

THERMOSTATIC MIXING VALVE

PREMIUM SERIES VTS520, VTS550

The ESBE thermostatic mixing valves series VTS520 and VTS550 offer high flow capacity and high functionality for domestic hot water distribution connected to solar heating systems with high water temperatures.

OPERATION

Series VTS520/VTS550 are the number one choice for domestic hot water distribution connected to solar heating systems, where the high water temperatures require extra durable components. The VTS520/VTS550 offers an in-line scald safe* function and are suitable for use 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

VTS520 has asymmetrical flow pattern, VTS550 has symmetrical flow pattern. Scald safe*.

VERSIONS

The product range includes a wide choice of valves delivered 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)



VTS520
External thread

With adapters,
external thread

With adapters,
compression fitting









VTS550
External thread

With adapters,
external thread

With adapters,
compression fitting

VALVES ARE DESIGNED FOR

Series	Temperature range		Application
	45 - 65°C	50 - 75°C	
VTS520	●	●	 Potable water, in line
VTS550	●	●	
VTS520			 Potable water, point of use
VTS550			
VTS520	●	●	 Solar heating
VTS550	●	●	
VTS520			 Cooling
VTS550			
VTS520			 Floor heating
VTS550			
VTS520	○	○	 Radiator heating
VTS550	○	○	

● 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: _____ continuously max. 110°C
 _____ temporarily max. 120°C
 Temperature stability: _____ ±4°C*
 Connection: _____ 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 9 l/min.
 Minimum temperature difference between hot water inlet and mixed water outlet 10°C.

Material

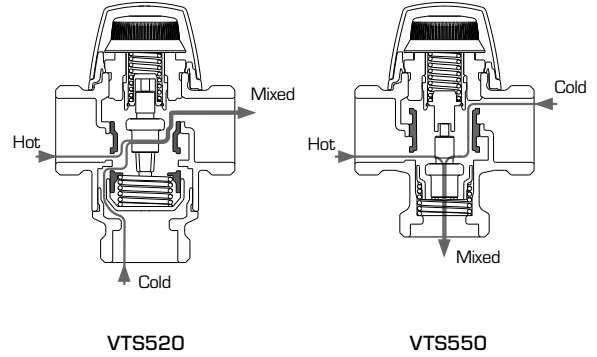
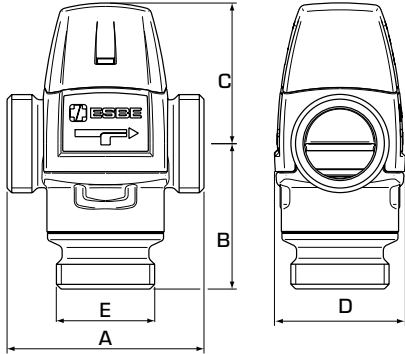
Valve housing and other metal parts with fluid contact:
 _____ Dezincification resistant brass, DZR

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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► SERIES VTS522, EXTERNAL THREAD

Art. No.	Reference	Temp. range	Kvs *	Connection E	Dimension				Note	Weight [kg]
					A	B	C	D		
31720100	VTS522	45 - 65°C	3,2	G 1"	84	62	60	56		0,86
31720300			3,5	G 1¼"						0,95
31720200	VTS522	50 - 75°C	3,2	G 1"	84	62	60	56		0,86
31720400			3,5	G 1¼"						0,95

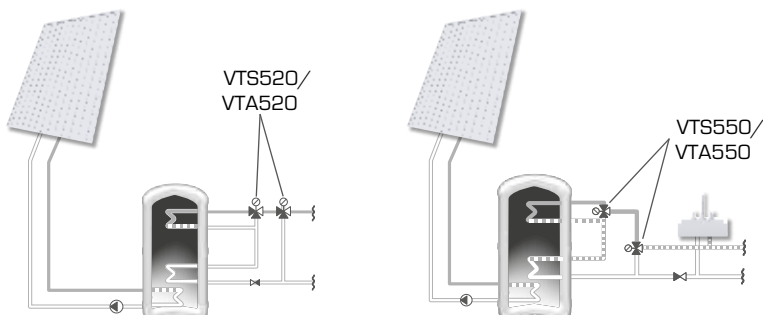
▼ SERIES VTS552, EXTERNAL THREAD

Art. No.	Reference	Temp. range	Kvs *	Connection E	Dimension				Note	Weight [kg]
					A	B	C	D		
31740100	VTS552	45 - 65°C	3,2	G 1"	84	50	60	56		0,78
31740300			3,5	G 1¼"						0,87
31740200	VTS552	50 - 75°C	3,2	G 1"	84	50	60	56		0,78
31740400			3,5	G 1¼"						0,87

