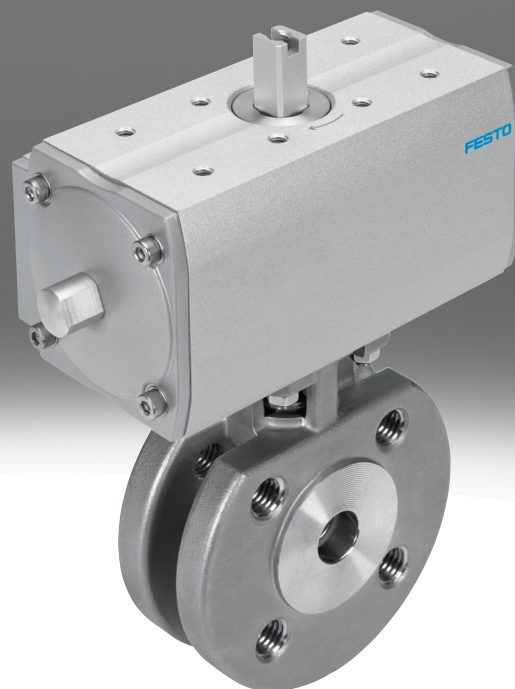


Ball valve actuator unit VZBC

FESTO



Characteristics

At a glance

- Electric or pneumatic actuation
- Flange hole pattern according to ISO 5211
- Connection pattern to NAMUR VDI/VDE 3845
- Corrosion-resistant and acid-resistant versions
- Versions with ATEX certification
- Combination of a pneumatic quarter-turn actuator and a ball valve
- The flow is fully opened or closed in both directions
- Sensor boxes or limit switches for sensing the end positions can be mounted directly on the actuator unit

Design type

- 2-way ball valve actuator units made of stainless steel or brass with pipe thread or with weld ends
- 2-way ball valve actuator units made of stainless steel in compact design

Type code

001	Series		
VZBC	Ball valve		
002	Nominal diameter DN		
15	15 mm		
20	20 mm		
25	25 mm		
32	32 mm		
40	40 mm		
50	50 mm		
65	65 mm		
80	80 mm		
100	100 mm		
003	Process valve connection type 1		
F	Pipe fitting to DIN 2633/DIN 2501		
004	Process valve connection type 2		
F	Pipe fitting to DIN 2633/DIN 2501		
005	Nominal pressure [bar]		
16	16		
40	40		
006	Valve function		
22	2/2-way		
007	Flanged connection		
F0304	Hole pattern 03 and 04		
F0405	Hole pattern 04 and 05		
F0507	Hole pattern 05 and 07		
F07	Hole pattern 07		
F0710	Hole pattern 07 and 10		
008	Housing material		
V4	Stainless steel (chrome-nickel-molybdenum, austenitic/1.4401, 1.4404 (AISI 316L), 1.4408)		
009	Shut-off element material		
V4	Stainless steel (chrome-nickel-molybdenum, austenitic/1.4401, 1.4404 (AISI 316L), 1.4408)		
010	Sealant		
T	PTFE		
011	Drive		
PP	DAPS, double-acting		
PS	DAPS, single-acting		
012	Torque [Nm]		
15	15		
30	30		
53	53		
60	60		
90	90		
106	106		
180	180		
240	240		
013	Swivel direction		
R	Right		
014	Nominal swivel angle [°]		
90	90		
015	Spring ID		
	None		
4	4		
016	End-position adjustment		
C	Closed		

Datasheet

General technical data, 2-way

Nominal size DN	15	20	25	32	40	50	65	80	100
Type of mounting	In-line installation								
Mounting position	optional								
Design	2-way ball valve, Semi-rotary drive								
Type of actuation	Pneumatic								
Switching position indicator	Slot direction = flow direction								
Nominal pressure PN	40						16		
Flow rate Kv	19.4 m ³ /h	45.6 m ³ /h	71.5 m ³ /h	105 m ³ /h	170 m ³ /h	275 m ³ /h	507 m ³ /h	905 m ³ /h	1,414 m ³ /h

Operating and environmental conditions, 2-way

Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Operating pressure	6 ... 8.4 bar
Ambient temperature	-10 ... 80°C
Media temperature ¹⁾	-10 ... 200°C
Medium	Compressed air to ISO 8573-1:2010 [:-:-], Inert gases, Water – no water vapour, Neutral fluids
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Corrosion resistance class CRC ²⁾	3 - high corrosion stress

1) As a function of operating pressure

2) Corrosion resistance class CRC 3 to Festo standard FN 940070 High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional surface requirements that are in direct contact with a normal industrial atmosphere.

