

Ball valve VZBM

FESTO



Characteristics

At a glance

2- or 3-way ball valve VZBM made of brass with L- and T-bore. VZBM can be operated automatically or with a hand lever.

- Brass version
- Pipe thread to EN 10226-1

Type code

001	Series
VZBM	Ball valve

002	Nominal diameter DN
1/4	1/4"
3/8	3/8"
1/2	1/2"
3/4	3/4"
1	1"
1 1/4	1 1/4"
1 1/2	1 1/2"
2	2"

003	Process valve connection
RP	Rp thread

004	Nominal pressure [bar]
25	25
40	40
50	50

005	Design type
D	Two-part
F	Four-part

006	Valve function
2	2/2-way
3L	3/2-way, L-bore
3T	3/2-way, T-bore

007	Flanged connection
	Standard
F03	Hole pattern 03
F0304	Hole pattern 03 and 04
F0405	Hole pattern 04 and 05
F05	Hole pattern 05

008	Actuation type
	Via drive
M	With hand lever

009	Housing material
B2	Brass, nickel-plated

010	Shut-off element material
B3	Brass, chrome-plated

Datasheet

General technical data, 3-way

Connection Process valve	Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2
Nominal size DN	8	10	15	20	25	32	40	50
Valve function	3/2							
Design	3-way ball valve, L-bore, T-bore							
Sealing principle	Soft							
Type of actuation	Mechanical							
Switching position indicator	Slot direction = flow direction							
Flow direction	Reversible							
Type of mounting	Inline installation							
Mounting position	Any							
Based on standard	EN 10226-1, ISO 5211							
Breakaway torque at differential pressure, nominal pressure, process valve PN	6	6.9	8	11	16.7	26.7	36	
Inside diameter	8 mm	10 mm	14.1 mm	17.6 mm	25 mm	32 mm	38 mm	45 mm
Flow rate Kv	-							

Operating and environmental conditions, 3-way

Connection Process valve	Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2	Rp2
Nominal pressure PN	40						25	
Media temperature	-20 ... 130°C							
Medium	Compressed air to ISO 8573-1:2010 [---], Inert gases, Water – no steam, Neutral fluids							
CE mark (see declaration of conformity) ¹⁾	In accordance with EU Pressure Equipment Directive							

1) More information www.festo.com/sp see Certificates.

Materials 3-way

Material housing	Brass, nickel-plated
Material ball	Brass, Chrome-plated
Material shaft	Brass
Material seals	HNBR, PTFE
Note on materials	RoHS compliant

General technical data, manual

Connection Process valve	Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2
Nominal size DN	8	10	15	20	25	32	40
Valve function	2/2						
Design	2-way ball valve						
Sealing principle	Soft						
Type of actuation	Mechanical						
Switching position indicator	Slot direction = flow direction						
Flow direction	Reversible						
Type of mounting	Inline installation						
Mounting position	Any						
Based on standard	EN 10226-1						
Actuating torque with pressure difference relative to nominal valve pressure	7.5		9	20	25	37	50
Inside diameter	10 mm		15 mm	20 mm	25 mm	32 mm	40 mm
Flow rate Kv	6 m ³ /h	8 m ³ /h	15 m ³ /h	28 m ³ /h	39 m ³ /h	84 m ³ /h	156 m ³ /h

Datasheet

Operating and environmental conditions, manual

Connection Process valve	Rp1/4	Rp3/8	Rp1/2	Rp3/4	Rp1	Rp1 1/4	Rp1 1/2
Nominal pressure PN	50				40		
Media temperature	-15 ... 120°C						
Medium	Compressed air to ISO 8573-1:2010 [---], Inert gases, Water – no steam, Neutral fluids						
CE mark (see declaration of conformity) ¹⁾	In accordance with EU Pressure Equipment Directive						

1) More information www.festo.com/sp see Certificates.