* Kvs-value in m³/h at a pressure drop of 1 bar.

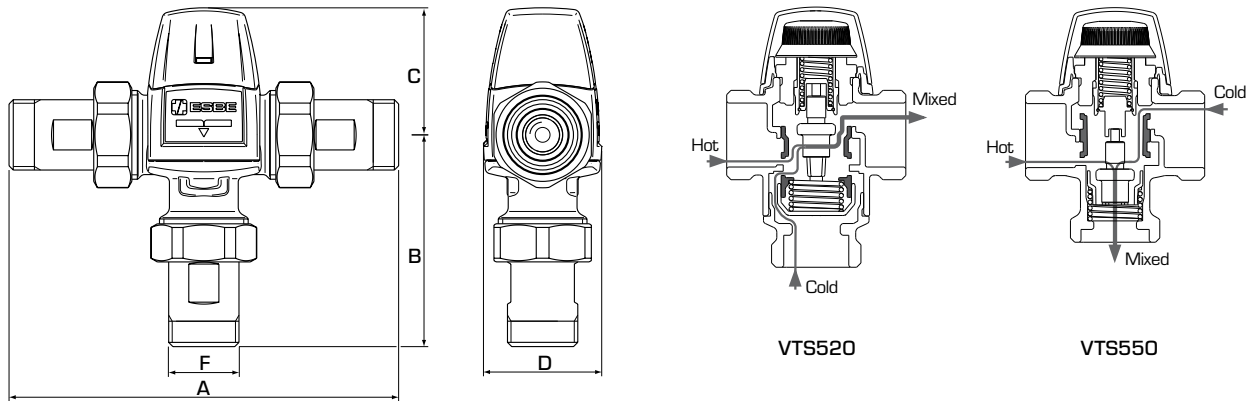
INSTALLATION EXAMPLES

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



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PREMIUM SERIES VTS520, VTS550



➔ SERIES VTS522/VTS523, WITH ADAPTERS

Art. No.	Reference	Temp. range	Kvs*	Connection F	Dimension				Note	Weight [kg]
					A	B	C	D		
31720500	VTS522	45 - 65°C	3,0	R ¾"	154	97	60	56	1)	1,22
31720900	VTS523			CPF 22mm	180	110				1,42
31720700	VTS522		3,4	R 1"	164	102				1,59
31721100	VTS523			CPF 28mm	204	122				1,90
31720600	VTS522	50 - 75°C	3,0	R ¾"	154	97	60	56	1)	1,22
31721000	VTS523			CPF 22mm	180	110				1,42
31720800	VTS522		3,4	R 1"	164	102				1,59
31721200	VTS523			CPF 28mm	204	122				1,90

➔ SERIES VTS552/VTS553, WITH ADAPTERS

Art. No.	Reference	Temp. range	Kvs*	Connection F	Dimension				Note	Weight [kg]
					A	B	C	D		
31740500	VTS552	45 - 65°C	3,0	R ¾"	154	85	60	56		1,14
31740900	VTS553			CPF 22mm	180	98				1,34
31740700	VTS552		3,4	R 1"	164	90				1,51
31740600	VTS552	50 - 75°C	3,0	R ¾"	154	85	60	56		1,14
31741000	VTS553			CPF 22mm	180	98				1,34
31740800	VTS552		3,4	R 1"	164	90				1,51

* Kvs-value in m³/h at a pressure drop of 1 bar. CPF = compression fitting
 Note 1) Two check valves for both hot and cold water are included

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CAPACITY DIAGRAM