ATEX, 2-way

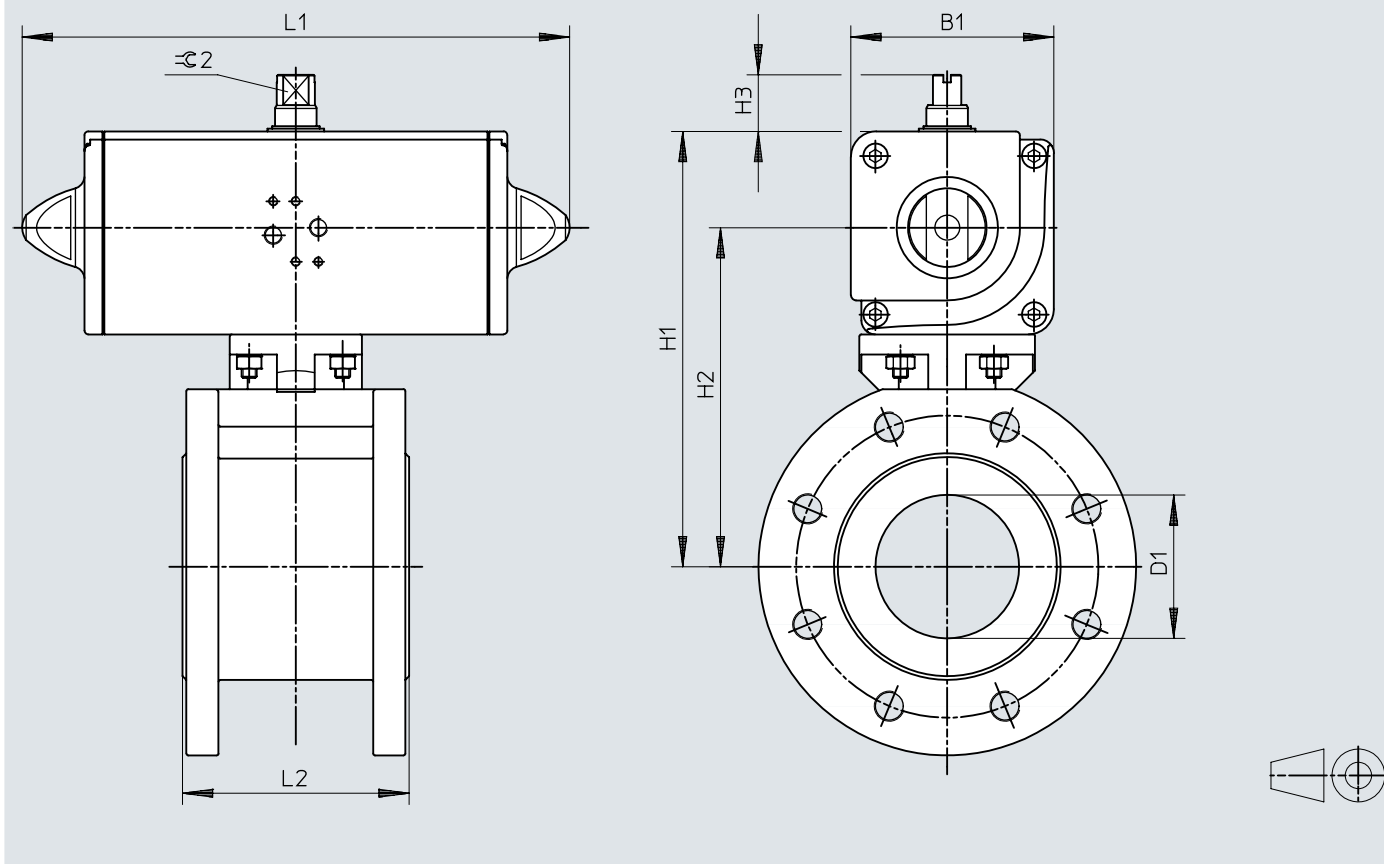
Max. surface temperature assembly	TX
explosion group assembly	IIC, IIIC
Explosion ambient temperature	-10°C ≤ Ta ≤ +60°C

Materials, 2-way

Material housing	High-alloy stainless steel
Material number housing	1.4408
Material ball	High-alloy stainless steel
Material shaft	High-alloy stainless steel
Material number shaft	1.4401
Material seals	PTFE, PTFE reinforced
Note on materials	RoHS-compliant

