

# THERMOSTATIC MIXING VALVE

## BASIC SERIES VTA350, VTA550

The ESBE thermostatic mixing valves series VTA350 and VTA550 offer high flow capacity and good functionality for universal applications, such as domestic hot water with or without HWC (hot water circulation).

### OPERATION

The series VTA350/VTA550 are the number one choice for domestic hot water systems requiring an in-line scald safe\* function and where further temperature control devices have been installed at the water taps. These series of valves are also suitable for domestic hot water installations equipped with HWC (hot water circulation).

### FUNCTION

Symmetrical flow pattern. Scald safe\*.

### VERSIONS

The product range includes a wide choice of valves delivered with integrated check valves, or with adapter fitting kits, each including three adapter fittings and two check valves, which facilitate easy installation and maintenance.

Supplied with a top cover, unless otherwise stated.

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

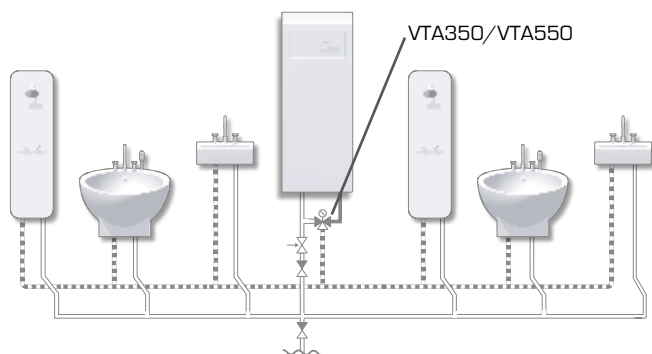
### MEDIA

These valves can handle the following types of media:

- Fresh water / Potable water
- Closed systems
- Water with antifreeze additive (glycol ≤ 50% mixture)

### INSTALLATION EXAMPLES

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



VTA350

Internal thread

External thread

External thread,  
with check valvesCompression  
fitting

VTA550

External thread

With adapters,  
external threadWith adapters,  
compression fitting

### VALVES ARE DESIGNED FOR

Series	Temperature range				Application
	20 - 43°C	35 - 60°C	45 - 65°C	50 - 75°C	
VTA350		●			Potable water, in line
VTA550	○		●	●	
VTA350					Potable water, point of use
VTA550					
VTA350		○			Solar heating
VTA550			○	○	
VTA350					Cooling
VTA550					
VTA350		○			Floor heating
VTA550	○		○		

● recommended ○ secondary alternative

### TECHNICAL DATA

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

Working pressure: \_\_\_\_\_ 1.0 MPa (10 bar)

Differential pressure: \_\_\_\_\_ Mixing, max. 0.3 MPa (3 bar)

Pressure drop diagram: \_\_\_\_\_ see catalogue

Media temperature: VTA350, VTA550 \_\_\_\_\_ max. 95°C

VTA550 \_\_\_\_\_ temporarily max. 100°C

Temperature stability: VTA350 \_\_\_\_\_ ±2°C\*

VTA550 \_\_\_\_\_ ±4°C\*\*

Connection: \_\_\_\_\_ Internal thread (Rp), EN 10226-1

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

\_\_\_\_\_ External thread (R), EN 10226-1

\_\_\_\_\_ Compression fitting (CPF), EN 1254-2

\* Valid at unchanged hot/cold water pressure, minimum flow rate 4 l/min. Minimum temperature difference between hot water inlet and mixed water outlet 10°C.

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

### Material

Valve housing and other metal parts with fluid contact:

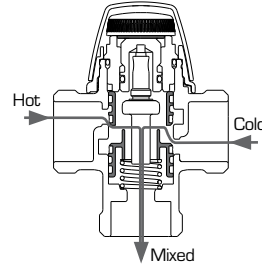
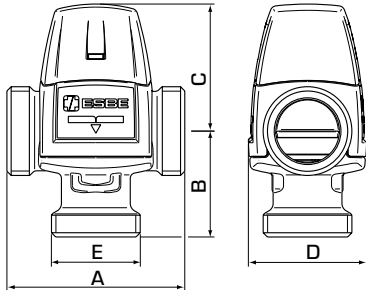
\_\_\_\_\_ Dezincification resistant brass, DZR

PED 2014/68/EU, article 4.3

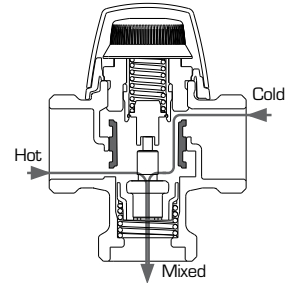
Pressure Equipment in conformity with PED 2014/68/EU, article 4.3 (sound engineering practice). According to the directive the equipment shall not carry any CE-mark.

