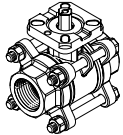
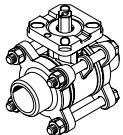
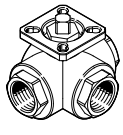
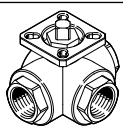


Ball valves


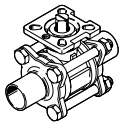
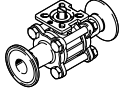
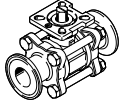
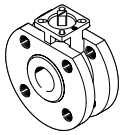
FESTO



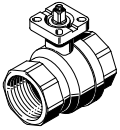
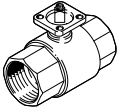
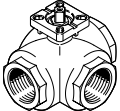
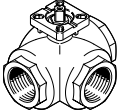
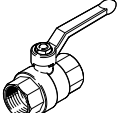
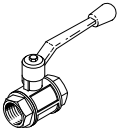
Key features and product range overview

Design	Type	Valve connection	Nominal width DN	Flange hole pattern to ISO 5211	Valve nominal pressure PN	→ Page/Internet
	2-way, with pipe thread to EN 10226-1					
	VZBA...-GG	Rp1/4	8	F0304	63	5
		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, with butt welding ends to EN 12627					
	VZBA...-WW	Butt welding end	8	F0304	63	5
			10	F0304		
			15	F0304		
			20	F0304		
			25	F0405		
			32	F0405		
			40	F0507		
			50	F0507		
			65	F0710		
80			F0710			
100	F10					
	3-way, L-bore with pipe thread to EN 10226-1					
	VZBA	Rp1/4	8	F0304	63	10
		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, T-bore with pipe thread to EN 10226-1				
	VZBA	Rp1/4	8	F0304	63	10
		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		

Key features and product range overview

Design	Type	Valve connection	Nominal width DN	Flange hole pattern to ISO 5211	Valve nominal pressure PN	→ Page/Internet	
Stainless steel	2-way, with extended butt welding ends to ISO 1127						
		VZBD	Butt welding end	15	F0304	16	15
				20	F0304		
				25	F0405		
				32	F0405		
				40	F0507		
				50	F0507		
				65	F0710		
	2-way, with extended butt welding ends to ASME-BPE						
		VZBD	Butt welding end	15	F0304	16	15
				20	F0304		
				25	F0405		
				40	F0507		
				50	F0507		
				65	F0710		
				80	F0710		
	100	F1012					
	2-way, with clamp ferrule to DIN 32676-B						
		VZBD	Clamp ferrules	15	F0304	16	15
				20	F0304		
				25	F0405		
32				F0405			
40				F0507			
50				F0507			
65				F0710			
2-way, with clamp ferrule to ASME-BPE							
	VZBD	Clamp ferrules	15	F0304	16	15	
			20	F0304			
			25	F0405			
			40	F0507			
			50	F0507			
			65	F0710			
			80	F0710			
100	F1012						
2-way, compact design with flange to DIN EN 1092-1							
	VZBC....FF	Ring housing with threaded flange	15	F0304	40	21	
			20	F0304			
			25	F0405			
			32	F0405			
			40	F0507			
			50	F0507			
			65	F07	16		
			80	F07			
			100	F0710			

Key features and product range overview

Design	Type	Valve connection	Nominal width DN	Flange hole pattern to ISO 5211	Valve nominal pressure PN	→ Page/Internet	
Brass	2-way, with pipe thread to EN 10226-1						
		VAPB	Rp1/4	8	F03	40	26
			Rp3/8	10	F03		
			Rp1/2	15	F03		
			Rp3/4	20	F03		
			Rp1	25	F0304	25	
			Rp1 1/4	32	F0405		
			Rp1 1/2	40	F0405		
			Rp2	50	F05		
	Rp2 1/2	65	F07				
	2-way, with pipe thread to EN 10226-1						
		VZBM	Rp1/4	8	F03	40	30
			Rp3/8	10	F03		
			Rp1/2	15	F03	25	
			Rp3/4	20	F03		
			Rp1	25	F03		
			Rp1 1/4	32	F03		
			Rp1 1/2	40	F0305		
			Rp2	50	F0305		
	3-way, L-bore with pipe thread to EN 10226-1						
		VZBM	Rp1/4	8	F03	40	35
			Rp3/8	10	F03		
			Rp1/2	15	F03		
			Rp3/4	20	F03		
			Rp1	25	F0304	25	
			Rp1 1/4	32	F0405		
			Rp1 1/2	40	F0405		
			Rp2	50	F05		
3-way, T-bore with pipe thread to EN 10226-1							
	VZBM	Rp1/4	8	F03	40	35	
		Rp3/8	10	F03			
		Rp1/2	15	F03			
		Rp3/4	20	F03			
		Rp1	25	F0304	25		
		Rp1 1/4	32	F0405			
		Rp1 1/2	40	F0405			
		Rp2	50	F05			
2-way, manual, with pipe thread to EN 10226-1							
	VZBM	Rp1/4	8	-	50	40	
		Rp3/8	10				
		Rp1/2	15				
		Rp3/4	20		40		
		Rp1	25				
		Rp1 1/4	32				
		Rp1 1/2	40				
2-way, manual, with pipe thread to ISO 228-1							
	QH	G1/4	10	-	30	44	
		G3/8	10				
		G1/2	15				
		G3/4	20				
		G1	25				
		G1 1/2	40				

Data sheet



- With pipe thread or butt welding end

- - Connecting thread
Rp1/4 ... Rp4
- - Flow rate
7 ... 1414 m³/h



General technical data												
Valve pipe thread connection	Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2	Rp2 1/2	Rp3	Rp4	
Nominal width DN	8	10	15	20	25	32	40	50	65	80	100	
Valve function	2/2											
Design	2-way ball valve											
Sealing principle	Soft											
Actuation type	Mechanical											
Manual override	None											
Switching position indication	Slot direction = flow direction											
Flow direction	Reversible											
Type of mounting	In-line installation											
Mounting position	Any											
Based on standard	ISO 5211 EN 10226-1 EN 558 EN 12627											
Actuating torque [Nm]	6	6	10	14	17	24	29	44	78	112	140	
Internal ø [mm]	10	12	16	20	25	32	38	50	65	80	100	
Flow rate Kv [m ³ /h]	7	10	19.4	45.6	71.5	105	170	275	507	905	1414	

Operating and environmental conditions												
Valve pipe thread connection	Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2	Rp2 1/2	Rp3	Rp4	
Medium ¹⁾	Compressed air to ISO 8573-1:2010 [-:--] Neutral fluids Inert gases Water – no water vapour											
Valve nominal pressure	PN 63											
Temperature of medium [°C]	-10 ... +200											
Corrosion resistance class CRC ²⁾	3											
CE marking (see declaration of conformity) → www.festo.com	-						To EU Pressure Equipment Directive					

1) Other flow media on request

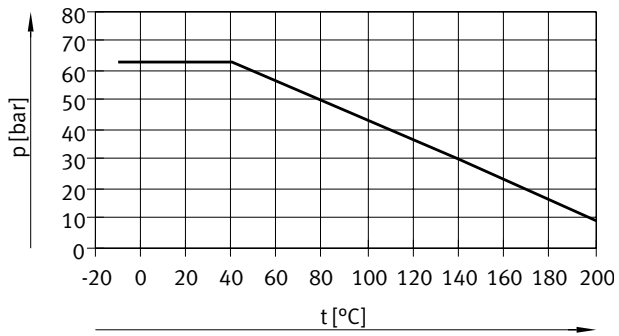
2) Corrosion resistance class CRC 3 to Festo standard FN 940070

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

Data sheet

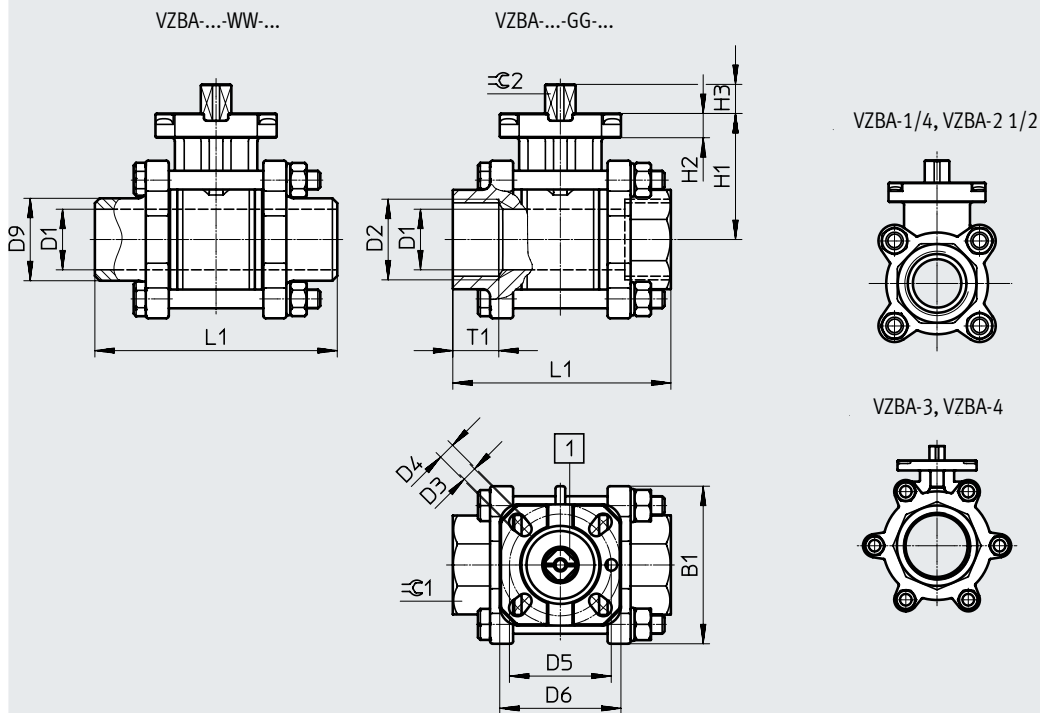
Materials		Material number
Housing	High-alloy stainless steel	1.4408
Ball		1.4408
Shaft		1.4401
Seals	PTFE	
	PTFE reinforced	
Note on materials	RoHS-compliant	
	Contains paint-wetting impairment substances	

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



Data sheet

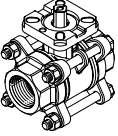
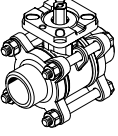
Dimensions

Download CAD data → www.festo.com

[1] Switching position indication: the slot direction corresponds to the flow direction.

Type	B1	D1 ø ±0.15	D2	D3 ø	D4 ø	D5 ø	D6 ø	D9 ø	H1	H2	H3 ±0.5	L1 ±2	T1	≅ 1	≅ 2 -0.1
VZBA-1/4"-GG-63-T-22-F0304-V4V4T	42	10	Rp1/4	6	6	36	42	-	40	9	8.5	65	14.5	24	9
VZBA-3/8"-GG-63-T-22-F0304-V4V4T	42	12	Rp3/8	6	6	36	42	-	40	9	8.5	65	14.5	24	9
VZBA-1/2"-GG-63-T-22-F0304-V4V4T	49	16	Rp1/2	6	6	36	42	-	40	9	8.5	75	16	29	9
VZBA-3/4"-GG-63-T-22-F0304-V4V4T	54	20	Rp3/4	6	6	36	42	-	44	9	8.5	80	17	35	9
VZBA-1"-GG-63-T-22-F0405-V4V4T	60.5	25	Rp1	6	7	42	50	-	52	10	11.5	90	19	41	11
VZBA-1 1/4"-GG-63-T-22-F0405-V4V4T	71.5	32	Rp1 1/4	6	7	42	50	-	58	10	11.5	110	23	50	11
VZBA-1 1/2"-GG-63-T-22-F0507-V4V4T	80.5	38	Rp1 1/2	7	9	50	70	-	68	13	15.5	120	24	58	14
VZBA-2"-GG-63-T-22-F0507-V4V4T	99.5	50	Rp2	7	9	50	70	-	77	13	15.5	140	25.8	73	14
VZBA-2 1/2"-GG-63-T-22-F0710-V4V4T	127	65	Rp2 1/2	9	11	70	102	-	98	13	18.5	185	34	90	17
VZBA-3"-GG-63-T-22-F0710-V4V4T	191	80	Rp3	9	11	70	102	-	110	13	18.5	205	36	105	17
VZBA-4"-GG-63-T-22-F10-V4V4T	222	100	Rp4	-	11	-	102	-	138	16	23.5	240	38	135	22
VZBA-1/4"-WW-63-T-22-F0304-V4V4T	42	10	-	6	6	36	42	16	40	9	8.5	70	-	-	9
VZBA-3/8"-WW-63-T-22-F0304-V4V4T	42	12	-	6	6	36	42	18	40	9	8.5	70	-	-	9
VZBA-1/2"-WW-63-T-22-F0304-V4V4T	49	16	-	6	6	36	42	22	40	9	8.5	75	-	-	9
VZBA-3/4"-WW-63-T-22-F0304-V4V4T	54	20	-	6	6	36	42	28	44	9	8.5	90	-	-	9
VZBA-1"-WW-63-T-22-F0405-V4V4T	60.5	25	-	6	7	42	50	35	52	10	11.5	100	-	-	11
VZBA-1 1/4"-WW-63-T-22-F0405-V4V4T	71.5	32	-	6	7	42	50	44	58	10	11.5	110	-	-	11
VZBA-1 1/2"-WW-63-T-22-F0507-V4V4T	80.5	38	-	7	9	50	70	50	68	13	15.5	125	-	-	14
VZBA-2"-WW-63-T-22-F0507-V4V4T	99.5	50	-	7	9	50	70	62	77	13	15.5	150	-	-	14
VZBA-2 1/2"-WW-63-T-22-F0710-V4V4T	127	65	-	9	11	70	102	77	98	13	18.5	190	-	-	17
VZBA-3"-WW-63-T-22-F0710-V4V4T	191	80	-	9	11	70	102	91	110	13	18.5	220	-	-	17
VZBA-4"-WW-63-T-22-F10-V4V4T	222	100	-	-	11	-	102	117	138	16	23.5	270	-	-	22

Data sheet

Ordering data	Design	Valve connection	Weight [g]	Part no.	Type
	With pipe thread	Rp1/4	650	1686625	VZBA-1/4"-GG-63-T-22-F0304-V4V4T
		Rp3/8	650	1686632	VZBA-3/8"-GG-63-T-22-F0304-V4V4T
		Rp1/2	650	1686636	VZBA-1/2"-GG-63-T-22-F0304-V4V4T
		Rp3/4	850	1686639	VZBA-3/4"-GG-63-T-22-F0304-V4V4T
		Rp1	1250	1686640	VZBA-1"-GG-63-T-22-F0405-V4V4T
		Rp1 1/4	1850	1686641	VZBA-1 1/4"-GG-63-T-22-F0405-V4V4T
		Rp1 1/2	2800	1686643	VZBA-1 1/2"-GG-63-T-22-F0507-V4V4T
		Rp2	4550	1686646	VZBA-2"-GG-63-T-22-F0507-V4V4T
		Rp2 1/2	9200	1686648	VZBA-2 1/2"-GG-63-T-22-F0710-V4V4T
		Rp3	13950	1686651	VZBA-3"-GG-63-T-22-F0710-V4V4T
		Rp4	22300	1686654	VZBA-4"-GG-63-T-22-F10-V4V4T
	With butt welding ends	Butt welding end	650	1686656	VZBA-1/4"-WW-63-T-22-F0304-V4V4T
			650	1686662	VZBA-3/8"-WW-63-T-22-F0304-V4V4T
			650	1686663	VZBA-1/2"-WW-63-T-22-F0304-V4V4T
			850	1686665	VZBA-3/4"-WW-63-T-22-F0304-V4V4T
			1250	1686689	VZBA-1"-WW-63-T-22-F0405-V4V4T
			1850	1686696	VZBA-1 1/4"-WW-63-T-22-F0405-V4V4T
			2800	1686697	VZBA-1 1/2"-WW-63-T-22-F0507-V4V4T
			4550	1686699	VZBA-2"-WW-63-T-22-F0507-V4V4T
			9200	1686702	VZBA-2 1/2"-WW-63-T-22-F0710-V4V4T
			13950	1686704	VZBA-3"-WW-63-T-22-F0710-V4V4T
			22300	1686705	VZBA-4"-WW-63-T-22-F10-V4V4T

Accessories

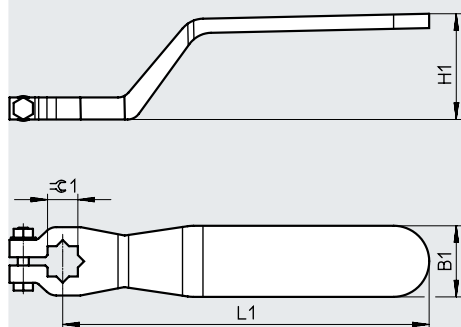
Hand lever VAOH

Information on materials:

- High-alloy stainless steel
- Free of copper and PTFE
- Contains paint-wetting impairment substances



