

# Codice Dianflex: 411-355

THERMOSTATIC CONTROL UNITS

## DIVERTING VALVE SERIES VTD300



External thread

The thermic valve series ESBE VTD300 is used for diverting applications. The valve diverts the incoming flow to the A or B port depending on fluid temperature.

### OPERATION

The ESBE series VTD300 is a thermic 3-way valve designed for diverting applications. When the incoming fluid temperature is below the nominal diverting temperature it is diverted to the B port, when the incoming fluid temperature is above the nominal diverting temperature it is diverted to the A port.

### FUNCTION

The valve contains a thermostat with a certain diverting temperature, which reacts on the incoming fluid temperature and changes the outgoing flow direction accordingly. The change-over from one port to the other is within a range of approximately  $\pm 2^{\circ}\text{C}$  to  $\pm 3^{\circ}\text{C}$ , depending on temperature range, from the nominal diverting temperature. This means that a valve with a nominal diverting temperature of  $45^{\circ}\text{C}$  at an incoming fluid temperature of  $<43^{\circ}\text{C}$  will divert the flow to port B, at an incoming fluid temperature of  $43-47^{\circ}\text{C}$  will divert it to both A and B, and at an incoming fluid temperature of  $>47^{\circ}\text{C}$  will divert the flow to port A.

Three different nominal diverting temperatures are available;  $45^{\circ}\text{C}$ ,  $50^{\circ}\text{C}$  and  $60^{\circ}\text{C}$ .

The function of the valve is independent of assembly position.

### MEDIA

Maximum 50% glycol for freezing protection and oxygen absorbing compounds are allowed as additives. As both the viscosity and the thermal conduction are affected when glycol is added to the system water, this fact has to be considered when dimensioning the valve. When 30 - 50 % glycol is added, the maximum output effect of the valve is decreased by 30 - 40 %. A lower concentration of glycol may be disregarded.

### SERVICE AND MAINTENANCE

We recommend equipping the valve connections with shut-down devices to facilitate future service.

The valve does not need any maintenance under normal conditions. However thermostats are available and are easy to replace if necessary.

### DIVERTING VALVE VTD300 DESIGNED FOR

- Heating
- Potable water
- Solar heating
- Zone

### TECHNICAL DATA

Pressure class: \_\_\_\_\_ PN 10  
Change-over point accuracy: \_\_\_\_\_  $\pm 1^{\circ}\text{C}$   
Diverting range shut off: \_\_\_\_\_  $45^{\circ}\text{C} \pm 2^{\circ}\text{C}$   
\_\_\_\_\_  $50^{\circ}\text{C}$ ,  $60^{\circ}\text{C} \pm 3^{\circ}\text{C}$   
Media temperature: \_\_\_\_\_ continuously max.  $100^{\circ}\text{C}$   
\_\_\_\_\_ temporarily max.  $110^{\circ}\text{C}$   
\_\_\_\_\_ min  $0^{\circ}\text{C}$   
Max. differential pressure: \_\_\_\_\_ 100 kPa (1,0 bar)  
Leakrate AB - A, AB - B: \_\_\_\_\_ Tight sealing  
Connections: \_\_\_\_\_ External thread (G), ISO 228/1

### Material

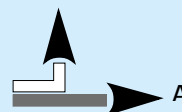
Valve housing and other metal parts with fluid contact:

\_\_\_\_\_ Dezincification resistant brass DZR

PED 2014/68/EU, article 4.3 / SI 2016 No. 1105 (UK)

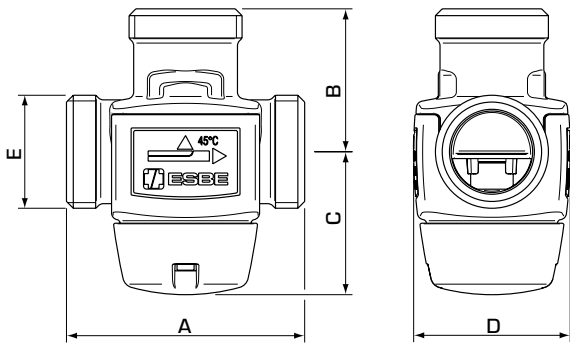
Pressure Equipment in conformity with PED 2014/68/EU, article 4.3 and Pressure Equipment (Safety) Regulations 2016, (sound engineering practice). According to the directive/regulation the equipment shall not carry any CE or UKCA mark.

### FLOW PATTERN



Diverting

THERMOSTATIC CONTROL UNITS  
**DIVERTING VALVE**  
**SERIES VTD300**



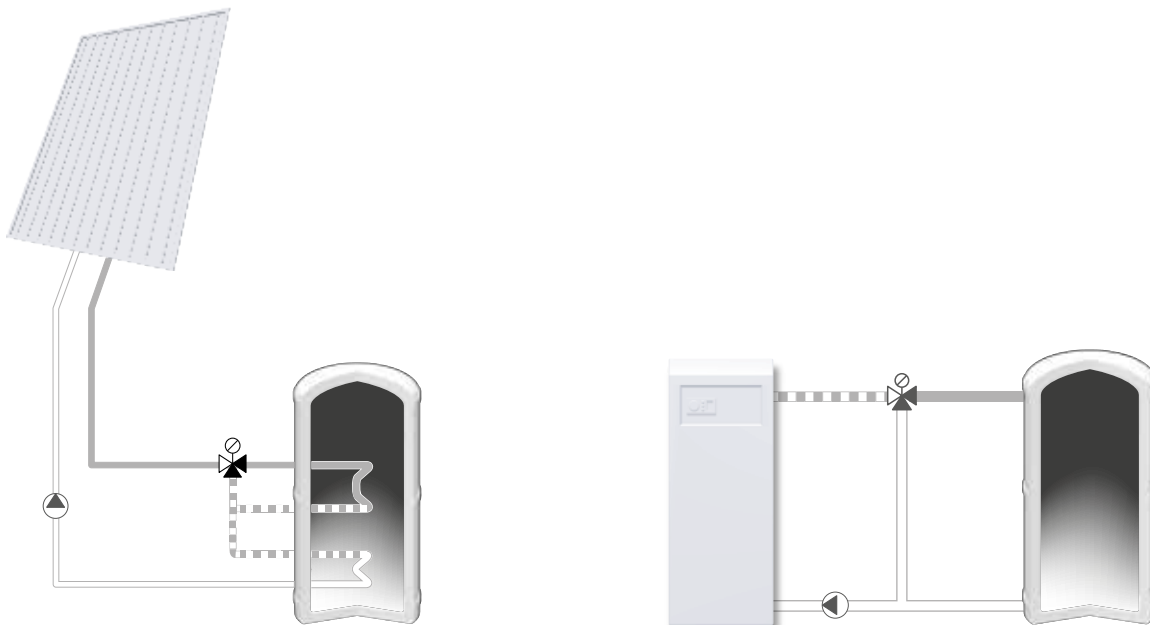
VTD322

**SERIES VTD322, EXTERNAL THREAD**

Art. No.	Reference	DN	Kvs*	Connection E	Change-over point	A	B	C	D	Weight [kg]
31600100	VTD322	20	3,6	G 1"	45°C	70	42	42	46	0,45

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

**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.*