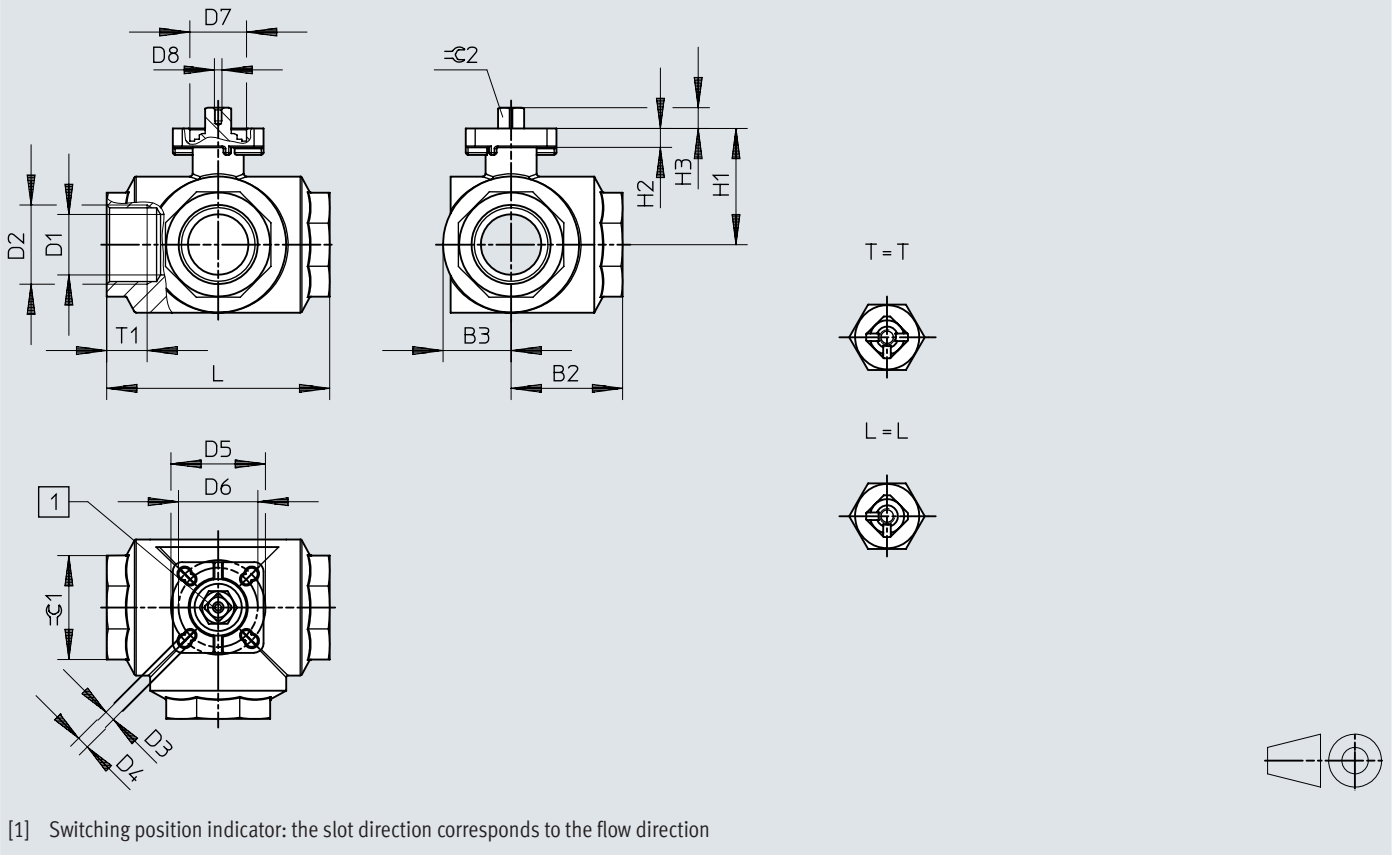
Materials manual

Material housing	Brass, nickel-plated
Material number housing	CW617N
Material ball	Brass, Chrome-plated
Material number ball	CW617N
Material shaft	Brass
Material number shaft	CW617N
Material seals	NBR, PTFE
Note on materials	RoHS compliant

