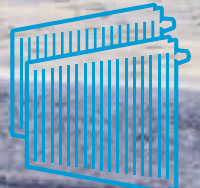
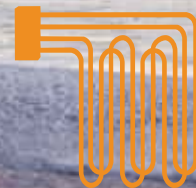


THE GUIDE



EXPLORE YOUR POSSIBILITIES AND MAKE THE RIGHT CHOICE

The guide to the right product.

ESBE valves, actuators and controllers, regulates the heating in millions of households today. Our wide assortment give you extensive possibilities and combinations to suit the most simple applications to the most complicated ones. Whatever need you have we offer a solution. Anyone ESBE product makes a system more efficient, but go for ESBE the whole way and a new world of efficiency is what you get. With 100 years of experience in this business, we can confidently say that we know what we are doing. We simply offer valves, actuators and controllers that deliver safety, comfort and energy savings to your customers.

Saving energy is crucial to sustain the environment. Each kWh saved in heating our households helps preserve our environment. Therefore, the priority in the ESBE Guide aims to meet your comfort and energy saving needs. We help you to optimize the system by offering different solutions of comfort and energy saving solutions without sacrificing on safety.

Everyone's a winner! Your customer can easily understand the big payoffs and how they get a home where highest comfort is the norm. The environment wins too and starts to benefit from day one. And you win because you get products that are easy to sell, even easier to install and virtually maintenance free. It doesn't get any better than that!

**FAST IN. FAST OUT.
JOB WELL DONE.**

Time for leisure.



CONTENTS

THE ESBE GUIDE

Product summary	4
APPLICATION POSSIBILITIES	5
Radiator heating	6
Underfloor heating	7
Underfloor + Radiator heating	8
Domestic hot water	9
Wood & Pellets	10-11
Solar	12-13
Dual heat sources	14
PRECISION AT YOUR SERVICE	15
Mixing function	16
Diverting function	17
Valve choice	18
Actuator choice	19
Valve + Actuator choice	20
Products + application table	21
REPLACEMENT GUIDE	22

GUIDANCE

Price level

€ € € € € €

Installation complexity









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Energy efficiency





A B C D

PRODUCT SUMMARY



Valves

 VRG130	<ul style="list-style-type: none"> The series VRG130 is a range of compact 3-way rotary mixing valves. Available from DN15 to 50. Also available in high flow version as VRG330 series from DN20 to 50. 	
 VRG140	<ul style="list-style-type: none"> The series VRG140 is a range of compact 4-way rotary mixing valves. Recommended for applications where cold returns to the heat source must be avoided. Available from DN15 to 50. 	
 VRB140	<ul style="list-style-type: none"> The series VRB140 is the "DUAL-ENERGY" valve. VRB140 allows two energies to be mixed in the ideal proportion guaranteeing large savings. Recommended for boiler back up applications. Available from DN15 to 50 	
 5MG	<ul style="list-style-type: none"> The series 5MG is a compact 5-way mixing valve. 5MG allows two energies to be mixed in the ideal proportion guaranteeing large savings. Available from DN25 to 32 	



Actuators

 ARA600 2-POINT	<ul style="list-style-type: none"> Recommended for diverting applications. The actuators are controlled by a 2-point signal (on/off). Run time: 15 to 60 s • Power supply voltage : 24 or 230V 	
 ARA600 3-POINT <small>(or PROPORTIONAL)</small>	<ul style="list-style-type: none"> Recommended for mixing applications. The actuators are controlled by a 3-point signal (or proportional 0-10V) Run time: 30 to 1200 s • Power supply voltage : 24 or 230V 	





Diverting Valves

 VZA/VZB	<ul style="list-style-type: none"> The series VZA/VZB is a range of compact diverting valves in brass for use in heat pumps, under floor heating or HVAC applications. The main feature is the ability to rapidly change the flow direction between two circuits meaning a energy-efficient operation. Kvs <6.5 ; DN15 to 25 	
---------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------








Thermostatic mixing valves

 VTA300, VTA500	<ul style="list-style-type: none"> With an ESBE thermostatic mixing valve fitted after the water heater, the temperature is restricted to a maximum 55°C throughout the system. In this way the water can be heated up to legionella-safe temperatures without the risk of anyone getting scalded. In addition there are also other possibilities such as solar and underfloor heating applications. Kvs <4.8 ; DN15-25 Output temperature: 10° to 75°C 	
-------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------



Controllers

 CRA100, CRB100	<ul style="list-style-type: none"> The CRA controller is designed for constant regulation of the outgoing flow temperature varying within a range of 5° to 95°C. The CRB series is an indoor sensor based controller with wired or wireless connection to the room unit. Possible energy savings up to 20% in comparison to a manually operated valve. 	
 90C	<ul style="list-style-type: none"> The 90C series is a complete range of heating regulators in relation to outside temperature. Possible energy savings from 17% (outdoor sensor) to 24% (outdoor + indoor sensor) in comparison to a manually operated valve. Available in different versions to be adaptable to all configurations. 	

Load valves and load units

 VTC300	<ul style="list-style-type: none"> The VTC300 series is a 3-way load valve designed to protect a boiler up to 30 kW against too low return temperatures. Kvs <3.2 ; DN15 to 20 Opening temperature: 45° to 80°C 	
 VTC500	<ul style="list-style-type: none"> The VTC500 series is a 3-way load valve designed to protect a boiler up to 150 kW against too low return temperatures. Kvs <14 ; DN25 to 50 Opening temperature: 50° to 75°C 	
 LTC100, LTC200	<ul style="list-style-type: none"> The LTC100 load unit automatically loads storage tanks and protects solid fuel boilers from low temperature returns. It comprises an integrated pump, a load valve, shut-off valves, thermometers and an insulation shell. DN25 to 50 Opening temperature: 50° to 75° 	
 ATA200	<ul style="list-style-type: none"> The draught regulator series ATA200 is an independent thermostatic expansion control device intended to regulate the temperature of solid fuel fired boilers by adjusting the air supply. No electrical wiring or complicated fitting is required. 	

Solar kit

 VMC300, VMC500	<ul style="list-style-type: none"> The thermic solar kit series VMC300/VMC500 offers dual functionality for tap water applications: It diverts incoming water when additional heating is needed and makes outgoing water scald safe, all in an easy-to-install solar kit. Kvs <2.5 ; DN20 • Output temperature: 35° to 60°C 	
-------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------

A dynamic background image showing a stream of water falling from the top left, splashing and creating numerous bubbles and droplets against a light blue background. The water is clear and bright, with highlights and shadows that give it a sense of motion and freshness.

APPLICATION POSSIBILITIES

Reliable and energy efficient.

Take a few minutes and see the possibilities we offer. The guide is designed so that you can easily find the level of installation you need. The ESBE Guide helps you find a solution that match the size of installation, the installation time, energy saving level and the level of investment you wish to make. Explore and make a choice.

Choose energy efficiency

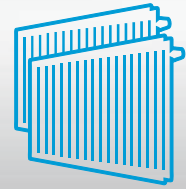
Everyone knows that saving energy means saving money, especially when energy prices are constantly going up. It is essential for you to choose the product that energy optimizes the installation. Together we work for a sustainable environment.

Choose comfort

Make you customers happy and healthy. By choosing an ESBE product you avoid your customers from experiencing scalding, legionella bacteria and an unstable indoor climate. It is so simple!

