

Ball valve actuator units



Ball valve actuator units

Key features and product range overview

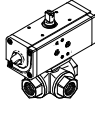
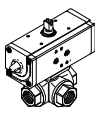


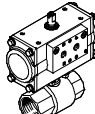
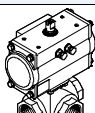
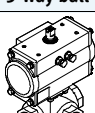
General	Flexible	Design	Characteristics
<ul style="list-style-type: none"> - - Connecting thread Rp1/4 ... Rp4 - - Flow rate 5.9 ... 1414 m³/h 	<ul style="list-style-type: none"> • Electric or pneumatic actuation • Flange hole pattern to ISO 5211 • Connection pattern to NAMUR VDI/VDE 3845 • Corrosion- and acid-resistant designs • Versions with ATEX certification 	<ul style="list-style-type: none"> • 2-way ball valve actuator units made from stainless steel or brass with pipe thread or with weld-on ends • 2-way ball valve actuator units made from stainless steel in compact design • 3-way ball valve actuator units made from stainless steel or brass 	<ul style="list-style-type: none"> • Combination of a pneumatic quarter turn actuator and a ball valve • Flow is fully opened or closed in both directions • Sensor boxes or limit switches can be mounted directly on the actuator unit for sensing the end positions

Design	Type	Quarter turn actuator	Process valve connection	Nominal width DN	Flange hole pattern to ISO 5211	Nominal pressure of process valve PN	→ Page/Internet	
Stainless steel	2-way ball valve actuator units with pipe thread to EN 10226-1							
		VZBA...-GG	DAPS double-acting or single-acting	Rp1/4	8	F0304	63	8
				Rp3/8	10	F0304		
				Rp1/2	15	F0304		
				Rp3/4	20	F0304		
				Rp1	25	F0405		
				Rp1 1/4	32	F0405		
				Rp1 1/2	40	F0507		
				Rp2	50	F0507		
				Rp2 1/2	65	F0710		
				Rp3	80	F0710		
	Rp4	100	F10					
	2-way ball valve actuator units with weld-on ends to EN 12627							
		VZBA...-WW	DAPS double-acting or single-acting	Weld-on end	8	F0304	63	8
					10	F0304		
					15	F0304		
					20	F0304		
					25	F0405		
					32	F0405		
					40	F0507		
					50	F0507		
					65	F0710		
					80	F0710		
	100	F10						
	2-way ball valve actuator units in compact design with flange to DIN EN 1092-1							
		VZBC...-FF	DAPS double-acting or single-acting	Ring housing with threaded flange	15	F0304	40	16
					20	F0304		
					25	F0405		
					32	F0405		
					40	F0507		
50					F0507			
65					F07	16		
80					F07			
100					F0710			

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Key features and product range overview

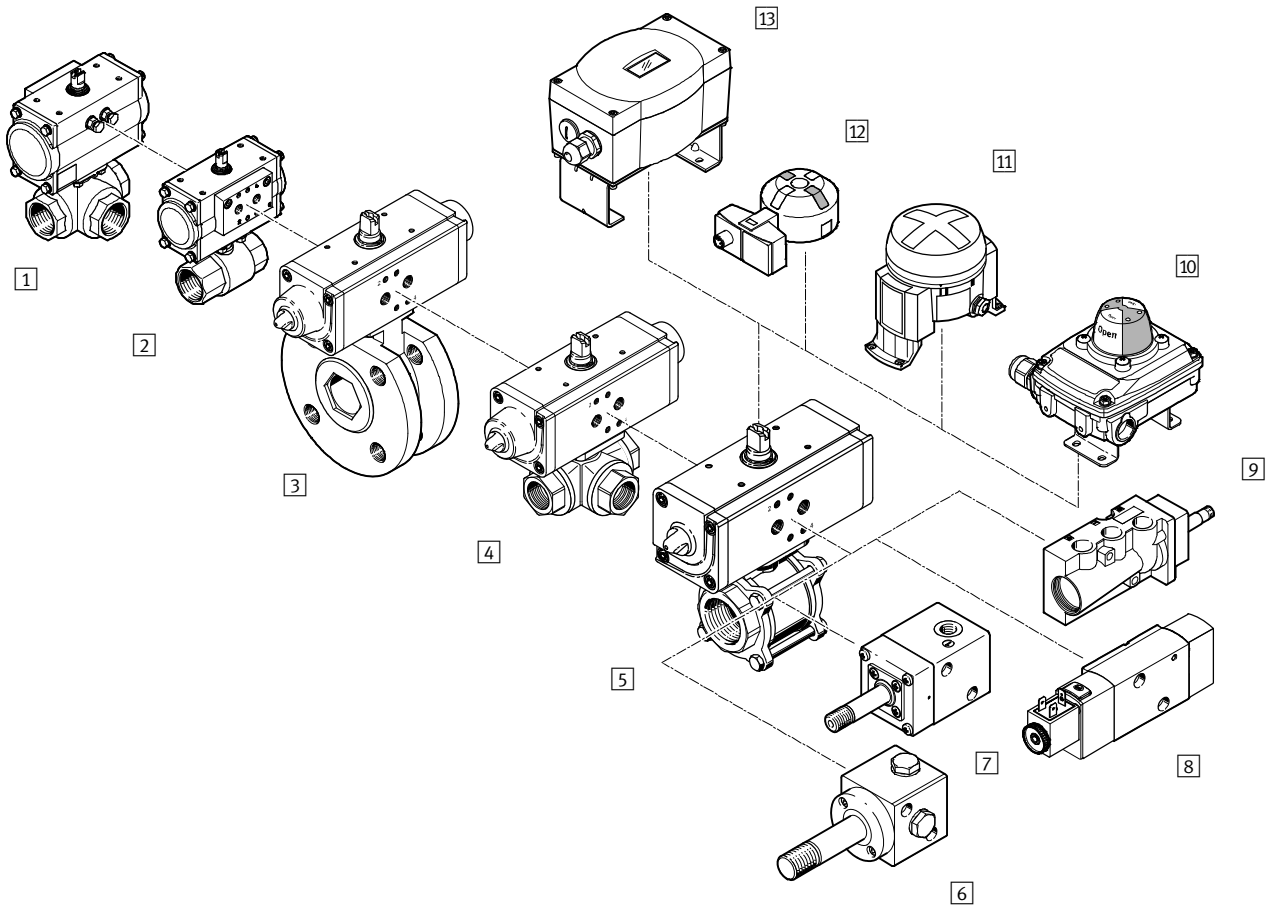
Design		Type	Quarter turn actuator	Process valve connection	Nominal width DN	Flange hole pattern to ISO 5211	Nominal pressure of process valve PN	→ Page/Internet
Stainless steel	3-way ball valve actuator units with L-shaped bore and pipe thread to EN 10226-1							
		VZBA	DAPS double-acting or single-acting	Rp1/4	8	F0304	63	22
				Rp3/8	10	F0304		
				Rp1/2	15	F0304		
				Rp3/4	20	F0405		
				Rp1	25	F0405		
				Rp1 1/4	32	F0405		
				Rp1 1/2	40	F0405		
	Rp2	50	F05					
	3-way ball valve actuator units with T-shaped bore and pipe thread to EN 10226-1							
		VZBA	DAPS double-acting or single-acting	Rp1/4	8	F0304	63	22
				Rp3/8	10	F0304		
				Rp1/2	15	F0304		
				Rp3/4	20	F0405		
Rp1				25	F0405			
Rp1 1/4				32	F0405			
Rp1 1/2				40	F0405			
Rp2	50	F05						

Design		Type	Quarter turn actuator	Process valve connection	Nominal width DN	Flange hole pattern to ISO 5211	Nominal pressure of process valve PN	→ Page/Internet
Brass	2-way ball valve actuator units with pipe thread to EN 10226-1							
		VZBM	DFPD double-acting or single-acting	Rp1/4	8	F03	40	28
				Rp3/8	10	F03		
				Rp1/2	15	F03		
				Rp3/4	20	F03		
				Rp1	25	F03		
				Rp1 1/4	32	F03		
				Rp1 1/2	40	F0305		
	Rp2	50	F0305					
	3-way ball valve actuator units with L-shaped bore and pipe thread to EN 10226-1							
		VZBM	DFPD double-acting or single-acting	Rp1/4	8	F03	40	34
				Rp3/8	10	F03		
				Rp1/2	15	F03		
				Rp3/4	20	F03		
				Rp1	25	F0304		
				Rp1 1/4	32	F0405		
				Rp1 1/2	40	F0405		
	Rp2	50	F05					
3-way ball valve actuator units with T-shaped bore and pipe thread to EN 10226-1								
	VZBM	DFPD double-acting or single-acting	Rp1/4	8	F03	40	34	
			Rp3/8	10	F03			
			Rp1/2	15	F03			
			Rp3/4	20	F03			
			Rp1	25	F0304			
			Rp1 1/4	32	F0405			
			Rp1 1/2	40	F0405			
Rp2	50	F05						

Ball valve actuator units

Peripherals overview

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Ball valve actuator units

Peripherals overview

Mounting components and accessories			
	Brief description	→ Page/Internet	
1	Ball valve actuator unit VZBM	Combination of double-acting or single-acting quarter turn actuator DFPD and 3-way ball valve, brass	34
2	Ball valve actuator unit VZBM	Combination of double-acting or single-acting quarter turn actuator DFPD and 2-way ball valve, brass	28
3	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	16
4	Ball valve actuator unit VZBA	Combination of double-acting or single-acting quarter turn actuator DAPS and 3-way ball valve, stainless steel	22
5	Ball valve actuator unit VZBA	Combination of double-acting or single-acting quarter turn actuator DAPS and 2-way ball valve, stainless steel	8
6	Solenoid valves VOFD	Solenoid valve with solenoid coil, connection pattern to NAMUR	vofd
7	Solenoid valves VOFC	Solenoid valve with solenoid coil, connection pattern to NAMUR	vofc
8	Solenoid valves VSNC	For single-acting and double-acting quarter turn actuators with a connection pattern to VDI/VDE 3845	vsnc
9	Solenoid valve NVF3	For F solenoid coil and explosion-proof F solenoid coil	nvf3
10	Sensor boxes SRBC	For electrical position feedback and monitoring the position of process valves actuated using quarter turn actuators	srbc
11	Limit switch attachments DAPZ	Round design, variant AR Electrical, inductive or inductive and explosion-proof sensing	dapz
12	Sensor boxes SRBG	For electrical position feedback and monitoring the position of process valves actuated using quarter turn actuators	srbg
13	Positioner CMSX	For controlling the position of quarter turn actuators in process automation systems	cmsx

VZBA, 2-way, stainless steel

Type codes

VZBA - 1/4 - G G - 63 - T - 22 - F0304 -

Type	
VZBA	Ball valve

Nominal width DN	
1/4"	DN8
3/8"	DN10
1/2"	DN15
3/4"	DN20
1"	DN25
1 1/4"	DN32
1 1/2"	DN40
2"	DN50
2 1/2"	DN65
3"	DN80
4"	DN100

Connection type 1	
G	Pipe thread to DIN EN 10226-1
W	Weld-on end

Connection type 2	
G	Pipe thread to DIN EN 10226-1
W	Weld-on end

Nominal pressure of process valve PN	
63	63 bar

Design	
T	Three-part

Valve function	
22	2/2-way

Flanged connection to ISO 5211	
F0304	2 bolt circles with \varnothing 36 mm and \varnothing 42 mm
F0405	2 bolt circles with \varnothing 42 mm and \varnothing 50 mm
F0507	2 bolt circles with \varnothing 50 mm and \varnothing 70 mm
F07	1 bolt circle with \varnothing 70 mm
F0710	2 bolt circles with \varnothing 70 mm and \varnothing 102 mm
F10	1 bolt circle with \varnothing 102 mm

