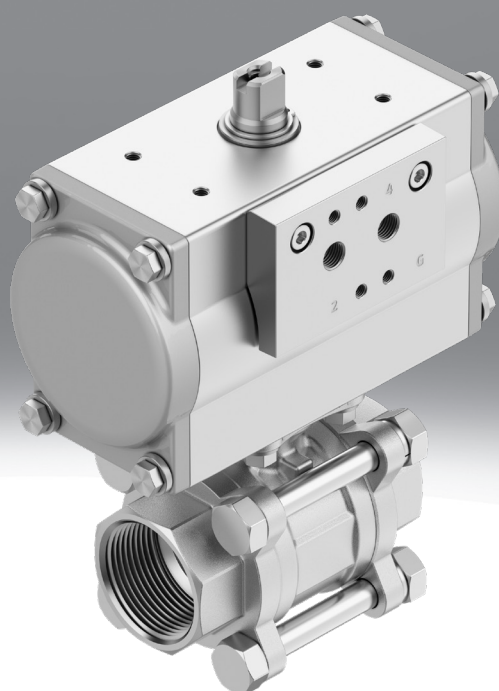


Ball valve unit VZBE

FESTO



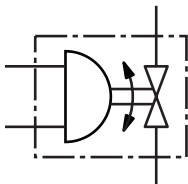
Characteristics

At a glance

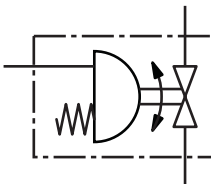
- Combination of a pneumatic quarter-turn actuator and a ball valve
- Threaded connection according to ASME B1.20.1
- Flange hole pattern according to ISO 5211
- Stainless steel design

Drive

[PA] DFPD, double-acting



[PB] DFPD, single-acting



Type code

001	Series	
VZBE	Ball valve	
002	Version	
A	Ball valve actuator unit	
003	Nominal diameter DN	
1/4	1/4"	
3/8	3/8"	
1/2	1/2"	
3/4	3/4"	
1	1"	
1 1/4	1 1/4"	
1 1/2	1 1/2"	
2	2"	
2 1/2	2 1/2"	
3	3"	
4	4"	
004	Process valve connection	
T	NPT female thread	
005	Nominal pressure [bar]	
63	63	
006	Design type	
T	Three-part	
007	Valve function	
2	2/2-way	

008	Flanged connection	
F0304	Hole pattern 03 and 04	
F0405	Hole pattern 04 and 05	
F0507	Hole pattern 05 and 07	
F0710	Hole pattern 07 and 10	
F1012	Hole pattern 10 and 12	
009	Housing material	
V15	Stainless steel ASTM A351-CF8M	
010	Shut-off element material	
V15	Stainless steel ASTM A351-CF8M	
V16	Stainless steel ASTM A240--316 / 1.4401	
011	Drive	
PA	DFPD, double-acting	
PB	DFPD, single-acting	
012	Size	
10	10	
20	20	
40	40	
80	80	
120	120	
160	160	
240	240	
300	300	
480	480	

Datasheet

General technical data

General technical data	1/4 NPT	3/8 NPT	1/2 NPT	3/4 NPT	1 NPT	1 1/4 NPT	1 1/2 NPT	2 NPT	2 1/2 NPT	3 NPT	4 NPT
Nominal size DN	8	10	15	20	25	32	40	50	65	80	100
Valve function	2/2										
Design	2-way ball valve, Semi-rotary drive										
Sealing principle	Soft										
Type of actuation	Pneumatic										
Switching position indicator	Slot direction = flow direction										
Flow direction	Reversible										
Type of mounting	In-line installation										
Mounting position	optional										
Based on standard	ASME B1.20.1, ISO 5211										
Flange hole pattern	F0304				F0405		F0507		F0710		F1012
Breakaway torque at differential pressure, nominal pressure, process valve PN	7 Nm			9 Nm	15 Nm	23 Nm	30 Nm	44 Nm	79 Nm	103 Nm	138 Nm
Flow rate Kv	19 m³/h	22 m³/h	32 m³/h	59 m³/h	94 m³/h	160 m³/h	247 m³/h	420 m³/h	684 m³/h	995 m³/h	1,637 m³/h
Product weight	1,485 ... 1,930 g	1,490 ... 1,935 g	1,480 ... 1,920 g	1,940 ... 2,880 g	2,180 ... 4,890 g	3,350 ... 5,370 g	4,050 ... 6,080 g	6,320 ... 8,610 g	9,700 ... 14,870 g	13,490 ... 20,185 g	22,480 ... 35,400 g