Dimensions

Dimensions – Ball valves VZBM, 3-way

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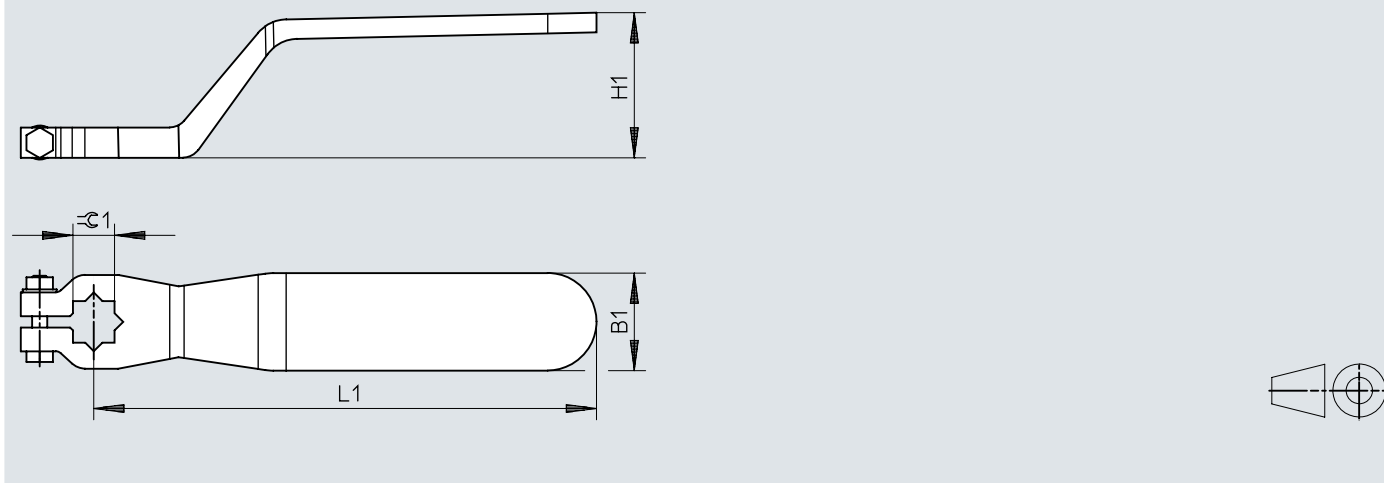


	B2	B3	D1 ø	D2	D3 ø	D4 ø	D5 ø	D6 ø	D7 ø H8	D8	
VZBM-1/4-RP-40-F-3...-F03-B2B3	32,5	17	8	Rp1/4	5,5	-	36	-	25	M4	
VZBM-3/8-RP-40-F-3...-F03-B2B3			10	Rp3/8							
VZBM-1/2-RP-40-F-3...-F03-B2B3			14,1	Rp1/2							
VZBM-3/4-RP-40-F-3...-F03-B2B3	38	21,5	17,6	Rp3/4							
VZBM-1-RP-40-F-3...-F0304-B2B3	48,5	26	25	Rp1				42			
VZBM-1 1/4-RP-40-F-3...-F0405-B2B3	59	36,5	32	Rp1 1/4			5,5	42	50		30
VZBM-1 1/2-RP-25-F-3...-F0405-B2B3	67,5	38	38	Rp1 1/2			6,5				
VZBM-2-RP-25-F-3...-F05-B2B3	78,5	43	45	Rp2	6,5		50	-	35	M5	

	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	42			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

