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).



VTA350
Internal thread



External thread



External thread, with check valves



Compression fitting



VTA550
External thread

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 which facilitate easy installation and maintenance.

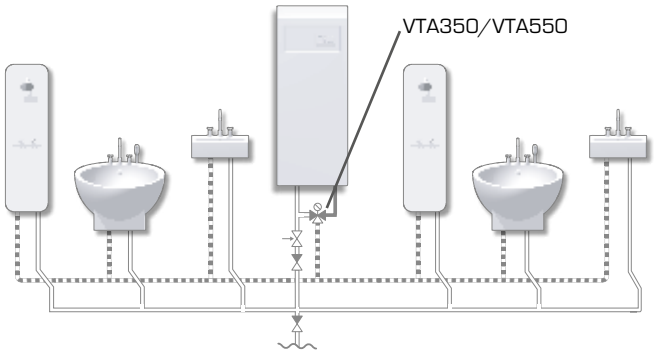
Supplied with a top cover, unless otherwise stated.

**) 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



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.

VALVES ARE DESIGNED FOR

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

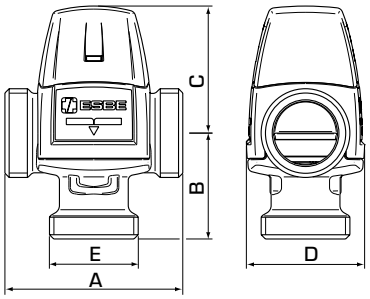
Material
Valve housing and other metal parts with fluid contact:
Dezincification resistant brass, DZR

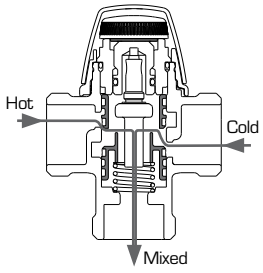
PED 2014/68/EU, article 4.3

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.

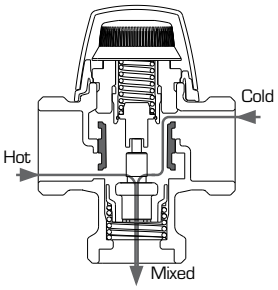
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VTA350



VTA550

SERIES VTA351, INTERNAL THREAD

Art. No.	Reference	Temp. range	Kvs*	Connection E	Dimension A	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	Dimension A	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

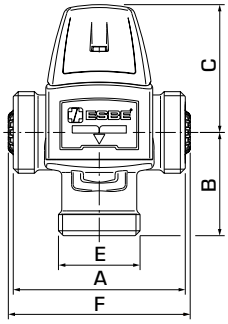
Art. No.	Reference	Temp. range	Kvs*	Connection E	Dimension A	B	C	D	Note	Weight [kg]
31105200	VTA353	35 - 60°C	1,5	CPF 22 mm	70	42	52	46		0,57

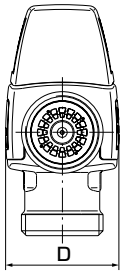
* Kvs-value in m^3/h at a pressure drop of 1 bar. CPF = compression fitting

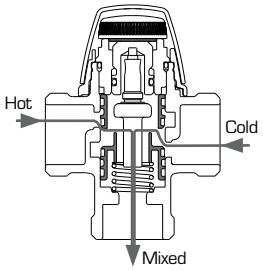
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VTA350

SERIES VTA352, EXTERNAL THREAD AND INTEGRATED CHECK VALVES

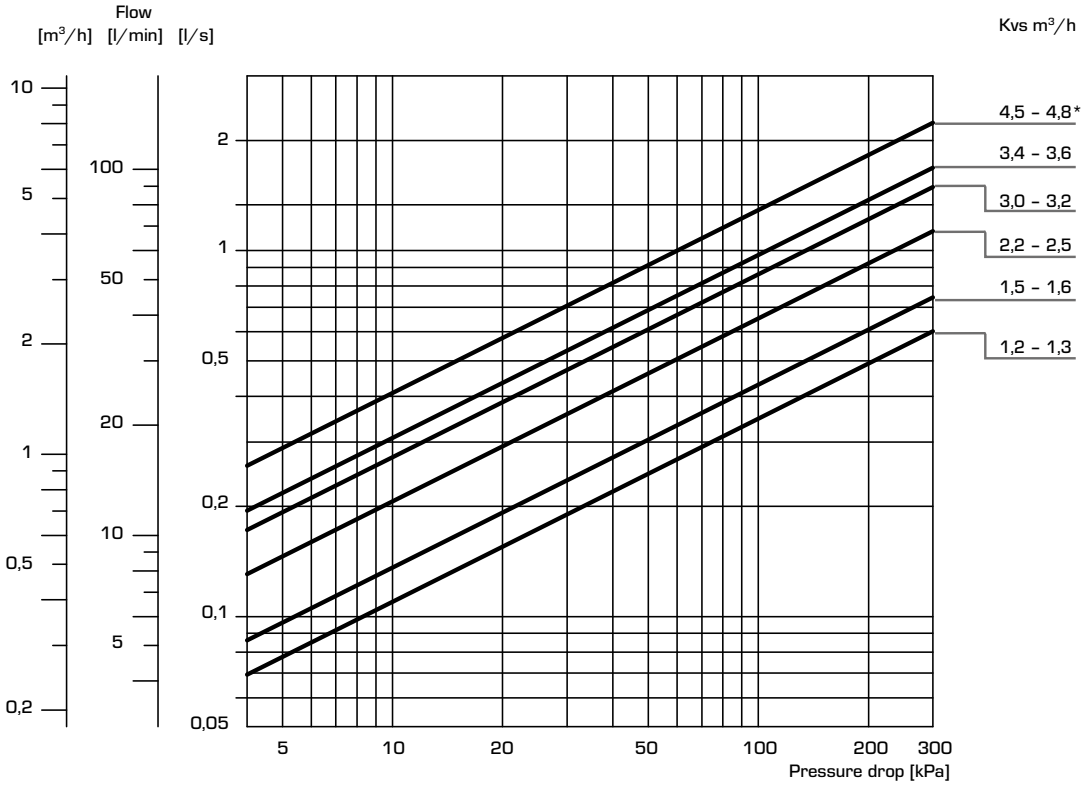
Art. No.	Reference	Temp. range	Kvs*	Connection	Dimension					Note	Weight [kg]
				E	A	B	C	D	F		
31106100	VTA352	35 - 60°C	1,5	G 1"	70	42	52	46	74	1)	0,48

* Kvs-value in m^3/h at a pressure drop of 1 bar.
Note 1) Two check valves for both hot and cold water are integrated

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CAPACITY DIAGRAM



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