Choose simple installation

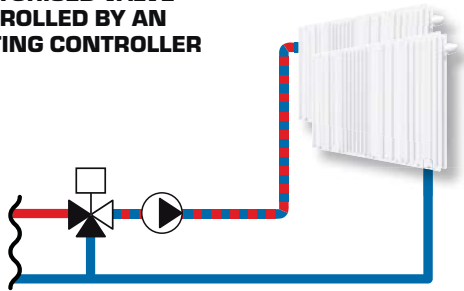
Time is money. By choosing an ESBE product for your system you also choose simple installation and maintenance free. End result: less time every time you head out on a job.















RADIATOR HEATING

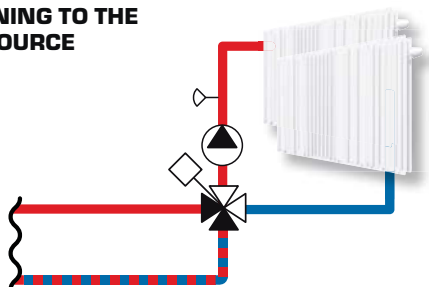
Applications for optimum comfort and maximum efficiency.
 Choose your product according to the power of your radiators.













A MOTORISED VALVE CONTROLLED BY AN EXISTING CONTROLLER



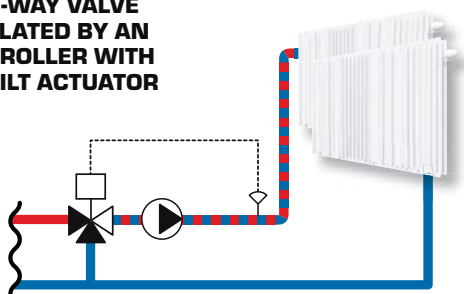
		3-way valve	+		Actuator ARA661
20 to 30 kW	• VRG131	Art. 1160 06 00			3 point, 230V AC, 120s, 6Nm
30 to 45 kW	• VRG131	Art. 1160 09 00			Art. 1210 13 00
45 to 60 kW	• VRG131	Art. 1160 11 00			
  		  		   	













PREVENT COLD WATER RETURNING TO THE HEAT SOURCE



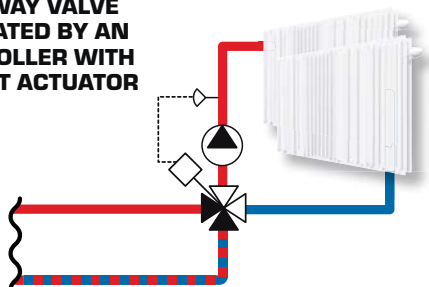
		4-way valve	+		Actuator ARA661
20 to 30 kW	• VRG141	Art. 1164 02 00			3 point, 230V AC, 120s, 6Nm
30 to 45 kW	• VRG141	Art. 1164 03 00			Art. 1210 13 00
45 to 60 kW	• VRG141	Art. 1164 04 00			
  		  		   	













THE 3-WAY VALVE REGULATED BY AN CONTROLLER WITH IN-BUILT ACTUATOR



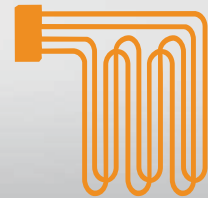
		3-way valve	+		Controller CRB121
20 to 30 kW	• VRG131	Art. 1160 06 00			Prewired for a quick start-up, wired or wireless room display unit. 230V AC, 6Nm
30 to 45 kW	• VRG131	Art. 1160 09 00			
45 to 60 kW	• VRG131	Art. 1160 11 00			
  		  		   	

THE 4-WAY VALVE REGULATED BY AN CONTROLLER WITH IN-BUILT ACTUATOR



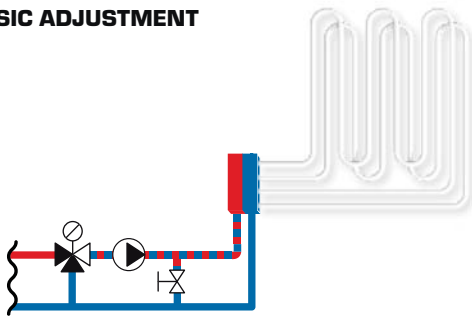
		4-way valve	+		Controller 90C-1A
20 to 30 kW	• VRG141	Art. 1164 02 00			Prewired with inbuilt control functions for pump or aux heat. 230V AC, 15Nm. Room sensor optional.
30 to 45 kW	• VRG141	Art. 1164 03 00			
45 to 60 kW	• VRG141	Art. 1164 04 00			
  		  		   	





UNDERFLOOR HEATING



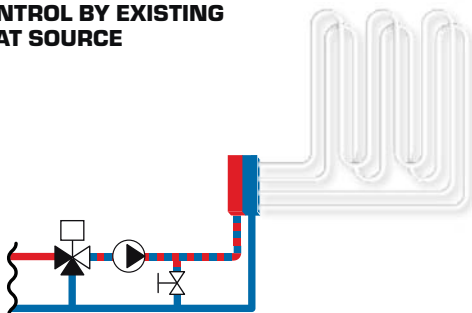
Simple and reliable applications for underfloor heating.
Choose your product according to the area of the heated floor.






BASIC ADJUSTMENT



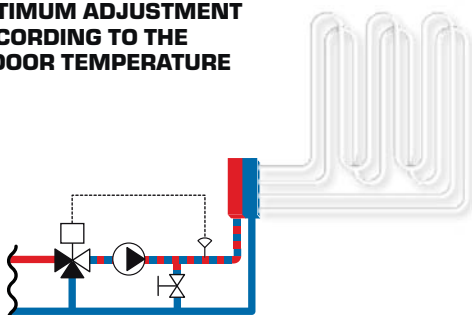
			Thermostatic mixing valve
< 50 m ²	• VTA322 20-43°C G 3/4"	Art. 3110 05 00	
50 to 100 m ²	• VTA522 20-43°C G 1"	Art. 3162 01 00	
100 to 150 m ²	• VTA572 20-43°C G 1 1/4"	Art. 3170 05 00	
  			






CONTROL BY EXISTING HEAT SOURCE



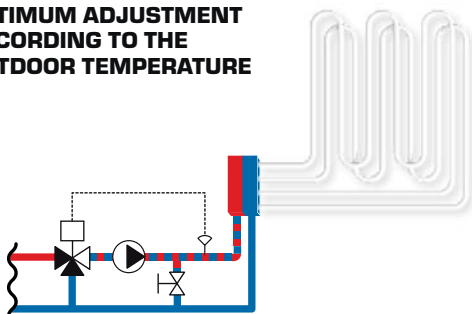
			3-way valve	+		Actuator ARA671
50 to 100 m ²	• VRG131	Art. 1160 05 00	3 point, 230V AC, 240s, 6Nm Art. 1210 14 00			
100 to 150 m ²	• VRG131	Art. 1160 08 00				
100 to 200 m ²	• VRG131	Art. 1160 10 00				
  						






OPTIMUM ADJUSTMENT ACCORDING TO THE INDOOR TEMPERATURE



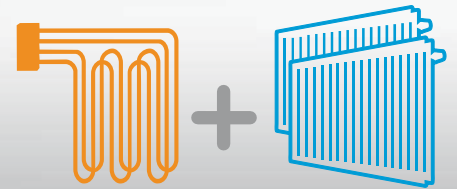
			3-way valve	+		Controller CRB121
50 to 100 m ²	• VRG131	Art. 1160 05 00	Prewired for a quick start-up, wired or wireless room display unit. 230V AC, 6Nm Art. 1266 21 00			
100 to 150 m ²	• VRG131	Art. 1160 08 00				
100 to 200 m ²	• VRG131	Art. 1160 10 00				
  						

OPTIMUM ADJUSTMENT ACCORDING TO THE OUTDOOR TEMPERATURE



			3-way valve	+		Controller 90C-1A
50 to 100 m ²	• VRG131	Art. 1160 05 00	Prewired with inbuilt control functions for pump or aux heat. 230V AC, 15Nm. Room sensor optional. Art. 1260 11 00			
100 to 150 m ²	• VRG131	Art. 1160 08 00				
100 to 200 m ²	• VRG131	Art. 1160 10 00				
  						

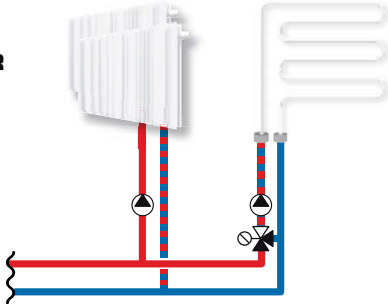
UNDERFLOOR + RADIATOR HEATING






Application for comfort around the home.