Dimensions

Dimensions – 2-way, stainless steel, DAPS, double-acting

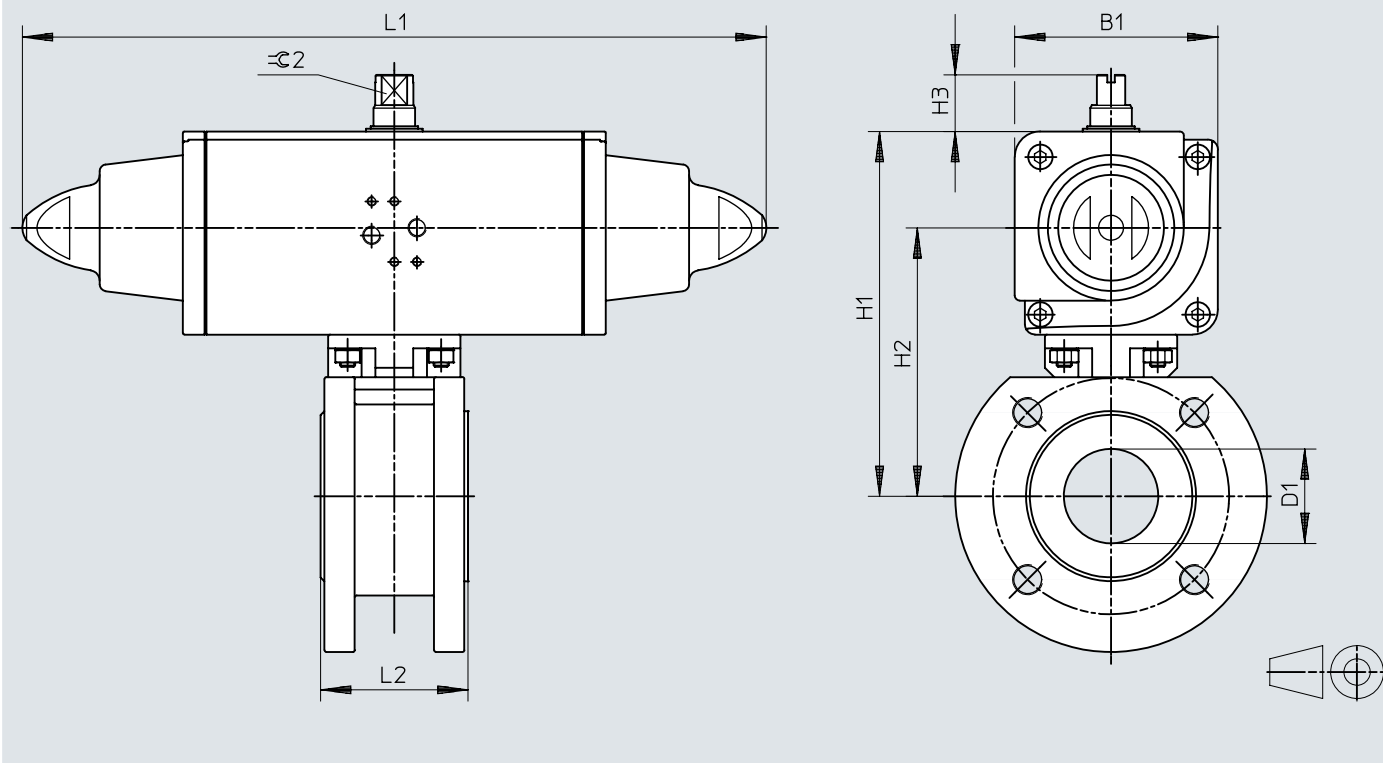
Download CAD data www.festo.com

	B1	D1 ø	H1	H2	H3	L1	L2	≈ 2
VZBC-15-FF-40-22-F0304-V4V4T-PP15-R-90-C	52,2	15	112,2	88	20	159	40	8
VZBC-20-FF-40-22-F0304-V4V4T-PP30-R-90-C	59,2	20	123,5	95,8	20	174	44	9
VZBC-25-FF-40-22-F0405-V4V4T-PP30-R-90-C	59,2	25	123,8	96,1	20	174	53	9
VZBC-32-FF-40-22-F0405-V4V4T-PP60-R-90-C	70,4	32	139,4	106,7	20	198	58,4	10
VZBC-40-FF-40-22-F0507-V4V4T-PP60-R-90-C	70,4	38	146,7	114	20	198	62	10
VZBC-50-FF-40-22-F0507-V4V4T-PP106-R-90-C	83,3	50	168,8	130,3	20	237,1	78	12
VZBC-65-FF-16-22-F07-V4V4T-PP180-R-90-C	107,5	64	212,5	161,5	30	289,9	100	15
VZBC-80-FF-16-22-F07-V4V4T-PP180-R-90-C	107,5	76	229,5	178,5	30	289,9	120	15
VZBC-100-FF-16-22-F0710-V4V4T-PP240-R-90-C	111,1	96	243,1	192,1	30	313,6	152	15