VZBA, 2-way, stainless steel

Type codes

V4 V4 T - PS 15 - R - 90 - 4 - C

Housing material

V4	Stainless steel 1.4401/1.4404 (AISI 316L)/1.4408
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Shut-off element material

V4	Stainless steel 1.4401/1.4404 (AISI 316L)/1.4408
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Sealing material

T	PTFE reinforced
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Actuator

PP	DAPS, double-acting
PS	DAPS, single-acting

Torque

15	15 Nm
30	30 Nm
53	53 Nm
60	60 Nm
90	90 Nm
106	106 Nm
120	120 Nm
180	180 Nm
240	240 Nm

Swivel direction

R	Right
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Nominal swivel angle

90	90°
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Spring configuration

-	Not applicable for double-acting
1	Spring force for connection pressure 2.8 bar
2	Spring force for connection pressure 3.5 bar
3	Spring force for connection pressure 4.2 bar
4	Spring force for connection pressure 5.6 bar

End-position adjustment

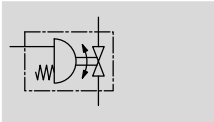
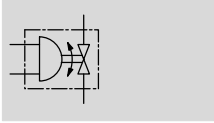
C	Closed
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VZBA, 2-way, stainless steel

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Technical data

Function



-  Swivel angle
0 ... 90°
-  Flow rate
7 ... 1414 m³/h
-  Connecting thread
Rp1/4 ... Rp4



General technical data												
Nominal width DN	8	10	15	20	25	32	40	50	65	80	100	
Quarter turn actuator												
Type of mounting	In-line installation											
Mounting position	Any											
Swivel angle	[°]	90										
Closing direction	Closes to the right											
Ball valve												
Design	2-way ball valve, quarter turn actuator											
Type of actuation	Pneumatic											
Switching position indication	Slot direction = flow direction											
Nominal pressure of process valve PN	63											
Flow rate Kv	[m ³ /h]	7	10	19.4	45.6	71.5	105	170	275	507	905	1414

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

1) As a function of operating pressure

2) Corrosion resistance class CRC 3 according to Festo standard 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

VZBA, 2-way, stainless steel

Technical data

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ATEX	
ATEX category for gas	II 2G
ATEX category for dust	II 2D
Max. surface temperature of assembly	TX
Explosion group of assembly	II C
Explosion-proof temperature rating	-10°C ≤ Ta ≤ +60°C

Materials	Information on materials	Material number
Housing	High-alloy stainless steel	1.4408
Ball		
Shaft	High-alloy stainless steel	1.4401
Seals	PTFE reinforced	
	PTFE	
Note on materials	RoHS-compliant	
	Contains paint-wetting impairment substances	

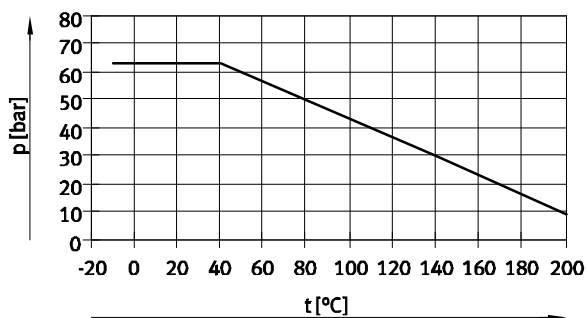
Weight – Double-acting			
Nominal width DN	Process valve connection	Weight [g]	
8	Rp1/4	1450	Weld-on ends
10	Rp3/8	1450	
15	Rp1/2	1450	
20	Rp3/4	1900	
25	Rp1	2300	
32	Rp1 1/4	3800	

Nominal width DN	Process valve connection	Weight [g]	
40	Rp1 1/2	4800	Weld-on ends
50	Rp2	6600	
65	Rp2 1/2	11,700	
80	Rp3	18,200	
100	Rp4	27,700	

Weight – Single-acting			
Nominal width DN	Process valve connection	Weight [g]	
8	Rp1/4	2000	Weld-on ends
10	Rp3/8	2000	
15	Rp1/2	2000	
20	Rp3/4	3100	
25	Rp1	3500	
32	Rp1 1/4	5150	

Nominal width DN	Process valve connection	Weight [g]	
40	Rp1 1/2	6100	Weld-on ends
50	Rp2	10,000	
65	Rp2 1/2	16,300	
80	Rp3	22,900	
100	Rp4	33,500	

Permissible operating pressure p as a function of temperature of medium t



VZBA, 2-way, stainless steel

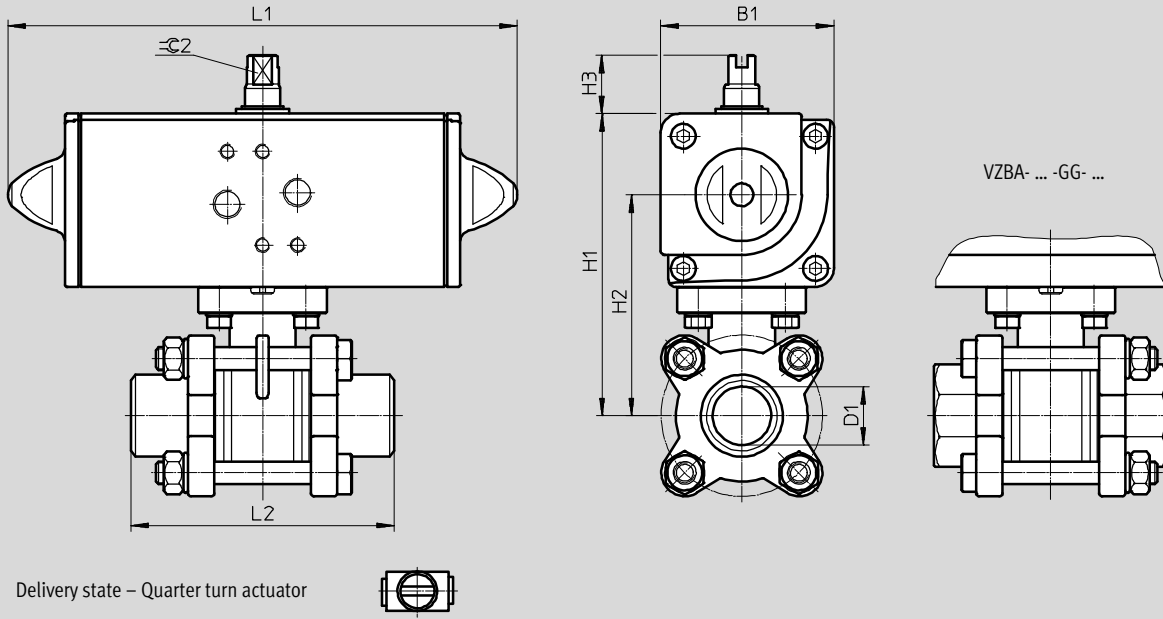
Technical data

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Dimensions

Download CAD data → www.festo.com

DAPS – Double-acting



Type	B1	D1 Ø	H1	H2	H3	L1	L2	⊙ 2
VZBA-1/4"-WW-63-T-22-F0304-V4V4T-PP15-R-90-C	52.2	10	92.2	68	20	159	70	8
VZBA-3/8"-WW-63-T-22-F0304-V4V4T-PP15-R-90-C	52.2	12	92.2	68	20	159	70	8
VZBA-1/2"-WW-63-T-22-F0304-V4V4T-PP15-R-90-C	52.2	16	92.2	68	20	159	75	8
VZBA-3/4"-WW-63-T-22-F0304-V4V4T-PP30-R-90-C	59.2	20	103.2	75.5	20	174	90	9
VZBA-1"-WW-63-T-22-F0405-V4V4T-PP30-R-90-C	59.2	25	111.2	83.5	20	174	100	9
VZBA-1 1/4"-WW-63-T-22-F0405-V4V4T-PP60-R-90-C	70.4	32	128.4	95.7	20	198	110	10
VZBA-1 1/2"-WW-63-T-22-F0507-V4V4T-PP60-R-90-C	70.4	38	138.4	105.7	20	198	125	10
VZBA-2"-WW-63-T-22-F0507-V4V4T-PP60-R-90-C	70.4	50	147.7	114.7	20	198	150	10
VZBA-2 1/2"-WW-63-T-22-F0710-V4V4T-PP106-R-90-C	83.3	65	181.3	142.8	20	237.1	190	12
VZBA-3"-WW-63-T-22-F0710-V4V4T-PP180-R-90-C	107.5	80	217.5	166.5	30	289.9	220	15
VZBA-4"-WW-63-T-22-F10-V4V4T-PP240-R-90-C	111.1	100	249.1	198.1	30	313.6	270	15

Type	B1	D1 Ø	H1	H2	H3	L1	L2	⊙ 2
VZBA-1/4"-GG-63-T-22-F0304-V4V4T-PP15-R-90-C	52.2	10	99.2	68	20	159	65	8
VZBA-3/8"-GG-63-T-22-F0304-V4V4T-PP15-R-90-C	52.2	12	99.2	68	20	159	65	8
VZBA-1/2"-GG-63-T-22-F0304-V4V4T-PP15-R-90-C	52.2	16	99.2	68	20	159	75	8
VZBA-3/4"-GG-63-T-22-F0304-V4V4T-PP30-R-90-C	59.2	20	103.2	75.5	20	174	80	9
VZBA-1"-GG-63-T-22-F0405-V4V4T-PP30-R-90-C	59.2	25	111.2	83.5	20	174	90	9
VZBA-1 1/4"-GG-63-T-22-F0405-V4V4T-PP60-R-90-C	70.4	32	128.4	95.7	20	198	110	10
VZBA-1 1/2"-GG-63-T-22-F0507-V4V4T-PP60-R-90-C	70.4	38	138.4	105.7	20	198	120	10
VZBA-2"-GG-63-T-22-F0507-V4V4T-PP60-R-90-C	70.4	50	147.7	114.7	20	198	140	10
VZBA-2 1/2"-GG-63-T-22-F0710-V4V4T-PP106-R-90-C	83.3	65	181.3	142.8	20	237.1	185	12
VZBA-3"-GG-63-T-22-F0710-V4V4T-PP180-R-90-C	107.5	80	217.5	166.5	30	289.9	205	15
VZBA-4"-GG-63-T-22-F10-V4V4T-PP240-R-90-C	111.1	100	249.1	198.1	30	313.6	240	15

