

# SOLAR KIT SERIES VMC300, VMC500

The ESBE 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.

## OPERATION

ESBE solar kit VMC300/VMC500 offers optimized energy usage, scald protection and comfort in a compact and efficient way. Using only thermostatic components (non-electrical) the unit is completely independent and provides very easy installation.

Series VMC300 is intended for smaller solar heating systems and series VMC500 is intended for larger systems.

## FUNCTION

If the incoming water from the solar collector is not hot enough, it is diverted to an additional heat source, such as a gas boiler, and once it is heated it is mixed to a suitable temperature for domestic hot water applications. If the incoming water from the solar collector is already hot enough, it will be mixed directly for domestic hot water use, efficiently utilizing the solar energy.

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



VMC300  
External thread

With adapters,  
external thread

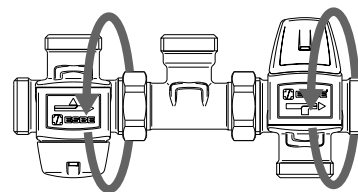


VMC500  
External thread

With adapters,  
external thread

## VALVE VMC300/VMC500 DESIGNED FOR

- Potable water
- Solar heating



All parts can be rotated 360° for maximum flexibility of connection.

## TECHNICAL DATA

Pressure class: \_\_\_\_\_ PN 10  
 Max. flow from collector- VMC300: \_\_\_\_\_ 0.7 l/s (42 l/min)  
 VMC500: \_\_\_\_\_ 1.0 l/s (60 l/min)  
 Temperature of water from collector: \_\_\_\_\_ max 95°C  
 \_\_\_\_\_ min 0°C  
 Temperature from additional heat source: \_\_\_\_\_ max. 95°C  
 Change-over point, accuracy: \_\_\_\_\_ ±1°C  
 Diverting range shut off: \_\_\_\_\_ 45°C ±2°C  
 \_\_\_\_\_ 50°C, 60°C ±3°C  
 Temperature range, mixing valve - VMC300: \_\_\_\_\_ 35 - 60°C  
 VMC500: \_\_\_\_\_ 45 - 65°C  
 Temperature stability of outgoing water - VMC300: \_\_\_\_\_ ±2°C\*  
 VMC500: \_\_\_\_\_ ±4°C\*\*  
 Connection: \_\_\_\_\_ External thread (G), ISO 228/1  
 \_\_\_\_\_ External thread (R), EN 10226-1

\* 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.

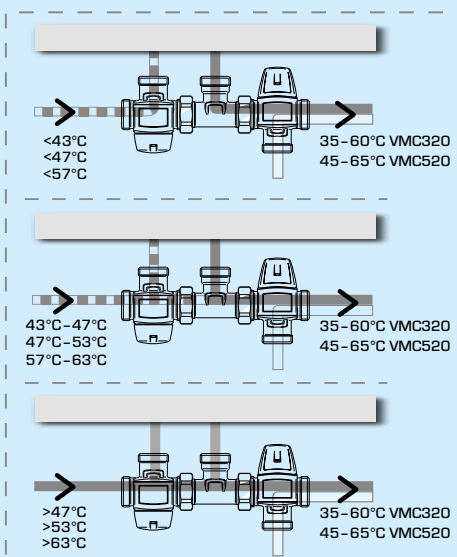
### Material

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

PED 2014/68/EU, article 4.3

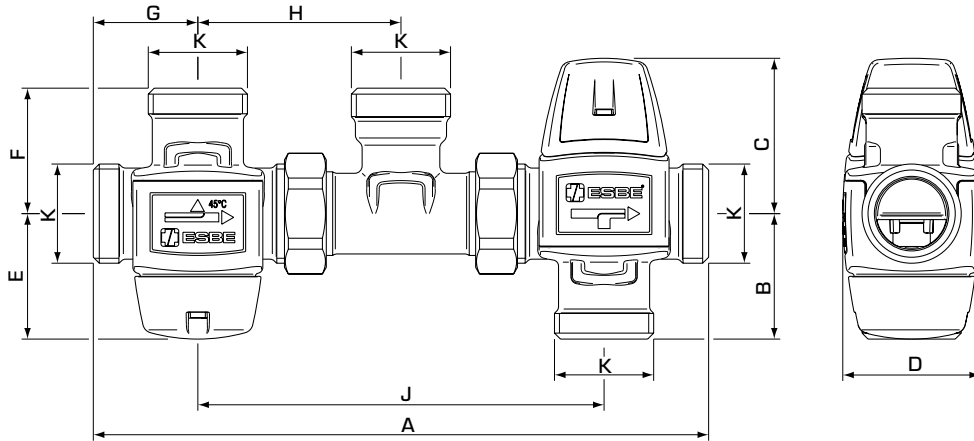
Pressure Equipment in conformity with PED 2014/68/EU, article 4.3 (sound engineering practice). According to the directive the equipment shall not carry any CE-mark.