Dimensions

Dimensions – Hand lever VAOH, 3-way

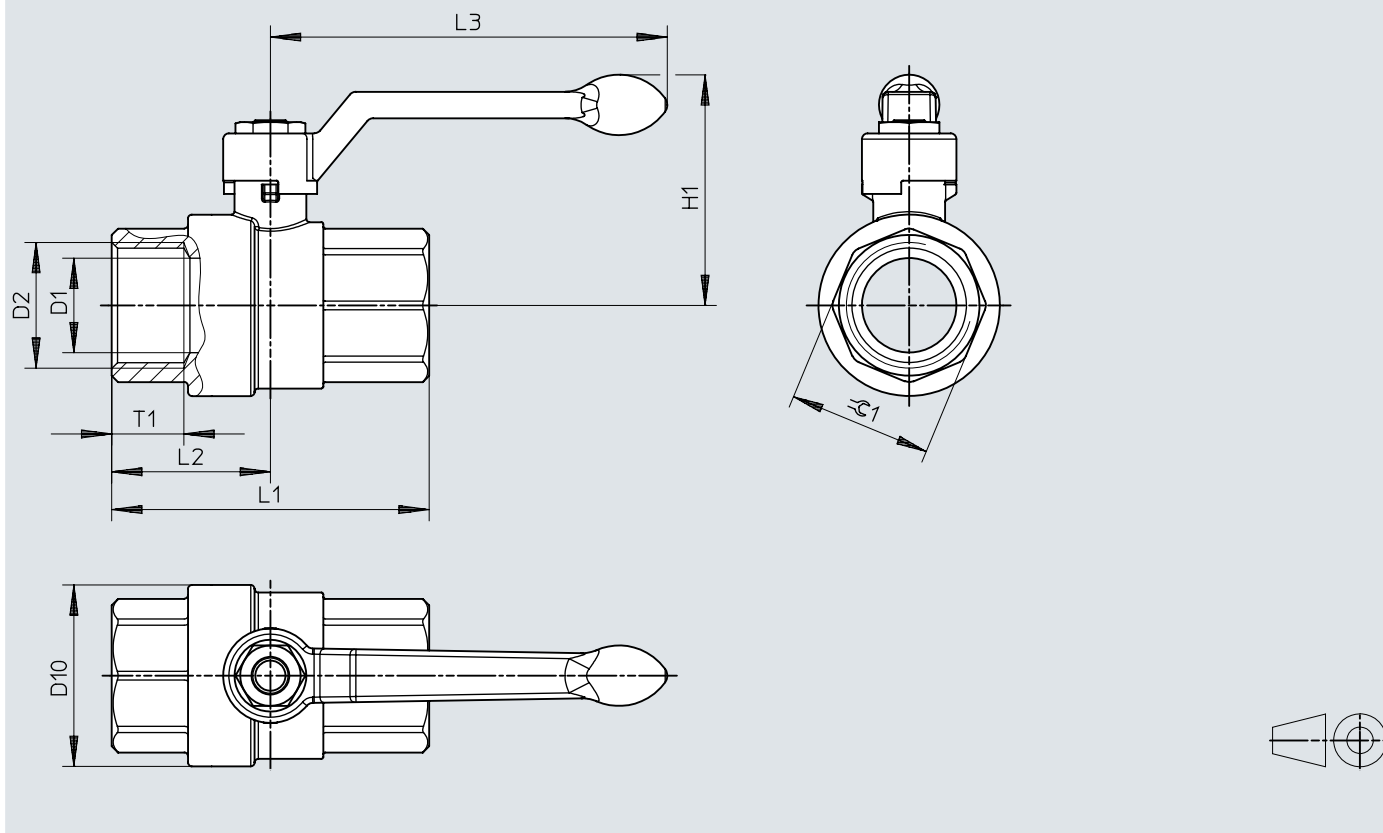
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		B1 ±5	H1 ±5	L1 ±10	$\approx C1$ ±0,5
VAOH-9-H9	Rp1/4 ... Rp1	21	36	120	9
VAOH-11-H9	Rp1 1/4 ... Rp1 1/2	26	40	140	11
VAOH-14-H9	Rp2	31	46	180	14

