

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°C at an incoming fluid temperature of $<43^{\circ}\text{C}$ will divert the flow to port B, at an incoming fluid temperature of $43\text{--}47^{\circ}\text{C}$ 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.

Four different nominal diverting temperatures are available; 45°C , 50°C , 60°C and 70°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
- Comfort Cooling
- Potable water
- Floor heating
- Solar heating
- Ventilation
- Zone
- District Hot Water
- District Heating
- District Cooling

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°C , 60°C , $70^{\circ}\text{C} \pm 3^{\circ}\text{C}$
 Media temperature: _____ continuously max. 100°C
 _____ temporarily max. 110°C
 _____ min 0°C
 Max. differential pressure: _____ 100 kPa (1.0 bar)
 Leakrate AB - A, AB - B: _____ Tight sealing
 Connections: _____ External thread (G), ISO 228/1

Material

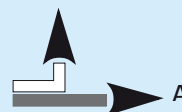
Valve housing and other metal parts with fluid contact:

_____ Dezincification resistant brass DZR

PED 97/23/EC, article 3.3

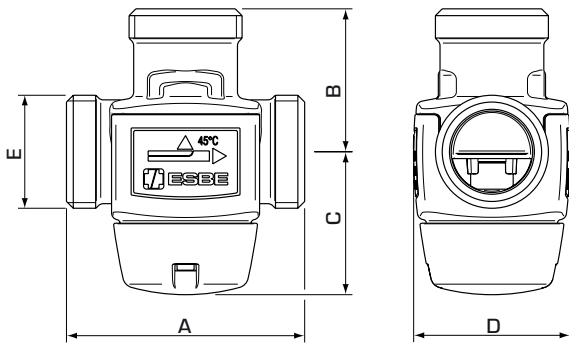
Pressure Equipment in conformity with PED 97/23/EC, article 3.3 (sound engineering practice). According to the directive the equipment shall not carry any CE-mark.

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]
3160 01 00	VTD322	20	3.6	G 1"	45°C	70	42	42	46	0.45
3160 02 00					50°C					
3160 03 00					60°C					
3160 04 00					70°C					

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

INSTALLATION EXAMPLES