Choose your product according to the area of the heated floor.

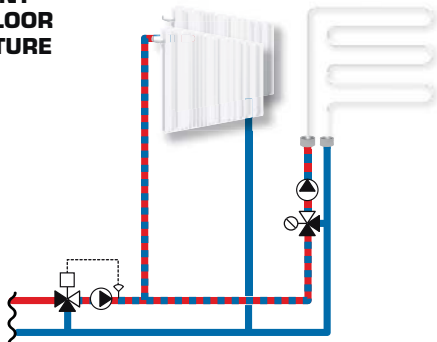
MECHANICAL ADJUSTMENT ONLY ON THE HEATED FLOOR



Thermostatic mixing valve

< 50 m ²	• VTA322 20-43°C G 3/4"	Art. 3110 05 00
50 to 100 m ²	• VTA522 20-43°C G 1"	Art. 3162 01 00
100 to 150 m ²	• VTA572 20-43°C G 1 1/4"	Art. 3170 05 00
€ € €	  	A B C D




A CONSTANT HEATED FLOOR TEMPERATURE



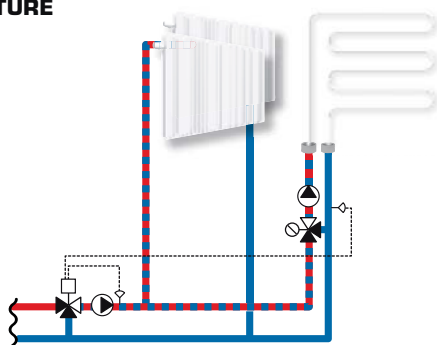
3-way valve



Controller
CRB121

50 to 100 m ²	• VRG131 Art. 1160 05 00	Prewired for a quick start-up, wired or wireless room display unit. 230V AC, 6Nm. Art. 1266 21 00
100 to 150 m ²	• VRG131 Art. 1160 08 00	
100 to 200 m ²	• VRG131 Art. 1160 10 00	
€ € €	  	A B C D




INDEPENDENT ADJUSTMENT ACCORDING TO OUTDOOR TEMPERATURE



3-way valve



Controller
90C-2A

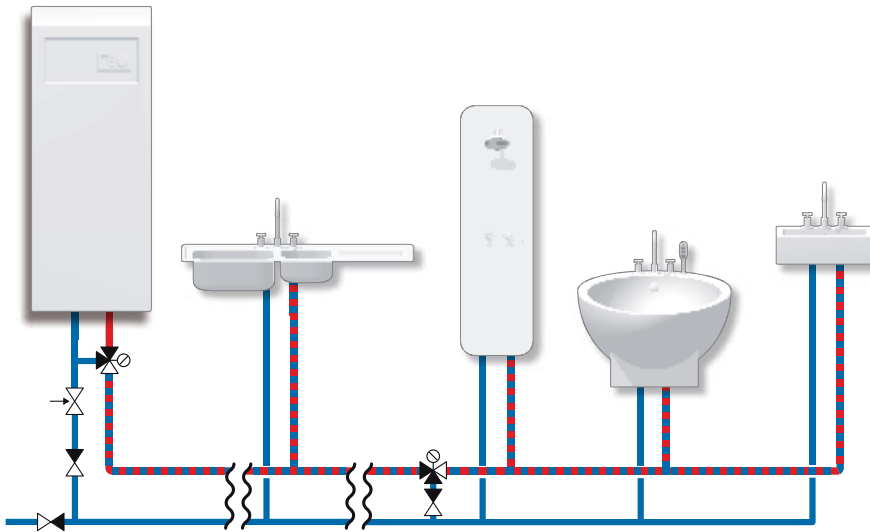
50 to 100 m ²	• VRG131 Art. 1160 05 00	Prewired with inbuilt control functions for pumps, aux heat and DHW 230V AC, 15Nm. Room sensor optional. Art. 1260 21 00
100 to 150 m ²	• VRG131 Art. 1160 08 00	
100 to 200 m ²	• VRG131 Art. 1160 10 00	
€ € €	  	A B C D



DOMESTIC HOT WATER



Applications for complete protection from scalding.
 Choose your product according to the power of your heat source.











**A SAFE DHW INSTALLATION...
 ...AND COMFORTABLE**

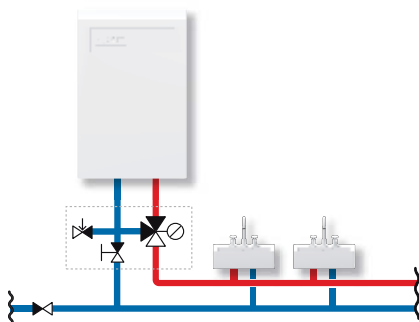


IN-LINE APPLICATION


POINT-OF-USE APPLICATION











	 Thermostatic mixing valve	 Thermostatic mixing valve
< 5 showers	<ul style="list-style-type: none"> • VTA322 35-60°C G 3/4" Art. 3110 06 00 	<ul style="list-style-type: none"> • VTA332 35-60°C G 1" Art. 3115 09 00
≥ 5 showers	<ul style="list-style-type: none"> • VTA522 45-65°C G 1 1/4" Art. 3162 05 00 	<ul style="list-style-type: none"> • VTA532 45-65°C G 1 1/4" Art. 3164 02 00



THERMOSTATIC VALVE MANIFOLD

 Valve manifold
<ul style="list-style-type: none"> • VMB423 DN15 Art. 3150 20 00

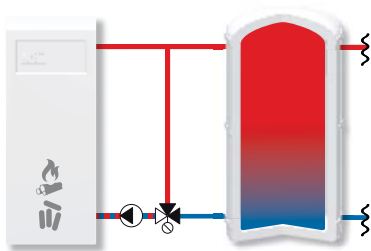











WOOD & PELLETS



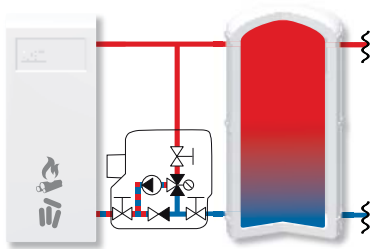
Controlled temperature, optimized combustion cycle and optimized loading of the tank.
Choose your product according to the power of your heat source.