Dimensions

Dimensions – Ball valves VZBM, manual

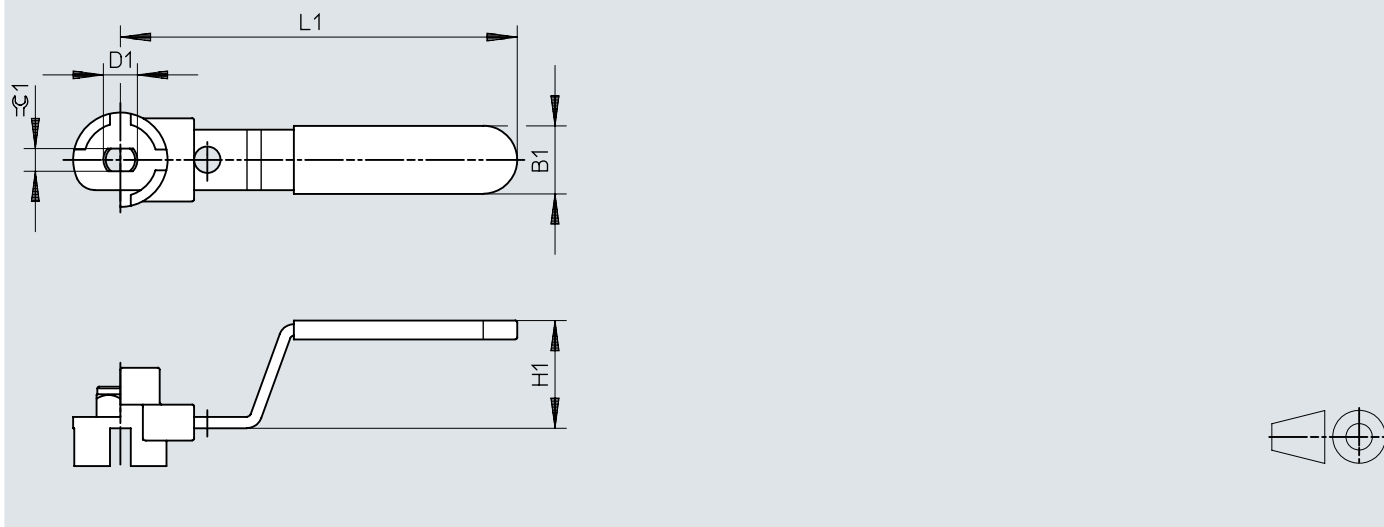
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	D1 ∅	D2	D10 ∅	H1	L1	L2	L3	T1 min.	$\approx e1$
VZBM-1/4-RP-50-D-2-M-B2B3	10	Rp1/4	23	41	49	23	85	12	18
VZBM-3/8-RP-50-D-2-M-B2B3	10	Rp3/8	24	41	50,5	23,5	85	12	21
VZBM-1/2-RP-50-D-2-M-B2B3	15	Rp1/2	32	49	61	30,5	85	15	26
VZBM-3/4-RP-50-D-2-M-B2B3	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

Dimensions

Dimensions – Hand lever VAOH, manual

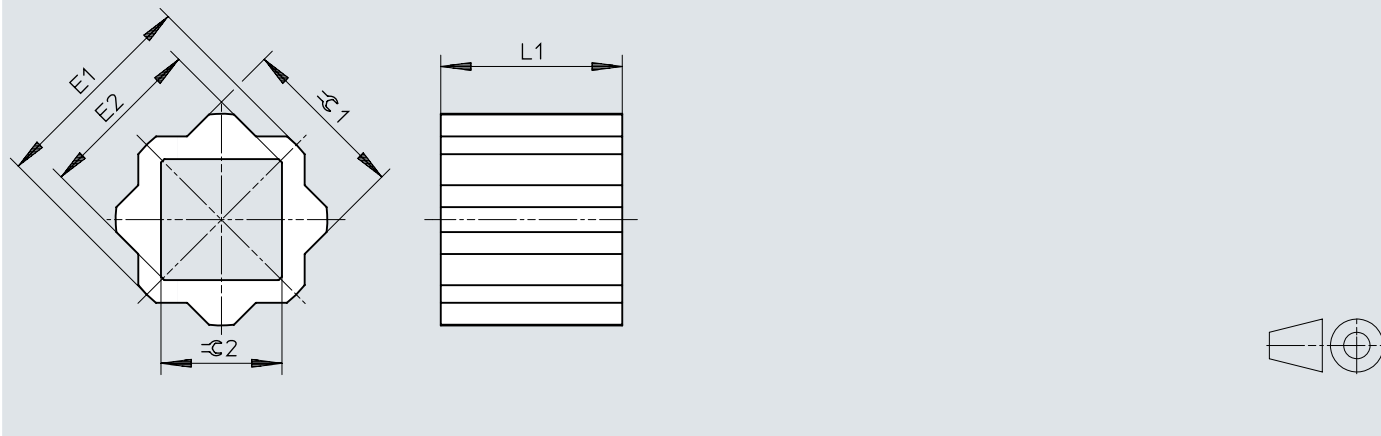
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		B1	D1 ∅	H1	L1	≈ 1
VAOH-F10-D7-H9-A	Rp1/4 ... Rp1/2	16	7	24,5	89	5
VAOH-F10-D9-H9-A	Rp3/4 ... Rp1	18	9	28,5	105	6
VAOH-F10-D12-H9-A	Rp1 1/4 ... Rp1 1/2	22	12	32	130	8