Dimensions and ordering data

Download CAD data → www.festo.com

For connection	B1 ±5	H1 ±5	L1 ±10	$\varnothing 1$ ±0.5	Weight [g]	Part no.	Type
Rp1/4 ... Rp3/4	21	36	120	9	100	542702	VAOH-9-H9
Rp1 ... Rp1 1/4	26	40	140	11	200	542703	VAOH-11-H9
Rp1 1/2 ... Rp2	31	46	180	14	300	542704	VAOH-14-H9
Rp2 1/2 ... Rp3	36	55	240	17	450	542705	VAOH-17-H9
Rp4	36	70	280	22	750	542706	VAOH-22-H9

Data sheet



- With L-bore or T-bore



- - Connecting thread
Rp1/4 ... Rp2
- - Flow rate
4.5 ... 100 m³/h

General technical data		Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2	
Valve connection		Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2	
Nominal width DN		8	10	15	20	25	32	40	50	
Valve function		3/2								
Design		3-way ball valve								
Sealing principle		Soft								
Actuation type		Mechanical								
Manual override		None								
Switching position indication		Slot direction = flow direction								
Flow direction		Reversible								
Type of mounting		In-line installation								
Mounting position		Any								
Based on standard		EN 10226-1 ISO 5211								
Actuating torque	[Nm]	13	13	13	18	22	35	42	68	
Internal ø	[mm]	11.6	12.7	12.7	16	20	25.4	31.8	38.1	
Flow rate Kv	Type L ¹⁾	[m ³ /h]	4.5	4.5	4.7	5.1	11.8	19.6	33.2	53.7
	Type T ²⁾	[m ³ /h]	8	8	8.3	8.3	22.4	36.5	62	100
	Type T ³⁾	[m ³ /h]	4.5	4.5	4.8	4.8	10.9	18	30	48.8
Flow rate tolerance Kv	[%]	± 20								
Product weight	[g]	700	700	700	1000	1600	2800	3800	7400	

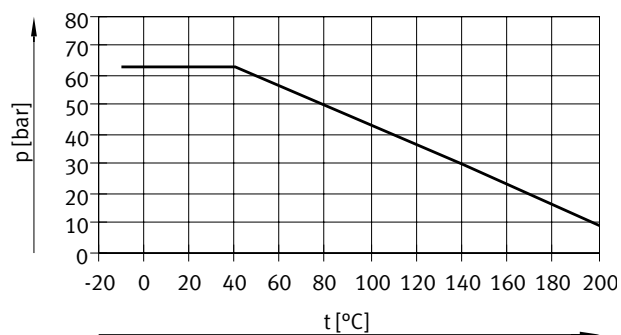
- 1) Ball with L-bore
- 2) Ball with T-bore, straight flow
- 3) Ball with T-bore, flow around corner

Operating and environmental conditions		Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2	
Valve connection		Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2	
Medium ¹⁾		Compressed air to ISO 8573-1:2010 [:-:-]								
		Neutral fluids								
		Inert gases								
		Water – no water vapour								
Valve nominal pressure		PN 63								
Temperature of medium	[°C]	-10 ... +200								
Corrosion resistance class CRC ²⁾		3								
CE marking (see declaration of conformity) → www.festo.com		-						To EU Pressure Equipment Directive		

- 1) Other flow media on request
- 2) Corrosion resistance class CRC 3 to Festo standard FN 940070
High corrosion stress. Outdoor exposure under moderate corrosive conditions. Externally visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

Data sheet

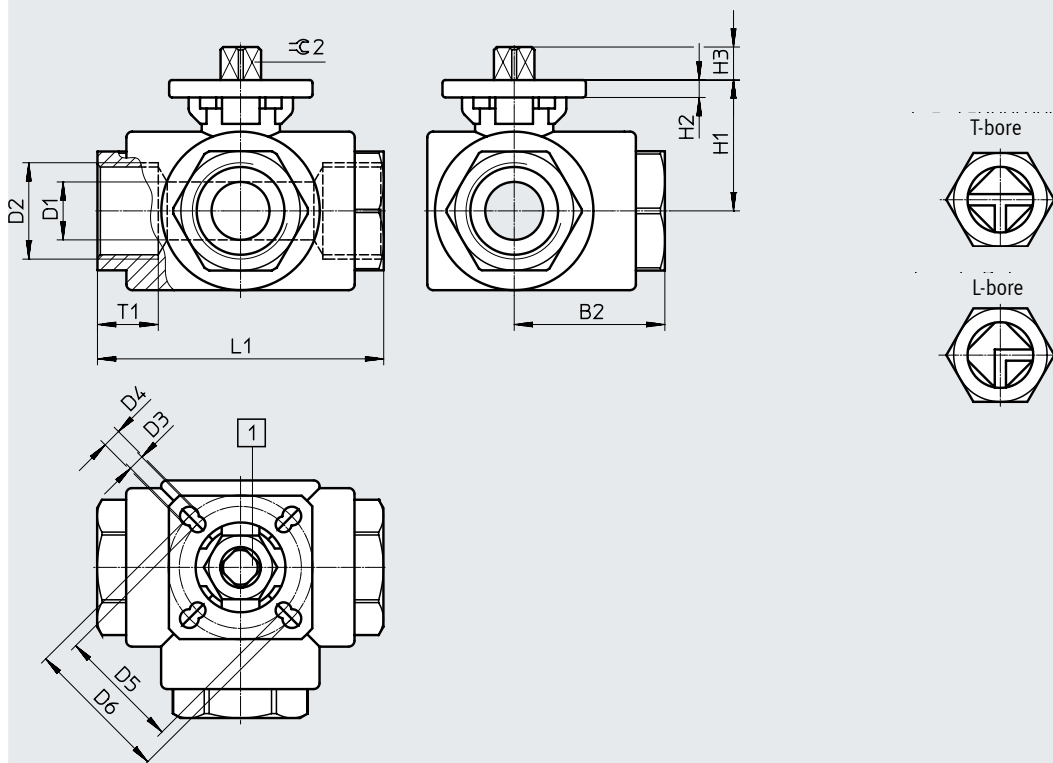
Materials		Material number
Housing	High-alloy stainless steel	1.4408
Ball		1.4408
Shaft		1.4401
Seals	PTFE	
	PTFE reinforced	
Note on materials	RoHS-compliant	
	Contains paint-wetting impairment substances	

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

Data sheet

Dimensions

Download CAD data → www.festo.com



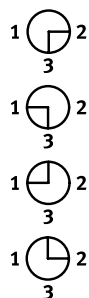
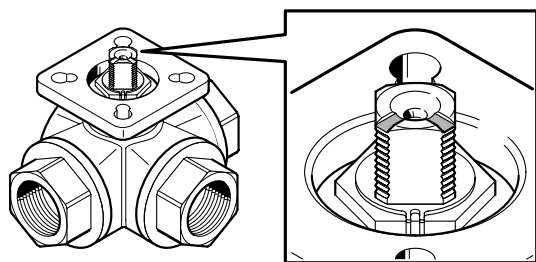
[1] Switching position indication: the slot direction corresponds to the flow direction → page 13

Type	B2	D1 ∅	D2	D3 ∅	D4 ∅	D5 ∅	D6 ∅	H1	H2 ±1	H3	L1 ±1	T1	⊙ 2 -0.1
VZBA-1/4"-GGG-63-32L-F0304-V4V4T	40	11.6	Rp1/4	5.5	5.5	36	42	35.9	6	7.4	80	15	9
VZBA-1/4"-GGG-63-32T-F0304-V4V4T													
VZBA-3/8"-GGG-63-32L-F0304-V4V4T	40	12.7	Rp3/8	5.5	5.5	36	42	35.9	6	7.4	80	18	9
VZBA-3/8"-GGG-63-32T-F0304-V4V4T													
VZBA-1/2"-GGG-63-32L-F0304-V4V4T	40	12.7	Rp1/2	5.5	5.5	36	42	35.9	6	7.4	80	17.5	9
VZBA-1/2"-GGG-63-32T-F0304-V4V4T													
VZBA-3/4"-GGG-63-32L-F0405-V4V4T	43.8	16	Rp3/4	5.5	6.5	42	50	40.9	6	12.8	87.5	20	11
VZBA-3/4"-GGG-63-32T-F0405-V4V4T													
VZBA-1"-GGG-63-32L-F0405-V4V4T	50	20	Rp1	5.5	6.5	42	50	45.2	6	11.4	100	21	11
VZBA-1"-GGG-63-32T-F0405-V4V4T													
VZBA-1 1/4"-GGG-63-32L-F0405-V4V4T	61.5	25.4	Rp1 1/4	5.5	6.5	42	50	51	6	12.6	123	21	11
VZBA-1 1/4"-GGG-63-32T-F0405-V4V4T													
VZBA-1 1/2"-GGG-63-32L-F0405-V4V4T	71.1	31.8	Rp1 1/2	5.5	6.5	42	50	55.5	6	12.6	142.2	23	11
VZBA-1 1/2"-GGG-63-32T-F0405-V4V4T													
VZBA-2"-GGG-63-32L-F0507-V4V4T	85.3	38.1	Rp2	6.5	8.5	50	70	66	6	14.3	170.6	26	14
VZBA-2"-GGG-63-32T-F0507-V4V4T													

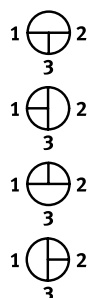
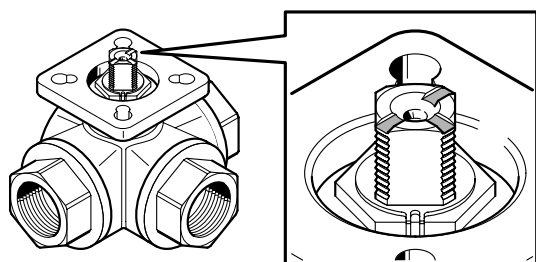
Data sheet

Switching position indication

L-bore



T-bore



Ordering data

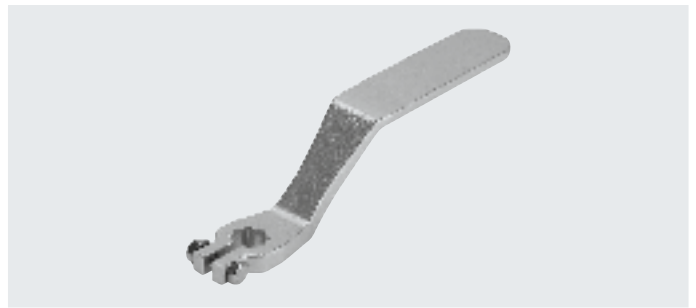
	Design	Connecting thread	Weight [g]	Part no.	Type
	L-bore	Rp1/4	700	1692210	VZBA-1/4"-GGG-63-32L-F0304-V4V4T
		Rp3/8	700	1692211	VZBA-3/8"-GGG-63-32L-F0304-V4V4T
		Rp1/2	700	1692212	VZBA-1/2"-GGG-63-32L-F0304-V4V4T
		Rp3/4	1000	1692214	VZBA-3/4"-GGG-63-32L-F0405-V4V4T
		Rp1	1600	1692215	VZBA-1"-GGG-63-32L-F0405-V4V4T
		Rp1 1/4	2800	1692217	VZBA-1 1/4"-GGG-63-32L-F0405-V4V4T
		Rp1 1/2	3800	1692218	VZBA-1 1/2"-GGG-63-32L-F0405-V4V4T
		Rp2	7400	1692219	VZBA-2"-GGG-63-32L-F0507-V4V4T
	T-bore	Rp1/4	700	1692220	VZBA-1/4"-GGG-63-32T-F0304-V4V4T
		Rp3/8	700	1692221	VZBA-3/8"-GGG-63-32T-F0304-V4V4T
		Rp1/2	700	1692224	VZBA-1/2"-GGG-63-32T-F0304-V4V4T
		Rp3/4	1000	1692226	VZBA-3/4"-GGG-63-32T-F0405-V4V4T
		Rp1	1600	1692227	VZBA-1"-GGG-63-32T-F0405-V4V4T
		Rp1 1/4	2800	1692228	VZBA-1 1/4"-GGG-63-32T-F0405-V4V4T
		Rp1 1/2	3800	1692229	VZBA-1 1/2"-GGG-63-32T-F0405-V4V4T
		Rp2	7400	1692230	VZBA-2"-GGG-63-32T-F0507-V4V4T

Accessories

Hand lever VAOH

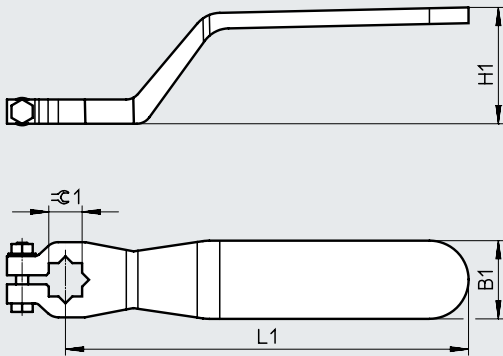
Information on materials:

- High-alloy stainless steel
- Free of copper and PTFE
- Contains paint-wetting impairment substances



Dimensions and ordering data

Download CAD data → www.festo.com





For connection	B1	H1	L1	∅1	Weight [g]	Part no.	Type
	±5	±5	±10	±0.5			
Rp1/4 ... Rp1/2	21	36	120	9	100	542702	VAOH-9-H9
Rp3/4 ... Rp1 1/2	26	40	140	11	200	542703	VAOH-11-H9
Rp2	31	46	180	14	300	542704	VAOH-14-H9

Data sheet

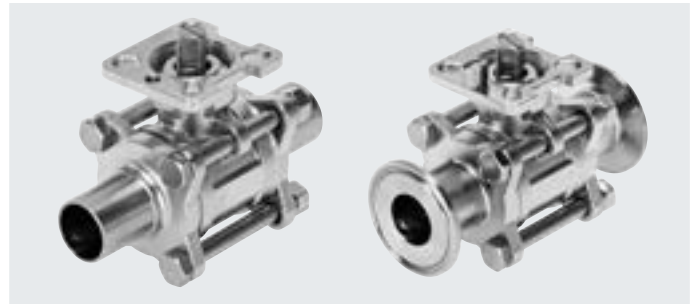
Function



-  - Nominal width DN
DN15 ... DN100

-  - Flow rate
3.5 ... 436.3 m³/h

- 2-way ball valve made of stainless steel
- Optionally with extended butt welding ends or clamp ferrules
- Surfaces in contact with media to ASME-BPE SF4, electropolished



General technical data		15	20	25	32	40	50	65	80	100
Nominal width DN		15	20	25	32	40	50	65	80	100
Valve connection	Butt welding end to ISO 1127									
	Butt welding end to ASME-BPE									
	Clamp ferrule to DIN 32676-B									
	Clamp ferrule to ASME-BPE									
Valve function										
Design										
Sealing principle										
Actuation type										
Switching position indication										
Flow direction										
Type of mounting										
Mounting position										
Based on standard	ISO 5211									
	ISO 1127									
	DIN 32676-B									
	ASME BPE									
Butt welding end to ISO 1127 and clamp ferrule to DIN 32676-B										
Breakaway torque at differential pressure nominal pressure for process valve PN	[Nm]	7	9	15	23	30	44	79	-	-
Internal \varnothing	[mm]	18.1	23.7	29.7	38.4	44.3	56.3	72.1	-	-
Flow rate Kv	[m ³ /h]	12.2	21.9	35.9	61.2	83.3	141.5	238.5	-	-
Butt welding end to ASME-BPE and clamp ferrule to ASME-BPE										
Breakaway torque at differential pressure nominal pressure for process valve PN	[Nm]	7	9	15	-	30	44	79	140	170
Internal \varnothing	[mm]	9.6	15.8	22.1	-	34.8	47.7	60.3	72.9	97.5
Flow rate Kv	[m ³ /h]	3.5	9.7	19.8	-	50.1	96.8	161.7	243.8	436.3

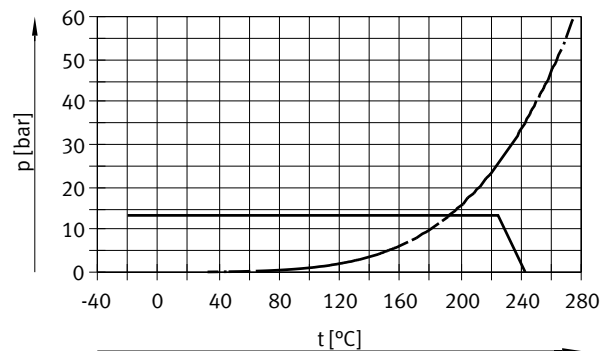
Data sheet

Operating and environmental conditions		15	20	25	32	40	50	65	80	100	
Nominal width DN											
Valve nominal pressure PN		16									
Temperature of medium [°C]		-20 ... +200									
Medium		Compressed air to ISO 8573-1:2010 [:-:-]									
		Inert gases									
		Vapour									
		Water									
		Neutral fluids									
Corrosion resistance class CRC ¹⁾²⁾		4									
CE marking (see declaration of conformity) ³⁾		-				To EU Pressure Equipment Directive					
Suitability for the food industry ³⁾		See supplementary information on materials									
Certification ³⁾		CRN									
		3-A Sanitary									

- 1) Surfaces in contact with media to ASME-BPE SF4, electropolished
- 2) Corrosion resistance class CRC 4 to Festo standard FN 940070
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, e.g. in the chemical or food industries. Such applications may need to be safeguarded by means of special testing (→ also FN 940082), using appropriate media.
- 3) Additional information is available at www.festo.com/sp → Certificates.