Operating and ambient conditions

Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Media temperature	-10 ... 200°C
Operating pressure	5.5 ... 8 bar
Operating pressure	0.55 ... 0.8 MPa
Operating pressure	79.75 ... 116 psi
Nominal pressure PN	63
Medium	Compressed air to ISO 8573-1:2010 [:-:], Inert gases, Water – no water vapour, Neutral fluids, Other media on request
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Corrosion resistance class CRC	1 - Low corrosion stress

ATEX

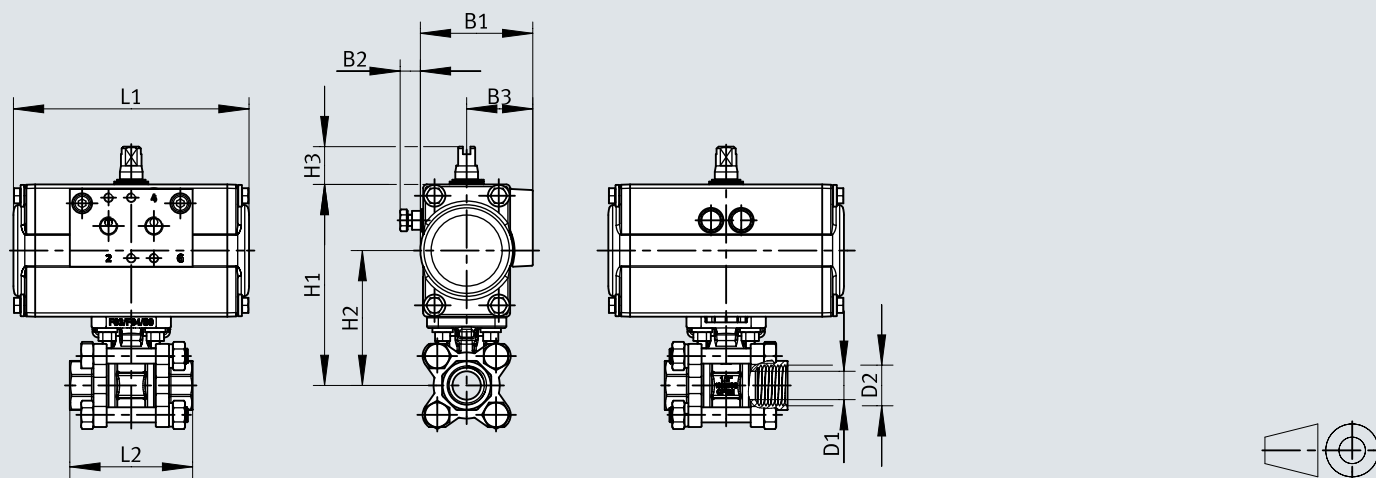
Max. surface temperature assembly	+105°C...+280°C, T4...T2
explosion group assembly	IIC, IIIC
Explosion ambient temperature	-10°C ≤ Ta ≤ +80°C

Materials

Material housing	Stainless steel casting
Material number housing	1.4408
Material ball	Stainless steel casting, High-alloy stainless steel
Material number ball	1.4401, 1.4408
Material shaft	High-alloy stainless steel
Material seat seal	PTFE
Material seals	FPM, PTFE
Note on materials	RoHS-compliant
LABS (PWIS) conformity	VDMA24364 zone III