BOILER PROTECTION AND OPTIMUM TANK LOADING WITH A PUMP OF YOUR OWN CHOICE



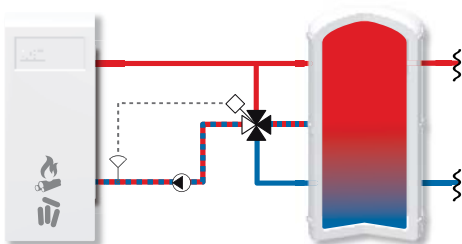
		Load valve		
		55°	60°	70°
20 to 30 kW	• VTC300	Art. 5100 02 00	5100 03 00	5100 04 00
30 to 45 kW	• VTC511	Art. 5102 02 00	5102 03 00	5102 04 00
45 to 70 kW	• VTC511	Art. 5102 07 00	5102 08 00	5102 09 00

BOILER PROTECTION AND OPTIMUM TANK LOADING WITH IN-BUILT PUMP



		Load unit		
		55°	60°	70°
20 to 30 kW	• LTC141	Art. 5500 07 00	5500 08 00	5500 12 00
30 to 45 kW	• LTC141	Art. 5500 07 00	5500 08 00	5500 12 00
45 to 70 kW	• LTC171	Art. 5500 26 00	5500 27 00	5500 28 00

CONSTANT RETURN TEMPERATURE TO THE BOILER WITH FAST TANK LOADING



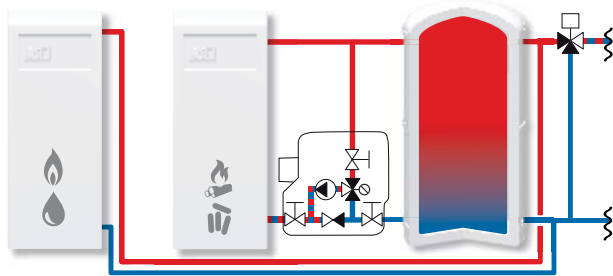
		Bivalent valve 4-way	+	Controller CRA111
20 to 30 kW	• VRB141	Art. 1166 01 00		Prewired for a quick start-up. 230V AC or 24V AC, 6Nm Art. 1272 01 00
30 to 45 kW	• VRB141	Art. 1166 02 00		
45 to 60 kW	• VRB141	Art. 1166 03 00		














DUAL HEAT SOURCES



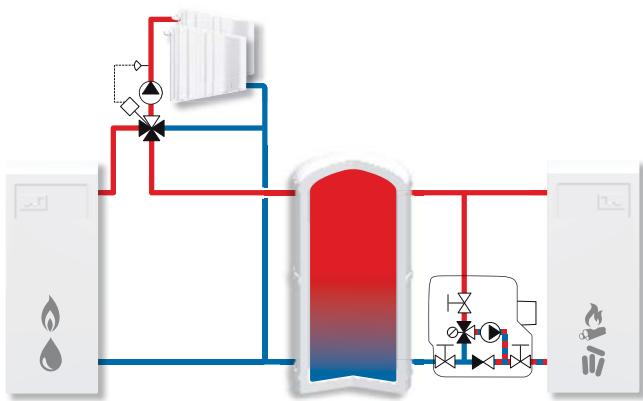
Wood boiler + boiler back up applications: High efficiency back up.
 Choose your product according to the power of your heat source.














STANDARD DUAL HEAT SOURCE SOLUTION



	 3-way valve +  Controller 90C-2A			
20 to 30 kW	• VRG131 Art. 1160 05 00	Prewired with inbuilt control functions for pumps, aux heat and DHW. 230V AC, 15Nm. Room sensor optional. Art. 1260 21 00		
30 to 45 kW	• VRG131 Art. 1160 08 00			
45 to 60 kW	• VRG131 Art. 1160 10 00			
	 Load unit		55°	60°
20 to 30 kW	• LTC141 Art. 5500 07 00		5500 08 00	5500 12 00
30 to 45 kW	• LTC141 Art. 5500 07 00		5500 08 00	5500 12 00
45 to 70 kW	• LTC171 Art. 5500 26 00		5500 27 00	5500 35 00
         				

A PERFECT DUAL HEAT SOURCE SOLUTION



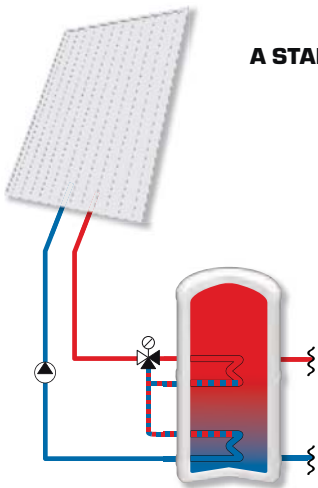
	 Bivalent valve 4-way +  Controller 90C-3A			
20 to 30 kW	• VRB141 Art. 1166 01 00	Prewired with inbuilt control functions for pumps, aux heat, DHW, energy transfer, solar and load pump. 230V AC, 15Nm. Room sensor optional. Art. 1260 31 00		
30 to 45 kW	• VRB141 Art. 1166 02 00			
45 to 60 kW	• VRB141 Art. 1166 03 00			
	 Load unit		55°	60°
20 to 30 kW	• LTC141 Art. 5500 07 00		5500 08 00	5500 12 00
30 to 45 kW	• LTC141 Art. 5500 07 00		5500 08 00	5500 12 00
45 to 70 kW	• LTC171 Art. 5500 26 00		5500 27 00	5500 35 00
         				

SOLAR



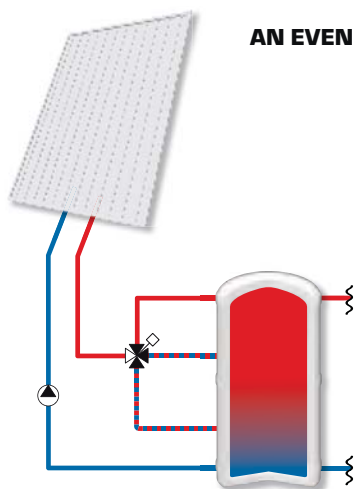
Efficient solar energy.

Choose your product according to the power of your heat source.



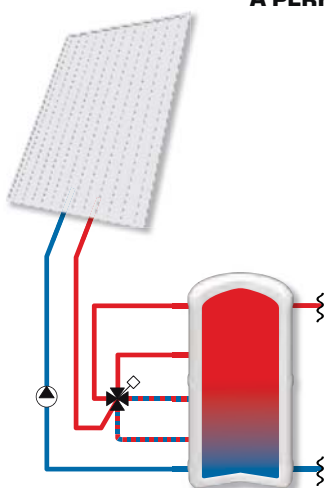
A STANDARD STRATIFICATION

		Diverting valve VTD300			
		45°	50°	60°	70°
20 to 45 kW	• VTD322	Art. 3160 01 00	3160 02 00	3160 03 00	3160 04 00
		€ € €			
			A	B	C D



AN EVEN BETTER STRATIFICATION

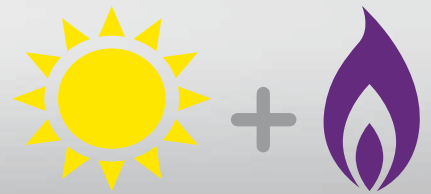
		Bivalent valve 4-way	+	Actuator ARA659
20 to 30 kW	• VRB141	Art. 1166 01 00	Proportional, 24 VAC, 0-10 V Art. 1252 02 00	
30 to 45 kW	• VRB141	Art. 1166 02 00		
45 to 60 kW	• VRB141	Art. 1166 03 00		
		€ € €		
			A	B C D



A PERFECT STRATIFICATION

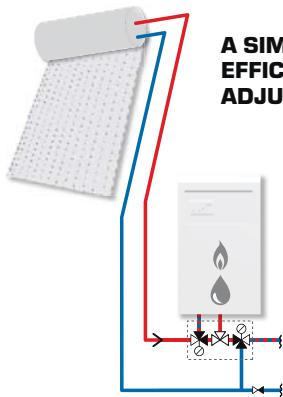
		5-way valve Multi-energy	+	Actuator 95-270M
20 to 30 kW	• 5MG	Art. 1100 52 00	3 points, 230 VAC, 150 s, 5 Nm Art. 1205 33 00	
30 to 45 kW	• 5MG	Art. 1100 52 00		
45 to 60 kW	• 5MG	Art. 1100 53 00		
		€ € €		
			A	B C D

DUAL HEAT SOURCES



Solar panel + boiler back up applications: Energy always available.