Materials		Material number
Housing	Stainless steel casting	1.4409 (ASTM A351-CF3M)
Ball	Stainless steel casting	1.4409 (ASTM A351-CF3M)
Shaft	High-alloy stainless steel	1.4401 (ASTM A240-316)
Seat seal	PTFE, modified	
Seals	PTFE	
	FPM	
Note on materials	RoHS-compliant	
	Contains paint-wetting impairment substances	

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



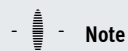
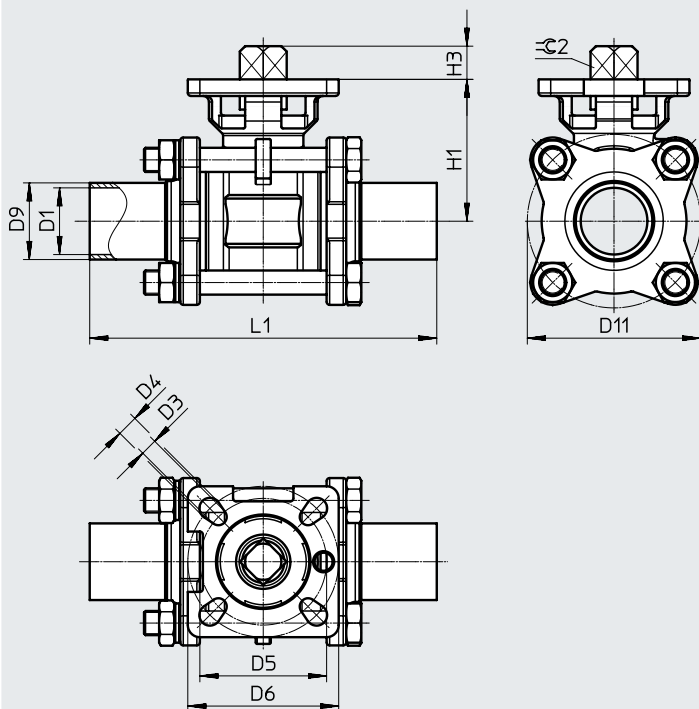
- PTFE modified
- - - - - Saturated water vapour

Data sheet

Dimensions

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With extended butt welding ends to ISO 1127 (W3) or to ASME BPE (W1)



Note

Supplementary definition of surfaces:
surfaces in contact with media to
ASME-BPE SF4, electropolished

Type	D1 ø	D3 ø	D4 ø	D5 ø	D6 ø	D9 ø	D11 ø	H1	H3	L1 ±2	☉2
VZBD-1/2-W3-...	18.1	5.5	5.5	36	42	21.3	52	38.5	9	130	9
VZBD-3/4-W3-...	23.7	5.5	5.5	36	42	26.9	61.9	42.7	9	150	9
VZBD-1-W3-...	29.7	5.5	7	42	50	33.7	70	53.5	11	160	11
VZBD-1 1/4-W3-...	38.4	5.5	7	42	50	42.4	85	60.1	11	180	11
VZBD-1 1/2-W3-...	44.3	7	9	50	70	48.3	98.8	70.6	14	200	14
VZBD-2-W3-...	56.3	7	9	50	70	60.3	120	79.8	14	230	14
VZBD-2 1/2-W3-...	72.1	9	11	70	102	76.1	147	99.4	17	290	17

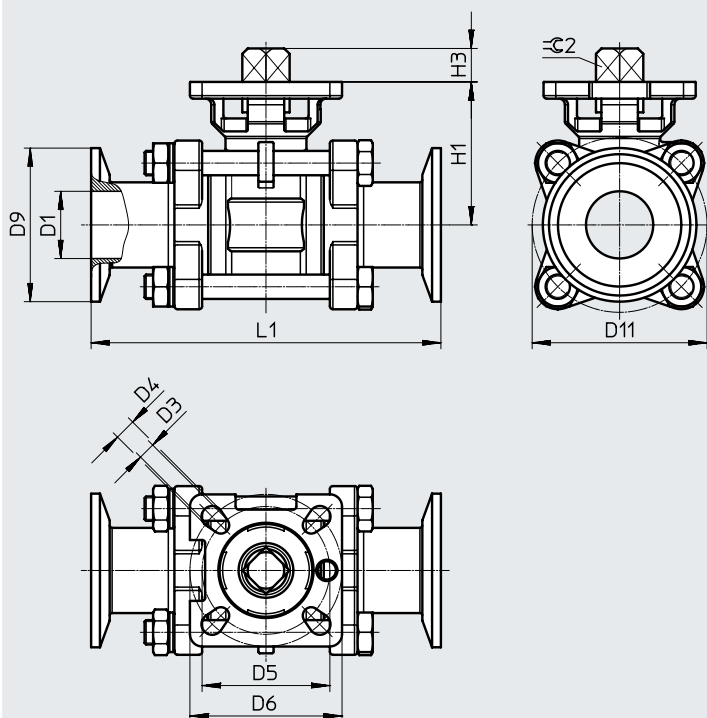
Type	D1 ø	D3 ø	D4 ø	D5 ø	D6 ø	D9 ø	D11 ø	H1	H3	L1 ±2	☉2
VZBD-1/2-W1-...	9.6	5.5	5.5	36	42	12.7	45.5	34	9	90.7	9
VZBD-3/4-W1-...	15.8	5.5	5.5	36	42	19.1	47	35.3	9	103	9
VZBD-1-W1-...	22.1	5.5	7	42	50	25.4	57.5	47	11	115	11
VZBD-1 1/2-W1-...	34.8	7	9	50	70	38.1	83	63.5	14	139	14
VZBD-2-W1-...	47.7	7	9	50	70	50.8	100	72	14	158	14
VZBD-2 1/2-W1-...	60.3	9	11	70	102	63.5	126	90	17	197	17
VZBD-3-W1-...	72.9	9	11	70	102	76.2	148	99	17	228	17
VZBD-4-W1-...	97.5	11	13	102	125	101.6	183	127.5	22	241.8	22

Data sheet

Dimensions

Download CAD data → www.festo.com

With clamp ferrules to DIN 32676-B (S5) or to ASME BPE (S1)



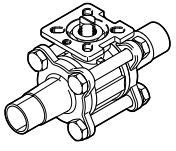
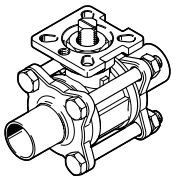
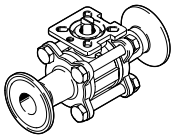
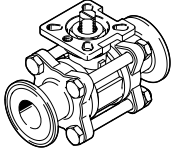
Note

Supplementary definition of surfaces:
surfaces in contact with media to
ASME-BPE SF4, electropolished

Type	D1 ø	D3 ø	D4 ø	D5 ø	D6 ø	D9 ø	D11 ø	H1	H3	L1	⊖2
										±2	
VZBD-1/2-S5-...	18.1	5.5	5.5	36	42	50.5	52	38.5	9	130	9
VZBD-3/4-S5-...	23.7	5.5	5.5	36	42	50.5	61.9	42.7	9	150	9
VZBD-1-S5-...	29.7	5.5	7	42	50	50.5	70	53.5	11	160	11
VZBD-1 1/4-S5-...	38.4	5.5	7	42	50	64	85	60.1	11	180	11
VZBD-1 1/2-S5-...	44.3	7	9	50	70	64	98.8	70.6	14	200	14
VZBD-2-S5-...	56.3	7	9	50	70	77.5	120	79.8	14	230	14
VZBD-2 1/2-S5-...	72.1	9	11	70	102	91	147	99.4	17	290	17

Type	D1 ø	D3 ø	D4 ø	D5 ø	D6 ø	D9 ø	D11 ø	H1	H3	L1	⊖2
										±2	
VZBD-1/2-S1-...	9.6	5.5	5.5	36	42	25.4	45.5	34	9	90.7	9
VZBD-3/4-S1-...	15.8	5.5	5.5	36	42	25.4	47	35.3	9	103	9
VZBD-1-S1-...	22.1	5.5	7	42	50	50.5	57.5	47	11	115	11
VZBD-1 1/2-S1-...	34.8	7	9	50	70	50.5	83	63.5	14	139	14
VZBD-2-S1-...	47.7	7	9	50	70	64	100	72	14	158	14
VZBD-2 1/2-S1-...	60.3	9	11	70	102	77.5	126	90	17	197	17
VZBD-3-S1-...	72.9	9	11	70	102	91	148	99	17	228	17
VZBD-4-S1-...	97.5	11	13	102	125	119	183	127.5	22	241.8	22

Data sheet

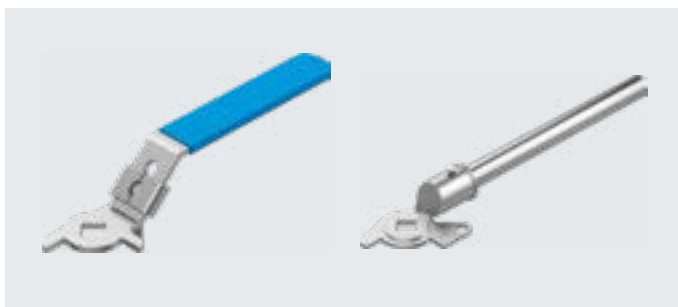
Ordering data						
	Standard	Nominal width DN	Flange hole pattern	Weight [g]	Part no.	Type
Extended butt welding ends						
	ISO 1127	15	F0304	730	4783595 ¹⁾	VZBD-1/2-W3-16-T-2-F0304-V14V14
		20	F0304	930	4783596 ¹⁾	VZBD-3/4-W3-16-T-2-F0304-V14V14
		25	F0405	1350	4783597 ¹⁾	VZBD-1-W3-16-T-2-F0405-V14V14
		32	F0405	2050	4783598 ¹⁾	VZBD-1 1/4-W3-16-T-2-F0405-V14V14
		40	F0507	3270	4783599 ¹⁾	VZBD-1 1/2-W3-16-T-2-F0507-V14V14
		50	F0507	5470	4783600 ¹⁾	VZBD-2-W3-16-T-2-F0507-V14V14
	ASME-BPE	1/2"	F0304	430	4762847 ¹⁾	VZBD-1/2-W1-16-T-2-F0304-V14V14
		3/4"	F0304	530	4762848 ¹⁾	VZBD-3/4-W1-16-T-2-F0304-V14V14
		1"	F0405	950	4762849 ¹⁾	VZBD-1-W1-16-T-2-F0405-V14V14
		1 1/2"	F0507	1970	4762850 ¹⁾	VZBD-1 1/2-W1-16-T-2-F0507-V14V14
		2"	F0507	3070	4762851 ¹⁾	VZBD-2-W1-16-T-2-F0507-V14V14
		2 1/2"	F0710	6180	4762852 ¹⁾	VZBD-2 1/2-W1-16-T-2-F0710-V14V14
		3"	F0710	9080	4762853 ¹⁾	VZBD-3-W1-16-T-2-F0710-V14V14
		4"	F1012	16180	4762854 ¹⁾	VZBD-4-W1-16-T-2-F1012-V14V14
Clamp ferrules						
	DIN 32676-B	15	F0304	830	4802244 ¹⁾	VZBD-1/2-S5-16-T-2-F0304-V14V14
		20	F0304	1130	4802245 ¹⁾	VZBD-3/4-S5-16-T-2-F0304-V14V14
		25	F0405	1550	4802246 ¹⁾	VZBD-1-S5-16-T-2-F0405-V14V14
		32	F0405	2250	4802247 ¹⁾	VZBD-1 1/4-S5-16-T-2-F0405-V14V14
		40	F0507	3370	4802248 ¹⁾	VZBD-1 1/2-S5-16-T-2-F0507-V14V14
		50	F0507	5670	4802249 ¹⁾	VZBD-2-S5-16-T-2-F0507-V14V14
	ASME-BPE	1/2"	F0304	430	4795666 ¹⁾	VZBD-1/2-S1-16-T-2-F0304-V14V14
		3/4"	F0304	530	4795667 ¹⁾	VZBD-3/4-S1-16-T-2-F0304-V14V14
		1"	F0405	950	4795668 ¹⁾	VZBD-1-S1-16-T-2-F0405-V14V14
		1 1/2"	F0507	1970	4795669 ¹⁾	VZBD-1 1/2-S1-16-T-2-F0507-V14V14
		2"	F0507	3070	4795670 ¹⁾	VZBD-2-S1-16-T-2-F0507-V14V14
		2 1/2"	F0710	6180	4795671 ¹⁾	VZBD-2 1/2-S1-16-T-2-F0710-V14V14
		3"	F0710	9080	4795672 ¹⁾	VZBD-3-S1-16-T-2-F0710-V14V14
		4"	F1012	16180	4795673 ¹⁾	VZBD-4-S1-16-T-2-F1012-V14V14

1) Festo is only a retailer of this product, not the manufacturer.

Accessories

Hand lever VAOH

- High-alloy stainless steel
- Free of copper and PTFE
- RoHS-compliant
- Contains paint-wetting impairment substances
- Lockable

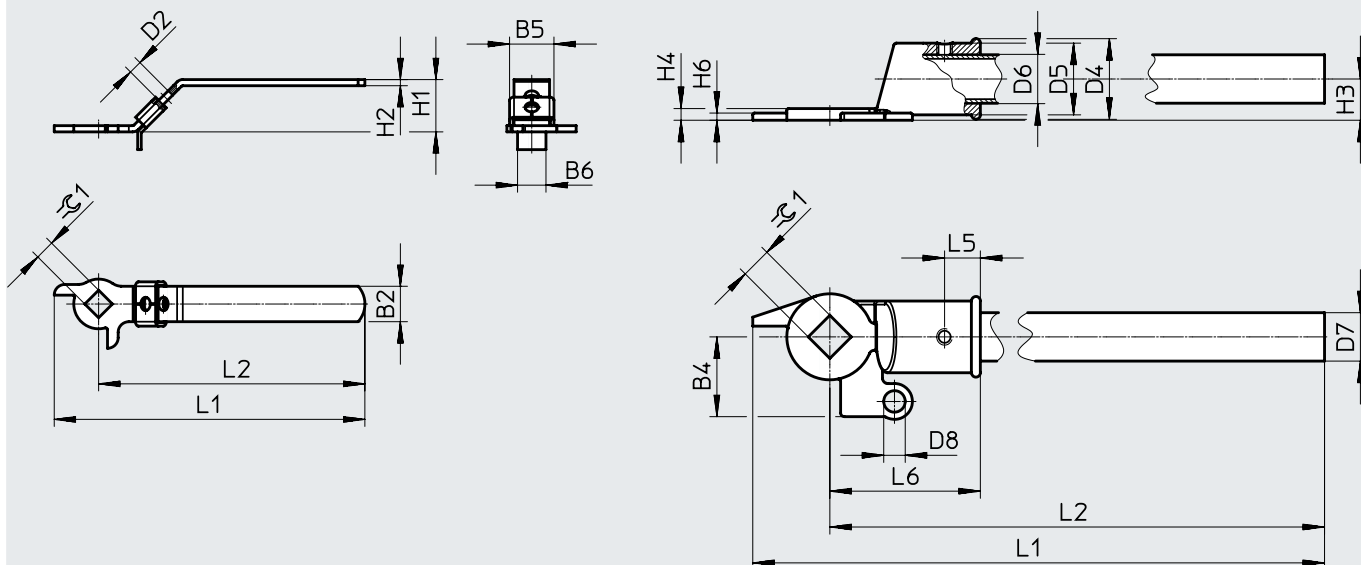


Dimensions and ordering data

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DN15 ... DN50

DN65 ... DN100



Dimensions and ordering data

For connection	B2	B5	B6	D2 ∅	H1	H2	L1	L2	≈S1	CRC ²⁾	Weight [g]	Part no.	Type
DN15 ... DN20	19	23.8	13	7.5	29	3	144.2	123	9	3	170	4895358 ¹⁾	VAOH-F8-9-H9-A
DN25 ... DN32	20	24.8	16	7.5	30	3.5	176.5	151.5	11	3	250	4895359 ¹⁾	VAOH-F8-11-H9-A
DN40 ... DN50	25	31	22	7.5	31	4	214	182	14	3	530	4895360 ¹⁾	VAOH-F8-14-H9-A

Dimensions and ordering data

For connection	B4	D4 ∅	D5 ∅	D6 ∅	D7 ∅	H3	H4	H6	L1	L2	L5	≈S1	CRC ²⁾	Weight [g]	Part no.	Type
DN65 ... DN80	44.5	45	40	27	12	23	6.5	4	387	344	84	17	3	820	4895361 ¹⁾	VAOH-F8-17-H9-A
DN100	53.5	45	40	27	14	25	8	5	442.5	389	89.5	22	3	920	4895363 ¹⁾	VAOH-F8-22-H9-A

1) Festo is only a retailer of this product, not the manufacturer.