Dimensions

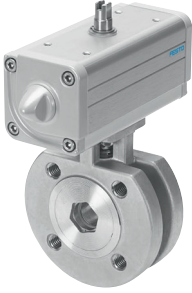
Dimensions – 2-way, stainless steel, DAPS, single-acting

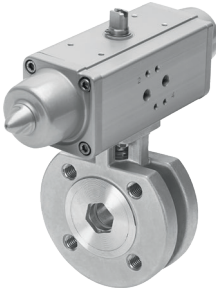
Download CAD data www.festo.com



	B1	D1 ∅	H1	H2	H3	L1	L2	≈ 2
VZBC-15-FF-40-22-F0304-V4V4T-PS15-R-90-4-C	59,2	15	119,2	91,5	20	233,3	40	9
VZBC-20-FF-40-22-F0304-V4V4T-PS30-R-90-4-C	70,4	20	134,7	102	20	259	44	10
VZBC-25-FF-40-22-F0405-V4V4T-PS30-R-90-4-C	70,4	25	135	102,3	20	259	53	10
VZBC-32-FF-40-22-F0405-V4V4T-PS53-R-90-4-C	83,3	32	152,3	113,8	20	304,3	58,4	12
VZBC-40-FF-40-22-F0507-V4V4T-PS53-R-90-4-C	83,3	38	159,6	121,1	20	304,3	62	12
VZBC-50-FF-40-22-F0507-V4V4T-PS90-R-90-4-C	107,5	50	193	142	30	393,7	78	15
VZBC-65-FF-16-22-F07-V4V4T-PS180-R-90-4-C	118	64	223	167	30	474	100	19
VZBC-80-FF-16-22-F07-V4V4T-PS180-R-90-4-C	118	76	241	185	30	474	120	19
VZBC-100-FF-16-22-F0710-V4V4T-PS240-R-90-4-C	134,9	96	266,9	204,9	30	520,5	152	19