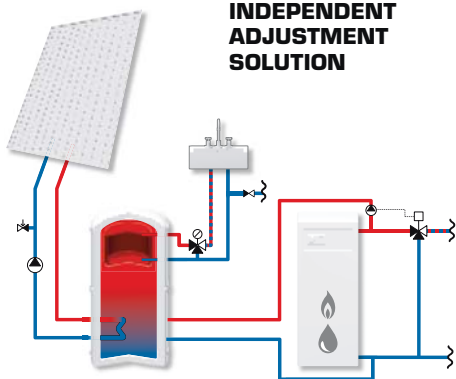
Choose your product according to the power of your heat source.



A SIMPLE, SAFE AND EFFICIENT MECHANICAL ADJUSTMENT.

		Solar kit		
		45°	50°	60°
20 to 30 kW	• VMC300 35-60°C G 1"	Art. 3152 10 00	3152 11 00	3152 12 00
30 to 45 kW	• VMC300 35-60°C G 1"	Art. 3152 10 00	3152 11 00	3152 12 00
45 to 60 kW	• VMC300 35-60°C G 1"	Art. 3152 10 00	3152 11 00	3152 12 00

€ € € 🔧 🔧 🔧 A B C D

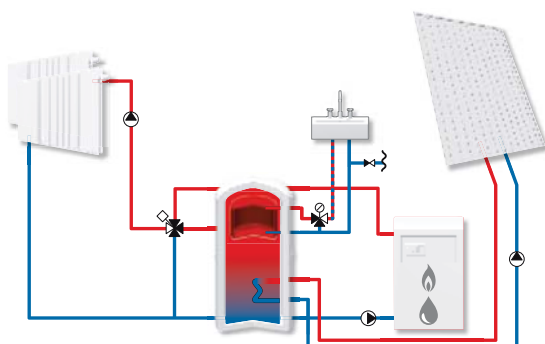


A PRECISE, INDEPENDENT ADJUSTMENT SOLUTION

		3-way valve	+	Controller 90C-3A
20 to 30 kW	• VRG131	Art. 1160 05 00		Prewired with inbuilt control functions for pumps, aux heat, DHW, energy transfer, solar and load pump. 230V AC, 15Nm. Room sensor optional. Art. 1260 31 00
30 to 45 kW	• VRG131	Art. 1160 08 00		
45 to 60 kW	• VRG131	Art. 1160 10 00		

		Thermostatic mixing valve
< 3 showers	• VTA322 35-60°C G 1/2"	Art. 3110 29 00
< 4 showers	• VTA322 35-60°C G 1"	Art. 3110 10 00
< 7 showers	• VTA522 45-65°C G 1"	Art. 3162 02 00

€ € € 🔧 🔧 🔧 A B C D



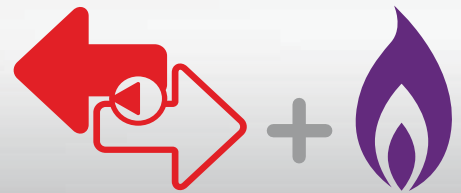
THE IDEAL SOLUTION....

		Bivalent valve 4-way	+	Controller 90C-3A
20 to 30 kW	• VRB141	Art. 1166 01 00		Prewired with inbuilt control functions for pumps, aux heat, DHW, energy transfer, solar and load pump. 230V AC, 15Nm. Room sensor optional. Art. 1260 31 00
30 to 45 kW	• VRB141	Art. 1166 02 00		
45 to 60 kW	• VRB141	Art. 1166 03 00		

		Thermostatic mixing valve
< 3 showers	• VTA322 35-60°C G 1/2"	Art. 3110 29 00
< 4 showers	• VTA322 35-60°C G 1"	Art. 3110 10 00
< 7 showers	• VTA522 45-65°C G 1"	Art. 3162 02 00

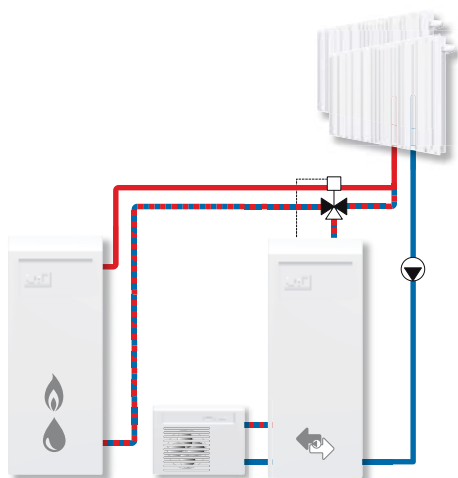
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DUAL HEAT SOURCES



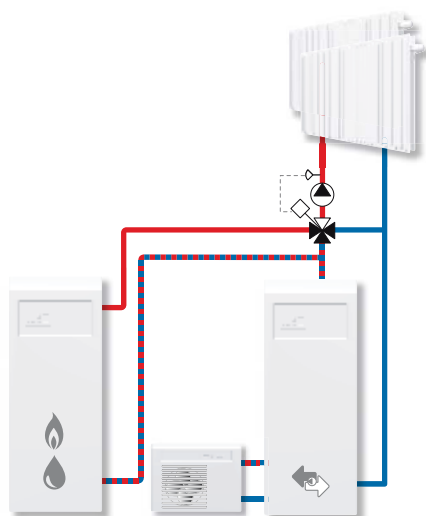
Heat pump + boiler back up applications: the optimized system.
 Choose your product according to the power of your heat source.







ALTERNATING HEAT PUMP BACK UP



		 Diverting valve	
20 to 60 kW	• VZB162	Art. 4304 04 00	
€	€	€	€
			
A	B	C	D

A REVOLUTIONARY SOLUTION FOR ENERGY SAVINGS



		 Bivalent valve 4-way	 Controller 90C-2A
20 to 30 kW	• VRB141	Art. 1166 01 00	Prewired with inbuilt control functions for pumps, aux heat and DHW 230V AC, 15Nm. Room sensor optional. Art. 1260 21 00
30 to 45 kW	• VRB141	Art. 1166 02 00	
45 to 60 kW	• VRB141	Art. 1166 03 00	
€	€	€	€
			
A	B	C	D



PRECISION AT YOUR SERVICE

**Clear and precise answers
to the most detailed questions.**

Choose precision

An essential condition in order to optimize your heating system with an ESBE product is, of course, to use a suitable product and to use it correctly. ESBE offers an extensive assortment of products enabling you to meet all the specifics and complexities of your installation. In the next pages you are presented to tables and graphs that guide you to the right product choice.

