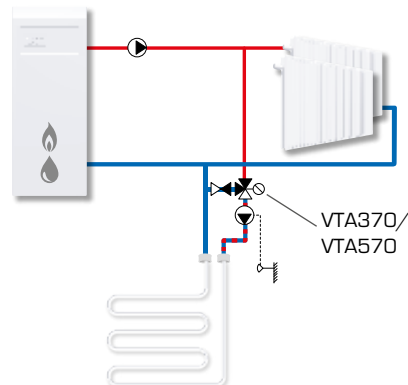
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Heating



Cooling



VTA370/  
VTA570

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### CAPACITY DIAGRAM