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

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

Data sheet

Function



- 2-way ball valve made from stainless steel

- - Ring housing
DN15 ... DN100

- - Flow rate
19.4 ... 1414 m³/h



General technical data

Valve connection	Ring housing with threaded flange									
Nominal width DN	15	20	25	32	40	50	65	80	100	
Valve function	2/2									
Design	2-way ball valve									
Sealing principle	Soft									
Actuation type	Mechanical									
Manual override	None									
Switching position indication	Slot direction = flow direction									
Flow direction	Reversible									
Type of mounting	In-line installation									
Mounting position	Any									
Based on standard	EN 1092-1 ISO 5211									
Actuating torque [Nm]	10	13	17	24	35	54	85	117	148	
Internal ø [mm]	15	20	25	32	38	50	64	76	96	
Flow rate Kv [m ³ /h]	19.4	45.6	71.5	105	170	275	507	905	1414	

Operating and environmental conditions

Valve connection	Ring housing with threaded flange									
Nominal width DN	15	20	25	32	40	50	65	80	100	
Operating medium	Compressed air to ISO 8573-1:2010 [-:--]									
Operating medium of valve	Neutral fluids									
	Inert gases									
	Water – no water vapour									
Valve nominal pressure	PN 40							PN 16		
Temperature of medium [°C]	-10 ... +200									
Corrosion resistance class CRC ¹⁾	3									
CE marking (see declaration of conformity) → www.festo.com	-				To EU Pressure Equipment Directive					

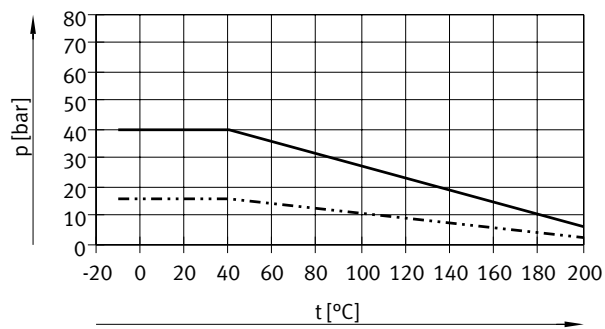
1) Corrosion resistance class CRC 3 to Festo standard FN 940070

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

Data sheet

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

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



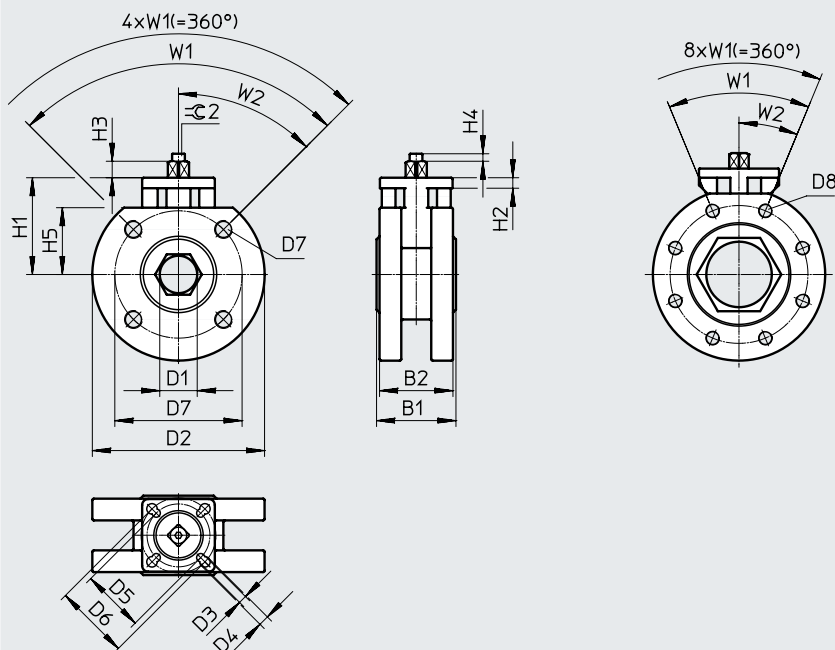
————— DN15 ... DN50
 - - - - - DN65 ... DN100

Data sheet

Dimensions

Download CAD data → www.festo.com

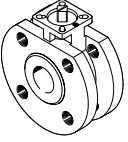
VZBC-80 ... VZBC-100



Type	B1 +1.6	B2	D1 ∅	D2 ∅ +5	D3 ∅	D4 ∅	D5 ∅	D6 ∅	D7 ∅
VZBC-15-FF-40-22-F0304-V4V4T	40	36	15	95	6	5.5	36	42	65
VZBC-20-FF-40-22-F0304-V4V4T	44	40	20	105	6	5.5	36	42	75
VZBC-25-FF-40-22-F0405-V4V4T	53	49	25	115	5.5	7	42	50	85
VZBC-32-FF-40-22-F0405-V4V4T	58.4	54.4	32	140	5.5	7	42	50	100
VZBC-40-FF-40-22-F0507-V4V4T	62	56	38	150	7	8.5	50	70	110
VZBC-50-FF-40-22-F0507-V4V4T	78	72	50	165	7	8.5	50	70	125
VZBC-65-FF-16-22-F07-V4V4T	100	94	64	185	-	9	-	70	145
VZBC-80-FF-16-22-F07-V4V4T	120	114	76	200	-	9	-	70	160
VZBC-100-FF-16-22-F0710-V4V4T	152	146	96	220	9	10.5	70	102	180

Type	D8	H1	H2	H3 +1.5 -0.5	H4	H5	W1	W2	∠2 -0.1
VZBC-15-FF-40-22-F0304-V4V4T	M12	60	6.3	7.86	5	34.5	90°	45°	9
VZBC-20-FF-40-22-F0304-V4V4T	M12	64.3	7	11	5	38.5	90°	45°	9
VZBC-25-FF-40-22-F0405-V4V4T	M12	64.6	7	11	5	44.6	90°	45°	11
VZBC-32-FF-40-22-F0405-V4V4T	M16	69	7	11	-	51	90°	45°	11
VZBC-40-FF-40-22-F0507-V4V4T	M16	76.3	7.2	17	-	55	90°	45°	14
VZBC-50-FF-40-22-F0507-V4V4T	M16	85.5	7.2	15.3	-	63	90°	45°	14
VZBC-65-FF-16-22-F07-V4V4T	M16	105	10.6	14	-	73.5	90°	45°	17
VZBC-80-FF-16-22-F07-V4V4T	M16	123	10.6	18	-	94	45°	22.5°	17
VZBC-100-FF-16-22-F0710-V4V4T	M16	132	12.6	15	-	105	45°	22.5°	17

Data sheet

Ordering data	Valve connection	Weight [g]	Part no.	Type
	Ring housing with threaded flange	1500	1692198	VZBC-15-FF-40-22-F0304-V4V4T
		2100	1692200	VZBC-20-FF-40-22-F0304-V4V4T
		2600	1692201	VZBC-25-FF-40-22-F0405-V4V4T
		3700	1692202	VZBC-32-FF-40-22-F0405-V4V4T
		4400	1692204	VZBC-40-FF-40-22-F0507-V4V4T
		6200	1692206	VZBC-50-FF-40-22-F0507-V4V4T
		10000	1692207	VZBC-65-FF-16-22-F07-V4V4T
		14400	1692208	VZBC-80-FF-16-22-F07-V4V4T
		20600	1692209	VZBC-100-FF-16-22-F0710-V4V4T

Accessories

Hand lever VAOH

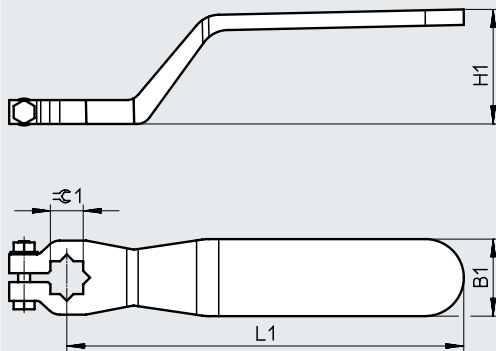
Information on materials:

- High-alloy stainless steel
- Free of copper and PTFE
- Contains paint-wetting impairment substances



Dimensions and ordering data

Download CAD data → www.festo.com



For connection	B1	H1	L1	≈ \varnothing 1	Weight [g]	Part no.	Type
	±5	±5	±10	±0.5			
DN15 ... DN20	21	36	120	9	100	542702	VAOH-9-H9
DN25 ... DN32	26	40	140	11	200	542703	VAOH-11-H9
DN40 ... DN50	31	46	180	14	300	542704	VAOH-14-H9
DN65 ... DN100	36	55	240	17	450	542705	VAOH-17-H9

Data sheet



- Blow-out-proof shaft mounted from the inside



- - Connecting thread
Rp1/4 ... Rp2 1/2
- - Flow rate
5.9 ... 535 m³/h

General technical data									
Connecting thread	Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2	Rp2 1/2
Nominal width DN	15	15	15	20	25	32	40	50	63
Valve function	2/2								
Design	2-way ball valve								
Sealing principle	Soft								
Actuation type	Mechanical								
Switching position indication	Slot direction = flow direction								
Flow direction	Reversible								
Type of mounting	In-line installation								
Mounting position	Any								
Based on standard	ISO 5211 EN 10226-1								
Working port 1, 2	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2
Internal ø [mm]	15	15	15	20	25	32	40	50	63
Flow rate Kv [m ³ /h]	5.9	9.4	17	41	70	121	200	292	535

Operating and environmental conditions										
Connecting thread	Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2	Rp2 1/2	
Medium	Compressed air to ISO 8573-1:2010 [:-:-] Neutral fluids Inert gases Water									
Valve nominal pressure	PN 40	PN 40	PN 40	PN 40	PN 40	PN 40	PN 25	PN 25	PN 25	
Temperature of medium [°C]	-20 ... +150									
Breakaway torque at a differential pressure of 0 bar	3.1	3.1	3.1	4.6	6.5	10.8	13.5	20	30	
Breakaway torque at a differential pressure of 10 bar	3.5	3.5	3.5	5.1	7.2	11.9	14.9	22	33	
Breakaway torque at differential pressure of valve PN	5	5	5	6	8.5	15	19	29	45	
CE marking (see declaration of conformity) ¹⁾	-							To EU Pressure Equipment Directive		

1) Additional information is available at www.festo.com/sp → Certificates.

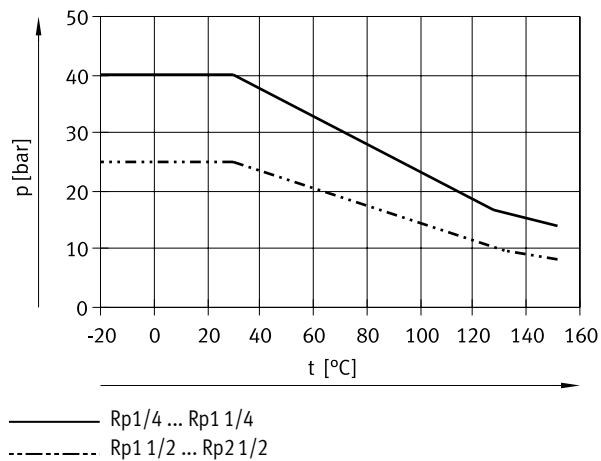
Data sheet

Materials		Material number
Housing	Nickel-plated brass	CW617N
Ball	Hard-chrome-plated brass	Up to RP1/2 CW614N, and above Rp3/4 CW617N
Shaft	Nickel-plated brass	CW614N
Seals	Housing	PTFE
		HNBR
	Shaft	PTFE
Note on materials	RoHS-compliant	
	Contains paint-wetting impairment substances	

Torque ¹⁾ [Nm]									
Connecting thread	Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2	Rp2 1/2
$\Delta p = 0$ bar	3.1	3.1	3.1	4.6	6.5	10.8	13.5	20	30
$\Delta p = 10$ bar	3.5	3.5	3.5	5.1	7.2	11.9	14.9	22	33
$\Delta p = pN$	5	5	5	6	8.5	15	19	29	45

1) Torque required for actuating the ball valve

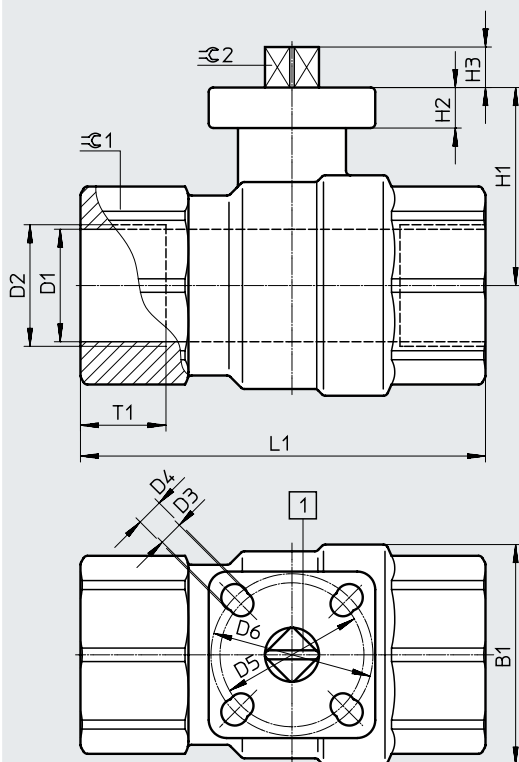
Permissible operating pressure p as a function of the temperature of the medium t



Data sheet

Dimensions

Download CAD data → www.festo.com



[1] Switching position indication: the slot direction corresponds to the flow direction.

Type	B1	D1 ∅ ±0.15	D2	D3 ∅	D4 ∅	D5 ∅	D6 ∅	H1	H2	H3	L1 ±2	T1	∅ 1 -0.1	∅ 2
VAPB-1/4-F-40-F03	35	15	Rp1/4	5.5	-	36	-	40	9	9	75	15	26	9
VAPB-3/8-F-40-F03	35	15	Rp3/8	5.5	-	36	-	40	9	9	75	15	26	9
VAPB-1/2-F-40-F03	35	15	Rp1/2	5.5	-	36	-	40	9	9	75	15	26	9
VAPB-3/4-F-40-F03	45	20	Rp3/4	5.5	-	36	-	45	9	9	80	16	32	9
VAPB-1-F-40-F0304	55	25	Rp1	5.5	-	36	42	45	9	9	90	19	41	9
VAPB-1 1/4-F-40-F0405	65	32	Rp1 1/4	5.5	6.5	42	50	60	10	11	110	21	50	11
VAPB-1 1/2-F-40-F0405	75	40	Rp1 1/2	5.5	6.5	42	50	65	10	11	120	21	55	11
VAPB-2-F-25-F05	90	50	Rp2	6.5	-	50	-	75	12	14	140	25	70	14
VAPB-2 1/2-F-25-F07	110	65	Rp2 1/2	8.5	-	70	-	85	10	15.5	143	24	83	14

Ordering data

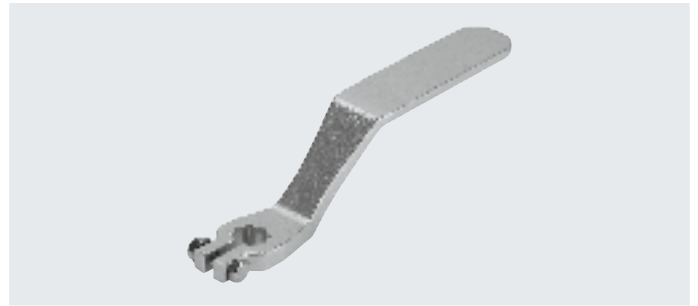
Design	Valve connection	Weight [g]	Part no.	Type
	Rp1/4	500	534302	VAPB-1/4-F-40-F03
	Rp3/8	500	534303	VAPB-3/8-F-40-F03
	Rp1/2	400	534304	VAPB-1/2-F-40-F03
	Rp3/4	500	534305	VAPB-3/4-F-40-F03
	Rp1	800	534306	VAPB-1-F-40-F0304
	Rp1 1/4	1300	534307	VAPB-1 1/4-F-40-F0405
	Rp1 1/2	1900	534308	VAPB-1 1/2-F-25-F0405
	Rp2	3100	534309	VAPB-2-F-25-F05
	Rp2 1/2	3100	534310	VAPB-2 1/2-F-25-F07

Accessories

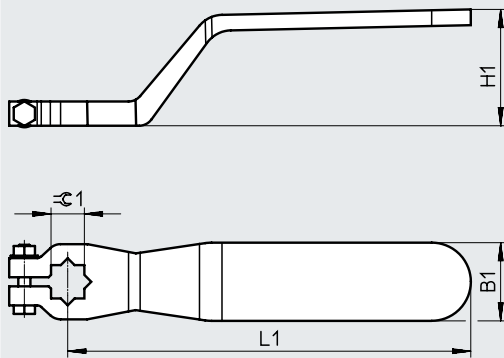
Hand lever VAOH

Information on materials:

- High-alloy stainless steel
- Free of copper and PTFE
- Contains paint-wetting impairment substances



Dimensions and ordering data

Download CAD data → www.festo.com

For connection	B1 ±5	H1 ±5	L1 ±10	∅1 ±0.5	Weight [g]	Part no.	Type
Rp1/4 ... Rp1	21	36	120	9	100	542702	VAOH-9-H9
Rp1 1/4 ... Rp1 1/2	26	40	140	11	200	542703	VAOH-11-H9
Rp2 ... Rp2 1/2	31	46	180	14	300	542704	VAOH-14-H9

Data sheet

Function



- 2-way ball valve made of brass



- Connecting thread
Rp1/4 ... Rp2
- Flow rate
5.9 ... 243 m³/h

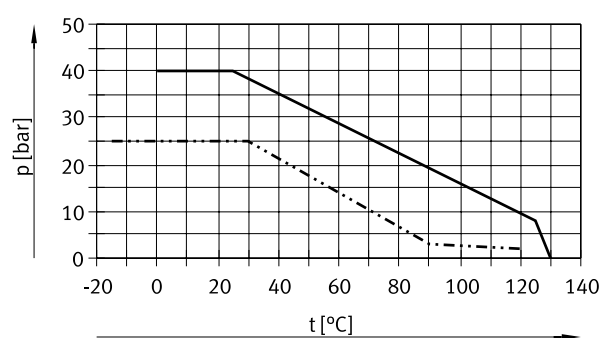
General technical data								
Connecting thread	Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2
Nominal width DN	8	10	15	20	25	32	40	50
Valve function	2/2							
Design	2-way ball valve							
Sealing principle	Soft							
Actuation type	Mechanical							
Switching position indication	Slot direction = flow direction							
Flow direction	Reversible							
Type of mounting	In-line installation							
Mounting position	Any							
Based on standard	ISO 5211 EN 10226-1							
Breakaway torque at differential pressure nominal pressure for process valve PN [Nm]	3.2	3.2	4.3	5	5.5	7.5	9.5	14.5
Internal ø [mm]	10	10	15	20	25	32	40	50
Flow rate Kv [m ³ /h]	5.9	9.4	15	28	39	84	156	243

Operating and environmental conditions								
Connecting thread	Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2
Valve nominal pressure PN	40	40	25	25	25	25	25	25
Temperature of medium [°C]	-15 ... +90							
Medium	Compressed air to ISO 8573-1:2010 [:-:-] Inert gases Water – no water vapour Neutral fluids							
CE marking (see declaration of conformity) ¹⁾	To EU Pressure Equipment Directive							

1) Additional information is available at www.festo.com/sp → Certificates.

Data sheet

Materials		Material number
Housing		Nickel-plated brass CW617N
Ball	Rp1/4 ... Rp3/8	Chrome-plated brass CW614N
	Rp1/2 ... Rp2	Chrome-plated brass CW617N
Shaft	Rp1/4 ... Rp3/8	Brass CW614N
	Rp1/2 ... Rp2	Brass CW617N
Seals	Rp1/4 ... Rp3/8	PTFE
	Rp1/2 ... Rp2	PTFE
		FPM
		HNBR
Note on materials	RoHS-compliant	
	Contains paint-wetting impairment substances	

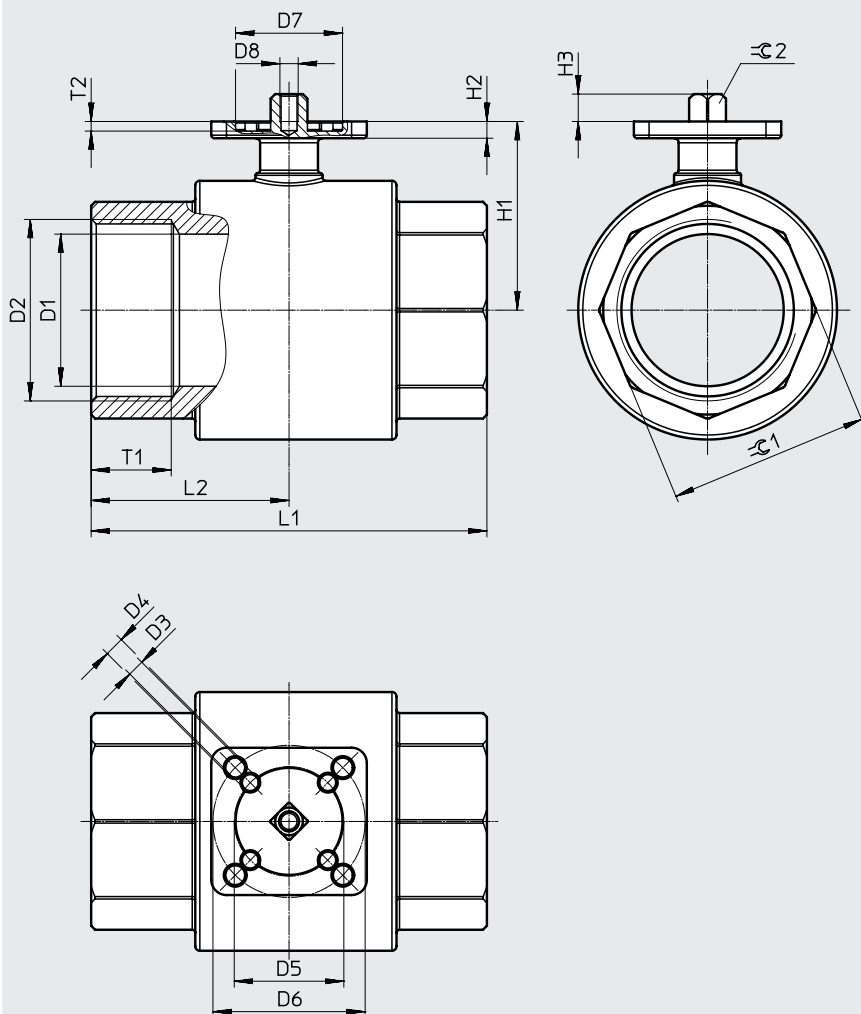
Permissible operating pressure p as a function of the temperature of the medium t 

———— Rp1/4 ... Rp1 3/8
 - - - - - Rp1/2 ... Rp2

Data sheet

Dimensions

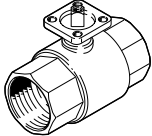
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Type	D1 ∅ ±0.15	D2	D3 ∅ +0.2	D4 ∅ +0.2	D5 ∅ ±0.15	D6 ∅ ±0.15	D7 ∅	D8
VZBM-1/4-RP-40-D-2-F03-B2B3	10	Rp1/4	5.5	-	36	-	25 ^{H8}	M4
VZBM-3/8-RP-40-D-2-F03-B2B3	10	Rp3/8					25 ^{H8}	M4
VZBM-1/2-RP-25-D-2-F03-B2B3	15	Rp1/2					25.2±0.1	M6
VZBM-3/4-RP-25-D-2-F03-B2B3	20	Rp3/4					25.2±0.1	
VZBM-1-RP-25-D-2-F03-B2B3	25	Rp1					25.2±0.1	
VZBM-1 1/4-RP-25-D-2-F03-B2B3	32	Rp1 1/4					25.2±0.1	
VZBM-1 1/2-RP-25-D-2-F0305-B2B3	40	Rp1 1/2					35.2±0.1	
VZBM-2-RP-25-D-2-F0305-B2B3	50	Rp2	50	35.2±0.1				

Type	H1	H2	H3	L1 ±2	L2	T1 min.	T2 ±0.1	≈C1 ±1	≈C2 h11	
VZBM-1/4-RP-40-D-2-F03-B2B3	38	9	9	75	32.5	15	3.2	26	9	
VZBM-3/8-RP-40-D-2-F03-B2B3	38	9		75	32.5					
VZBM-1/2-RP-25-D-2-F03-B2B3	32	5.5		61	30.5	16.3				
VZBM-3/4-RP-25-D-2-F03-B2B3	36			70	35					
VZBM-1-RP-25-D-2-F03-B2B3	44			84	42					19.1
VZBM-1 1/4-RP-25-D-2-F03-B2B3	49			97	48.5					21.4
VZBM-1 1/2-RP-25-D-2-F0305-B2B3	54			108	54					22
VZBM-2-RP-25-D-2-F0305-B2B3	62			130	65					26.3

Data sheet

Ordering data	Connecting thread	Weight [g]	Part no.	Type
	Rp1/4	412	4405646 ¹⁾	VZBM-1/4-RP-40-D-2-F03-B2B3
	Rp3/8	390	4405647 ¹⁾	VZBM-3/8-RP-40-D-2-F03-B2B3
	Rp1/2	206	4405648 ¹⁾	VZBM-1/2-RP-25-D-2-F03-B2B3
	Rp3/4	306	4405649 ¹⁾	VZBM-3/4-RP-25-D-2-F03-B2B3
	Rp1	473	4405650 ¹⁾	VZBM-1-RP-25-D-2-F03-B2B3
	Rp1 1/4	730	4405651 ¹⁾	VZBM-1 1/4-RP-25-D-2-F03-B2B3
	Rp1 1/2	1135	4405652 ¹⁾	VZBM-1 1/2-RP-25-D-2-F0305-B2B3
	Rp2	1770	4405653 ¹⁾	VZBM-2-RP-25-D-2-F0305-B2B3

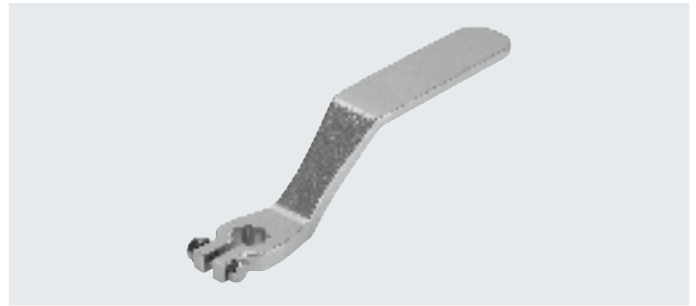
1) Festo is only a retailer of this product, not the manufacturer.

Accessories

Hand lever VAOH

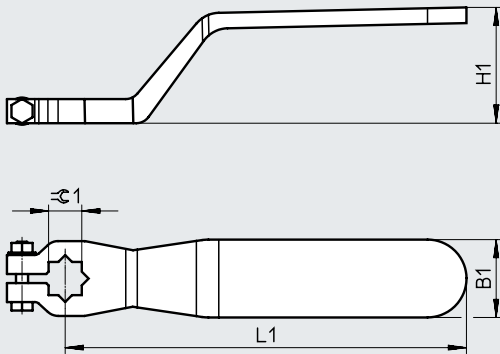
Information on materials:

- High-alloy stainless steel
- Free of copper and PTFE
- Contains paint-wetting impairment substances



Dimensions and ordering data

Download CAD data → www.festo.com



For connection	B1	H1	L1	$\text{r}_{\text{G}1}$	Weight [g]	Part no.	Type
Rp1/4 ... Rp2	±5 21	±5 36	±10 120	±0.5 9	100	542702	VAOH-9-H9

Data sheet

Function



- With L-bore or T-bore

- - Connecting thread
Rp1/4 ... Rp2

- - Flow rate
5.9 ... 292 m³/h



General technical data								
Connecting thread	Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2
Nominal width DN	8	10	15	20	25	32	40	50
Valve function	3/2							
Design	3-way ball valve							
Sealing principle	Soft							
Actuation type	Mechanical							
Switching position indication	Slot direction = flow direction							
Flow direction	Reversible							
Type of mounting	In-line installation							
Mounting position	Any							
Based on standard	ISO 5211 EN 10226-1							
Breakaway torque at differential pressure nominal pressure for process valve PN [Nm]	6	6	6.9	8	11	16.7	26.7	36
Internal ø [mm]	8	10	14.1	17.6	25	32	38	45
Flow rate Kv [m ³ /h]	5.9	9.4	17	41	70	121	200	292

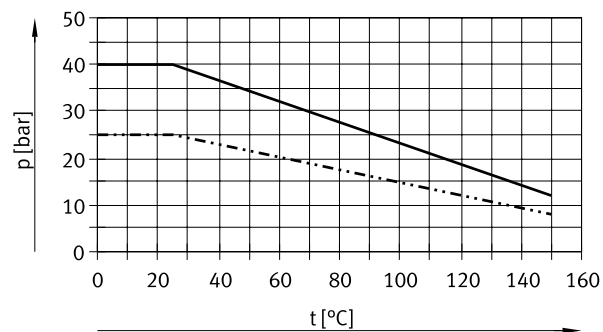
Operating and environmental conditions								
Connecting thread	Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2
Valve nominal pressure PN	40	40	40	40	40	40	25	25
Temperature of medium [°C]	-20 ... +130							
Medium	Compressed air to ISO 8573-1:2010 [---]							
	Inert gases							
	Water – no water vapour							
	Neutral fluids							
CE marking (see declaration of conformity) ¹⁾	To EU Pressure Equipment Directive							

1) Additional information is available at www.festo.com/sp → Certificates.

Data sheet

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

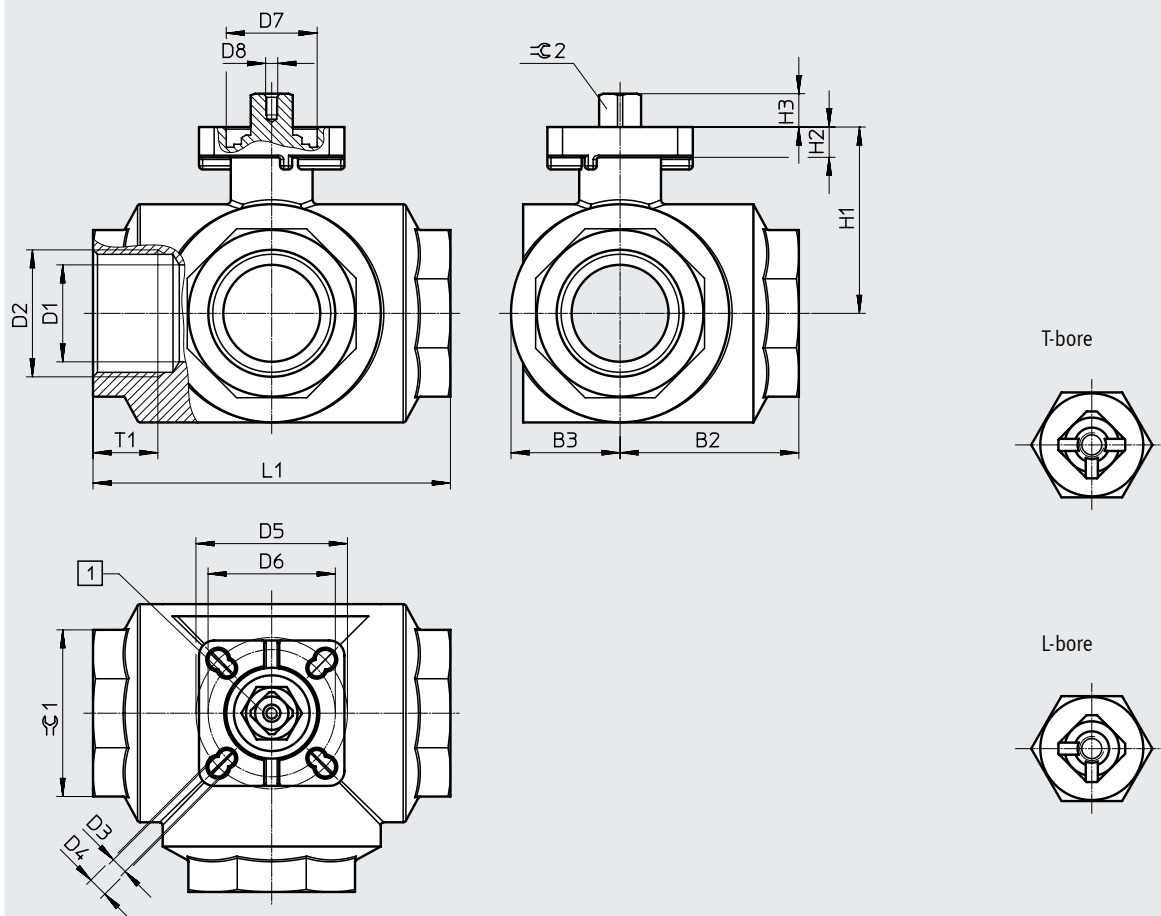
Permissible operating pressure p as a function of the temperature of the medium t



———— Rp1/4 ... Rp1 1/4
 - - - - - Rp1 1/2 ... Rp2

Data sheet

Dimensions

Download CAD data → www.festo.com

[1] Switching position indication: the slot direction corresponds to the flow direction → page 38