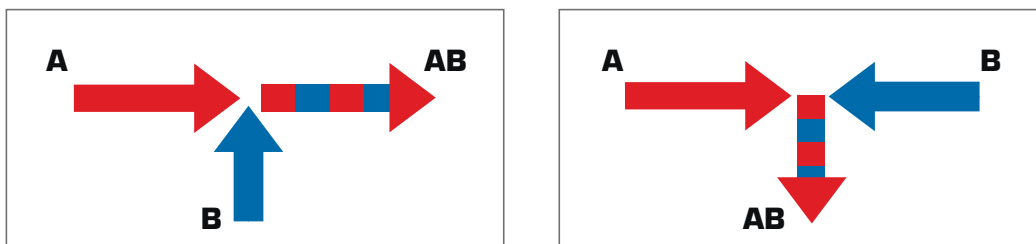
But always remember

The guide is for inspiration and suggestions on installations, and cannot replace the knowledge of the skilled professional, you. All decisions regarding product selection and product installation must be carried out by qualified personnel in accordance with applicable laws and standards and with suitable consideration of other equipment and the system in general.

MIXING FUNCTION


Adjust the temperature of your fluid according to your needs

Principal




5 possible mixing systems



1 - Simple

	Thermostatic mixing valve VTA300
ADJUSTMENT :	<ul style="list-style-type: none"> • Thermostatic Cartridge • Manual control (Mechanical)



2 - Via existing controller/system

	Rotary Valve VRG130/330	+		ARA600 Actuator (3point or proportional)
ADJUSTMENT :	<ul style="list-style-type: none"> • Motorized valve • Control via existing controller/system 			



3 - For a constant temperature

	Rotary Valve VRG130/330	+		CRA100 Controller
ADJUSTMENT :	<ul style="list-style-type: none"> • Motorized valve • Power supply with a plug contact • Control of a constant flow temperature 			

4 - Based on an indoor sensor

	Rotary Valve VRG130/330	+		CRB100 Controller with indoor sensor
ADJUSTMENT :	<ul style="list-style-type: none"> • Motorized valve • Power supply with a plug contact • Control of the flow temperature based on the indoor temperature • With a wired or wireless indoor room unit 			

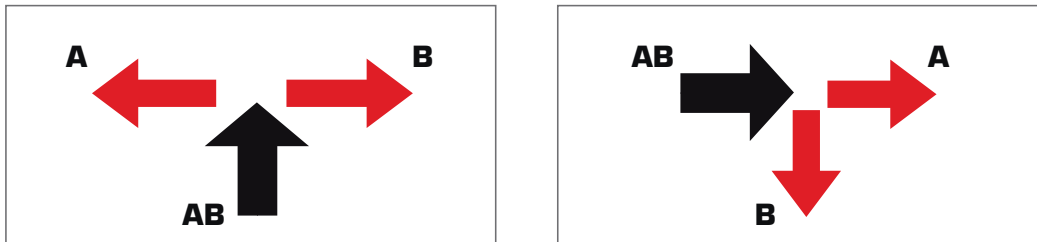
5 - Based on an outdoor sensor

	Rotary Valve VRG130/330	+		90C Controller with outdoor sensor
ADJUSTMENT :	<ul style="list-style-type: none"> • Motorized valve • Power supply with a plug contact • Control of the flow temperature based on the outdoor temperature • Optional is a room sensor 			

DIVERTING FUNCTION

Distribute your fluid selectively.

Principal



3 possible diverting systems

1 - Simple



Thermostatic diverting valve VTD300

DESCRIPTION :

- Switches according to the water temperature in the pipework
- Mechanical

KVS (M³/H): • < 3.6

2 - Compact



Diverting valve VZA/VZB

DESCRIPTION :

- Change ports in 3 seconds
- Compact
- Electric control via heat source adjustment

KVS (M³/H): • < 6.5

3 - High flow rate



Rotary Valve
VRG230



Actuator
ARA600 (2 point)

DESCRIPTION :

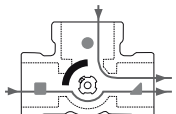
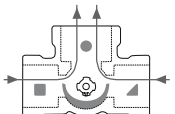
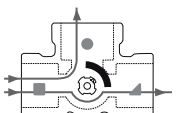
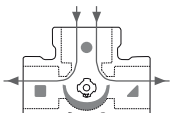
- Adjustment control
- Electric control via heat source adjustment

KVS (M³/H): • < 70

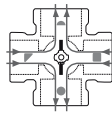
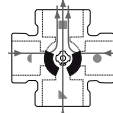
VALVE CHOICE

Support: the 3 key stages to choose the valve

STEP 1 Finding the valves series of one's choice

3 WAY	Output port	on the side	in the middle
	Mixing	 VRG130	 VRG230
	Diverting	 VRG130	 VRG230

OR

4 WAY	Classic	Bivalent
	 VRG140	 VRB140

STEP 2 Choose the KVS : m³/h

HEATING POWER (KW)	Radiator ΔT=15		Underfloor heating ΔT=7	
	3 WAY	4 WAY	3 WAY	4 WAY
5	1	2.5	2.5	2.5
10	1.6	2.5	4	4
15	2.5	2.5	6.3	6.3
20	4	4	10 or 13/8	10
25	4	4	10	10
30	6.3	6.3	10	10
35	6.3	6.3	16 or 13/8	16
40	6.3	6.3	16	16
45	10 or 13/8	10	16 or 17/10	16
50	10	10	16	16
55	10	10	25	25
60	10	10	25	25
65	10	10	25	25
70	10	10	25	25
75	16 or 13/8	16	25 or 50/30	25
80	16	16	40 or 50/30	35 or 40
85	16	16	40	35 or 40
90	16	16	40	35 or 40
95	16 or 17/10	16	40	35 or 40
100	16 or 17/10	16	40	35 or 40

Example: For an installation comprising a 30KW heat source, either a Kvs=6.3 valve for a system with radiators, or a Kvs=10 valve for underfloor heating.

STEP 3 Choose the DN connection

DN	FEMALE	MALE	COMPRESSION FITTING
15	Rp 1/2"	G 3/4"	
20	Rp 3/4"	G 1"	CPF 22 mm
25	Rp 1"	G 1 1/4"	CPF 28 mm
32	Rp 1 1/4"	G 1 1/2"	
40	Rp 1 1/2"	G 2"	
50	Rp 2"	G 2 1/4"	

Example: If I want a valve of interior DN equal to 20, I can take a Rp 3/4" female connection or male G 1" or 22mm compression fittings.

ACTUATOR CHOICE

Support: the 5 key stages to choose the actuator

STEP 1 Find the actuator series according to the DN of my valve

Valve DN	Series to choose
DN ≤ 40	ARA SERIES
DN > 40	90 SERIES

STEP 2 Identify the actuator function

Motorized valve function	Corresponding signal type
Diverting valve	2 Point
Mixing valve	3 Point (or proportional : signal 0-10V)

STEP 3 Choose the power supply voltage

Voltage
24 VAC
230 VAC

STEP 4 Find the run time in correlation with the desired application

Installation	Corresponding run time
Domestic Hot Water	15 to 30 seconds
Radiator	60 to 120 seconds
Underfloor heating	240 seconds

STEP 5 Choose the option of an auxiliary contact

Do I need to control external equipment by the valve position? (e.g. to cut off the non-required pump, etc.)	Auxiliary contact option
YES	Auxiliary contact option useful
NO	Auxiliary contact option not useful

VALVE + ACTUATOR CHOICE

Different jobs. Different needs.

A wide assortment of valves and added to that various actuator and controller possibilities. That is a fact. Therefore you might have use for the selection guide below to help you find the best combination for your system and application.







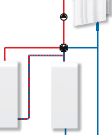







● Recommended ● Secondary alternative

	ACTUATORS						CONTROLLERS			
	ARA600		90			90C	CRB100	CRA110	CRA120	
	3-P	2-P	Prop.	3-P	2-P	Prop.				
 VRG130	●	●	●	●*	●*	●*	●	●	●	●*
 3F	●	●	●	●	●	●	●	●	●	●
 VRG140	●	●	●	●*	●*	●*	●	●	●	●*
 4F	●	●	●	●	●	●	●	●	●	●
 VRB140	●	●	●	●*	●*	●*	●	●	●	●*
 VRG230	●	●	●	●*	●*	●*	●	●	●	●*

*Additional adaptor kit necessary, see separate product data sheet.

