THERMOSTATIC CONTROL UNITS

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THERMOSTATIC MIXING VALVE

BASIC SERIES VTA320, 520

The ESBE thermostatic mixing valves series VTA320/VTA520 offer high flow capacity and good functionality for universal applications, such as domestic hot water with or without HWC (hot water circulation) and smaller underfloor heating circuits.

OPERATION

Series VTA320/VTA520 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).

Series VTA320/VTA520 are suitable for under floor heating applications, as long as special attention is paid to temperature range and flow requirements.

FUNCTION

Asymmetrical 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)



VTA320 Internal thread



External thread



Compression fitting



VTA520 External thread



With adapters external thread



With adapters, compression fitting

VALVES ARE DESIGNED FOR

	Te	mper	ature	e ran	ge		
Series	20 - 43°C	30 - 70°C	35 - 60°C	45 - 65°C	50 - 75°C		Application
VTA320	0	•	•			P	Potable water, in line
VTA520	0			•	•	U'	Potable Water; III III le
VTA320						J.	Potable water, point of use
VTA520						*	Potable water; point of use
VTA320		0	0				Colon booking
VTA520				0	0		Solar heating
VTA320						北	Co-dia-
VTA520						*	Cooling
VTA320	0	0	0				
VTA520	0			0			Floor heating

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 page 133
Media temperature: VTA320, VTA	4520 max. 95°C
VTA520	temporarily max. 100°C
Temperature stability: VTA320 _	
VTA520	±4°C**
Connection:	_ Internal thread, EN 10226-1
	_ External thread, ISO 228/1
C	ompression fitting, 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
- * 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

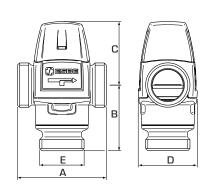
Valve housing and other metal parts with fluid contact: DZR brass CW602N, resistant to dezincification

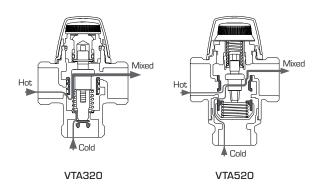
PED 97/23/EC, article 3.3

Pressure Equipment in conformity with PED 97/23/EC, article 3.3 (sound engineering practice). According to the directive the equipment shall not carry any CE-mark.

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SERIES VTA321, INTERNAL THREAD

Art. No.	Reference	Temp. range	Kvs*	Connection E	А	Dime B	nsion C	D	Note	Weight [kg]
3110 03 00	VTA321	00 4000	1.5	Rp 1⁄2"	70	42	52	46		0.45
3110 07 00	VIASZI	20 - 43°C	1.6	Rp 3/4"						0.48
3110 04 00	VTA321	35 - 60°C	1.5	Rp 1/2"	70	42	52	46		0.45
3110 08 00			1.6	Rp 3/4"				46		0.48

SERIES VTA322/VTA522, EXTERNAL THREAD

Art. No.	Reference	Temp. range	Kvs*	Connection E	Α	Dime B	nsion C	D	Note	Weight [kg]
3110 28 00			1.2	G 1/2"						0.41
3110 28 00						42	52	46		0.41
3110 05 00	VTA322	20 - 43°C	1.5	G 3/4"	70					0.45
3110 09 00			1.6	G 1"						0.48
3162 01 00	VTA522		3.2	G 1"	84	62	60	56		0.86
3162 04 00			3.5	G 11/4"						0.95
3110 32 00	VTA322	30 - 70°C	1.6	G 1"	70	42	52	46		0.53
3110 29 00			1.2	G ½"	70	42		46		0.41
3110 06 00	VTA322	35 - 60°C	1.5	G 3/4"			52			0.45
3110 10 00			1.6	G 1"						0.48
3162 02 00	\/TAF00	45 0500	3.2	G 1"	0.4	62	60	56		0.86
3162 05 00	VTA522	45 - 65°C	3.5	G 11/4"	84					0.95
3162 03 00	\/TAE00	E0 75°0	3.2	G 1"	84	62	60	FC		0.86
3162 06 00	VTA522	50 - 75°C	3.5	G 11/4"			60	56		0.95

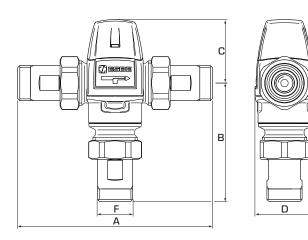
SERIES VTA323, COMPRESSION FITTINGS

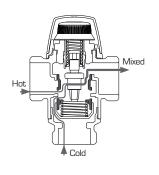
				Connection		Dime	nsion			Weight
Art. No.	Reference	Temp. range	Kvs*	Е	Α	В	С	D	Note	[kg]
3110 26 00	VTA323	20 - 43°C	1.2	CPF 15 mm	86	50	52	46	41)	0.49
3110 01 00			1.5	CPF 22 mm				40	1)	0.57
3110 27 00			1.2	CPF 15 mm					1)	0.49
3110 39 00	VTA323	35 - 60°C	1.5	CPF 18 mm	86	50	52	46		0.66
3110 02 00			1.5	CPF 22 mm					1)	0.57

 $^{^\}star$ Kvs-value in m³/h at a pressure drop of 1 bar. CPF = compression fitting Note 1) A non-return valve for the cold water is included.

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VTA520

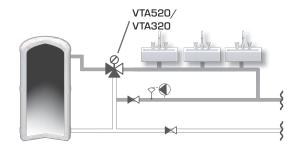
SERIES VTA522/VTA523, WITH ADAPTERS

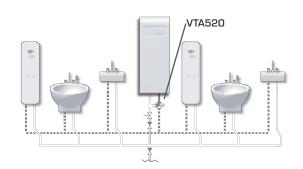
				Connection	Dimension					Weight									
Art. No.	Reference	Temp. range	Kvs*	F	Α	В	С	D	Note	[kg]									
3162 07 00	VTA522	20 - 43°C	3.0	G 3/4"	124	102		56	2)	1.30									
3162 13 00	VTA523		3.0	CPF 22mm	132	110	60			1.42									
3162 10 00	VTA522		3.4	G 1"	134	112				1.73									
3162 16 00	VTA523			CPF 28mm	144	122				1.90									
3162 08 00	VTA522	45 - 65°C	3.0	G ¾"	124	102		56	2)	1.30									
3162 14 00	VTA523			CPF 22mm	132	110	60			1.42									
3162 11 00	VTA522			G 1"	134	112	60			1.73									
3162 17 00	VTA523		3.4	CPF 28mm	144	122				1.90									
3162 09 00	VTA522	50 - 75°C	0.0	G 3/4"	124	102		56	2)	1.30									
3162 15 00	VTA523		3.0	CPF 22mm	132	110	60			1.42									
3162 12 00	VTA522		0.4	G 1"	134	112	60			1.73									
3162 18 00	VTA523				;								3.4	CPF 28mm	144	122			

^{*} Kys-value in m³/h at a pressure drop of 1 bar. CPF = compression fitting Note 2) Two check valves for both hot and cold water are included

INSTALLATION EXAMPLES

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





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