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 ±2°C to ±3°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°C will divert the flow to port B, at an incoming fluid temperature of 43-47°C will divert it to both A and B, and at an incoming fluid temperature of >47°C will divert the flow to port A.

Three different nominal diverting temperatures are available; 45°C, 50°C and 60°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:	±1°C
Diverting range shut off:	45°C ±2°C
	50°C, 60°C ±3°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

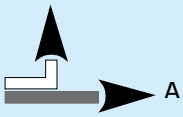
Material

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

PED 2014/68/EU, article 4.3

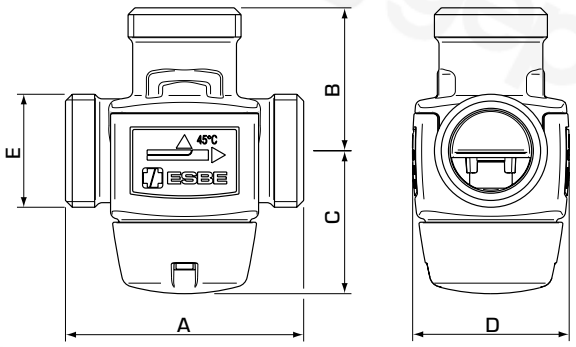
Pressure Equipment in conformity with PED 2014/68/EU, article 4.3 (sound engineering practice). According to the directive the equipment shall not carry any CE-mark.

FLOW PATTERN



Diverting

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
31600200					50°C					
31600300					60°C					

* Kvs-value in m^3/h at a pressure drop of 1 bar.

INSTALLATION EXAMPLES