Dimensions

Dimensions – Reducing sleeve DARQ

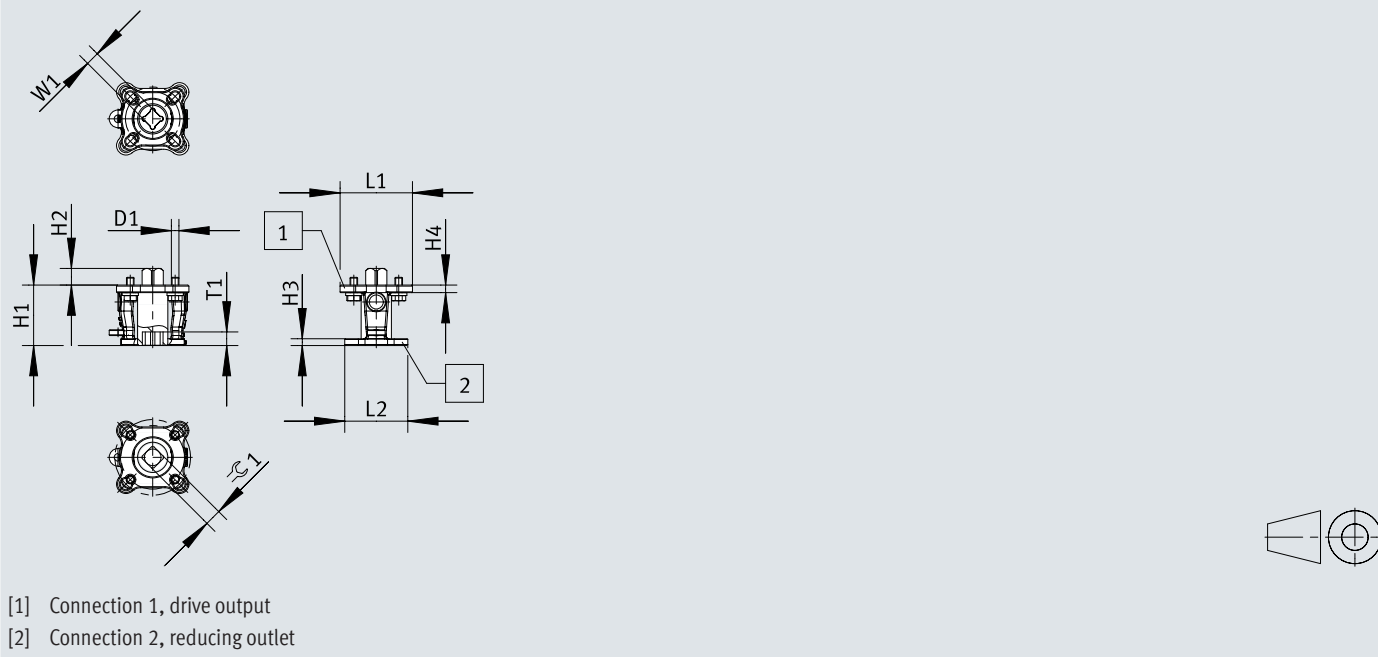
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	E1 +0,1/-0,3	E2 +0,3/-0,1	L1 ±0,2	⌀ 1 -0,02/-0,12	⌀ 2 +0,04/+0,18
DARQ-R-A-S11-S8-...	14	11	12	11	8
DARQ-R-A-S11-S9-...	14	12,3	11	11	9
DARQ-R-A-S14-S8-...	18	11	16	14	8
DARQ-R-A-S14-S9-...	18	12,3	16	14	9
DARQ-R-A-S14-S10-...	18	13,3	16	14	10
DARQ-R-A-S14-S11-...	18	14,3	16	14	11
DARQ-R-A-S14-S12-...	18	16,3	16	14	12
DARQ-R-A-S17-S8-...	22	11	17	17	8
DARQ-R-A-S17-S9-...	22	12,3	17	17	9
DARQ-R-A-S17-S11-...	22	14,3	17	17	11
DARQ-R-A-S17-S12-...	22	16,3	17	17	12
DARQ-R-A-S17-S14-...	22	18,3	17	17	14
DARQ-R-A-S22-S11-...	28	14,3	22	22	11
DARQ-R-A-S22-S14-...	28	18,3	22	22	14
DARQ-R-A-S22-S16-...	28	21,3	22	22	16
DARQ-R-A-S22-S17-...	28	22,3	22	22	17
DARQ-R-A-S27-S14-...	36	18,3	27	27	14
DARQ-R-A-S27-S17-...	36	22,3	27	27	17
DARQ-R-A-S27-S22-...	36	28,5	27	27	22
DARQ-R-A-S36-S22-...	48	28,5	36	36	22
DARQ-R-A-S36-S27-...	48	36,1	36	36	27
DARQ-R-A-S46-S22-...	59	28,5	46	46	22
DARQ-R-A-S46-S27-...	59	36,1	46	46	27
DARQ-R-A-S46-S36-...	59	48	46	46	36