VZBA, 2-way, stainless steel

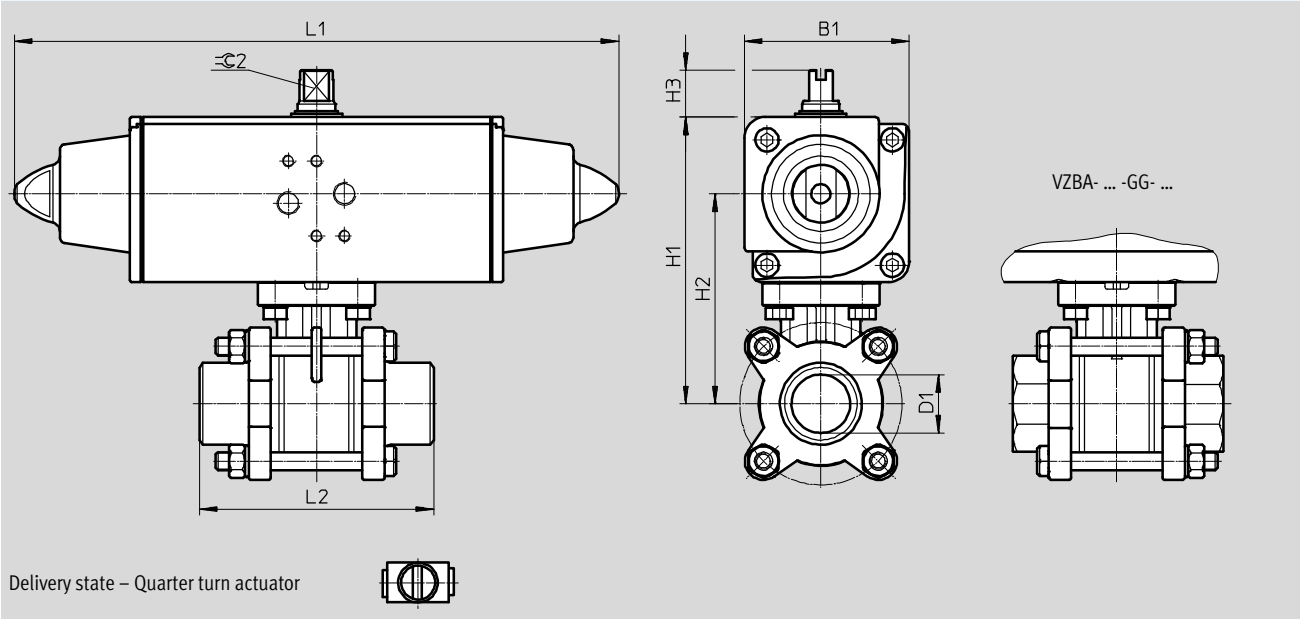
Technical data

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Dimensions

Download CAD data → www.festo.com

DAPS – Single-acting

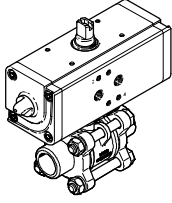
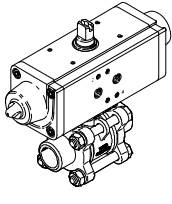


Type	B1	D1 Ø	H1	H2	H3	L1	L2	≈C 2
VZBA-1/4"-WW-63-T-22-F0304-V4V4T-PS15-R-90-4-C	59.2	10	99.2	71.5	20	233.3	70	9
VZBA-3/8"-WW-63-T-22-F0304-V4V4T-PS15-R-90-4-C	59.2	12	99.2	71.5	20	233.3	70	9
VZBA-1/2"-WW-63-T-22-F0304-V4V4T-PS15-R-90-4-C	59.2	16	99.2	71.5	20	233.3	75	9
VZBA-3/4"-WW-63-T-22-F0304-V4V4T-PS30-R-90-4-C	70.4	20	114.4	81.7	20	259	90	10
VZBA-1"-WW-63-T-22-F0405-V4V4T-PS30-R-90-4-C	70.4	25	122.4	89.7	20	259	100	10
VZBA-1 1/4"-WW-63-T-22-F0405-V4V4T-PS53-R-90-4-C	83.3	32	141.3	102.8	20	304.3	110	12
VZBA-1 1/2"-WW-63-T-22-F0507-V4V4T-PS53-R-90-4-C	83.3	38	151.3	112.8	20	304.3	125	12
VZBA-2"-WW-63-T-22-F0507-V4V4T-PS90-R-90-4-C	107.5	50	184.5	133.5	30	393.7	150	15
VZBA-2 1/2"-WW-63-T-22-F0710-V4V4T-PS120-R-90-4-C	111.1	65	209.1	158.1	30	409.6	190	15
VZBA-3"-WW-63-T-22-F0710-V4V4T-PS180-R-90-4-C	118	80	228	172	30	474	220	19
VZBA-4"-WW-63-T-22-F10-V4V4T-PS240-R-90-4-C	134.9	100	272.9	210.9	30	520.5	270	19

Type	B1	D1 Ø	H1	H2	H3	L1	L2	≈C 2
VZBA-1/4"-GG-63-T-22-F0304-V4V4T-PS15-R-90-4-C	59.2	10	99.2	71.5	20	233.3	65	9
VZBA-3/8"-GG-63-T-22-F0304-V4V4T-PS15-R-90-4-C	59.2	12	99.2	71.5	20	233.3	65	9
VZBA-1/2"-GG-63-T-22-F0304-V4V4T-PS15-R-90-4-C	59.2	16	99.2	71.5	20	233.3	75	9
VZBA-3/4"-GG-63-T-22-F0304-V4V4T-PS30-R-90-4-C	70.4	20	114.4	81.7	20	259	80	10
VZBA-1"-GG-63-T-22-F0405-V4V4T-PS30-R-90-4-C	70.4	25	122.4	89.7	20	259	90	10
VZBA-1 1/4"-GG-63-T-22-F0405-V4V4T-PS53-R-90-4-C	83.3	32	141.3	102.8	20	304.3	110	12
VZBA-1 1/2"-GG-63-T-22-F0507-V4V4T-PS53-R-90-4-C	83.3	38	151.3	112.8	20	304.3	120	12
VZBA-2"-GG-63-T-22-F0507-V4V4T-PS90-R-90-4-C	107.5	50	184.5	133.5	30	393.7	140	15
VZBA-2 1/2"-GG-63-T-22-F0710-V4V4T-PS120-R-90-4-C	111.1	65	209.1	158.1	30	409.6	185	15
VZBA-3"-GG-63-T-22-F0710-V4V4T-PS180-R-90-4-C	118	80	228	172	30	474	205	19
VZBA-4"-GG-63-T-22-F10-V4V4T-PS240-R-90-4-C	134.9	100	272.9	210.9	30	520.5	240	19

VZBA, 2-way, stainless steel

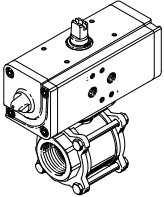
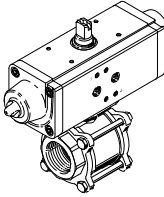
Technical data

Ordering data				
DAPS – Double-acting	Connection	Nominal width DN	Part No.	Type
	With weld-on ends	8	1810730	VZBA-1/4"-WW-63-T-22-F0304-V4V4T-PP15-R-90-C
		10	1810731	VZBA-3/8"-WW-63-T-22-F0304-V4V4T-PP15-R-90-C
		15	1810732	VZBA-1/2"-WW-63-T-22-F0304-V4V4T-PP15-R-90-C
		20	1810733	VZBA-3/4"-WW-63-T-22-F0304-V4V4T-PP30-R-90-C
		25	1810734	VZBA-1"-WW-63-T-22-F0405-V4V4T-PP30-R-90-C
		32	1810735	VZBA-1 1/4"-WW-63-T-22-F0405-V4V4T-PP60-R-90-C
		40	1810736	VZBA-1 1/2"-WW-63-T-22-F0507-V4V4T-PP60-R-90-C
		50	1810737	VZBA-2"-WW-63-T-22-F0507-V4V4T-PP60-R-90-C
		65	1810738	VZBA-2 1/2"-WW-63-T-22-F0710-V4V4T-PP106-R-90-C
		80	1810739	VZBA-3"-WW-63-T-22-F0710-V4V4T-PP180-R-90-C
100	1810740	VZBA-4"-WW-63-T-22-F10-V4V4T-PP240-R-90-C		
DAPS – Single-acting				
	With weld-on ends	8	1774103	VZBA-1/4"-WW-63-T-22-F0304-V4V4T-PS15-R-90-4-C
		10	1774104	VZBA-3/8"-WW-63-T-22-F0304-V4V4T-PS15-R-90-4-C
		15	1774105	VZBA-1/2"-WW-63-T-22-F0304-V4V4T-PS15-R-90-4-C
		20	1774106	VZBA-3/4"-WW-63-T-22-F0304-V4V4T-PS30-R-90-4-C
		25	1774107	VZBA-1"-WW-63-T-22-F0405-V4V4T-PS30-R-90-4-C
		32	1774108	VZBA-1 1/4"-WW-63-T-22-F0405-V4V4T-PS60-R-90-4-C
		40	1774109	VZBA-1 1/2"-WW-63-T-22-F0507-V4V4T-PS60-R-90-4-C
		50	1774110	VZBA-2"-WW-63-T-22-F0507-V4V4T-PS60-R-90-4-C
		65	1774111	VZBA-2 1/2"-WW-63-T-22-F0710-V4V4T-PS106-R-90-4-C
		80	1774112	VZBA-3"-WW-63-T-22-F0710-V4V4T-PS180-R-90-4-C
		100	1774113	VZBA-4"-WW-63-T-22-F10-V4V4T-PS240-R-90-4-C

VZBA, 2-way, stainless steel

Technical data

FESTO

Ordering data			
DAPS – Double-acting	Connecting thread	Part No.	Type
	Rp1/4	1809651	VZBA-1/4"-GG-63-T-22-F0304-V4V4T-PP15-R-90-C
	Rp3/8	1809652	VZBA-3/8"-GG-63-T-22-F0304-V4V4T-PP15-R-90-C
	Rp1/2	1809653	VZBA-1/2"-GG-63-T-22-F0304-V4V4T-PP15-R-90-C
	Rp3/4	1809654	VZBA-3/4"-GG-63-T-22-F0304-V4V4T-PP30-R-90-C
	Rp1	1809655	VZBA-1"-GG-63-T-22-F0405-V4V4T-PP30-R-90-C
	Rp1 1/4	1809656	VZBA-1 1/4"-GG-63-T-22-F0405-V4V4T-PP60-R-90-C
	Rp1 1/2	1809657	VZBA-1 1/2"-GG-63-T-22-F0507-V4V4T-PP60-R-90-C
	Rp2	1809658	VZBA-2"-GG-63-T-22-F0507-V4V4T-PP60-R-90-C
	Rp2 1/2	1809659	VZBA-2 1/2"-GG-63-T-22-F0710-V4V4T-PP106-R-90-C
	Rp3	1809660	VZBA-3"-GG-63-T-22-F0710-V4V4T-PP180-R-90-C
	Rp4	1809661	VZBA-4"-GG-63-T-22-F10-V4V4T-PP240-R-90-C
DAPS – Single-acting			
	Rp1/4	1758069	VZBA-1/4"-GG-63-T-22-F0304-V4V4T-PS15-R-90-4-C
	Rp3/8	1758070	VZBA-3/8"-GG-63-T-22-F0304-V4V4T-PS15-R-90-4-C
	Rp1/2	1758071	VZBA-1/2"-GG-63-T-22-F0304-V4V4T-PS15-R-90-4-C
	Rp3/4	1758072	VZBA-3/4"-GG-63-T-22-F0304-V4V4T-PS30-R-90-4-C
	Rp1	1758073	VZBA-1"-GG-63-T-22-F0405-V4V4T-PS30-R-90-4-C
	Rp1 1/4	1758074	VZBA-1 1/4"-GG-63-T-22-F0405-V4V4T-PS53-R-90-4-C
	Rp1 1/2	1758075	VZBA-1 1/2"-GG-63-T-22-F0507-V4V4T-PS53-R-90-4-C
	Rp2	1758076	VZBA-2"-GG-63-T-22-F0507-V4V4T-PS90-R-90-4-C
	Rp2 1/2	1758077	VZBA-2 1/2"-GG-63-T-22-F0710-V4V4T-PS120-R-90-4-C
	Rp3	1758078	VZBA-3"-GG-63-T-22-F0710-V4V4T-PS180-R-90-4-C
	Rp4	1758079	VZBA-4"-GG-63-T-22-F10-V4V4T-PS240-R-90-4-C