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## BASIC SERIES VTA350, VTA550



VTA350



VTA550

### SERIES VTA351, INTERNAL THREAD

Art. No.	Reference	Temp. range	Kvs *	Connection E	A	Dimension B	C	D	Note	Weight [kg]
31104900	VTA351	35 - 60°C	1.6	Rp ¾"	70	42	52	46		0.48

### SERIES VTA352/ VTA552, EXTERNAL THREAD

Art. No.	Reference	Temp. range	Kvs *	Connection E	A	Dimension B	C	D	Note	Weight [kg]
31105000	VTA352	35 - 60°C	1.5	G ¾"	70	42	52	46		0.45
31105100			1.6	G 1"						0.48
31660100	VTA552	20 - 43°C	3.2	G 1"	84	50	60	56		0.78
31660400			3.5	G 1¼"						0.87
31660200	VTA552	45 - 65°C	3.2	G 1"	84	50	60	56		0.78
31660500			3.5	G 1¼"						0.87
31660300	VTA552	50 - 75°C	3.2	G 1"	84	50	60	56		0.78
31660600			3.5	G 1¼"						0.87

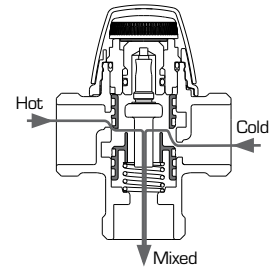
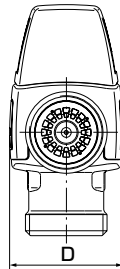
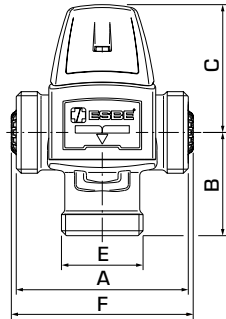
### SERIES VTA353, COMPRESSION FITTINGS

Art. No.	Reference	Temp. range	Kvs *	Connection E	A	Dimension B	C	D	Note	Weight [kg]
31105200	VTA353	35 - 60°C	1.5	CPF 22 mm	70	42	52	46		0.57

\* Kvs-value in m³/h at a pressure drop of 1 bar. CPF = compression fitting

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VTA350

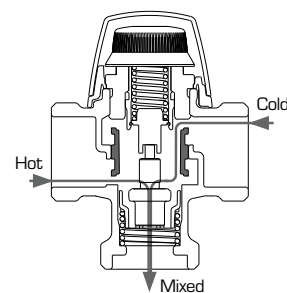
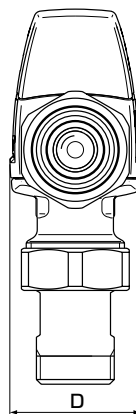
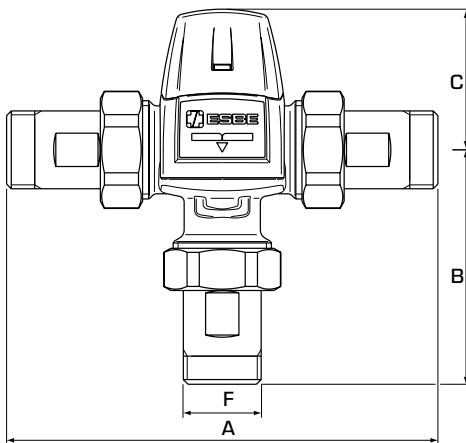


### SERIES VTA352, EXTERNAL THREAD AND INTEGRATED CHECK VALVES

Art. No.	Reference	Temp. range	Kvs *	Connection E	A	B	C	D	F	Note	Weight [kg]
31106100	VTA352	35 - 60°C	1.5	G 1"	70	42	52	46	74	1)	0.48

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

Note 1) Two check valves for both hot and cold water are integrated



VTA550



### SERIES VTA552/VTA553, WITH ADAPTERS

Art. No.	Reference	Temp. range	Kvs *	Connection F	A	Dimension B	C	D	Note	Weight [kg]
31660700	VTA552	20 - 43°C	3.0	R ¾"	154	85	60	56	1)	1.14
31661300	VTA553			CPF 22mm	180	98				1.34
31661000	VTA552		3.4	R 1"	164	90				1.51
31660800	VTA552	45 - 65°C	3.0	R ¾"	154	85	60	56	1)	1.14
31661400	VTA553			CPF 22mm	180	98				1.34
31661100	VTA552		3.4	R 1"	164	90				1.51
31660900	VTA552	50 - 75°C	3.0	R ¾"	154	85	60	56	1)	1.14
31661500	VTA553			CPF 22mm	180	98				1.34
31661200	VTA552		3.4	R 1"	164	90				1.51

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

Note 1) Two check valves for both hot and cold water are included