Dimensions

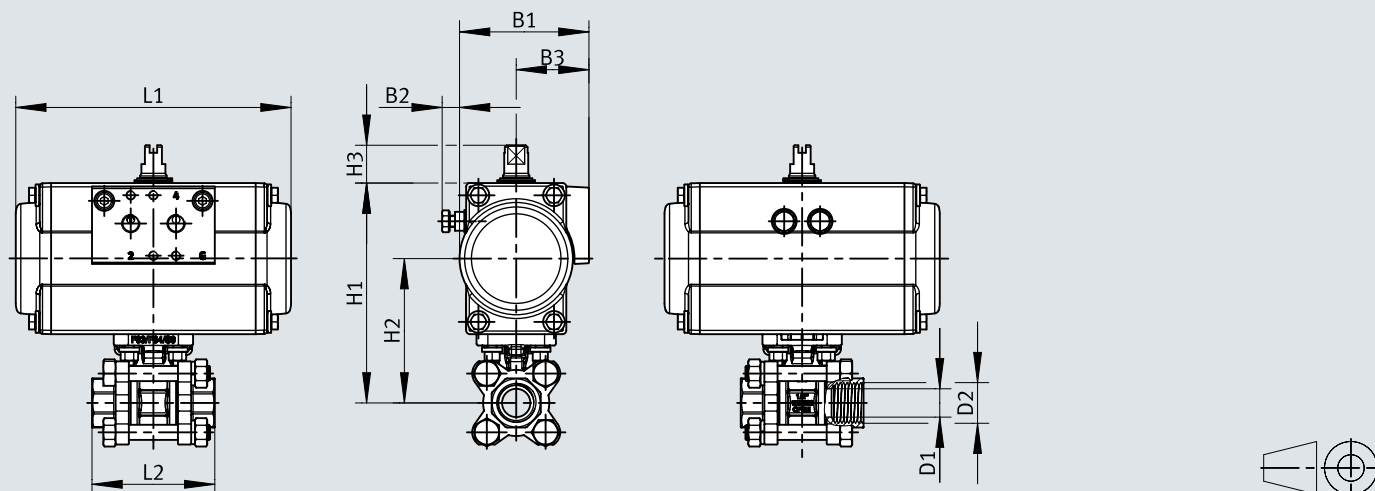
Dimensions – DFPD, double-acting

Download CAD data www.festo.com

	B1	B2	B3	D1 Ø	D2	H1	H2	H3	L1	L2
VZBE-A-1/4-T-63-T-2-F0304-V15V15-PA10	59,5	10,7	35	11,6	1/4 NPT	105,3	70,3	20	124,7	65
VZBE-A-3/8-T-63-T-2-F0304-V15V15-PA10	59,5	10,7	35	12,5	3/8 NPT	105,3	70,3	20	124,7	65
VZBE-A-1/2-T-63-T-2-F0304-V15V15-PA10	59,5	10,7	35	15	1/2 NPT	106,4	71,4	20	124,7	65
VZBE-A-3/4-T-63-T-2-F0304-V15V15-PA20	68,5	9,2	38,5	20	3/4 NPT	119,5	79,5	20	133,3	75
VZBE-A-1-T-63-T-2-F0405-V15V15-PA20	68,5	9,2	38,5	25	1 NPT	129	89	20	133,3	85
VZBE-A-11/4-T-63-T-2-F0405-V15V15-PA40	81,5	8,2	45	32	1 1/4 NPT	146,2	100,2	20	151,4	101
VZBE-A-11/2-T-63-T-2-F0507-V15V15-PA40	81,5	8,2	45	38	1 1/2 NPT	156,6	110,6	20	151,4	112
VZBE-A-2-T-63-T-2-F0507-V15V15-PA80	99	9	53	50	2 NPT	182,5	127,5	20	189,3	130
VZBE-A-21/2-T-63-T-2-F0710-V15V16-PA120	111,5	12,3	60,5	63	2 1/2 NPT	215	153,5	20	213,7	162
VZBE-A-3-T-63-T-2-F0710-V15V16-PA160	120	13,4	63,5	76	3 NPT	234	167	20	230,9	188
VZBE-A-4-T-63-T-2-F1012-V15V16-PA240	135,5	18,5	71,5	96	4 NPT	280	205	30	257	224

Dimensions

Dimensions – DFPD, single-acting

Download CAD data www.festo.com

	B1	B2	B3	D1 Ø	D2	H1	H2	H3	L1	L2
VZBE-A-1/4-T-63-T-2-F0304-V15V15-PB20	68,5	9,2	38,5	11,6	1/4 NPT	115,3	75,3	20	145,7	65
VZBE-A-3/8-T-63-T-2-F0304-V15V15-PB20	68,5	9,2	38,5	12,5	3/8 NPT	115,3	75,3	20	145,7	65
VZBE-A-1/2-T-63-T-2-F0304-V15V15-PB20	68,5	9,2	38,5	15	1/2 NPT	116,4	76,4	20	145,7	65
VZBE-A-3/4-T-63-T-2-F0304-V15V15-PB40	81,5	8,2	45	20	3/4 NPT	131,5	85,5	20	170,4	75
VZBE-A-1-T-63-T-2-F0405-V15V15-PB80	99	9	53	25	1 NPT	159	104	20	223,1	85
VZBE-A-11/4-T-63-T-2-F0405-V15V15-PB80	99	9	53	32	1 1/4 NPT	164,2	109,2	20	223,1	101
VZBE-A-11/2-T-63-T-2-F0507-V15V15-PB80	99	9	53	38	1 1/2 NPT	174,6	119,6	20	223,1	112
VZBE-A-2-T-63-T-2-F0507-V15V15-PB120	111,5	12,3	60,5	50	2 NPT	195,5	134	20	252,3	130
VZBE-A-21/2-T-63-T-2-F0710-V15V16-PB240	135,5	18,5	71,5	63	2 1/2 NPT	242	167	30	301,4	162
VZBE-A-3-T-63-T-2-F0710-V15V16-PB300	144	17	74,5	76	3 NPT	262	181	30	334,4	188
VZBE-A-4-T-63-T-2-F1012-V15V16-PB480	163	19,3	83	96	4 NPT	314	122	30	374,2	224

