

# 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 radiators 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	○ <sup>1)</sup>			Potable water, point of use
VTA370				Solar heating
VTA570				Solar heating
VTA370				Cooling
VTA570	●	●		Cooling
VTA370		●		Floor heating
VTA570		●		Floor heating
VTA370			●	Heating
VTA570			●	Heating

● recommended ○ secondary alternative

1) Mandatory temperature control devices has to be installed at the water taps to provide point of use protection.

### 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)  
 Pressure drop diagram: \_\_\_\_\_ see diagram  
 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.

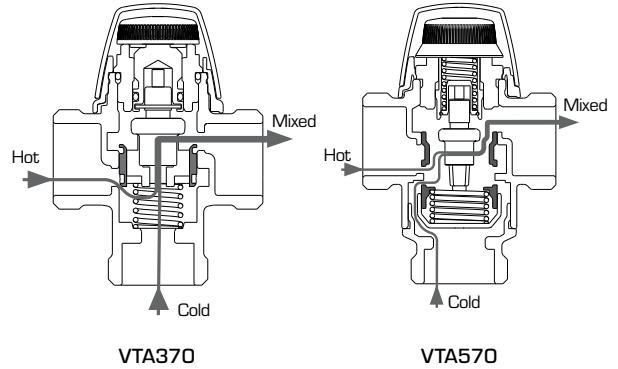
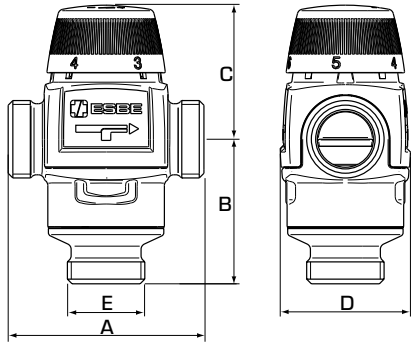
\*\* Valid at unchanged hot/return water pressure, minimum flow rate 9 l/min. Minimum temperature difference between hot water inlet and mixed water outlet 10°C and recommended maximum temperature difference between return water and mixed water outlet: 10°C.

PED 2014/68/EU, article 4.3

Pressure Equipment in conformity with PED 2014/68/EU, article 4.3 (sound engineering practice). According to the directive the equipment shall not carry any CE-mark.

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## BASIC SERIES VTA370, VTA570



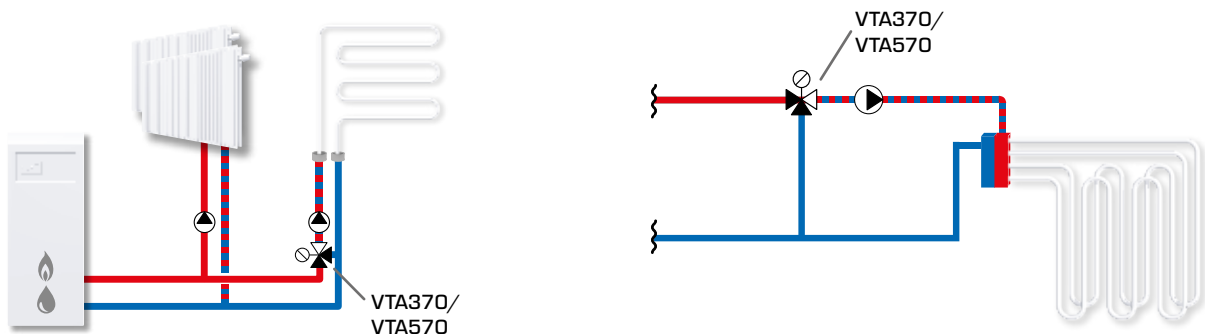
### ➔ SERIES VTA372/VTA572, EXTERNAL THREAD

Art. No.	Reference	Temp. range	Kvs *	Connection E	A	B	C	D	Weight [kg]	Replaces
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

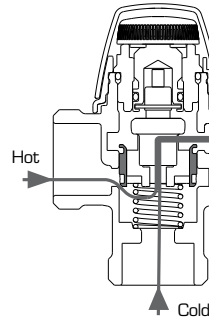
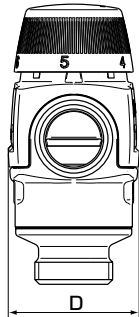
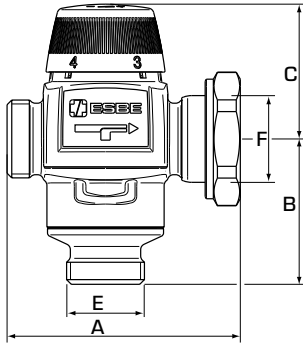
### INSTALLATION EXAMPLES

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

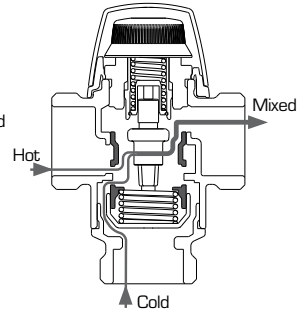


# THERMOSTATIC MIXING VALVE

## 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	57	0.58	
31702300	VTA577		4.5			100	62	60	57	0.99	

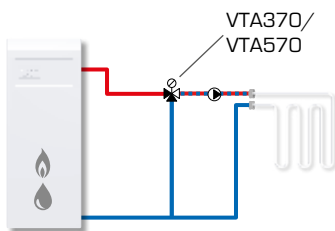
### ► SERIES VTA378/VTA578, ROTATING NUT AND EXTERNAL THREAD

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	56	0.48	
31702400	VTA578		4.5			93	62	60	56	0.91	

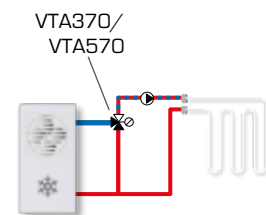
\* Kvs-value in m<sup>3</sup>/h at a pressure drop of 1 bar PF = Pump Flange, RN = Rotating Nut

### INSTALLATION EXAMPLES

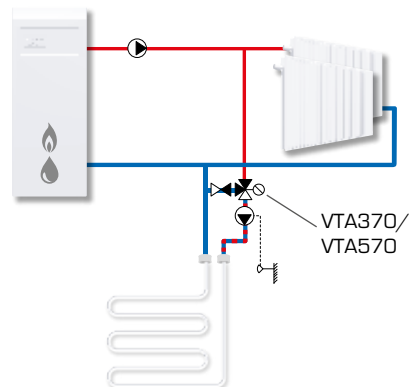
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Heating



Cooling



VTA370/  
VTA570

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### CAPACITY DIAGRAM