Dimensions

Dimensions – Mounting kit DARQ

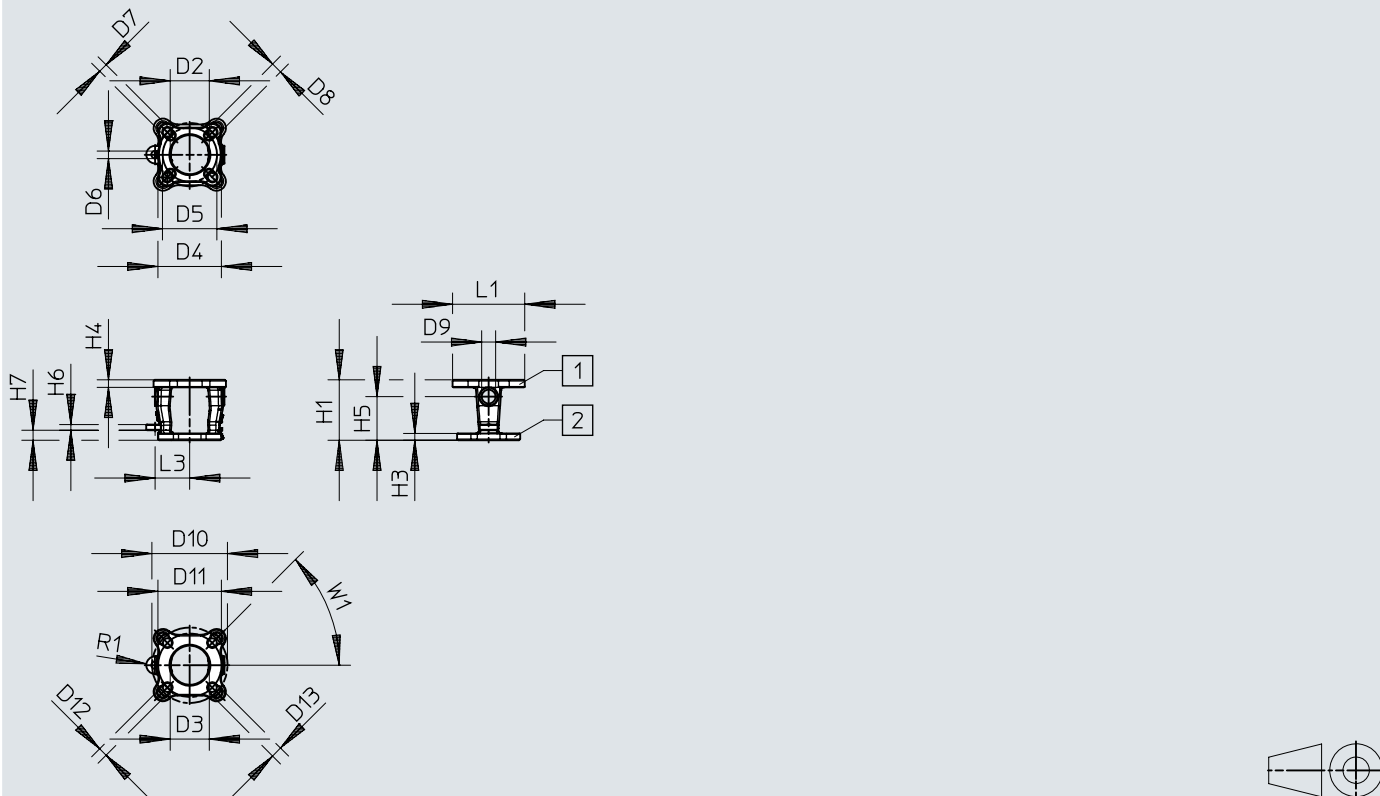
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	D1	H1	H2	H3	H4	L1	L2	T1	W1 H11	⊕ 1 h11
DARQ-K-V-F04S11-F03S9-R1	M5	40	11	3,2	5	46	23	9	9	11
DARQ-K-V-F05S14-F03S9-R1	M6	40	15	3,2	5	46	23	9	9	14
DARQ-K-V-F05S14-F04S11-R1	M6	40	15	3,2	5	46	23	11	11	14
DARQ-K-V-F07S17-F04S11-R1	M8	50	18	6	6	66	30,5	11	11	17
DARQ-K-V-F07S17-F05S14-R1	M8	50	18	6	6	66	30,5	15	14	17
DARQ-K-V-F10S22-F05S14-R1	M10	75	23	10	9,5	132,1	63	15	14	22
DARQ-K-V-F10S22-F07S17-R1	M10	75	23	10	9,5	132,1	63	18	17	22
DARQ-K-V-F10S27-F07S17-R1	M10	75	28	10	9,5	132,1	63	18	17	27