VZBC, 2-way, compact design, stainless steel

FESTO

Type codes

VZBC - 15 - F F - 40 - 22 - F0304 - V4 V4 T -

Type

VZBC	Ball valve
------	------------

Nominal width DN

15	DN15
20	DN20
25	DN25
32	DN32
40	DN40
50	DN50
65	DN65
80	DN80
100	DN100

Connection type 1

F	Flange to DIN EN 1092-1
---	-------------------------

Connection type 2

F	Flange to DIN EN 1092-1
---	-------------------------

Nominal pressure of process valve PN

40	40 bar
16	16 bar

Valve function

22	2/2-way
----	---------

Flanged connection to ISO 5211

F0304	2 bolt circles with \varnothing 36 mm and \varnothing 42 mm
F0405	2 bolt circles with \varnothing 42 mm and \varnothing 50 mm
F0507	2 bolt circles with \varnothing 50 mm and \varnothing 70 mm
F07	1 bolt circle with \varnothing 70 mm
F0710	2 bolt circles with \varnothing 70 mm and \varnothing 102 mm

Housing material

V4	Stainless steel 1.4401/1.4404 (AISI 316L)/1.4408
----	---

Shut-off element material

V4	Stainless steel 1.4401/1.4404 (AISI 316L)/1.4408
----	---

Sealing material

T	PTFE reinforced
---	-----------------

VZBC, 2-way, compact design, stainless steel

Type codes

PS 15 - R - 90 - 4 - C

Actuator

PP	DAPS, double-acting
PS	DAPS, single-acting

Torque

15	15 Nm
30	30 Nm
53	53 Nm
60	60 Nm
90	90 Nm
106	106 Nm
120	120 Nm
180	180 Nm
240	240 Nm

Swivel direction

R	Right
---	-------

Nominal swivel angle

90	90°
----	-----

Spring configuration

-	Not applicable for double-acting
1	Spring force for connection pressure 2.8 bar
2	Spring force for connection pressure 3.5 bar
3	Spring force for connection pressure 4.2 bar
4	Spring force for connection pressure 5.6 bar

End-position adjustment

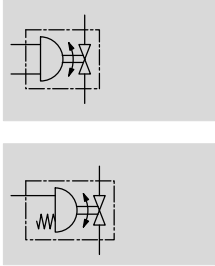
C	Closed
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VZBC, 2-way, compact design, stainless steel

FESTO

Technical data

Function



-  Swivel angle
0 ... 90°
-  Flow rate
19.4 ... 1414 m³/h
-  Connecting thread
Rp1/2 ... Rp4



General technical data										
Nominal width DN	15	20	25	32	40	50	65	80	100	
Quarter turn actuator										
Type of mounting	In-line installation									
Mounting position	Any									
Swivel angle [°]	90									
Closing direction	Closes to the right									
Ball valve										
Design	2-way ball valve									
Type of actuation	Pneumatic									
Switching position indication	Slot direction = flow direction									
Type of mounting	In-line installation									
Nominal pressure of process valve PN	40						16			
Flow rate Kv [m ³ /h]	19.4	45.6	71.5	105	170	275	507	905	1414	

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

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 requirements for the surface and which are in direct contact with a normal industrial environment.

VZBC, 2-way, compact design, stainless steel

Technical data

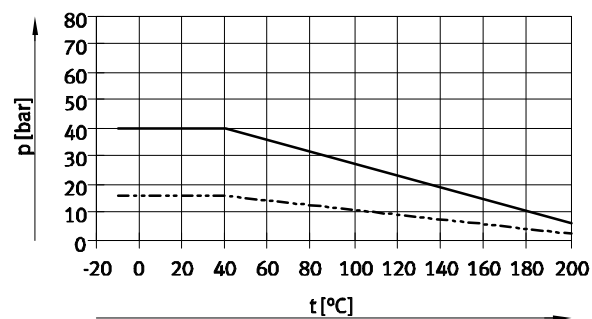
ATEX	
ATEX category for gas	II 2G
ATEX category for dust	II 2D
Max. surface temperature of assembly	TX
Explosion group of assembly	IIC
Explosion ambient temperature	-10 °C ≤ Ta ≤ +60 °C

Materials		Material number
Housing	High-alloy stainless steel	1.4408
Ball		
Shaft	High-alloy stainless steel	1.4401
Seals	PTFE reinforced	
	PTFE	
Note on materials	RoHS-compliant	
	Contains paint-wetting impairment substances	

Weight – Double-acting			Weight – Double-acting		
Nominal width DN	Process valve connection	Weight [g]	Nominal width DN	Process valve connection	Weight [g]
15	Ring housing with threaded flange	2300	50	Ring housing with threaded flange	8600
20		3200	65		14,300
25		3700	80		18,700
32		5700	100		26,000
40		6400			

Weight – Single-acting			Weight – Single-acting		
Nominal width DN	Process valve connection	Weight [g]	Nominal width DN	Process valve connection	Weight [g]
15	Ring housing with threaded flange	2850	50	Ring housing with threaded flange	11,800
20		4350	65		18,900
25		4850	80		23,300
32		7000	100		31,900
40		7700			

Permissible operating pressure p as a function of the temperature of the medium t



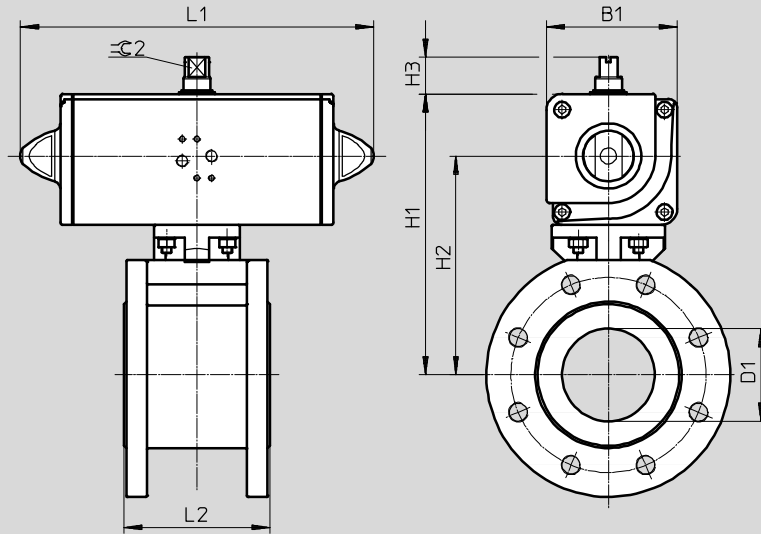
VZBC, 2-way, compact design, stainless steel

Technical data

Dimensions

Download CAD data → www.festo.com

DAPS – Double-acting



Type	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

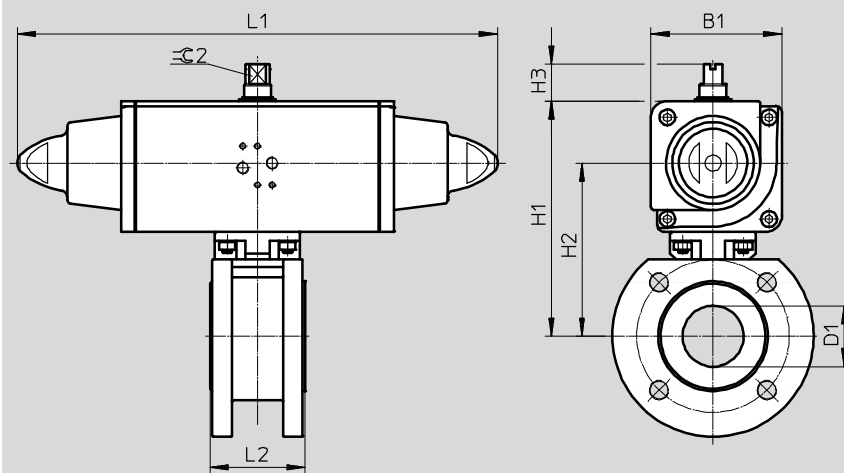
VZBC, 2-way, compact design, stainless steel

Technical data

Dimensions

Download CAD data → www.festo.com

DAPS – Single-acting



Type	B1	D1 Ø	H1	H2	H3	L1	L2	±C 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	Connection	Nominal width DN	Part No.	Type		
	Ring housing with threaded flange	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						
	Ring housing with threaded flange	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

VZBA, 3-way, stainless steel

Type codes

VZBA - 2 - G G G - 63 - 32L - F0507 -

Type

VZBA	Ball valve
------	------------

Nominal width DN

1/4"	DN8
3/8"	DN10
1/2"	DN15
3/4"	DN20
1"	DN25
1 1/4"	DN32
1 1/2"	DN40
2"	DN50

Connection type 1

G	Pipe thread to DIN EN 10226-1
---	-------------------------------

Connection type 2

G	Pipe thread to DIN EN 10226-1
---	-------------------------------

Connection type 3

G	Pipe thread to DIN EN 10226-1
---	-------------------------------

Nominal pressure of process valve PN

63	63 bar
----	--------

Valve function

32T	3/2-way, T-shaped bore
32L	3/2-way, L-shaped bore

Flanged connection to ISO 5211

F0304	2 bolt circles with \varnothing 36 mm and \varnothing 42 mm
F0405	2 bolt circles with \varnothing 42 mm and \varnothing 50 mm
F0507	2 bolt circles with \varnothing 50 mm and \varnothing 70 mm

VZBA, 3-way, stainless steel

Type codes

V4 V4 T - PS 80 - 90 - 5 - C

Housing material

V4	Stainless steel 1.4401/1.4404 (AISI 316L)/1.4408
----	---

Shut-off element material

V4	Stainless steel 1.4401/1.4404 (AISI 316L)/1.4408
----	---

Sealing material

T	PTFE reinforced
---	-----------------

Actuator

PP	DAPS, double-acting
PS	DAPS, single-acting

Torque

30	30 Nm
53	53 Nm
60	60 Nm
90	90 Nm
106	106 Nm

Nominal swivel angle

90	90°
----	-----

Spring configuration

-	Not applicable for double-acting
3	Spring force for connection pressure 3 bar
4	Spring force for connection pressure 4 bar
5	Spring force for connection pressure 5 bar

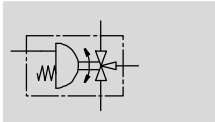
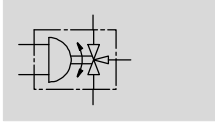
End-position adjustment




C	Closed
---	--------

VZBA, 3-way, stainless steel

Technical data

Function



-  Swivel angle
0 ... 90°
-  Flow rate
4.5 ... 100 m³/h
-  Connecting thread
Rp1/4 ... Rp4



General technical data								
Nominal width DN	8	10	15	20	25	32	40	50
Quarter turn actuator								
Type of mounting	In-line installation							
Mounting position	Any							
Swivel angle	[°]	90						
Closing direction	Closes to the right							
Ball valve								
Design	3-way ball valve with L-shaped bore, T-shaped bore							
Type of actuation	Pneumatic							
Switching position indication	Slot direction = flow direction							
Type of mounting	In-line installation							
Nominal pressure of process valve PN	63							
Flow rate Kv	[m ³ /h]	→ Page 26						

Operating and environmental conditions	
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Operating pressure [bar]	6 ... 8.4
Ambient temperature [°C]	-10 ... +80
Temperature of medium ¹⁾ [°C]	-10 ... +200
Medium	Compressed air to ISO 8573-1:2010 [:::]
	Inert gases
	Neutral fluids
	Water – no water vapour
Note on the operating/pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Note on materials	Contains paint-wetting impairment substances, RoHS-compliant
Corrosion resistance class CRC ²⁾	3

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 requirements for the surface and which are in direct contact with a normal industrial environment.

