

DIVERTING VALVE SERIES VZA, VZB

The ESBE VZA and VZB series 3-way diverting valve for heat pumps, under floor heating or HVAC applications. Three types of connections are available, internal thread, external thread or compression fittings.

OPERATION

ESBE series VZA and 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.

ESBE diverting valve series VZA and VZB has a built-in function for automatic valve motion after 7 days and nights of non-operation.

FUNCTION

Change-over from A- to B-circuit is performed by a signal from a control unit. The position indicator shows the flow path.

When the actuator is dismantled the valve will take up a mid position which allows flow in both circuits.

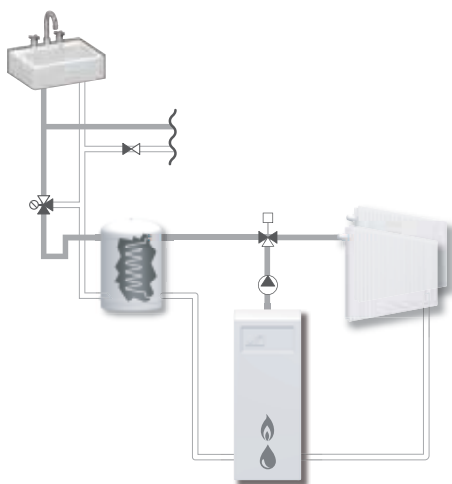
VERSIONS

ESBE VZA is available without cable or with loose cable and has an enclosure rating of IP20. Series VZA without cable is supplied with a connector type Molex for connection to a cable of own choice, with a maximum length of 100 m. ESBE VZB is delivered with fixed cable and has an enclosure rating of IP40. As an option the ESBE VZA and VZB series is available with auxiliary switch.

SERVICE AND MAINTENANCE

Vital parts like valve inserts and the entire actuator is easily replaceable. The entire actuator can be replaced without dismantling the valve, as long as the system is depressurized first.

INSTALLATION



VZA100
Internal thread, IP20
without/loose cable



External thread, IP20
without/loose cable



Compression fitting, IP20
without/loose cable



VZB100
Internal thread, IP40
fixed cable



External thread, IP40
fixed cable



Compression fitting, IP40
fixed cable

DIVERTING VALVE VZA, VZB DESIGNED FOR

- ☒ Heating
- ☒ Comfort Cooling
- ☐ Potable water
- ☒ Floor heating
- ☐ Solar heating
- ☒ Ventilation
- ☒ Zone
- ☐ District Hot Water
- ☐ District Heating
- ☐ District Cooling

OPTION

Cable ALZ801, fixed version IP40,

3-wire _____ Art. No. 4605 01 00*

6-wire for use with auxiliary switch _____ Art. No. 4605 02 00*

Cable ALZ801, loose version IP20,

3-wire _____ Art. No. 4605 03 00*

6-wire for use with auxiliary switch _____ Art. No. 4605 04 00*

* Compatible with article numbers 4302 XX XX and 4304 XX XX
(not 4300 XX XX)

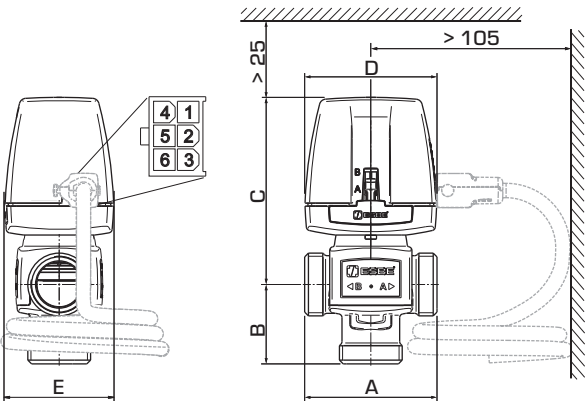
TECHNICAL DATA

Pressure class: _____ PN 6
Media temperature: _____ max. (continuously) +95°C
_____ max. (temporarily) +110°C
_____ min. +5°C
Max. differential pressure drop: _____ Diverting, 80 kPa (0.8 bar)
_____ Mixing, 50 kPa (0.5 bar)
Leakrate in % of flow: _____ 0
Connections: _____ Female thread, EN 10226-1
_____ Male thread, ISO 228/1
_____ Compression fitting, EN 1254-2
Ambient temperature: _____ max. +60°C
_____ min. 0°C
Power supply: _____ 230 ± 10% VAC, 50 Hz
Power consumption: _____ 15 VA
Control signal: _____ 2-point SPST (Single Pole Single Throw)
Enclosure rating: _____ series VZA, IP20
_____ series VZB, IP40
Protection class: _____ II
Running time: _____ 3 s
Rating auxiliary switch: _____ 2(1)A 250 VAC
Cable length: _____ 1.6 m

Material
Valve body: _____ Brass DZR, CW 602N
Plug and cover plate: _____ PPS
Spindle: _____ Stainless steel, SS 2346
O-rings: _____ EPDM