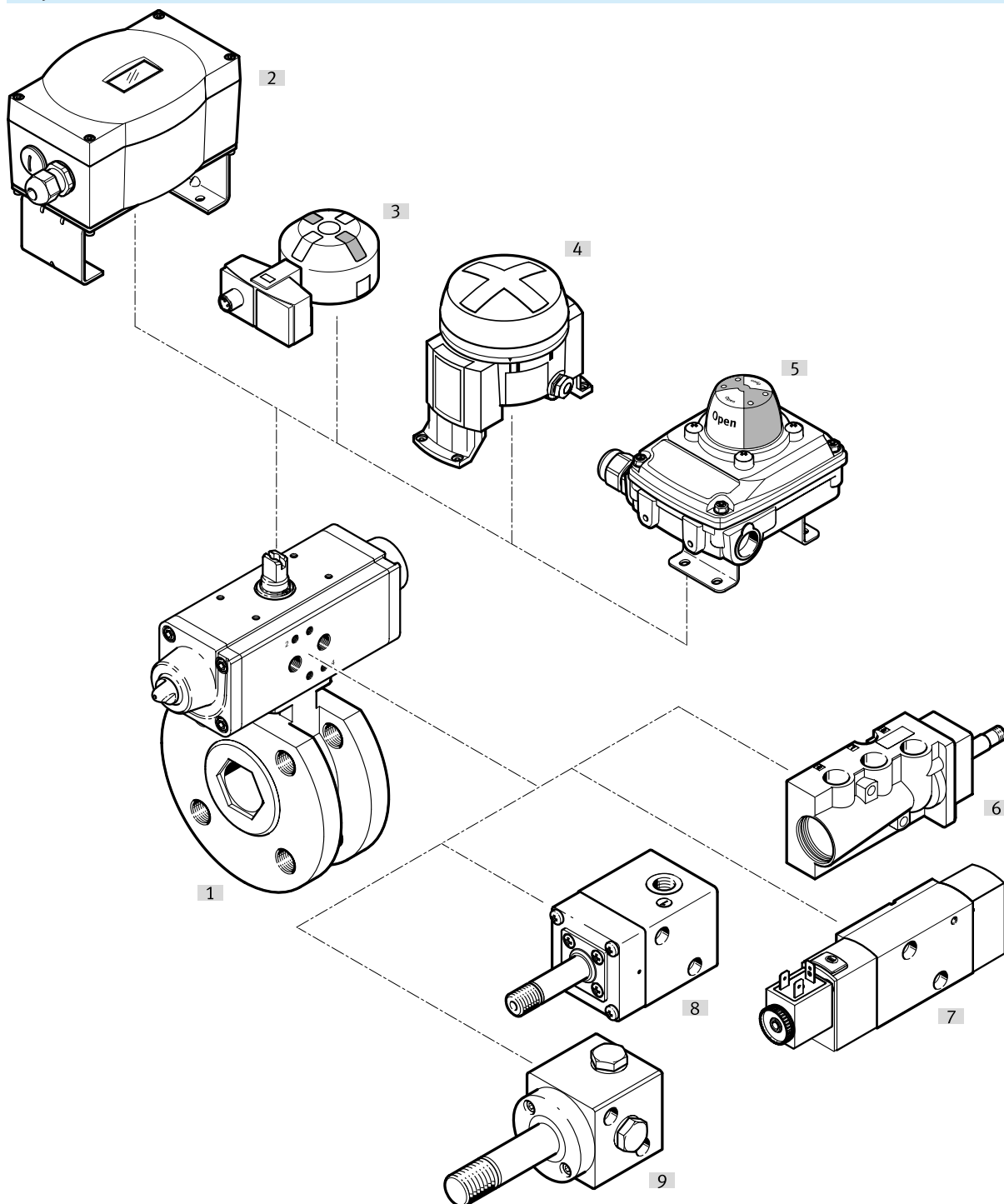
Ordering data

DAPS double-acting			
	Nominal size DN	Part no.	Type
	15	1913365	VZBC-15-FF-40-22-F0304-V4V4T-PP15-R-90-C
	20	1913367	VZBC-20-FF-40-22-F0304-V4V4T-PP30-R-90-C
	25	1913368	VZBC-25-FF-40-22-F0405-V4V4T-PP30-R-90-C
	32	1913369	VZBC-32-FF-40-22-F0405-V4V4T-PP60-R-90-C
	40	1913370	VZBC-40-FF-40-22-F0507-V4V4T-PP60-R-90-C
	50	1913371	VZBC-50-FF-40-22-F0507-V4V4T-PP106-R-90-C
	65	1913372	VZBC-65-FF-16-22-F07-V4V4T-PP180-R-90-C
	80	1913373	VZBC-80-FF-16-22-F07-V4V4T-PP180-R-90-C
	100	1913374	VZBC-100-FF-16-22-F0710-V4V4T-PP240-R-90-C

DAPS single-acting			
	Nominal size DN	Part no.	Type
	15	1915401	VZBC-15-FF-40-22-F0304-V4V4T-PS15-R-90-4-C
	20	1915402	VZBC-20-FF-40-22-F0304-V4V4T-PS30-R-90-4-C
	25	1915403	VZBC-25-FF-40-22-F0405-V4V4T-PS30-R-90-4-C
	32	1915404	VZBC-32-FF-40-22-F0405-V4V4T-PS53-R-90-4-C
	40	1915406	VZBC-40-FF-40-22-F0507-V4V4T-PS53-R-90-4-C
	50	1915407	VZBC-50-FF-40-22-F0507-V4V4T-PS90-R-90-4-C
	65	1915408	VZBC-65-FF-16-22-F07-V4V4T-PS180-R-90-4-C
	80	1915409	VZBC-80-FF-16-22-F07-V4V4T-PS180-R-90-4-C
	100	1915410	VZBC-100-FF-16-22-F0710-V4V4T-PS240-R-90-4-C

Peripherals

Peripherals overview



Accessories		→ Link
Type/order code	Description	
[1] Ball valve actuator unit VZBC	Combination of double-acting or single-acting quarter-turn actuator DAPS and 2-way ball valve, stainless steel, compact design	vzbc
[2] Positioner CMSX	For controlling the position of quarter-turn actuators in process automation systems	cmsx
[3] Sensor boxes SRBG	For electrical feedback and position monitoring of process valves actuated by quarter turn actuators	srbg
[4] Limit switch attachments DAPZ	Round design, variant AR, electrical sensing, inductive or inductive explosion-proof	dapz
[5] Sensor boxes SRBC	For electrical feedback and position monitoring of process valves actuated by quarter turn actuators	srbc
[6] Solenoid valve NVF3	For F solenoid coil and explosion-proof F solenoid coil	nvf3
[7] Solenoid valves VSNC	For single-acting and double-acting quarter turn actuators with a connection pattern to VDI/VDE 3845	vsnc
[8] Solenoid valves VOFC	Solenoid valve with solenoid coil, NAMUR connection pattern	vofc

Peripherals

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