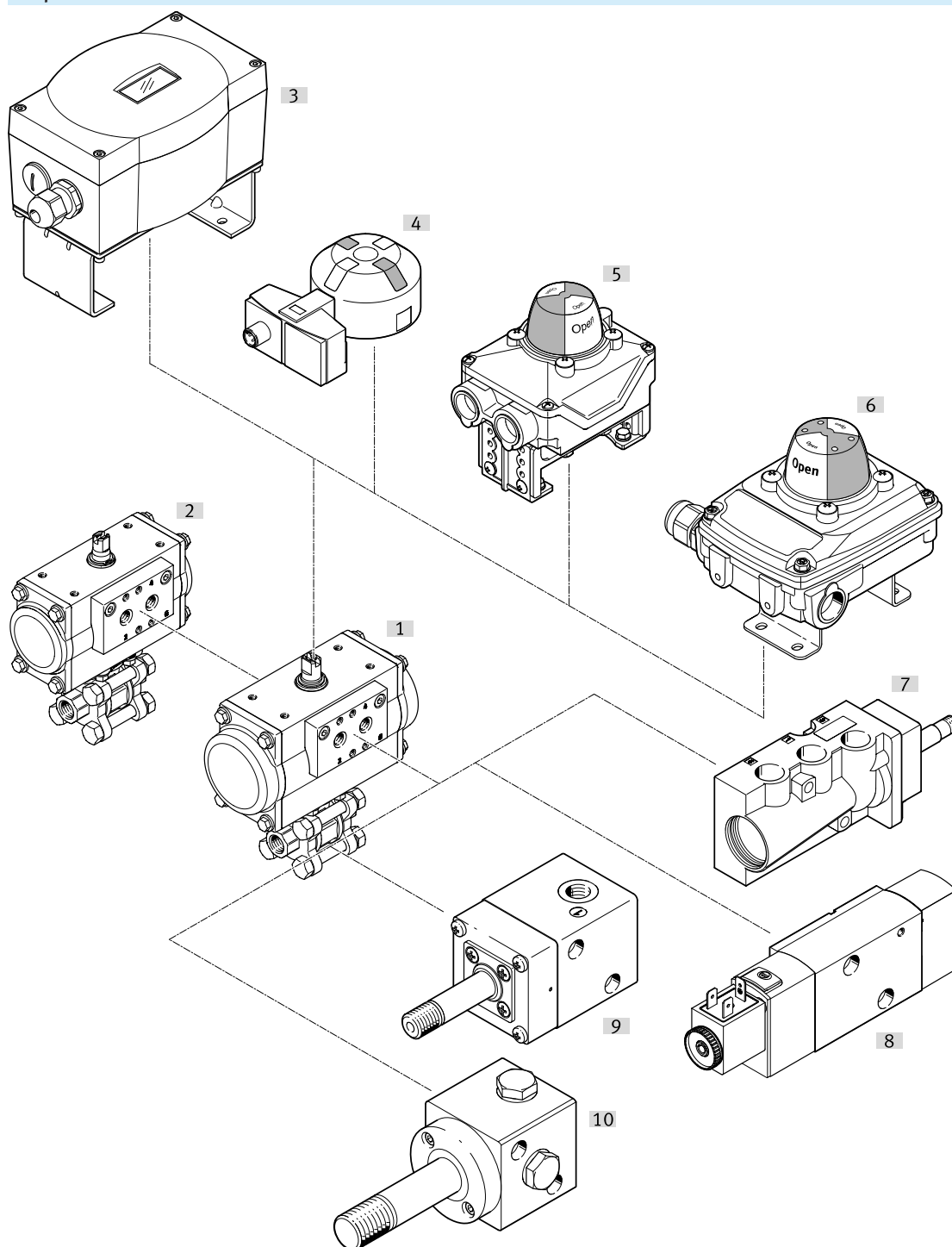
Ordering data

DFPD, double-acting				
	Nominal size DN	Connection Process valve	Part no.	Type
	8	1/4 NPT	8191895	VZBE-A-1/4-T-63-T-2-F0304-V15V15-PA10
	10	3/8 NPT	8191896	VZBE-A-3/8-T-63-T-2-F0304-V15V15-PA10
	15	1/2 NPT	8191897	VZBE-A-1/2-T-63-T-2-F0304-V15V15-PA10
	20	3/4 NPT	8191898	VZBE-A-3/4-T-63-T-2-F0304-V15V15-PA20
	25	1 NPT	8191899	VZBE-A-1-T-63-T-2-F0405-V15V15-PA20
	32	1 1/4 NPT	8191900	VZBE-A-1 1/4-T-63-T-2-F0405-V15V15-PA40
	40	1 1/2 NPT	8191901	VZBE-A-1 1/2-T-63-T-2-F0507-V15V15-PA40
	50	2 NPT	8191902	VZBE-A-2-T-63-T-2-F0507-V15V15-PA80
	65	2 1/2 NPT	8191903	VZBE-A-2 1/2-T-63-T-2-F0710-V15V16-PA120
	80	3 NPT	8191904	VZBE-A-3-T-63-T-2-F0710-V15V16-PA160
	100	4 NPT	8191905	VZBE-A-4-T-63-T-2-F1012-V15V16-PA240

DFPD, single-acting				
	Nominal size DN	Connection Process valve	Part no.	Type
	8	1/4 NPT	8191906	VZBE-A-1/4-T-63-T-2-F0304-V15V15-PB20
	10	3/8 NPT	8191907	VZBE-A-3/8-T-63-T-2-F0304-V15V15-PB20
	15	1/2 NPT	8191908	VZBE-A-1/2-T-63-T-2-F0304-V15V15-PB20
	20	3/4 NPT	8191909	VZBE-A-3/4-T-63-T-2-F0304-V15V15-PB40
	25	1 NPT	8191910	VZBE-A-1-T-63-T-2-F0405-V15V15-PB80
	32	1 1/4 NPT	8191911	VZBE-A-1 1/4-T-63-T-2-F0405-V15V15-PB80
	40	1 1/2 NPT	8191912	VZBE-A-1 1/2-T-63-T-2-F0507-V15V15-PB80
	50	2 NPT	8191913	VZBE-A-2-T-63-T-2-F0507-V15V15-PB120