A wide range of products to match your applications.

For each of your applications, ESBE offers a suitable solution that will allow you to gain in comfort, safety and energy savings.

		APPLICATIONS						
		OIL/GAS	WOOD & PELLETS	HEAT PUMPS	SOLAR	DOMESTIC HOT WATER	UNDERFLOOR HEATING	DUAL HEAT SOURCES
								
ROTARY VALVES VRG		●	●	●	●		●	
ROTARY VALVES VRB			●	●	●		●	●
ACTUATORS		●	●	●	●		●	
THERMOSTATIC MIXING VALVES					●	●	●	
DIVERTING VALVES		●	●	●	●			●
LOAD VALVES AND LOAD UNITS			●					
CONTROLLERS		●	●	●	●		●	●

REPLACEMENT GUIDE



Rotary mixing valves

ESBE		ESBE	
ART.NO.	REFERENCE	ART.NO.	REFERENCE
1100 02 00	3MG 15-0,6 Rp 1/2"	1160 02 00	VRG131 15-0,63 Rp 1/2"
1100 03 00	3MG 15-1,0 Rp 1/2"	1160 03 00	VRG131 15-1 Rp 1/2"
1100 04 00	3MG 15-1,2 Rp 1/2"	1160 04 00	VRG131 15-1,6 Rp 1/2"
1100 05 00	3MG 15-1,6 Rp 1/2"	1160 04 00	VRG131 15-1,6 Rp 1/2"
1100 01 00	3MG 15-2,5 Rp 1/2"	1160 05 00	VRG131 15-2,5 Rp 1/2"
1100 07 00	3MG 20-4 Rp 3/4"	1160 08 00	VRG131 20-4 Rp 3/4"
1100 11 00	3MG 20-6,3 Rp 3/4"	1160 09 00	VRG131 20-6,3 Rp 3/4"
1100 16 00	3MG 25-8 Rp 1"	1160 10 00	VRG131 25-6,3 Rp 1"
1100 24 00	3MG 25-12 Rp 1"	1160 11 00	VRG131 25-10 Rp 1"
1100 27 00	3MG 32-18 Rp 1 1/4"	1160 12 00	VRG131 32-16 Rp 1 1/4"
1100 21 00	3MG 22-6,3 CPF22	1160 30 00	VRG133 20-6,3 CPF22
1100 23 00	3MG 25-8 CPF28	1160 31 00	VRG133 25-10 CPF28
1100 13 00	3MGA 20-6,3 G 1"	1160 23 00	VRG132 20-6,3 G 1"
1100 26 00	3MGA 25-12 G 1 1/4"	1160 25 00	VRG132 25-10 G 1 1/4"
1100 29 00	3MGA 32-18 G 1 1/2"	1160 26 00	VRG132 32-16 G 1 1/2"
1100 15 00	3MGR 20-6,3 G 1"	1160 41 00	VRG138 20-6,3 RN 1"

ESBE		ESBE	
ART.NO.	REFERENCE	ART.NO.	REFERENCE
1100 34 00	4MG 15-2,5 Rp 1/2"	1164 01 00	VRG141 15-2,5 Rp 1/2"
1100 36 00	4MG 20-4 Rp 3/4"	1164 02 00	VRG141 20-4 Rp 3/4"
1100 39 00	4MG 20-6,3 Rp 3/4"	1164 03 00	VRG141 20-6,3 Rp 3/4"
1100 42 00	4MG 25-8 Rp 1"	1164 04 00	VRG141 25-10 Rp 1"
1100 49 00	4MG 32-18 Rp 1 1/4"	1164 05 00	VRG141 32-16 Rp 1 1/4"
1100 41 00	4MGA 20-6,3 G 1"	1164 10 00	VRG142 20-6,3 G 1"
1105 01 00	3G 20-8 Rp 3/4"	1160 09 00	VRG131 20-6,3 Rp 3/4"
1105 02 00	3G 25-12 Rp 1"	1160 11 00	VRG131 25-10 Rp 1"
1105 03 00	3G 32-18 Rp 1 1/4"	1160 12 00	VRG131 32-16 Rp 1 1/4"
1105 04 00	3G 40-28 Rp 1 1/2"	1160 34 00	VRG131 40-25 Rp 1 1/2"
1105 06 00	3G 50-44 Rp 2"	1160 36 00	VRG131 50-40 Rp 2"
1105 08 00	4G 20-8 Rp 3/4"	1164 03 00	VRG141 20-6,3 Rp 3/4"
1105 10 00	4G 25-12 Rp 1"	1164 04 00	VRG141 25-10 Rp 1"
1105 13 00	4G 32-18 Rp 1 1/4"	1164 05 00	VRG141 32-16 Rp 1 1/4"
1105 14 00	4G 40-28 Rp 1 1/2"	1164 15 00	VRG141 40-25 Rp 1 1/2"
1105 16 00	4G 50-44 Rp 2"	1164 17 00	VRG141 50-40 Rp 2"
1145 01 00	BIV 20-4 G 3/4"	1166 24 00	VRB142 15-4 G 3/4"
1145 03 00	BIV 22-4,0 CPF22	1166 15 00	VRB143 20-4 CPF22
1145 02 00	BIV 25-12 Rp 1"	1166 04 00	VRB14125-10 Rp 1"



Rotary actuators

ESBE		ESBE	
ART.NO.	REFERENCE	ART.NO.	REF.
1200 10 00	65 230V 60S 5Nm 3P	1210 12 00	ARA651
1200 14 00	66 230V 120S 5Nm 3P	1210 13 00	ARA661
1200 20 00	67 230V 240S 5Nm 3P	1210 14 00	ARA671
1200 30 00	69 230V 480S 5Nm 3P	1210 15 00	ARA691
1200 21 00	67-20 230V 1200S 5Nm 3P	1210 15 00	ARA691
1200 11 00	65M 230V 60S 5Nm 3P	1210 17 00	ARA652
1200 15 00	66M 230V 120S 5Nm 3P	1210 18 00	ARA662
1200 23 00	67M 230V 240S 5Nm 3P	1210 19 00	ARA672
1200 31 00	69M 230V 480S 5Nm 3P	1210 20 00	ARA692
1200 22 00	67-20M 230V 1200S 5Nm 3P	1210 20 00	ARA692
1200 01 00	62 24V 120S 5Nm 3P	1210 03 00	ARA663
1200 08 00	63 24V 240S 5Nm 3P	1210 04 00	ARA673
1200 05 00	62M 24V 120S 5Nm 3P	1210 08 00	ARA664
1200 09 00	63M 24V 240S 5Nm 3P	1210 09 00	ARA674
1250 01 00	62P 24V AC/DC 60-120S 5Nm PROP	1252 01 00	ARA639
		1252 02 00	ARA659
1200 27 00	68 230V 60S 5Nm 2P	1212 09 00	ARA655
1200 29 00	68M 230V 60S 5Nm 2P	1212 12 00	ARA656