VZBA, 3-way, stainless steel

Technical data

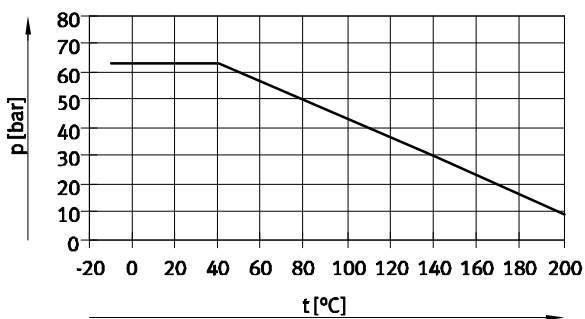
ATEX	
ATEX category for gas	II 2G
ATEX category for dust	II 2D
Max. surface temperature of assembly	TX
Explosion group of assembly	IIC
Explosion ambient temperature	-10 °C ≤ Ta ≤ +60 °C

Materials	Material number
Housing	High-alloy stainless steel 1.4408
Ball	
Shaft	High-alloy stainless steel 1.4401
Seals	PTFE reinforced PTFE
Note on materials	RoHS-compliant Contains paint-wetting impairment substances

Weight – Double-acting					
Nominal width DN	Process valve connection	Weight [g]	Nominal width DN	Process valve connection	Weight [g]
8	Rp1/4	1750	25	Rp1	2650
10	Rp3/8	1750	32	Rp1 1/4	4750
15	Rp1/2	1750	40	Rp1 1/2	5750
20	Rp3/4	2050	50	Rp2	9800

Weight – Single-acting					
Nominal width DN	Process valve connection	Weight [g]	Nominal width DN	Process valve connection	Weight [g]
8	Rp1/4	2950	25	Rp1	3850
10	Rp3/8	2950	32	Rp1 1/4	6070
15	Rp1/2	2950	40	Rp1 1/2	10,812
20	Rp3/4	3250	50	Rp2	12,900

Permissible operating pressure p as a function of the temperature of the medium t



VZBA, 3-way, stainless steel

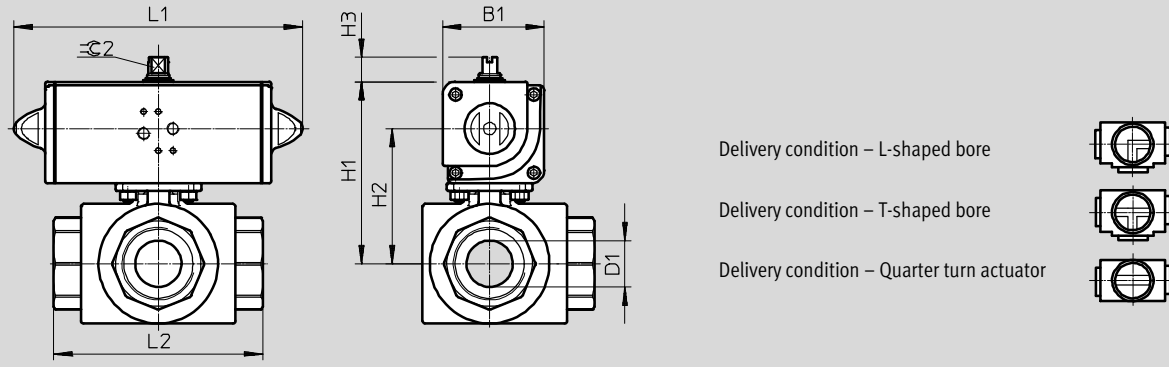
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com

DAPS – Double-acting



Type	B1	D1 ∅	H1	H2	H3	L1	L2	≙ 2
VZBA-1/4"-GGG-63-32L-F0304-V4V4T-PP30-R-90-C	59.2	11.6	95.1	67.4	20	174	80	9
VZBA-1/4"-GGG-63-32T-F0304-V4V4T-PP30-R-90-C								
VZBA-3/8"-GGG-63-32L-F0304-V4V4T-PP30-R-90-C	59.2	12.7	95.1	67.4	20	174	80	9
VZBA-3/8"-GGG-63-32T-F0304-V4V4T-PP30-R-90-C								
VZBA-1/2"-GGG-63-32L-F0304-V4V4T-PP30-R-90-C	59.2	12.7	95.1	67.4	20	174	80	9
VZBA-1/2"-GGG-63-32T-F0304-V4V4T-PP30-R-90-C								
VZBA-3/4"-GGG-63-32L-F0405-V4V4T-PP30-R-90-C	59.2	16	100.1	72.4	20	174	87.5	9
VZBA-3/4"-GGG-63-32T-F0405-V4V4T-PP30-R-90-C								
VZBA-1"-GGG-63-32L-F0405-V4V4T-PP30-R-90-C	59.2	20	104.35	76.65	20	174	100	9
VZBA-1"-GGG-63-32T-F0405-V4V4T-PP30-R-90-C								
VZBA-1 1/4"-GGG-63-32L-F0405-V4V4T-PP60-R-90-C	70.4	25.4	121.4	88.7	20	198	123	10
VZBA-1 1/4"-GGG-63-32T-F0405-V4V4T-PP60-R-90-C								
VZBA-1 1/2"-GGG-63-32L-F0405-V4V4T-PP60-R-90-C	70.4	31.8	125.9	93.2	20	198	142.2	10
VZBA-1 1/2"-GGG-63-32T-F0405-V4V4T-PP60-R-90-C								
VZBA-2"-GGG-63-32L-F0507-V4V4T-PP106-R-90-C	83.3	38.1	149.3	110.8	20	237.1	170.6	12
VZBA-2"-GGG-63-32T-F0507-V4V4T-PP106-R-90-C								

VZBA, 3-way, stainless steel

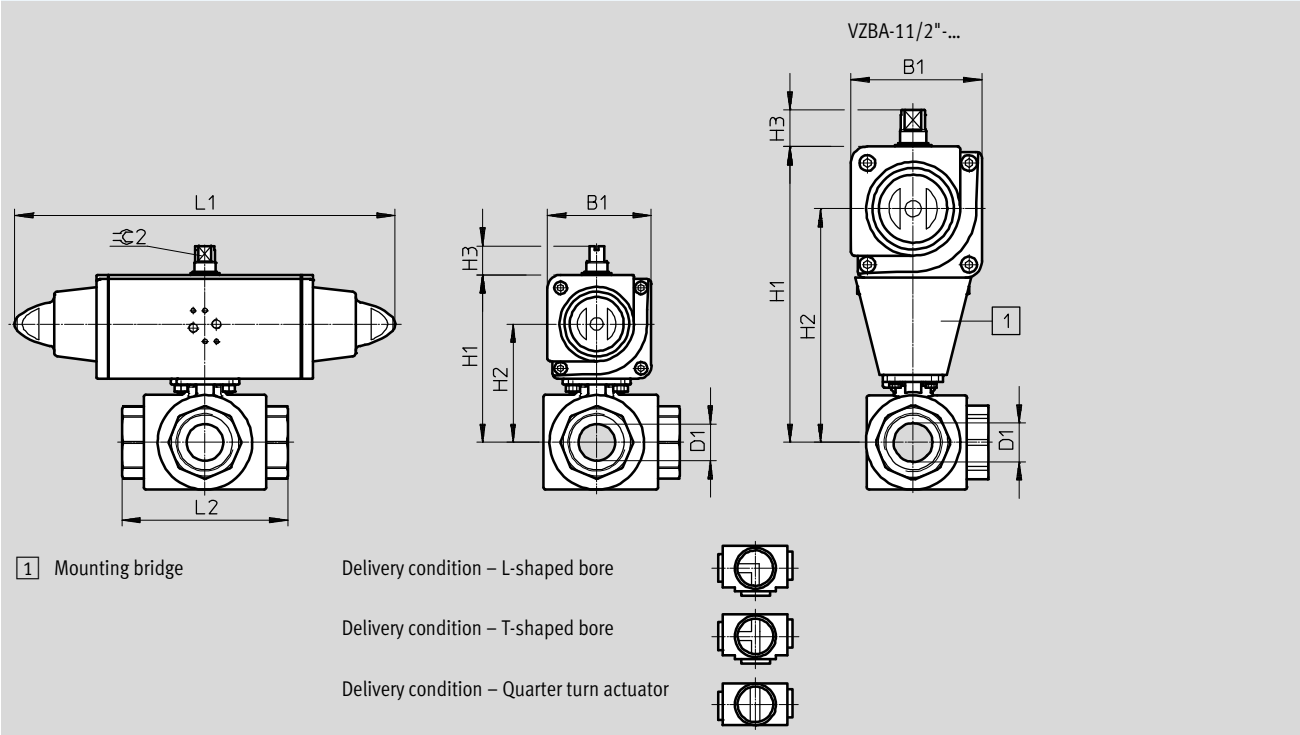
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com

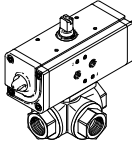
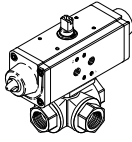
DAPS – Single-acting



Type	B1	D1 Ø	H1	H2	H3	L1	L2	⊕ 2
VZBA-1/4"-GGG-63-32L-F0304-V4V4T-PS30-R-90-4-C	70.4	11.6	106.3	73.6	20	259	80	10
VZBA-1/4"-GGG-63-32T-F0304-V4V4T-PS30-R-90-4-C								
VZBA-3/8"-GGG-63-32L-F0304-V4V4T-PS30-R-90-4-C	70.4	12.7	106.3	73.6	20	259	80	10
VZBA-3/8"-GGG-63-32T-F0304-V4V4T-PS30-R-90-4-C								
VZBA-1/2"-GGG-63-32L-F0304-V4V4T-PS30-R-90-4-C	70.4	12.7	106.3	73.6	20	259	80	10
VZBA-1/2"-GGG-63-32T-F0304-V4V4T-PS30-R-90-4-C								
VZBA-3/4"-GGG-63-32L-F0405-V4V4T-PS30-R-90-4-C	70.4	16	111.3	78.6	20	259	87.5	10
VZBA-3/4"-GGG-63-32T-F0405-V4V4T-PS30-R-90-4-C								
VZBA-1"-GGG-63-32L-F0405-V4V4T-PS30-R-90-4-C	70.4	20	115.55	82.85	20	259	100	10
VZBA-1"-GGG-63-32T-F0405-V4V4T-PS30-R-90-4-C								
VZBA-11/4"-GGG-63-32L-F0405-V4V4T-PS53-R-90-4-C	83.3	25.4	134.3	95.8	20	304.3	123	12
VZBA-11/4"-GGG-63-32T-F0405-V4V4T-PS53-R-90-4-C								
VZBA-11/2"-GGG-63-32L-F0405-V4V4T-PS90-R-90-4-C	107.5	31.8	243	192	30	393.7	142.2	15
VZBA-11/2"-GGG-63-32T-F0405-V4V4T-PS90-R-90-4-C								
VZBA-2"-GGG-63-32L-F0507-V4V4T-PS90-R-90-4-C	107.5	38.1	173.5	122.5	30	393.7	170.6	15
VZBA-2"-GGG-63-32T-F0507-V4V4T-PS90-R-90-4-C								