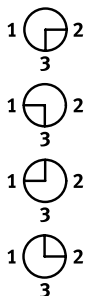
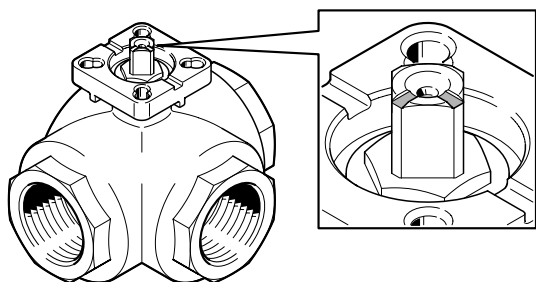
Type	B2	B3	D1 ∅	D2	D3 ∅	D4 ∅	D5 ∅	D6 ∅	D7 ∅ H8	D8
VZBM-1/4-RP-40-F-3...-F03-B2B3	32.5	17	8	Rp1/4	5.5	-	36	-	25	M4
VZBM-3/8-RP-40-F-3...-F03-B2B3			10	Rp3/8						
VZBM-1/2-RP-40-F-3...-F03-B2B3			14.1	Rp1/2						
VZBM-3/4-RP-40-F-3...-F03-B2B3			17.6	Rp3/4						
VZBM-1-RP-40-F-3...-F0304-B2B3	48.5	26	25	Rp1	5.5	6.5	42	50	30	
VZBM-1 1/4-RP-40-F-3...-F0405-B2B3	59	36.5	32	Rp1 1/4						
VZBM-1 1/2-RP-25-F-3...-F0405-B2B3	67.5	38	38	Rp1 1/2						
VZBM-2-RP-25-F-3...-F05-B2B3	78.5	43	45	Rp2	6.5		50	-	35	M5

Type	H1	H2	H3	L1	T1	≈C1	≈C2
				±2	min.		-0.1
VZBM-1/4-RP-40-F-3...-F03-B2B3	38	9	9	64.5	15	25	9
VZBM-3/8-RP-40-F-3...-F03-B2B3							
VZBM-1/2-RP-40-F-3...-F03-B2B3							
VZBM-3/4-RP-40-F-3...-F03-B2B3				76	16.3	31	
VZBM-1-RP-40-F-3...-F0304-B2B3	46.5			97	19.1	41	
VZBM-1 1/4-RP-40-F-3...-F0405-B2B3	61.3	10	11	118	21.4	55	11
VZBM-1 1/2-RP-25-F-3...-F0405-B2B3	63.5			134.5			
VZBM-2-RP-25-F-3...-F05-B2B3	74	12	14	157	25.7	67	14

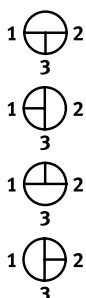
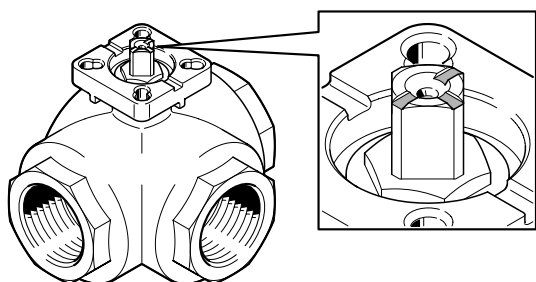
Data sheet

Switching position indication

L-bore



T-bore



Ordering data

	Design	Connecting thread	Weight [g]	Part no.	Type
	L-bore	Rp1/4	530	4451869 ¹⁾	VZBM-1/4-RP-40-F-3L-F03-B2B3
		Rp3/8	500	4451868 ¹⁾	VZBM-3/8-RP-40-F-3L-F03-B2B3
		Rp1/2	460	4451867 ¹⁾	VZBM-1/2-RP-40-F-3L-F03-B2B3
		Rp3/4	720	4451866 ¹⁾	VZBM-3/4-RP-40-F-3L-F03-B2B3
		Rp1	1280	4451862 ¹⁾	VZBM-1-RP-40-F-3L-F0304-B2B3
		Rp1 1/4	3000	4451863 ¹⁾	VZBM-1 1/4-RP-40-F-3L-F0405-B2B3
		Rp1 1/2	3260	4451864 ¹⁾	VZBM-1 1/2-RP-25-F-3L-F0405-B2B3
	Rp2	4470	4451865 ¹⁾	VZBM-2-RP-25-F-3L-F05-B2B3	
	T-bore	Rp1/4	530	4451861 ¹⁾	VZBM-1/4-RP-40-F-3T-F03-B2B3
		Rp3/8	460	4451854 ¹⁾	VZBM-3/8-RP-40-F-3T-F03-B2B3
		Rp1/2	460	4451855 ¹⁾	VZBM-1/2-RP-40-F-3T-F03-B2B3
		Rp3/4	710	4451856 ¹⁾	VZBM-3/4-RP-40-F-3T-F03-B2B3
		Rp1	1250	4451857 ¹⁾	VZBM-1-RP-40-F-3T-F0304-B2B3
		Rp1 1/4	2930	4451858 ¹⁾	VZBM-1 1/4-RP-40-F-3T-F0405-B2B3
		Rp1 1/2	3190	4451859 ¹⁾	VZBM-1 1/2-RP-25-F-3T-F0405-B2B3
		Rp2	4320	4451860 ¹⁾	VZBM-2-RP-25-F-3T-F05-B2B3

1) Festo is only a retailer of this product, not the manufacturer.

Accessories

Hand lever VAOH

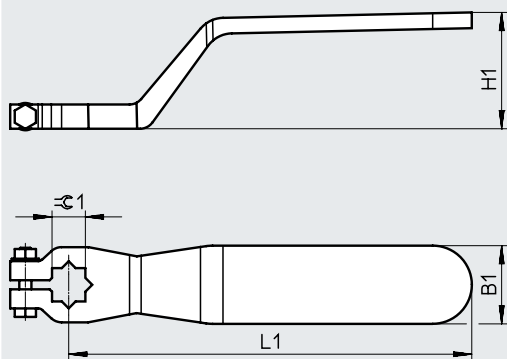
Information on materials:

- High-alloy stainless steel
- Free of copper and PTFE
- Contains paint-wetting impairment substances



Dimensions and ordering data

Download CAD data → www.festo.com



For connection	B1 ±5	H1 ±5	L1 ±10	∅1 ±0.5	Weight [g]	Part no.	Type
Rp1/4 ... Rp1	21	36	120	9	100	542702	VAOH-9-H9
Rp1 1/4 ... Rp1 1/2	26	40	140	11	200	542703	VAOH-11-H9
Rp2	31	46	180	14	300	542704	VAOH-14-H9

Data sheet

Function



- With hand lever

- - Connecting thread
Rp1/4 ... Rp1 1/2

- - Flow rate
6 ... 156 m³/h



General technical data

Valve connection	Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2
Nominal width DN	8	10	15	20	25	32	40
Valve function	2/2						
Design	2-way ball valve						
Sealing principle	Soft						
Actuation type	Mechanical						
Switching position indication	Slot direction = flow direction						
Flow direction	Reversible						
Type of mounting	In-line installation						
Mounting position	Any						
Based on standard	EN 10226-1						
Actuating torque at differential pressure of valve nominal pressure [Nm]	7.5	7.5	9	20	25	37	50
Internal ø [mm]	10	10	15	20	25	32	40
Flow rate Kv [m ³ /h]	6	8	15	28	39	84	156

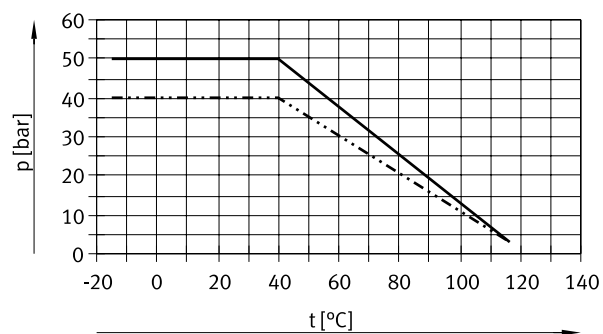
Operating and environmental conditions

Valve connection	Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2
Valve nominal pressure PN	50	50	50	50	40	40	40
Temperature of medium [°C]	-15 ... +120						
Medium	Compressed air to ISO 8573-1:2010 [:-:-]						
	Inert gases						
	Water – no water vapour						
	Neutral fluids						
Certification	DVGW Gas						
	DVGW Water						
CE marking (see declaration of conformity) ¹⁾	To EU Pressure Equipment Directive						

1) Additional information is available at www.festo.com/sp → Certificates.

Data sheet

Materials		Material number
Housing	Nickel-plated brass	CW617N
Ball	Chrome-plated brass	CW617N
Shaft	Brass	CW617N
Seals	PTFE	
	NBR	
Note on materials	RoHS-compliant	
	Contains paint-wetting impairment substances	

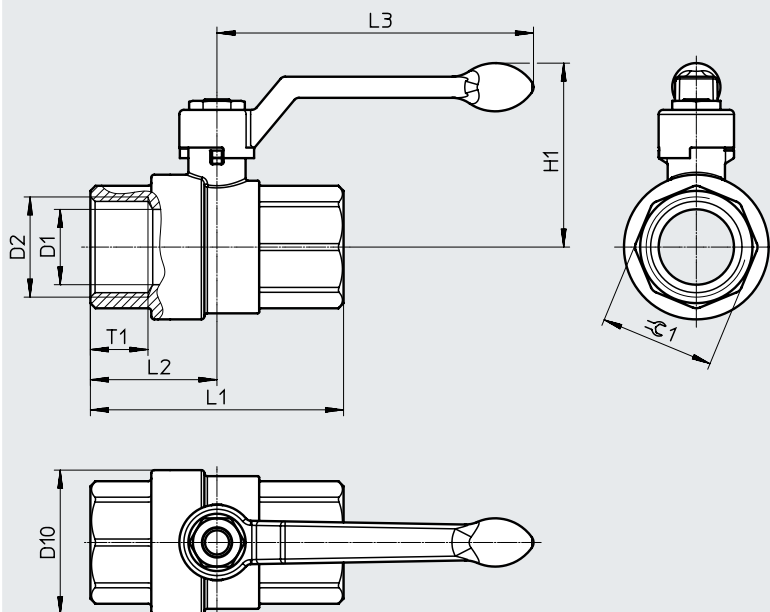
Permissible operating pressure p as a function of the temperature of the medium t 

———— Rp1/4 ... Rp3/4
 - - - - - Rp1 ... Rp1 1/2

Data sheet

Dimensions

Download CAD data → www.festo.com



Type	D1 ø	D2	D10 ø	H1	L1	L2	L3	T1 min.	± 0.1
VZBM-1/4-RP-50-D-2-M-B2B3	10	Rp1/4	23	41	49	23	85	12	18
VZBM-3/8-RP-50-D-2-M-B2B3	10	Rp3/8	24	41	50.5	23.5	85	12	21
VZBM-1/2-RP-50-D-2-M-B2B3	15	Rp1/2	32	49	61	30.5	85	15	26
VZBM-3/4-RP-50-D-2-M-B2B3	20	Rp3/4	40	57	69.5	35	105	16.3	32
VZBM-1-RP-40-D-2-M-B2B3	25	Rp1	48	61	84	42	105	19.1	38
VZBM-1 1/4-RP-40-D-2-M-B2B3	32	Rp1 1/4	60	75	98	49	130	21.4	47
VZBM-1 1/2-RP-40-D-2-M-B2B3	40	Rp1 1/2	72.5	81	108	54	130	22	54

Ordering data

	Connecting thread	Weight [g]	Part no.	Type
	Rp1/4	130	4405684 ¹⁾	VZBM-1/4-RP-50-D-2-M-B2B3
	Rp3/8	120	4405685 ¹⁾	VZBM-3/8-RP-50-D-2-M-B2B3
	Rp1/2	200	4405686 ¹⁾	VZBM-1/2-RP-50-D-2-M-B2B3
	Rp3/4	335	4405687 ¹⁾	VZBM-3/4-RP-50-D-2-M-B2B3
	Rp1	480	4405689 ¹⁾	VZBM-1-RP-40-D-2-M-B2B3
	Rp1 1/4	770	4405690 ¹⁾	VZBM-1 1/4-RP-40-D-2-M-B2B3
	Rp1 1/2	1116	4405691 ¹⁾	VZBM-1 1/2-RP-40-D-2-M-B2B3

1) Festo is only a retailer of this product, not the manufacturer.

Accessories

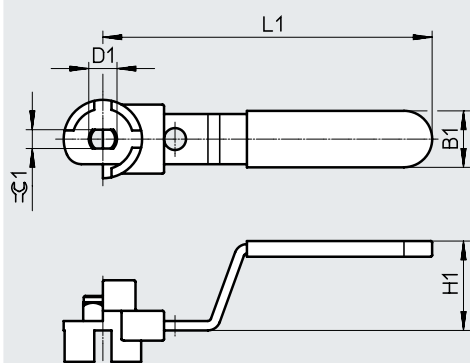
Hand lever VAOH

- Galvanised steel
- Free of copper and PTFE
- Contains paint-wetting impairment substances
- RoHS-compliant
- Lockable for VZBM, manual



Dimensions and ordering data

Download CAD data → www.festo.com



For connection	B1	D1 ∅	H1	L1	⊖ 1	Weight [g]	Part no.	Type
Rp1/4 ... Rp1/2	16	7	24.5	89	5	50	4650069 ¹⁾	VAOH-F10-D7-H9-A
Rp3/4 ... Rp1	18	9	28.5	105	6	75	4650070 ¹⁾	VAOH-F10-D9-H9-A
Rp1 1/4 ... Rp1 1/2	22	12	32	130	8	145	4650071 ¹⁾	VAOH-F10-D12-H9-A

1) Festo is only a retailer of this product, not the manufacturer.

Data sheet

Function



- With hand lever
- Pipe thread to ISO 228-1



- - Connecting thread
G1/4 ... G1 1/2
- - Standard nominal flow rate
3400 ... 84000 l/h

General technical data						
Pneumatic connection 1	G1/4	G3/8	G1/2	G3/4	G1	G1 1/2
Pneumatic connection 2	G1/4	G3/8	G1/2	G3/4	G1	G1 1/2
Nominal width [mm]	10	10	15	20	25	40
Design	Ball valve					
Type of mounting	In-line installation					
Mounting position	Any					
Valve function	2/2-way bistable valve					
Actuation type	Manual					
Sealing principle	Soft					
Standard nominal flow rate q _n [l/min]	3400	7500	11500	21000	33000	84000

Operating and environmental conditions	
Valve nominal pressure PN	30
Medium ¹⁾	Compressed air to ISO 8573-1:2010 [7:-:-] Water
Note on operating/pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Ambient temperature [°C]	-20 ... +180

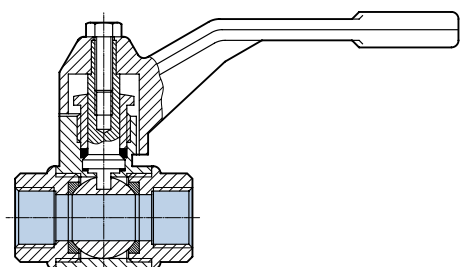
1) Other flow media on request

- - **Note**

Not permitted for toxic gases such as natural gas, mains gas, etc.