CE LVD 2006/95/EC
EMC 2004/108/EC
RoHS 2002/95/EC

DIVERTING VALVE
SERIES VZA



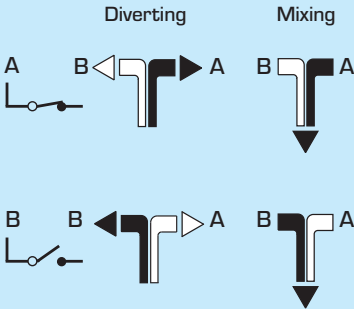
VZA151, VZA161

SERIES VZA151/VZA161, INTERNAL THREAD

Art. No.	Reference	DN	Kvs*	Connection	A	B	C	D	E	Cable version	Note	Weight [kg]
4302 01 00	VZA161	20	6.5	Rp 3/4"	70	42	99	70	58	Without cable	1)	0.5
4302 03 00	VZA151											
4302 02 00	VZA161									Loose cable	1)	0.5
4302 04 00	VZA151											

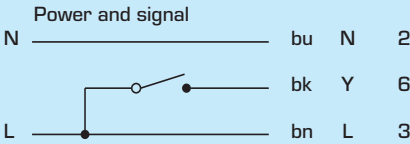
* Kvs-value in diverting mode measured as m³/h at a pressure drop of 1 bar. Kvs-value in mixing mode 10% lower. CPF = compression fitting
Note 1) With auxiliary switch

FLOW CONNECTION - VALVE

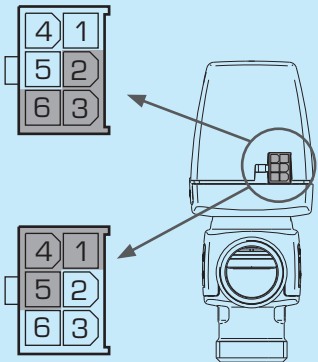
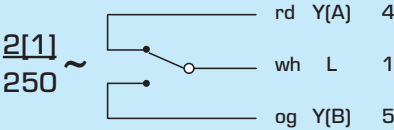


WIRING - ACTATOR

Connector type Molex.

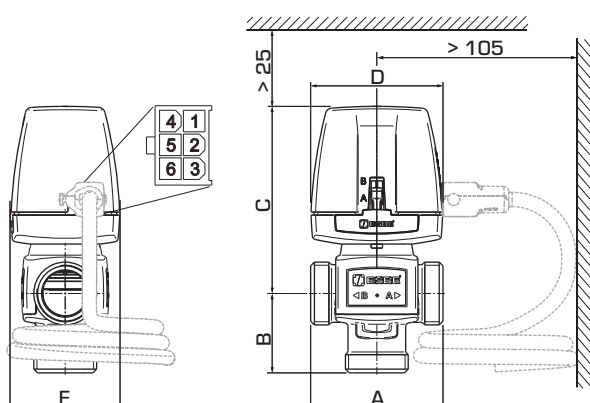


Auxiliary switch

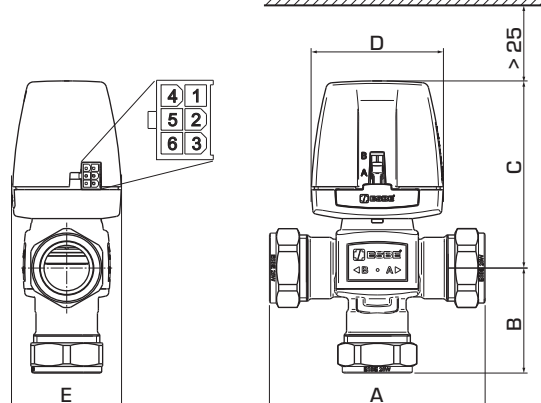


Diverting valve with Auxiliary switch, series:
VZA151, VZA152, VZA253, VZB151, VZB152, VZB253

DIVERTING VALVE SERIES VZA



VZA152, VZA162



VZA253, VZA263

SERIES VZA152/VZA162, EXTERNAL THREAD

Art. No.	Reference	DN	Kvs*	Connection	A	B	C	D	E	Cable version	Note	Weight [kg]
4302 05 00	VZA162	15	3.5	G 3/4"	70	42	99	70	58	Without cable	1)	0.5
4302 09 00	VZA152									Loose cable	1)	0.5
4302 06 00	VZA162									Without cable	1)	0.5
4302 10 00	VZA152									Loose cable	1)	0.5
4302 07 00	VZA162	20	6.5	G 1"	70	42	99	70	58	Without cable	1)	0.5
4302 11 00	VZA152									Loose cable	1)	0.5
4302 08 00	VZA162									Without cable	1)	0.5
4302 12 00	VZA152									Loose cable	1)	0.5

SERIES VZA253/VZA263, COMPRESSION FITTING

Art. No.	Reference	DN	Kvs*	Connection	A	B	C	D	E	Cable version	Note	Weight [kg]
4302 13 00	VZA263	20	4.5	CPF 22 mm	111	49	99	70	58	Without cable	1)	0.6
4302 17 00	VZA253									Loose cable	1)	0.6
4302 14 00	VZA263									Without cable	1)	0.7
4302 18 00	VZA253									Loose cable	1)	0.7
4302 15 00	VZA263	25	6.5	CPF 28 mm	114	56	99	70	58	Without cable	1)	0.7
4302 19 00	VZA253									Loose cable	1)	0.7
4302 16 00	VZA263									Without cable	1)	0.7
4302 20 00	VZA253									Loose cable	1)	0.7

* Kvs-value in diverting mode measured as m³/h at a pressure drop of 1 bar. Kvs-value in mixing mode 10% lower: CPF = compression fitting
Note 1) With auxiliary switch

For more variants,
please see next page