VZBA, 3-way, stainless steel

Technical data

Ordering data							
DAPS – Double-acting	Connection Process valve	Bore	Flow rate Kv [m ³ /h] Type			Part No.	Type
			L	T right-angled	T straight		
	Rp1/4	L	4.5	–	–	1914785	VZBA-1/4"-GGG-63-32L-F0304-V4V4T-PP30-R-90-C
	Rp3/8		4.5	–	–	1914786	VZBA-3/8"-GGG-63-32L-F0304-V4V4T-PP30-R-90-C
	Rp1/2		4.7	–	–	1914787	VZBA-1/2"-GGG-63-32L-F0304-V4V4T-PP30-R-90-C
	Rp3/4		5.1	–	–	1914788	VZBA-3/4"-GGG-63-32L-F0405-V4V4T-PP30-R-90-C
	Rp1		11.8	–	–	1914789	VZBA-1"-GGG-63-32L-F0405-V4V4T-PP30-R-90-C
	Rp1 1/4		19.6	–	–	1914790	VZBA-1 1/4"-GGG-63-32L-F0405-V4V4T-PP60-R-90-C
	Rp1 1/2		33.2	–	–	1914791	VZBA-1 1/2"-GGG-63-32L-F0405-V4V4T-PP60-R-90-C
	Rp2		53.7	–	–	1914792	VZBA-2"-GGG-63-32L-F0507-V4V4T-PP106-R-90-C
	Rp1/4		T	–	4.5	8	1915072
	Rp3/8	–		4.5	8	1915073	VZBA-3/8"-GGG-63-32T-F0304-V4V4T-PP30-R-90-C
	Rp1/2	–		4.8	8.3	1915074	VZBA-1/2"-GGG-63-32T-F0304-V4V4T-PP30-R-90-C
	Rp3/4	–		4.8	8.3	1915075	VZBA-3/4"-GGG-63-32T-F0405-V4V4T-PP30-R-90-C
	Rp1	–		10.9	22.4	1915076	VZBA-1"-GGG-63-32T-F0405-V4V4T-PP30-R-90-C
	Rp1 1/4	–		18	36.5	1915077	VZBA-1 1/4"-GGG-63-32T-F0405-V4V4T-PP60-R-90-C
	Rp1 1/2	–		30	62	1915078	VZBA-1 1/2"-GGG-63-32T-F0405-V4V4T-PP60-R-90-C
	Rp2	–		48.8	100	1915079	VZBA-2"-GGG-63-32T-F0507-V4V4T-PP106-R-90-C
	DAPS – Single-acting						
		Rp1/4	L	4.5	–	–	1915543
Rp3/8		4.5		–	–	1915544	VZBA-3/8"-GGG-63-32L-F0304-V4V4T-PS30-R-90-4-C
Rp1/2		4.7		–	–	1915545	VZBA-1/2"-GGG-63-32L-F0304-V4V4T-PS30-R-90-4-C
Rp3/4		5.1		–	–	1915546	VZBA-3/4"-GGG-63-32L-F0405-V4V4T-PS30-R-90-4-C
Rp1		11.8		–	–	1915547	VZBA-1"-GGG-63-32L-F0405-V4V4T-PS30-R-90-4-C
Rp1 1/4		19.6		–	–	1915548	VZBA-1 1/4"-GGG-63-32L-F0405-V4V4T-PS53-R-90-4-C
Rp1 1/2		33.2		–	–	1915549	VZBA-1 1/2"-GGG-63-32L-F0405-V4V4T-PS90-R-90-4-C
Rp2		53.7		–	–	1915550	VZBA-2"-GGG-63-32L-F0507-V4V4T-PS90-R-90-4-C
Rp1/4		T		–	4.5	8	1915744
Rp3/8			–	4.5	8	1915745	VZBA-3/8"-GGG-63-32T-F0304-V4V4T-PS30-R-90-4-C
Rp1/2			–	4.8	8.3	1915746	VZBA-1/2"-GGG-63-32T-F0304-V4V4T-PS30-R-90-4-C
Rp3/4			–	4.8	8.3	1915747	VZBA-3/4"-GGG-63-32T-F0405-V4V4T-PS30-R-90-4-C
Rp1			–	10.9	22.4	1915748	VZBA-1"-GGG-63-32T-F0405-V4V4T-PS30-R-90-4-C
Rp1 1/4			–	18	36.5	1915749	VZBA-1 1/4"-GGG-63-32T-F0405-V4V4T-PS53-R-90-4-C
Rp1 1/2			–	30	62	1915750	VZBA-1 1/2"-GGG-63-32T-F0405-V4V4T-PS90-R-90-4-C
Rp2			–	48.8	100	1915751	VZBA-2"-GGG-63-32T-F0507-V4V4T-PS90-R-90-4-C

VZBM, 2-way, brass

Type codes

VZBM - A - 3/4" - RP - 25 - D - 2 - B2 - PA 10

Type

VZBM	Ball valve
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Design

A	Ball valve actuator unit
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Nominal width DN

1/4"	DN8
3/8"	DN10
1/2"	DN15
3/4"	DN20
1"	DN25
1 1/4"	DN32
1 1/2"	DN40
2"	DN50

Process valve connection type

RP	Rp thread
----	-----------

Nominal pressure

25	25 bar
40	40 bar

Design

D	Two-part
---	----------

Valve function

2	2/2-way
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Housing material

B2	Brass, nickel-plated
----	----------------------

Actuator

PA	DFPD, double-acting
PB	DFPD, single-acting

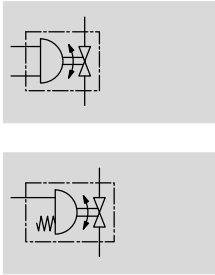
Size




10	10
20	20
40	40
80	80

VZBM, 2-way, brass

Technical data

Function



-  Swivel angle
0 ... 90°
-  Flow rate
5.9 ... 243 m³/h
-  Connecting thread
Rp1/4 ... Rp2



General technical data								
Nominal width DN	8	10	15	20	25	32	40	50
Quarter turn actuator								
Type of mounting	In-line installation							
Mounting position	Any							
Swivel angle [°]	90							
Closing direction	Closes to the right							
Ball valve								
Design	2-way ball valve							
Type of actuation	Pneumatic							
Switching position indication	Slot direction = flow direction							
Nominal pressure of process valve PN	40		25					
Flow rate Kv [m ³ /h]	5.9	9.4	15	28	39	84	156	243

Operating and environmental conditions								
Nominal width DN	8	10	15	20	25	32	40	50
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]							
Operating pressure [bar]	5.5 ... 8							
Ambient temperature [°C]	-20 ... +80							
Temperature of medium ¹⁾ [°C]	-20 ... +130		-15 ... +90					
Medium	Compressed air to ISO 8573-1:2010 [:::]							
	Inert gases							
	Water – no water vapour							
	Neutral fluids							
Note on the operating/pilot medium	Pressure dew point 10°C below ambient/medium temperature							
	Lubricated operation possible (in which case lubricated operation will always be required)							
Corrosion resistance class CRC ²⁾	1							

1) As a function of operating pressure

2) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

VZBM, 2-way, brass

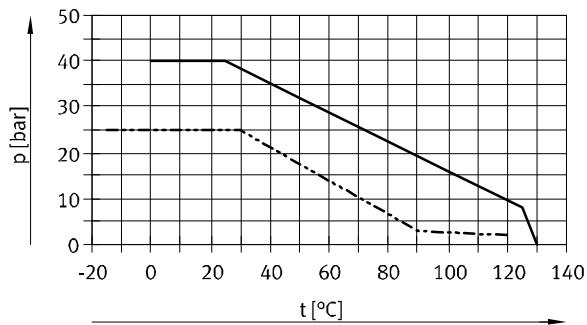
Technical data

Materials		Material number
Housing	Brass, nickel-plated	CW617N
Ball	Brass, chrome-plated	CW614N
Shaft	Brass	CW614N
Seals		
	HNBR	
	PTFE	
With Rp1/2 ... Rp2 additionally	FPM	
Note on materials		
RoHS-compliant		
Contains paint-wetting impairment substances		

Weight – Double-acting					
Nominal width DN	Process valve connection	Weight [g]	Nominal width DN	Process valve connection	Weight [g]
8	Rp1/4	1393	25	Rp1	1454
10	Rp3/8	1371	32	Rp1 1/4	1711
15	Rp1/2	1187	40	Rp1 1/2	2443
20	Rp3/4	1287	50	Rp2	3694

Weight – Single-acting					
Nominal width DN	Process valve connection	Weight [g]	Nominal width DN	Process valve connection	Weight [g]
8	Rp1/4	1839	25	Rp1	1900
10	Rp3/8	1817	32	Rp1 1/4	2157
15	Rp1/2	1363	40	Rp1 1/2	3329
20	Rp3/4	1733	50	Rp2	5723

Permissible operating pressure p as a function of the temperature of the medium t



— Rp1/4 ... Rp3/8
 - - - - - Rp1/2 ... Rp2

VZBM, 2-way, brass

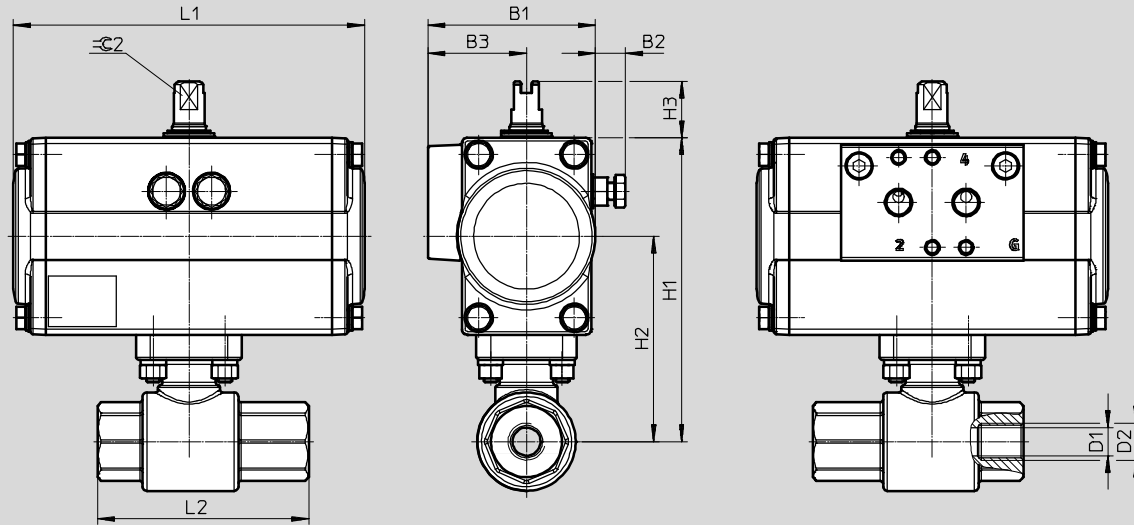
Technical data

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Dimensions

Download CAD data → www.festo.com

DFPD – Double-acting



Delivery condition – Ball valve



Delivery condition – Quarter turn actuator



Type	B1	B2	B3	D1 Ø	D2	H1	H2	H3	L1	L2	≈ 2 h11
VZBM-A-1/4"-...	59.5	10.7	35	10	RP1/4	108	73	20	124.7	75	9
VZBM-A-3/8"-...	59.5	10.7	35	10	RP3/8	108	73	20	124.7	75	9
VZBM-A-1/2"-...	59.5	10.7	35	15	RP1/2	102	67	20	124.7	61	9
VZBM-A-3/4"-...	59.5	10.7	35	20	RP3/4	106	71	20	124.7	70	9
VZBM-A-1"-...	59.5	10.7	35	25	RP1	114	79	20	124.7	84	9
VZBM-A-1 1/4"-...	59.5	10.7	35	32	RP1 1/4	119	84	20	124.7	97	9
VZBM-A-1 1/2"-...	68.5	9.2	38.5	40	RP1 1/2	134	94	20	133.3	108	9
VZBM-A-2"-...	81.5	8.2	45	50	RP2	152	108	20	151.4	130	12