Materials

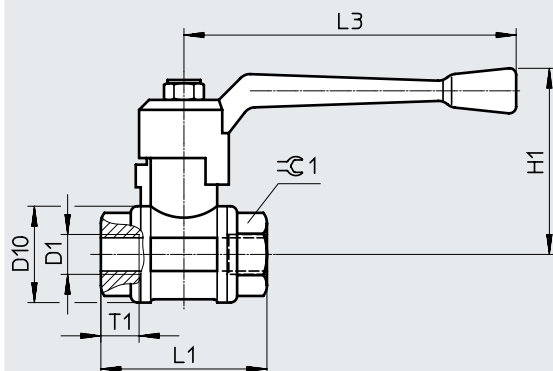
Sectional view



Ball valve		
[1]	Housing	Brass
[2]	Lever	Aluminium

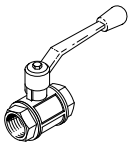
Data sheet

Dimensions – Female thread at both ends

Download CAD data → www.festo.com

Type	D1	D10 ∅	H1	L1	L3	T1	∠ 1
QH-1/4	G1/4	30	56	52	100	11.5	21.5
QH-3/8	G3/8	30	56	52	100	11.5	21.5
QH-1/2	G1/2	35	59	64	100	15	27
QH-3/4	G3/4	44	72	74	120	16.3	32
QH-1	G1	51	77	88	120	19.1	41
QH-1 1/2	G1 1/2	73	100	105.5	150	21.4	55

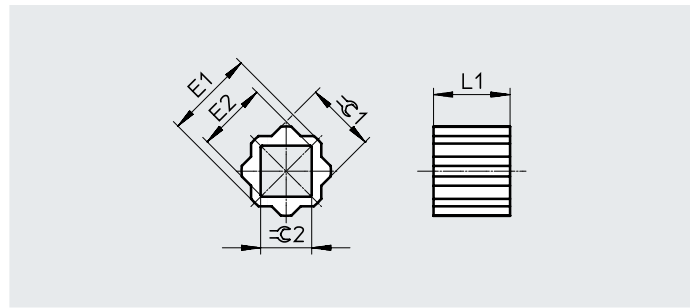
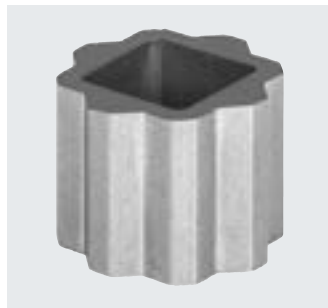
Ordering data

Design	Pneumatic connection	Weight [g]	Part no.	Type	
					1
 Female thread at both ends	G1/4	G1/4	175	9541	QH-1/4
	G3/8	G3/8	180	9542	QH-3/8
	G1/2	G1/2	340	9543	QH-1/2
	G3/4	G3/4	590	9544	QH-3/4
	G1	G1	815	9545	QH-1
	G1 1/2	G1 1/2	1750	6837	QH-1 1/2

Accessories

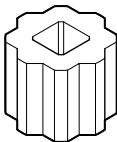
Reducing sleeve DARQ

- Connection 1,
function: drive outlet
- Connection 2,
function: reducing outlet
- Material:
Sintered stainless steel
- RoHS-compliant
- Contains paint-wetting impairment substances



DARQ-R-A-...	E1 +0.1/-0.3	E2 +0.3/-0.1	L1 ±0.2	$\varnothing 1$ -0.02/-0.12	$\varnothing 2$ +0.04/+0.18
S11-S8-...	14	11	12	11	8
S11-S9-...	14	12.3	11	11	9
S14-S8-...	18	11	16	14	8
S14-S9-...	18	12.3	16	14	9
S14-S10-...	18	13.3	16	14	10
S14-S11-...	18	14.3	16	14	11
S14-S12-...	18	16.3	16	14	12
S17-S8-...	22	11	17	17	8
S17-S9-...	22	12.3	17	17	9
S17-S11-...	22	14.3	17	17	11
S17-S12-...	22	16.3	17	17	12
S17-S14-...	22	18.3	17	17	14
S22-S11-...	28	14.3	22	22	11
S22-S14-...	28	18.3	22	22	14
S22-S16-...	28	21.3	22	22	16
S22-S17-...	28	22.3	22	22	17
S27-S14-...	36	18.3	27	27	14
S27-S17-...	36	22.3	27	27	17
S27-S22-...	36	28.5	27	27	22
S36-S22-...	48	28.5	36	36	22
S36-S27-...	48	36.1	36	36	27
S46-S36-...	59	48	46	46	36

Accessories

Ordering data		Connection	Length [mm]	CRC ¹⁾	Weight/piece [g]	Part no.	Type	PU ²⁾	
Design	Drive outlet								Reducing outlet
Female square and external octagon									
	A/F 11 mm	A/F 8 mm	12	2	7	8082116	DARQ-R-A-S11-S8-12	1	
	A/F 11 mm	A/F 9 mm	11		5	8082117	DARQ-R-A-S11-S9-11		
	A/F 14 mm	A/F 8 mm	16		20	8086383	DARQ-R-A-S14-S8-16		
	A/F 14 mm	A/F 9 mm	16		18	8082118	DARQ-R-A-S14-S9-16		
	A/F 14 mm	A/F 10 mm	16		16	8082119	DARQ-R-A-S14-S10-16		
	A/F 14 mm	A/F 11 mm	16		13	8082120	DARQ-R-A-S14-S11-16		
	A/F 14 mm	A/F 12 mm	16		10	8082121	DARQ-R-A-S14-S12-16		
	A/F 17 mm	A/F 8 mm	17		36	8086384	DARQ-R-A-S17-S8-17		
	A/F 17 mm	A/F 9 mm	17		34	8096914	DARQ-R-A-S17-S9-17		
	A/F 17 mm	A/F 11 mm	17		29	8082122	DARQ-R-A-S17-S11-17		
	A/F 17 mm	A/F 12 mm	17		25	8086385	DARQ-R-A-S17-S12-17		
	A/F 17 mm	A/F 14 mm	17		19	8082123	DARQ-R-A-S17-S14-17		
	A/F 22 mm	A/F 11 mm	22		75	8086386	DARQ-R-A-S22-S11-22		
	A/F 22 mm	A/F 14 mm	22		62	8082124	DARQ-R-A-S22-S14-22		
	A/F 22 mm	A/F 16 mm	22		52	8082125	DARQ-R-A-S22-S16-22		
	A/F 22 mm	A/F 17 mm	22		46	8082126	DARQ-R-A-S22-S17-22		
	A/F 27 mm	A/F 14 mm	27		140	8096913	DARQ-R-A-S27-S14-27		
	A/F 27 mm	A/F 17 mm	27		121	8086387	DARQ-R-A-S27-S17-27		
	A/F 27 mm	A/F 22 mm	27		80	8082127	DARQ-R-A-S27-S22-27		
	A/F 36 mm	A/F 22 mm	36		286	8096915	DARQ-R-A-S36-S22-36		
	A/F 36 mm	A/F 27 mm	36		215	8082128	DARQ-R-A-S36-S27-36		
	A/F 46 mm	A/F 36 mm	46		410	8082129	DARQ-R-A-S46-S36-46		
	A/F 11 mm	A/F 8 mm	12		35	8082130	DARQ-R-A-S11-S8-12-P5		5
	A/F 11 mm	A/F 9 mm	11		25	8082131	DARQ-R-A-S11-S9-11-P5		
	A/F 14 mm	A/F 8 mm	16		100	8086388	DARQ-R-A-S14-S8-16-P5		
	A/F 14 mm	A/F 9 mm	16		90	8082132	DARQ-R-A-S14-S9-16-P5		
	A/F 14 mm	A/F 11 mm	16		65	8082133	DARQ-R-A-S14-S11-16-P5		
	A/F 17 mm	A/F 11 mm	17		145	8082134	DARQ-R-A-S17-S11-17-P5		
	A/F 17 mm	A/F 12 mm	17		125	8086389	DARQ-R-A-S17-S12-17-P5		
	A/F 17 mm	A/F 14 mm	17		95	8082135	DARQ-R-A-S17-S14-17-P5		
	A/F 22 mm	A/F 14 mm	22		310	8082136	DARQ-R-A-S22-S14-22-P5		
	A/F 22 mm	A/F 17 mm	22		230	8082137	DARQ-R-A-S22-S17-22-P5		
A/F 27 mm	A/F 22 mm	27	400	8082138	DARQ-R-A-S27-S22-27-P5				
A/F 36 mm	A/F 27 mm	36	1075	8082139	DARQ-R-A-S36-S27-36-P5				
A/F 11 mm	A/F 9 mm	11	50	8082140	DARQ-R-A-S11-S9-11-P10	10			
A/F 14 mm	A/F 9 mm	16	180	8082141	DARQ-R-A-S14-S9-16-P10				
A/F 14 mm	A/F 11 mm	16	130	8082142	DARQ-R-A-S14-S11-16-P10				
A/F 17 mm	A/F 14 mm	17	190	8082143	DARQ-R-A-S17-S14-17-P10				
A/F 22 mm	A/F 17 mm	22	460	8082144	DARQ-R-A-S22-S17-22-P10				
A/F 11 mm	A/F 9 mm	11	250	8082145	DARQ-R-A-S11-S9-11-P50		50		
A/F 14 mm	A/F 9 mm	16	900	8082146	DARQ-R-A-S14-S9-16-P50				
A/F 14 mm	A/F 11 mm	16	650	8082147	DARQ-R-A-S14-S11-16-P50				
A/F 17 mm	A/F 11 mm	17	1450	8082148	DARQ-R-A-S17-S11-17-P50				
A/F 22 mm	A/F 17 mm	22	2300	8082149	DARQ-R-A-S22-S17-22-P50				
A/F 22 mm	A/F 17 mm	22	2300	8082149	DARQ-R-A-S22-S17-22-P50				

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

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Packaging unit

Accessories

Mounting kit DARQ

- Connection 1,
function: drive outlet
- Connection 2,
function: reducing outlet
- Material:
High-alloy stainless steel
- RoHS-compliant
- Contains paint-wetting impairment substances



General technical data	
Based on standard	EN 15081
	ISO 5211
Design	Female square and male square
	Mounting kit
Connection 1, function	Drive outlet
Connection 2, function	Reducing outlet

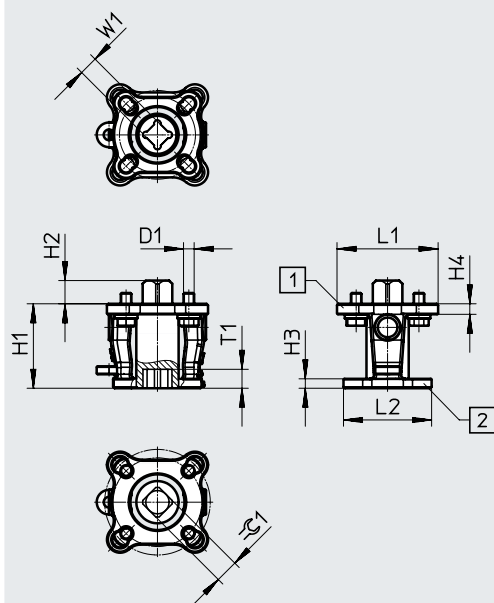
Operating and environmental conditions	
Corrosion resistance class CRC ¹⁾	2

- 1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Materials	
Coupling	High-alloy stainless steel
Mounting adapter	
Washer	
Screws	
Note on materials	RoHS-compliant
	Contains paint-wetting impairment substances

Accessories

Dimensions

Download CAD data → www.festo.com

- [1] Connection 1, drive outlet
[2] Connection 2, reducing outlet

DARQ-K-V...	D1	H1	H2	H3	H4	L1	L2	T1	W1 H11	⊕ 1 h11
F04S11-F03S9-...	M5	40	11	3.2	5	46	23	9	9	11
F05S14-F03S9-...	M6	40	15	3.2	5	46	23	9	9	14
F05S14-F04S11-...	M6	40	15	3.2	5	46	23	11	11	14
F07S17-F04S11-...	M8	50	18	6	6	66	30.5	11	11	17
F07S17-F05S14-...	M8	50	18	6	6	66	30.5	15	14	17
F10S22-F05S14-...	M10	75	23	10	9.5	132.1	63	15	14	22
F10S22-F07S17-...	M10	75	23	10	9.5	132.1	63	18	17	22

Ordering data

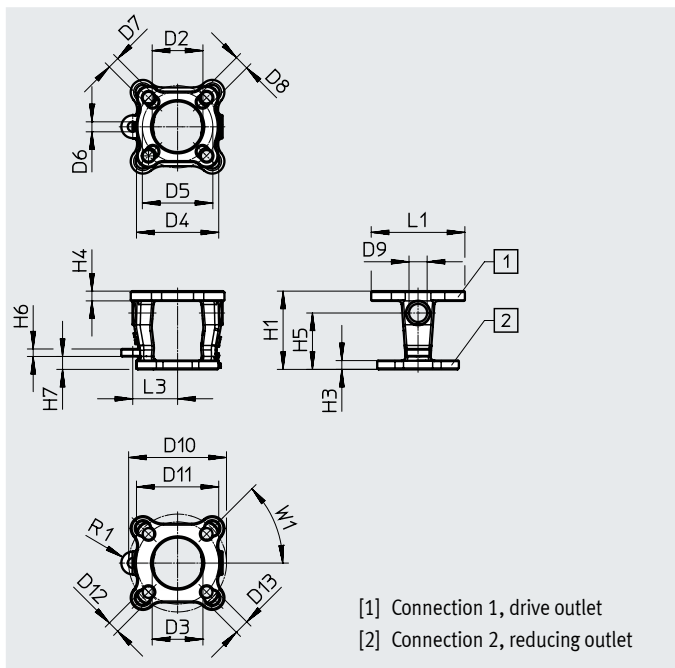
	Connection		Weight/piece [g]	Part no.	Type	PU ¹⁾
	Drive outlet	Reducing outlet				
	A/F 11 mm	A/F 9 mm	232	8088299	DARQ-K-V-F04S11-F03S9-R1	1
	A/F 14 mm	A/F 9 mm	255	8088301	DARQ-K-V-F05S14-F03S9-R1	
	A/F 14 mm	A/F 11 mm	342	8088297	DARQ-K-V-F05S14-F04S11-R1	
	A/F 17 mm	A/F 11 mm	563	8088302	DARQ-K-V-F07S17-F04S11-R1	
	A/F 17 mm	A/F 14 mm	771	8088303	DARQ-K-V-F07S17-F05S14-R1	
	A/F 22 mm	A/F 14 mm	1515	8088300	DARQ-K-V-F10S22-F05S14-R1	
	A/F 22 mm	A/F 17 mm	2010	8088298	DARQ-K-V-F10S22-F07S17-R1	

1) Packaging unit

Accessories

Mounting adapter DARQ

- Connection 1, function: drive outlet
- Connection 2, function: reducing outlet
- Material: High-alloy stainless steel
- RoHS-compliant
- Contains paint-wetting impairment substances



[1] Connection 1, drive outlet
[2] Connection 2, reducing outlet

Dimensions

DARQ-B-...	D2 ø	D3 ø	D4 ø	D5 ø	D6 ø	D7 ø	D8 ø	D9 ø	D10 ø	D11 ø
F0405-F0304-...	25.9	25.9	42	36	5.1	6.1	6.1	9.4	50	42
F0507-F0405-...	30.5	36.8	50	42	5.1	7.6	6.6	10.9	70	50
F0710-F0507-...	38.6	50	70	50	5.1	8.9	7.1	14	102	70
F1012-F10-...	69.9	76.2	-	102	5.1	-	11.2	17.3	125	102

Dimensions

DARQ-B-...	D12 ø	D13 ø	H1	H3	H4	H5	H6	H7	L1	L3	W1
F0405-F0304-...	6.1	7.6	39.9	3.2	5	28.2	3.8	7.1	46	22.9	45°
F0507-F0405-...	7.6	10.2	50	6	6	36.3	3.8	7.1	66	30.5	45°
F0710-F0507-...	8.9	10.9	74.9	9.5	9.5	50.5	3.8	7.1	102.1	39.1	45°
F1012-F10-...	11.2	13	80	10	9.5	58.4	3.8	7.1	132.1	63	45°

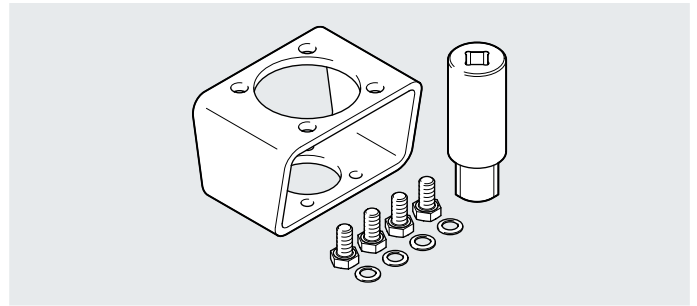
Ordering data

	Connection		CRC ¹⁾	Weight/piece [g]	Part no.	Type	PU ²⁾
	Drive outlet	Reducing outlet					
	Hole pattern 04 and 05	Hole pattern 03 and 04	2	120	8087462	DARQ-B-F0405-F0304-R1	1
	Hole pattern 05 and 07	Hole pattern 04 and 05		300	8087463	DARQ-B-F0507-F0405-R1	
	Hole pattern 10 and 12	Hole pattern 10		950	8087464	DARQ-B-F1012-F10-R1	
	Hole pattern 07 and 10	Hole pattern 05 and 07		1610	8087465	DARQ-B-F0710-F0507-R1	

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.
2) Packaging unit

Accessories

Mounting kit DARQ



General technical data		
DARQ-...	K-V-...	K-Z-...
Based on standard	EN 15081	
	ISO 5211	
Design	Female square and male square	Dual flat and male square
	Mounting kit	
Connection 1, function	Drive outlet	
Connection 2, function	Reducing outlet	

Operating and environmental conditions	
Corrosion resistance class CRC ¹⁾	2

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

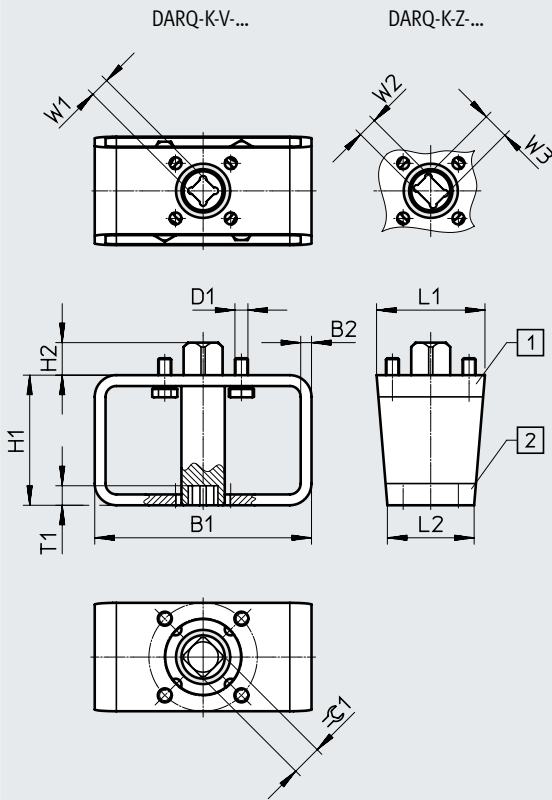
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Materials	
Coupling	High-alloy stainless steel
Mounting adapter	Steel
Washer	High-alloy stainless steel
Screws	High-alloy stainless steel
Note on materials	RoHS-compliant
	Contains paint-wetting impairment substances