ESBE		ESBE	
ART.NO.	REFERENCE	ART.NO.	REF.
81	81 24V 12S 3Nm 3P	1205 02 00	91
82	82 24V 55S 5Nm 3P	1205 06 00	92
82S	82S 24V 55S 10Nm 3P	1205 06 00	92
83	83 24V 240S 5Nm 3P	1205 13 00	93
83S	83S 24V 240S 10Nm 3P	1205 13 00	93
82P	82P 24V AC/DC 55S 10Nm	1255 01 00	92P
83P	83P 24V AC/DC 240S 15Nm	1255 02 00	92P2
84	84 220V 12S 3Nm 3P	1205 17 00	94
85	85 220V 55S 5Nm 3P	1205 19 00	95
85S	85S 220V 55S 10Nm 3P	1205 19 00	95
86	86 220V 240S 5Nm 3P	1205 23 00	96
86S	86S 220V 240S 10Nm 3P	1205 23 00	96
87	87 220V 12S 3Nm 2P	1205 25 00	97
88	88 220V 55S 5Nm 2P	1205 26 00	98
88S	88S 220V 55S 10Nm 2P	1205 26 00	98



Thermostatic mixing valves

ESBE		ESBE	
ART.NO.	REFERENCE	ART.NO.	REFERENCE
3130 12 00	VTA222 38-65°C G 1"	3162 02 00	VTA522
3130 16 00	VTA222 20-40°C G 1"	3162 01 00	VTA522
3130 01 00	VTA223 38-65°C CPF28	3162 17 00	VTA523
3130 07 00	VTA223 20-40°C CPF28	3162 16 00	VTA523
3130 08 00	VTA223 10-30°C CPF28	-	-
3130 13 00	VTA272 20-40°C G 1"	3170 02 00	VTA572
470	20-AS 38-65°C CPF22	3110 02 00	VTA323
470L	20-AS 20-40°C CPF22	3110 01 00	VTA323
476	28-AS 38-65°C CPF28	3162 17 00	VTA523
476L	28-AS 20-40°C CPF28	3162 16 00	VTA523
472	15R-AS 38-65°C Rp 1"	3110 04 00	VTA321
472L	15R-AS 20-40°C Rp 1"	3110 03 00	VTA321
474	20R-AS 38-65°C Rp 3/4"	3110 08 00	VTA321
474L	20R-AS 20-40°C Rp 3/4"	3110 07 00	VTA321

ESBE		ESBE	
ART.NO.	REFERENCE	ART.NO.	REFERENCE
471	20RA-AS 38-65°C G 3/4"	3110 06 00	VTA322
471L	20RA-AS 20-40°C G 3/4"	3110 05 00	VTA322
475	25RA-AS 38-65°C G 1"	3110 10 00	VTA322
475L	25RA-AS 20-40°C G 1"	3110 09 00	VTA322
401	15 38-65°C CPF15	3105 01 00	VTA313
401L	15 20-40°C CPF15	3110 26 00	VTA323
403	18 38-65°C CPF18	3105 03 00	VTA313
404	20 38-65°C CPF22	3105 04 00	VTA313
404L	20 20-40°C CPF22	3110 01 00	VTA323
416	28 38-65°C CPF28	3162 17 00	VTA523
406	15R 38-65°C Rp 1/2"	3110 04 00	VTA321
407	20R 38-65°C Rp 3/4"	3110 08 00	VTA321
410	15RA 38-65°C G 1/2"	3105 02 00	VTA312
410L	15RA 20-40°C G 1/2"	3110 28 00	VTA322
408	20RA 38-65°C G 3/4"	3110 06 00	VTA322
409	25RA 38-65°C G 1"	3110 10 00	VTA322
414	20K 35-60°C CPF22	3135 05 00	VTA323



Controllers

TERMOVENTILER		ESBE	
ART.NO.	REFERENCE	ART.NO.	REF.
121301	Thermomatic CBJ	1266 01 00	CRB111
121301	Thermomatic CBJ	1266 21 00	CRB121
121401	Thermomatic ERA 10	1266 01 00	CRB111
121401	Thermomatic ERA 10	1266 21 00	CRB121
121431	Thermomatic ERA 10PE+	1266 03 00	CRB113
121501	Thermomatic EC Home	1266 01 00	CRB111
121501	Thermomatic EC Home	1266 21 00	CRB121
123001	Thermomatic K	1272 01 00	CRA111
121421	Thermomatic ERA K	1272 01 00	CRA111
121422	Thermomatic ERA K	1272 01 00	CRA111

DANFOSS		ESBE	
ART.NO.	REFERENCE	ART.NO.	REF.
087B1700	ECL Comfort 100	1260 11 00	90C-1A

AUTOMIX		ESBE	
ART.NO.	REFERENCE	ART.NO.	REF.
1110000	Automix 10 / LK961	1260 11 00	90C-1A
1120000	Automix 20 / LK962	1266 01 00	CRB111
1130000	Automix 30 E / LK963 E	1260 11 00	90C-1A
1130003	Automix 30 Q / LK963 Q	1260 11 00	90C-1A
1130008	Automix 30 D / LK963 D	1260 11 00	90C-1A
1170008	Automix CTR / LK965	1266 01 00	CRB111

ESBE		ESBE	
ART.NO.	REFERENCE	ART.NO.	REF.
1260 01 00	95-1C	1260 11 00	90C-1A
1270 01 00	92K2	1274 22 00	CRA122
1270 02 00	94K2	1272 01 00	CRA111
1270 05 00	99K2	1274 21 00	CRA121



Load valves and load units

LK, ACASO/TERMOVAR/BAXI	
ART.NO.	ART.NO. ESBE
Termovar 25	5102 01 00
Termovar 25	5102 03 00
Termovar 25	5102 04 00
Termovar 32	5102 06 00
Termovar 32	5102 08 00
Termovar 32	5102 09 00
Termovar unit32	5500 07 00
Termovar unit32	5500 27 00

TERMOVENTILER/LADDOMAT	
ART.NO.	ART.NO. ESBE
Laddomat 21, 72°C	5500 08 00
	5500 27 00
Laddomat 21, 78°C	5500 12 00
	5500 35 00
Laddomat 21, 83°C	5500 09 00
	5500 28 00
Laddomat 21, 88°C	5500 10 00
	5500 29 00

ESBE	ESBE
ART.NO.	ART.NO.
TV, 1140 06 00	5102 01 00
TV, 1140 07 00	5102 02 00
TV, 1140 04 00	5102 03 00
TV, 1140 01 00	5102 04 00
TV, 1140 11 00	5102 06 00
TV, 1140 12 00	5102 07 00
TV, 1140 08 00	5102 08 00
TV, 1140 02 00	5102 09 00
TV, 1140 15 00	5102 65 00
TV, 1140 16 00	5102 66 00
TV, 1140 13 00	5102 67 00
TV, 1140 03 00	5102 68 00



Diverting valves

SIEMENS - LANDIS & STAefa	
ART.NO.	ART.NO. ESBE
MXE22,20/180	4304 02 00

HONEYWELL	
ART.NO.	ART.NO. ESBE
V4044C1189U	4304 01 00
V4044F1000/U	4304 02 00



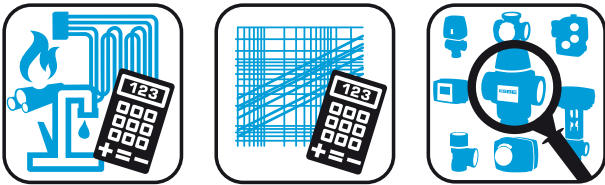
Draught regulators

ESBE	ESBE
ART.NO.	ART.NO.
C20/ATA100, 31800200	5600 11 00
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The purpose of the replacement guide is to assist you in finding the best replacement for an existing product. It is up to the user of this guide to make the final judgement of which product to choose and check that the application specific requirements are fulfilled.

SAVING TIME ACTUALLY STARTS BEFORE YOU EVEN START.

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