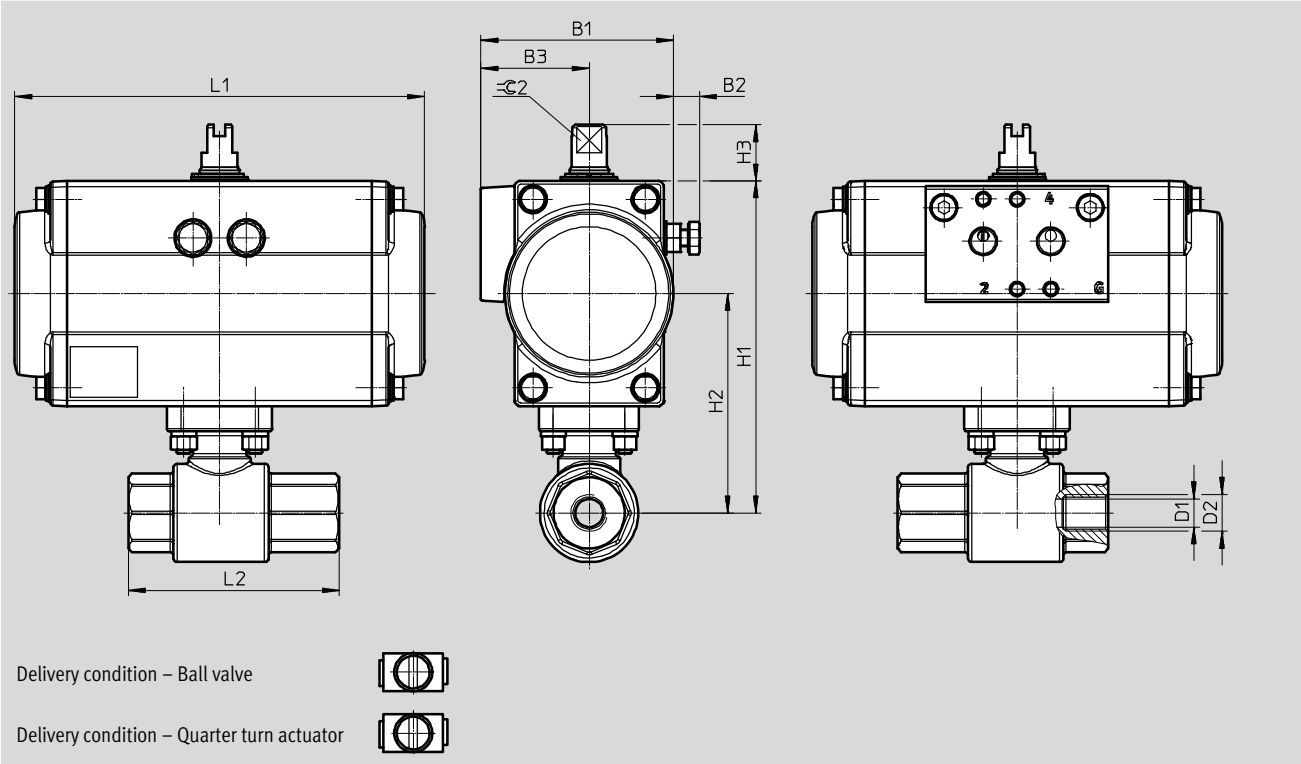
VZBM, 2-way, brass

Technical data

Dimensions

Download CAD data → www.festo.com

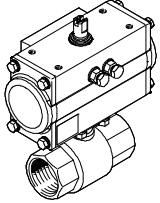
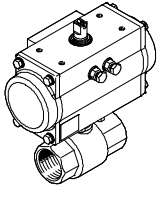
DFPD – Single-acting



Type	B1	B2	B3	D1 Ø	D2	H1	H2	H3	L1	L2	h11
VZBM-A-1/4"-...	68.5	9.2	38.5	10	RP1/4	118	78	20	145.7	75	9
VZBM-A-3/8"-...	68.5	9.2	38.5	10	RP3/8	118	78	20	145.7	75	9
VZBM-A-1/2"-...	68.5	9.2	38.5	15	RP1/2	112	72	20	145.7	61	9
VZBM-A-3/4"-...	68.5	9.2	38.5	20	RP3/4	116	76	20	145.7	70	9
VZBM-A-1"-...	68.5	9.2	38.5	25	RP1	124	84	20	145.7	84	9
VZBM-A-1 1/4"-...	68.5	9.2	38.5	32	RP1 1/4	129	89	20	145.7	97	9
VZBM-A-1 1/2"-...	81.5	8.2	45	40	RP1 1/2	146	100	20	170.4	108	9
VZBM-A-2"-...	99	9	53	50	RP2	172	117	20	223.1	130	12

VZBM, 2-way, brass

Technical data

Ordering data			
DFPD – Double-acting	Connecting thread	Part No.	Type
	Rp1/4	8070234	VZBM-A-1/4"-RP-40-D-2-B2-PA10
	Rp3/8	8070235	VZBM-A-3/8"-RP-40-D-2-B2-PA10
	Rp1/2	8070236	VZBM-A-1/2"-RP-25-D-2-B2-PA10
	Rp3/4	8070237	VZBM-A-3/4"-RP-25-D-2-B2-PA10
	Rp1	8070238	VZBM-A-1"-RP-25-D-2-B2-PA10
	Rp1 1/4	8070239	VZBM-A-1 1/4"-RP-25-D-2-B2-PA10
	Rp1 1/2	8070240	VZBM-A-1 1/2"-RP-25-D-2-B2-PA20
	Rp2	8070241	VZBM-A-2"-RP-25-D-2-B2-PA40
DFPD – Single-acting			
	Rp1/4	8070242	VZBM-A-1/4"-RP-40-D-2-B2-PB20
	Rp3/8	8070243	VZBM-A-3/8"-RP-40-D-2-B2-PB20
	Rp1/2	8070244	VZBM-A-1/2"-RP-25-D-2-B2-PB20
	Rp3/4	8070245	VZBM-A-3/4"-RP-25-D-2-B2-PB20
	Rp1	8070246	VZBM-A-1"-RP-25-D-2-B2-PB20
	Rp1 1/4	8070247	VZBM-A-1 1/4"-RP-25-D-2-B2-PB20
	Rp1 1/2	8070248	VZBM-A-1 1/2"-RP-25-D-2-B2-PB40
	Rp2	8070249	VZBM-A-2"-RP-25-D-2-B2-PB80

VZBM, 3-way, brass

Type codes

VZBM - A - 3/4" - RP - 25 - F - 3L - B2 - PA 20

Type

VZBM	Ball valve
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Design

A	Ball valve actuator unit
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Nominal width DN

1/4"	DN8
3/8"	DN10
1/2"	DN15
3/4"	DN20
1"	DN25
1 1/4"	DN32
1 1/2"	DN40
2"	DN50

Process valve connection type

RP	Rp thread
----	-----------

Nominal pressure

25	25 bar
40	40 bar

Design

F	Four-part
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Valve function

3L	3/2-way, L-shaped bore
3T	3/2-way, T-shaped bore

Housing material

B2	Brass, nickel-plated
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Actuator

PA	DFFD, double-acting
PB	DFFD, single-acting

Size

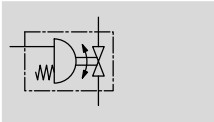
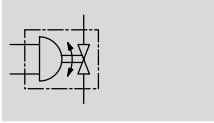
10	10
20	20
40	40
80	80
120	120




VZBM, 3-way, brass

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Technical data

Function



-  Swivel angle
0 ... 90°
-  Flow rate
5.9 ... 292 m³/h
-  Connecting thread
Rp1/4 ... Rp2



General technical data									
Nominal width DN	8	10	15	20	25	32	40	50	
Quarter turn actuator									
Type of mounting	In-line installation								
Mounting position	Any								
Swivel angle	[°]	90							
Closing direction	Closes to the right								
Ball valve									
Design	3-way ball valve								
Type of actuation	Pneumatic								
Switching position indication	Slot direction = flow direction								
Nominal pressure of process valve PN	25								
Flow rate Kv	[m ³ /h]	5.9	9.4	17	41	70	121	200	292

Operating and environmental conditions								
Nominal width DN	8	10	15	20	25	32	40	50
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]							
Operating pressure	[bar]	5.5 ... 8						
Ambient temperature	[°C]	-20 ... +80						
Temperature of medium ¹⁾	[°C]	-20 ... +130						
Medium	Compressed air to ISO 8573-1:2010 [:::]							
	Inert gases							
	Water – no water vapour							
	Neutral fluids							
Note on the operating/pilot medium	Pressure dew point 10°C below ambient/medium temperature							
	Lubricated operation possible (in which case lubricated operation will always be required)							
Corrosion resistance class CRC ²⁾	1							

1) As a function of operating pressure

2) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

VZBM, 3-way, brass

Technical data

FESTO

Materials		Material number
Housing	Brass, nickel-plated	CW617N
Ball	Brass, chrome-plated	CW614N
Shaft	Brass	CW614N
Seals	HNBR	
	PTFE	
Note on materials	RoHS-compliant	
	Contains paint-wetting impairment substances	

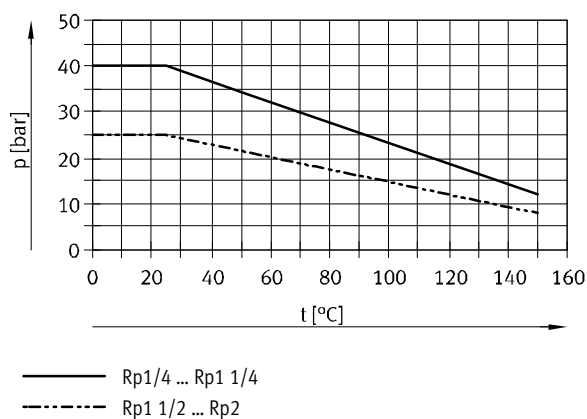
Weight – Double-acting, type L					
Nominal width DN	Process valve connection	Weight [g]	Nominal width DN	Process valve connection	Weight [g]
8	Rp1/4	1511	25	Rp1	2584
10	Rp3/8	1481	32	Rp1 1/4	4911
15	Rp1/2	1441	40	Rp1 1/2	6597
20	Rp3/4	2011	50	Rp2	7807

Weight – Single-acting, type L					
Nominal width DN	Process valve connection	Weight [g]	Nominal width DN	Process valve connection	Weight [g]
8	Rp1/4	1957	25	Rp1	3461
10	Rp3/8	1927	32	Rp1 1/4	6953
15	Rp1/2	1887	40	Rp1 1/2	8973
20	Rp3/4	2914	50	Rp2	10183

Weight – Double-acting, type T					
Nominal width DN	Process valve connection	Weight [g]	Nominal width DN	Process valve connection	Weight [g]
8	Rp1/4	1511	25	Rp1	2554
10	Rp3/8	1441	32	Rp1 1/4	4841
15	Rp1/2	1441	40	Rp1 1/2	6527
20	Rp3/4	2001	50	Rp2	7657

Weight – Single-acting, type T					
Nominal width DN	Process valve connection	Weight [g]	Nominal width DN	Process valve connection	Weight [g]
8	Rp1/4	1957	25	Rp1	3431
10	Rp3/8	1887	32	Rp1 1/4	6883
15	Rp1/2	1887	40	Rp1 1/2	8903
20	Rp3/4	2904	50	Rp2	10033

Permissible operating pressure p as a function of the temperature of the medium t