Accessories

Dimensions

Download CAD data → www.festo.com



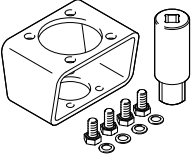
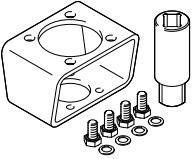
- [1] Connection 1, drive outlet
- [2] Connection 2, reducing outlet

Accessories

DARQ-K-V...	B1	B2	D1	H1	H2	L1	L2	T1	W1 H11	≈ _± 1 h11
F03S9-F03S9-...	80	4	M5	50	9	40	40	9	9	9
F04S11-F03S9-...	80	4	M5	50	11	45	40	9	9	11
F04S11-F04S11-...	80	4	M5	50	11	45	45	11	11	11
F05S14-F03S9-...	100	5	M6	60	15	50	40	9	9	14
F05S14-F04S11-...	100	5	M6	60	15	50	45	11	11	14
F05S14-F05S14-...	100	5	M6	60	15	50	50	15	14	14
F07S17-F04S11-...	100	5	M8	60	18	70	45	11	11	17
F07S17-F05S14-...	100	5	M8	60	18	70	50	15	14	17
F07S17-F07S14-...	100	5	M8	60	18	70	70	15	14	17
F07S22-F05S11-...	100	5	M8	60	23	70	50	11	11	22
F10S22-F05S14-...	120	5	M10	80	22.5	95	50	15	14	22
F10S22-F07S17-...	120	5	M10	80	22.5	95	70	18	17	22
F10S22-F10S22-...	120	5	M10	80	22.5	95	95	22.5	22	22
F10S27-F05S14-...	120	5	M10	80	27.5	95	50	15	14	27
F10S27-F07S14-...	120	5	M10	80	27.5	95	70	15	14	27
F10S27-F07S17-...	120	5	M10	80	27.5	95	70	18	17	27
F12S27-F07S17-...	160	6	M12	80	27	115	70	18	17	27
F12S27-F10S22-...	160	6	M12	80	27	115	95	22.5	22	27
F12S27-F12S27-...	160	6	M12	80	27	115	115	27.5	27	27

DARQ-K-Z...	B1	B2	D1	H1	H2	L1	L2	T1	W2 -0.1	W3 H11	≈ _± 1 h11
F03S9-F03S9-...	80	4	M5	50	9	40	40	14	9	12.1	9
F04S11-F03S9-...	80	4	M5	50	11	45	40	14	9	12.1	11
F04S11-F04S11-...	80	4	M5	50	11	45	45	17	11	14.1	11
F05S14-F03S9-...	100	5	M6	60	15	50	40	14	9	12.1	14
F05S14-F04S11-...	100	5	M6	60	15	50	45	17	11	14.1	14
F05S14-F05S14-...	100	5	M6	60	15	50	50	21	14	18.1	14
F07S17-F04S11-...	100	5	M8	60	18	70	45	17	11	14.1	17
F07S17-F05S14-...	100	5	M8	60	18	70	50	21	14	18.1	17
F07S17-F07S14-...	100	5	M8	60	18	70	70	21	14	18.1	17
F10S22-F05S14-...	120	5	M10	80	22.5	95	50	21	14	18.1	22
F10S22-F07S17-...	120	5	M10	80	22.5	95	70	26	17	22.2	22
F10S22-F10S22-...	120	5	M10	80	22.5	95	95	33	22	28.2	22

Accessories

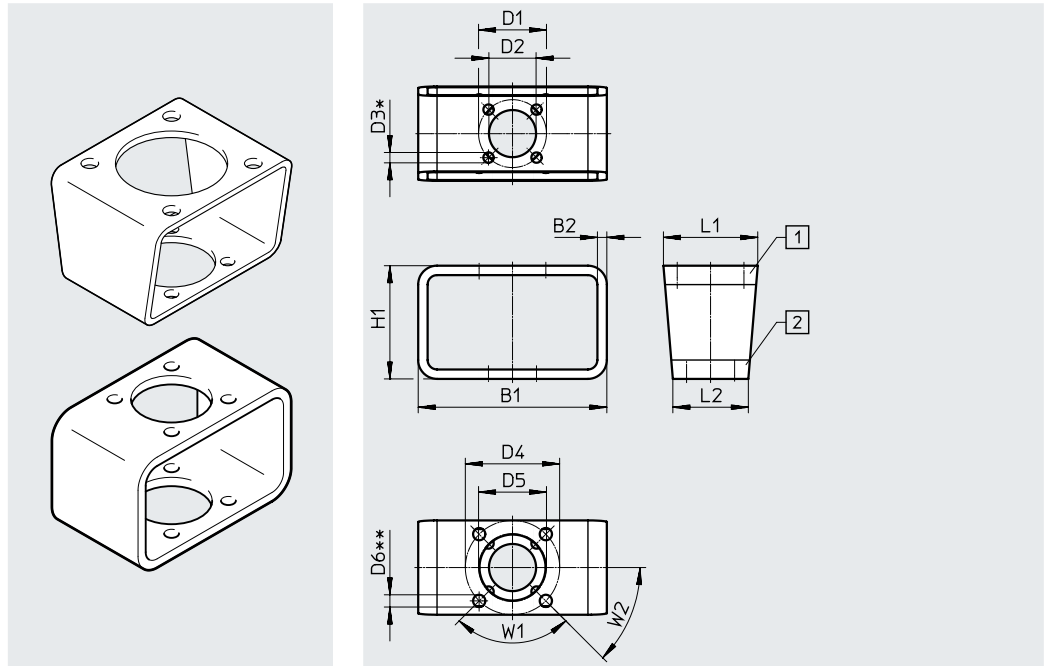
Ordering data	Connection		Weight/piece [g]	Part no.	Type	PU ¹⁾
	Drive outlet	Reducing outlet				
DARQ-K-V-... (female square and male square)						
	A/F 9 mm	A/F 9 mm	392	8084186	DARQ-K-V-F03S9-F03S9-R13	1
	A/F 11 mm	A/F 9 mm	410	8084187	DARQ-K-V-F04S11-F03S9-R13	
	A/F 11 mm	A/F 11 mm	480	8084188	DARQ-K-V-F04S11-F04S11-R13	
	A/F 14 mm	A/F 9 mm	630	8084189	DARQ-K-V-F05S14-F03S9-R13	
	A/F 14 mm	A/F 11 mm	725	8084190	DARQ-K-V-F05S14-F04S11-R13	
	A/F 14 mm	A/F 14 mm	830	8084191	DARQ-K-V-F05S14-F05S14-R13	
	A/F 17 mm	A/F 11 mm	823	8084192	DARQ-K-V-F07S17-F04S11-R13	
	A/F 17 mm	A/F 14 mm	926	8084193	DARQ-K-V-F07S17-F05S14-R13	
	A/F 17 mm	A/F 14 mm	980	8084194	DARQ-K-V-F07S17-F07S14-R13	
	A/F 22 mm	A/F 11 mm	986	8084195	DARQ-K-V-F07S22-F05S11-R13	
	A/F 22 mm	A/F 14 mm	1432	8084196	DARQ-K-V-F10S22-F05S14-R13	
	A/F 22 mm	A/F 17 mm	2045	8084197	DARQ-K-V-F10S22-F07S17-R13	
	A/F 22 mm	A/F 22 mm	2113	8084198	DARQ-K-V-F10S22-F10S22-R13	
	A/F 27 mm	A/F 14 mm	1935	8084199	DARQ-K-V-F10S27-F05S14-R13	
	A/F 27 mm	A/F 17 mm	2116	8084200	DARQ-K-V-F10S27-F07S17-R13	
	A/F 27 mm	A/F 14 mm	2134	8086439	DARQ-K-V-F10S27-F07S14-R13	
	A/F 27 mm	A/F 17 mm	2615	8084201	DARQ-K-V-F12S27-F07S17-R13	
	A/F 27 mm	A/F 22 mm	2753	8084202	DARQ-K-V-F12S27-F10S22-R13	
A/F 27 mm	A/F 27 mm	3552	8084203	DARQ-K-V-F12S27-F12S27-R13		
DARQ-K-Z-... (dual flat and male square)						
	A/F 9 mm	A/F 9 mm	385	8085017	DARQ-K-Z-F03S9-F03S9-R13	1
	A/F 11 mm	A/F 9 mm	400	8085016	DARQ-K-Z-F04S11-F03S9-R13	
	A/F 11 mm	A/F 11 mm	465	8085018	DARQ-K-Z-F04S11-F04S11-R13	
	A/F 14 mm	A/F 9 mm	620	8085019	DARQ-K-Z-F05S14-F03S9-R13	
	A/F 14 mm	A/F 11 mm	710	8085020	DARQ-K-Z-F05S14-F04S11-R13	
	A/F 14 mm	A/F 14 mm	795	8085021	DARQ-K-Z-F05S14-F05S14-R13	
	A/F 17 mm	A/F 11 mm	810	8085022	DARQ-K-Z-F07S17-F04S11-R13	
	A/F 17 mm	A/F 14 mm	890	8085023	DARQ-K-Z-F07S17-F05S14-R13	
	A/F 17 mm	A/F 14 mm	945	8085024	DARQ-K-Z-F07S17-F07S14-R13	
	A/F 22 mm	A/F 22 mm	1980	8085025	DARQ-K-Z-F10S22-F10S22-R13	
	A/F 22 mm	A/F 14 mm	1396	8085026	DARQ-K-Z-F10S22-F05S14-R13	
	A/F 22 mm	A/F 17 mm	1970	8085027	DARQ-K-Z-F10S22-F07S17-R13	

1) Packaging unit

Accessories

Mounting adapter DARQ

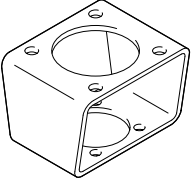
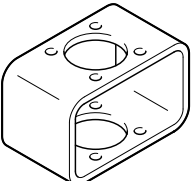
- Connection 1, function: drive outlet
- Connection 2, function: reducing outlet
- Material: Galvanised steel
- RoHS-compliant
- Contains paint-wetting impairment substances



Dimensions

DARQ-B-...	B1	B2	D1 ∅	D2 ∅	D3 ∅	D4 ∅	D5 ∅	D6 ∅	H1	L1	L2	*N1	**N2	W1	W2
F03-F03-...	80	4	36	25	5.5	36	25	5.5	50	40	40	4	4	90°	45°
F04-F03-...	80	4	36	25	5.5	42	30	5.5	50	45	40	4	4	90°	45°
F04-F04-...	80	4	42	30	5.5	42	30	5.5	50	45	45	4	4	90°	45°
F05-F03-...	100	5	36	25	5.5	50	35	6.5	60	50	40	4	4	90°	45°
F05-F04-...	100	5	42	30	5.5	50	35	6.5	60	50	45	4	4	90°	45°
F05-F05-...	100	5	50	35	6.5	50	35	6.5	60	50	50	4	4	90°	45°
F07-F04-...	100	5	42	30	5.5	70	55	9	60	70	45	4	4	90°	45°
F07-F05-...	100	5	50	35	6.5	70	55	9	60	70	50	4	4	90°	45°
F07-F07-...	100	5	70	55	9	70	55	9	60	70	70	4	4	90°	45°
F10-F05-...	120	5	50	35	6.5	102	70	11	80	95	50	4	4	90°	45°
F10-F07-...	120	5	70	55	9	102	70	11	80	95	70	4	4	90°	45°
F10-F10-...	120	5	102	70	11	102	70	11	80	95	95	4	4	90°	45°
F12-F07-...	160	6	70	55	9	125	85	13	80	115	70	4	4	90°	45°
F12-F10-...	160	6	102	70	11	125	85	13	80	115	95	4	4	90°	45°
F12-F12-...	160	6	125	85	13	125	85	13	80	115	115	4	4	90°	45°
F14-F10-...	160	6	102	70	11	140	100	17	80	135	95	4	4	90°	45°
F14-F12-...	160	6	125	85	13	140	100	17	80	135	115	4	4	90°	45°
F14-F14-...	160	6	140	100	17	140	100	17	80	135	135	4	4	90°	45°
F16-F12-...	200	6	125	85	13	165	130	21	100	160	115	4	4	90°	45°
F16-F14-...	200	6	140	100	17	165	130	21	100	160	135	4	4	90°	45°
F16-F16-...	200	6	165	130	21	165	130	21	100	160	160	4	4	90°	45°
F25-F14-...	400	10	140	100	17	254	200	17	200	270	135	8	4	45°	22.5°
F25-F16-...	400	10	165	130	21	254	200	17	200	270	160	8	4	45°	22.5°
F25-F25-...	400	10	254	200	17	254	200	17	200	270	270	8	4	45°	22.5°
F30-F16-...	400	10	165	130	21	298	230	21	200	320	160	8	4	45°	22.5°
F30-F25-...	400	10	254	200	17	298	230	21	200	320	270	8	4	45°	22.5°
F30-F30-...	400	10	298	200	21	298	230	21	200	320	320	8	4	45°	22.5°

Accessories

Ordering data	Connection		CRC ¹⁾	Weight/piece [g]	Part no.	Type	PJ ²⁾		
	Drive outlet	Reducing outlet							
	Hole pattern 04	Hole pattern 03	2	270	8082978	DARQ-B-F04-F03-R13	1		
	Hole pattern 05	Hole pattern 03		442	8082980	DARQ-B-F05-F03-R13			
	Hole pattern 05	Hole pattern 04		461	8082981	DARQ-B-F05-F04-R13			
	Hole pattern 07	Hole pattern 04		514	8082983	DARQ-B-F07-F04-R13			
	Hole pattern 07	Hole pattern 05		530	8082984	DARQ-B-F07-F05-R13			
	Hole pattern 10	Hole pattern 05		836	8082986	DARQ-B-F10-F05-R13			
	Hole pattern 10	Hole pattern 07		920	8082987	DARQ-B-F10-F07-R13			
	Hole pattern 12	Hole pattern 07		1504	8082989	DARQ-B-F12-F07-R13			
	Hole pattern 12	Hole pattern 10		1688	8082990	DARQ-B-F12-F10-R13			
	Hole pattern 14	Hole pattern 10		1775	8082992	DARQ-B-F14-F10-R13			
	Hole pattern 14	Hole pattern 12		1889	8082993	DARQ-B-F14-F12-R13			
	Hole pattern 16	Hole pattern 12		2648	8082995	DARQ-B-F16-F12-R13			
	Hole pattern 16	Hole pattern 14		2792	8082996	DARQ-B-F16-F14-R13			
	Hole pattern 25	Hole pattern 14		14734	8082998	DARQ-B-F25-F14-R13			
	Hole pattern 25	Hole pattern 16		15384	8082999	DARQ-B-F25-F16-R13			
	Hole pattern 30	Hole pattern 16		16740	8083001	DARQ-B-F30-F16-R13			
	Hole pattern 30	Hole pattern 25		20250	8083002	DARQ-B-F30-F25-R13			
		Hole pattern 05		Hole pattern 04	2305	8083005		DARQ-B-F05-F04-R13-P5	5
		Hole pattern 07		Hole pattern 05	2650	8083007		DARQ-B-F07-F05-R13-P5	
		Hole pattern 10		Hole pattern 07	4600	8083009		DARQ-B-F10-F07-R13-P5	
Hole pattern 03		Hole pattern 03	260	8082977	DARQ-B-F03-F03-R13	1			
Hole pattern 04		Hole pattern 04	275	8082979	DARQ-B-F04-F04-R13				
Hole pattern 05		Hole pattern 05	478	8082982	DARQ-B-F05-F05-R13				
Hole pattern 07		Hole pattern 07	583	8082985	DARQ-B-F07-F07-R13				
Hole pattern 10		Hole pattern 10	1037	8082988	DARQ-B-F10-F10-R13				
Hole pattern 12		Hole pattern 12	1802	8082991	DARQ-B-F12-F12-R13				
Hole pattern 14		Hole pattern 14	1976	8082994	DARQ-B-F14-F14-R13				
Hole pattern 16		Hole pattern 16	2844	8082997	DARQ-B-F16-F16-R13				
Hole pattern 25		Hole pattern 25	18895	8083000	DARQ-B-F25-F25-R13				
Hole pattern 30		Hole pattern 30	21644	8083003	DARQ-B-F30-F30-R13				
Hole pattern 04		Hole pattern 04	1375	8083004	DARQ-B-F04-F04-R13-P5		5		
Hole pattern 05		Hole pattern 05	2390	8083006	DARQ-B-F05-F05-R13-P5				
Hole pattern 07		Hole pattern 07	2915	8083008	DARQ-B-F07-F07-R13-P5				
Hole pattern 10		Hole pattern 10	5185	8083010	DARQ-B-F10-F10-R13-P5				

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

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

2) Packaging unit