	65	2 1/2 NPT	8191914	VZBE-A-2 1/2-T-63-T-2-F0710-V15V16-PB240
	80	3 NPT	8191915	VZBE-A-3-T-63-T-2-F0710-V15V16-PB300
	100	4 NPT	8191916	VZBE-A-4-T-63-T-2-F1012-V15V16-PB480

Peripherals

Peripherals overview



Accessories		→ Link
Type/order code	Description	
[1] Ball valve actuator unit VZBE	Single-acting	vzbe
[2] Ball valve actuator unit VZBE	Double-acting	vzbe
[3] Positioner CMSX	For controlling the position of quarter turn actuators in process automation systems	cmsx
[4] Sensor boxes SRBG	For electrical feedback and control of the position of process valves operated by quarter turn actuators	srbg
[5] Limit switch box SRBK	- Pre-assembled mounting flange adapter for ease of installation 3D OPEN/CLOSED position indicator	srbk
[6] Sensor boxes SRBC	For electrical feedback and control of the position of process valves operated by quarter turn actuators	srbk
[7] Solenoid valve NVF3	For F solenoid coil and explosion-proof F solenoid coil	nvf3
[8] Solenoid valves VSNC	For single-acting and double-acting quarter turn actuators with plug pattern VDI/VDE 3845	vsnc

Peripherals

Accessories		→ Link
Type/order code	Description	
[9] Solenoid valves VOFC	Solenoid valve with solenoid coil, NAMUR connection pattern	vofc
[10] Solenoid valves VOFD	Solenoid valve with solenoid coil, NAMUR connection pattern	vofd