VZBM, 3-way, brass

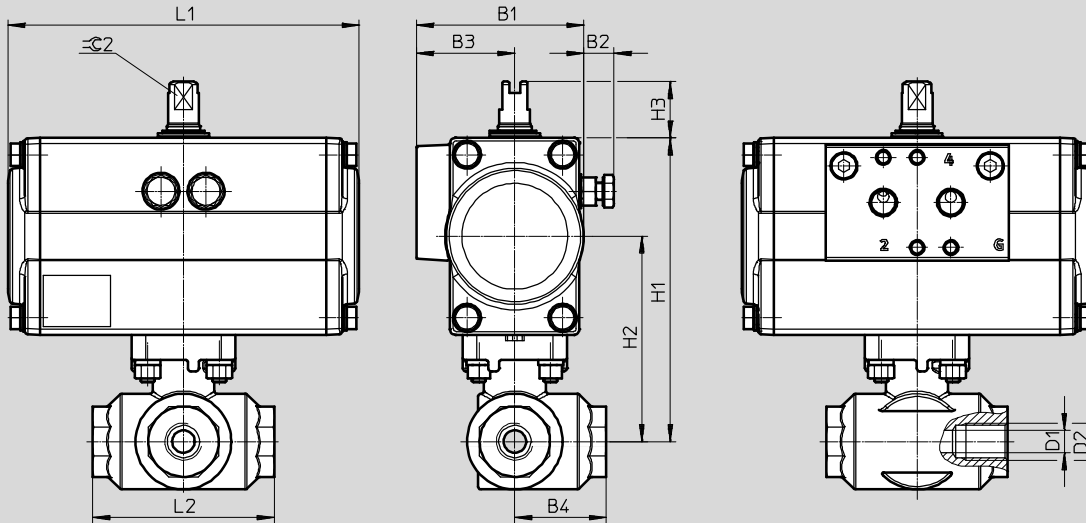
Technical data

FESTO

Dimensions

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DFPD – Double-acting



Delivery condition – L-shaped bore



Delivery condition – T-shaped bore



Delivery condition – Quarter turn actuator



Type	B1	B2	B3	B4	D1 Ø	D2	H1	H2	H3	L1	L2	∥ 2 h11
VZBM-A-1/4"-...	59.5	10.7	35	32.5	8	RP1/4	108	73	20	124.7	64.5	9
VZBM-A-3/8"-...	59.5	10.7	35	32.5	10	RP3/8	108	73	20	124.7	64.5	9
VZBM-A-1/2"-...	59.5	10.7	35	32.5	14.1	RP1/2	108	73	20	124.7	64.5	9
VZBM-A-3/4"-...	68.5	9.2	38.5	38	17.6	RP3/4	122	82	20	133.3	76	9
VZBM-A-1"-...	68.5	9.2	38.5	48.5	25	RP1	126.5	86.5	20	133.3	97	9
VZBM-A-11/4"-...	81.5	8.2	45	59	32	RP1 1/4	153.3	107.3	20	151.4	118	12
VZBM-A-11/2"-...	99	9	53	67.5	38	RP1 1/2	155.5	118.5	20	189.3	134.5	15
VZBM-A-2"-...	99	9	53	78.5	45	RP2	166	129	20	189.3	157	15

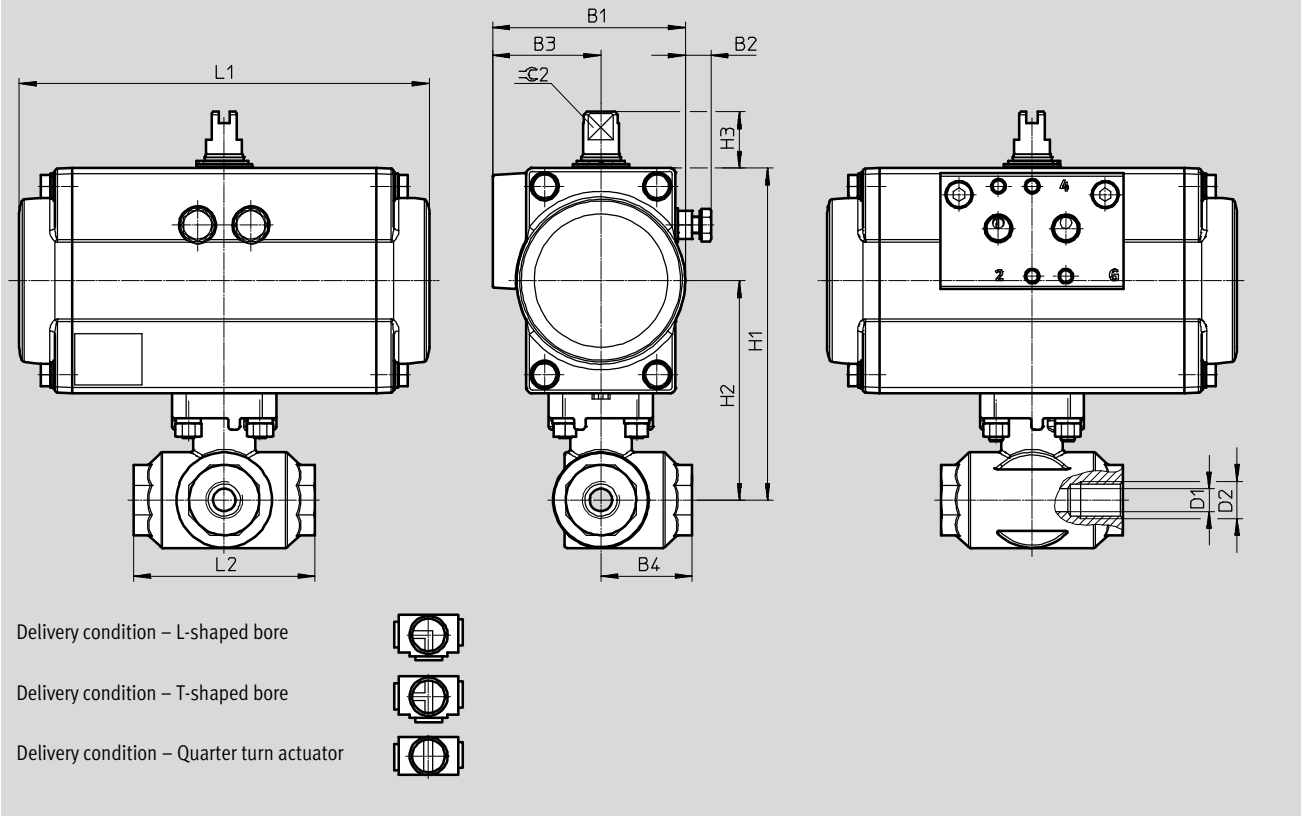
VZBM, 3-way, brass

Technical data

Dimensions

Download CAD data → www.festo.com

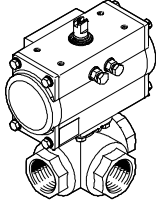
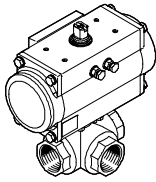
DFPD – Single-acting

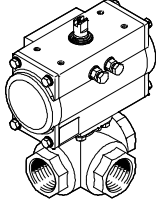
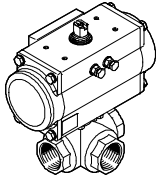


Type	B1	B2	B3	B4	D1 Ø	D2	H1	H2	H3	L1	L2	≅ 2 h11
VZBM-A-1/4"-...	68.5	9.2	38.5	32.5	8	RP1/4	118	78	20	145.7	64.5	9
VZBM-A-3/8"-...	68.5	9.2	38.5	32.5	10	RP3/8	118	78	20	145.7	64.5	9
VZBM-A-1/2"-...	68.5	9.2	38.5	32.5	14.1	RP1/2	118	78	20	145.7	64.5	9
VZBM-A-3/4"-...	81.5	8.2	45	38	17.6	RP3/4	132	88	20	170.4	76	12
VZBM-A-1"-...	81.5	8.2	45	48.5	25	RP1	138.5	92.5	20	170.4	97	12
VZBM-A-1 1/4"-...	99	9	53	59	32	RP1 1/4	171.3	116.3	20	223.1	118	15
VZBM-A-1 1/2"-...	111.5	12.3	60.5	67.5	38	RP1 1/2	186.5	124.5	20	252.3	134.5	15
VZBM-A-2"-...	111.5	12.3	60.5	78.5	45	RP2	197	135.5	20	252.3	157	15

VZBM, 3-way, brass

Technical data

Ordering data			
DFPD – Double-acting, type L	Connecting thread	Part No.	Type
	Rp1/4	8070250	VZBM-A-1/4"-RP-25-F-3L-B2-PA10
	Rp3/8	8070251	VZBM-A-3/8"-RP-25-F-3L-B2-PA10
	Rp1/2	8070252	VZBM-A-1/2"-RP-25-F-3L-B2-PA10
	Rp3/4	8070253	VZBM-A-3/4"-RP-25-F-3L-B2-PA20
	Rp1	8070254	VZBM-A-1"-RP-25-F-3L-B2-PA20
	Rp1 1/4	8070255	VZBM-A-1 1/4"-RP-25-F-3L-B2-PA40
	Rp1 1/2	8070256	VZBM-A-1 1/2"-RP-25-F-3L-B2-PA80
	Rp2	8070257	VZBM-A-2"-RP-25-F-3L-B2-PA80
DFPD – Single-acting, type L			
	Rp1/4	8070266	VZBM-A-1/4"-RP-25-F-3L-B2-PB20
	Rp3/8	8070267	VZBM-A-3/8"-RP-25-F-3L-B2-PB20
	Rp1/2	8070268	VZBM-A-1/2"-RP-25-F-3L-B2-PB20
	Rp3/4	8070269	VZBM-A-3/4"-RP-25-F-3L-B2-PB40
	Rp1	8070270	VZBM-A-1"-RP-25-F-3L-B2-PB40
	Rp1 1/4	8070271	VZBM-A-1 1/4"-RP-25-F-3L-B2-PB80
	Rp1 1/2	8070272	VZBM-A-1 1/2"-RP-25-F-3L-B2-PB120
	Rp2	8070273	VZBM-A-2"-RP-25-F-3L-B2-PB120

Ordering data			
DFPD – Double-acting, type T	Connecting thread	Part No.	Type
	Rp1/4	8070258	VZBM-A-1/4"-RP-25-F-3T-B2-PA10
	Rp3/8	8070259	VZBM-A-3/8"-RP-25-F-3T-B2-PA10
	Rp1/2	8070260	VZBM-A-1/2"-RP-25-F-3T-B2-PA10
	Rp3/4	8070261	VZBM-A-3/4"-RP-25-F-3T-B2-PA20
	Rp1	8070262	VZBM-A-1"-RP-25-F-3T-B2-PA20
	Rp1 1/4	8070263	VZBM-A-1 1/4"-RP-25-F-3T-B2-PA40
	Rp1 1/2	8070264	VZBM-A-1 1/2"-RP-25-F-3T-B2-PA80
	Rp2	8070265	VZBM-A-2"-RP-25-F-3T-B2-PA80
DFPD – Single-acting, type T			
	Rp1/4	8070274	VZBM-A-1/4"-RP-25-F-3T-B2-PB20
	Rp3/8	8070275	VZBM-A-3/8"-RP-25-F-3T-B2-PB20
	Rp1/2	8070276	VZBM-A-1/2"-RP-25-F-3T-B2-PB20
	Rp3/4	8070277	VZBM-A-3/4"-RP-25-F-3T-B2-PB40
	Rp1	8070278	VZBM-A-1"-RP-25-F-3T-B2-PB40
	Rp1 1/4	8070279	VZBM-A-1 1/4"-RP-25-F-3T-B2-PB80
	Rp1 1/2	8070280	VZBM-A-1 1/2"-RP-25-F-3T-B2-PB120
	Rp2	8070281	VZBM-A-2"-RP-25-F-3T-B2-PB120