## FLOW PATTERN



# SOLAR KIT

## SERIES VMC300, VMC500



### SERIES VMC322, EXTERNAL THREAD

Art. No.	Reference	Change-over point	Kvs *	Connection K	Dimension									Note	Weight [kg]
					A	B	C	D	E	F	G	H	J		
31521000	VMC322	45°C	1.5	G 1"	206	42	52	46	42	42	35	68	136		1.22
31521100		50°C													
31521200		60°C													

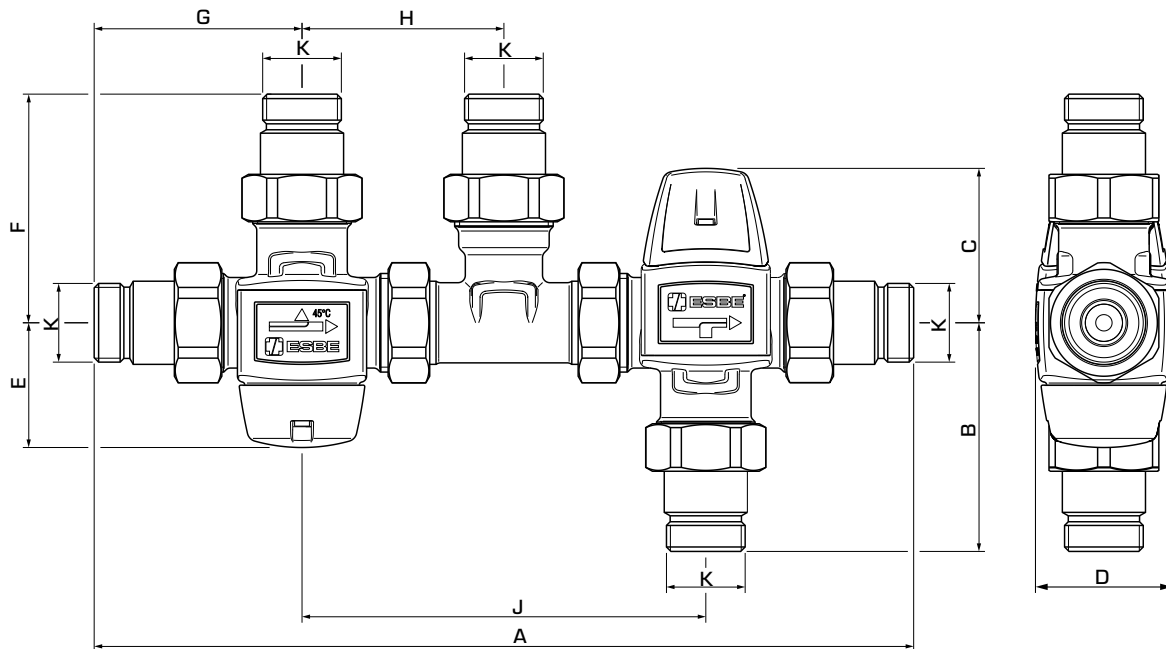
### SERIES VMC522, EXTERNAL THREAD

Art. No.	Reference	Change-over point	Kvs *	Connection K	Dimension									Note	Weight [kg]
					A	B	C	D	E	F	G	H	J		
31523000	VMC522	45°C	2.5	G 1"	220	62	60	56	42	42	35	68	143		1.50
31523100		50°C													
31523200		60°C													

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

# SOLAR KIT

## SERIES VMC300, VMC500



### SERIES VMC322, WITH ADAPTERS

Art. No.	Reference	Change-over point	Kvs *	Connection K	Dimension									Note	Weight [kg]
					A	B	C	D	E	F	G	H	J		
31521300	VMC322	45°C	1.4	R 3/4"	276	77	52	46	42	77	70	68	136	1)	1.86
31521400		50°C													
31521500		60°C													

### SERIES VMC522, WITH ADAPTERS

Art. No.	Reference	Change-over point	Kvs *	Connection K	Dimension									Note	Weight [kg]
					A	B	C	D	E	F	G	H	J		
31523300	VMC522	45°C	2.3	R 3/4"	290	97	60	56	42	77	70	68	143	1)	2.14
31523400		50°C													
31523500		60°C													

\* 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 included

### INSTALLATION EXAMPLES