Dimensions

Dimensions – Mounting flange adapter DARQ-B-...R1

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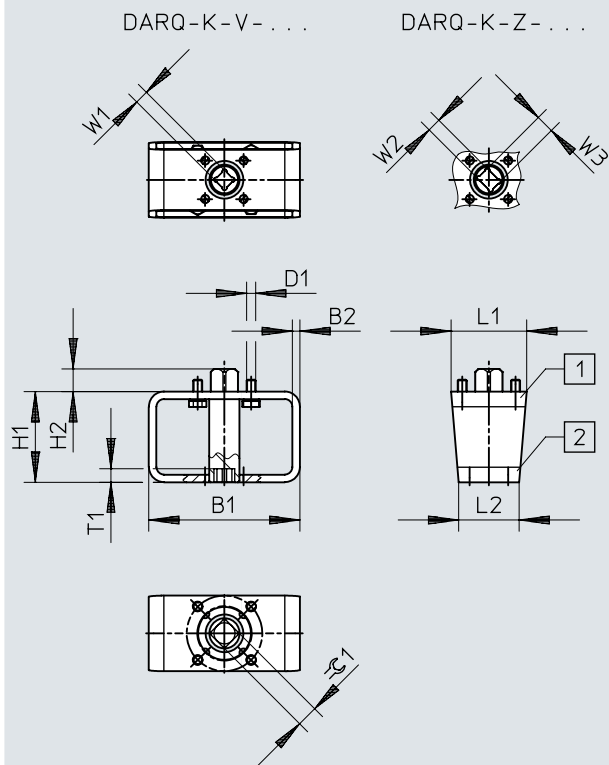
- [1] Connection 1, drive output
- [2] Connection 2, reducing outlet

	D2 ø	D3 ø	D4 ø	D5 ø	D6 ø	D7 ø	D8 ø	D9 ø	D10 ø	D11 ø
DARQ-B-F0405-F0304-...	25,9	25,9	42	36	5,1	6,1	6,1	9,4	50	42
DARQ-B-F0507-F0405-...	30,5	36,8	50	42	5,1	7,6	6,6	10,9	70	50
DARQ-B-F0710-F0507-...	38,6	50	70	50	5,1	8,9	7,1	14	102	70
DARQ-B-F1012-F10-...	69,9	76,2	–	102	5,1	–	11,2	17,3	125	102

	D12 ø	D13 ø	H1	H3	H4	H5	H6	H7	L1	L3	W1
DARQ-B-F0405-F0304-...	6,1	7,6	39,9	3,2	5	28,2	3,8	7,1	46	22,9	45°
DARQ-B-F0507-F0405-...	7,6	10,2	50	6	6	36,3	3,8	7,1	66	30,5	45°
DARQ-B-F0710-F0507-...	8,9	10,9	74,9	9,5	9,5	50,5	3,8	7,1	102,1	39,1	45°
DARQ-B-F1012-F10-...	11,2	13	80	10	9,5	58,4	3,8	7,1	132,1	63	45°

Dimensions

Dimensions – Mounting kit DARQ

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

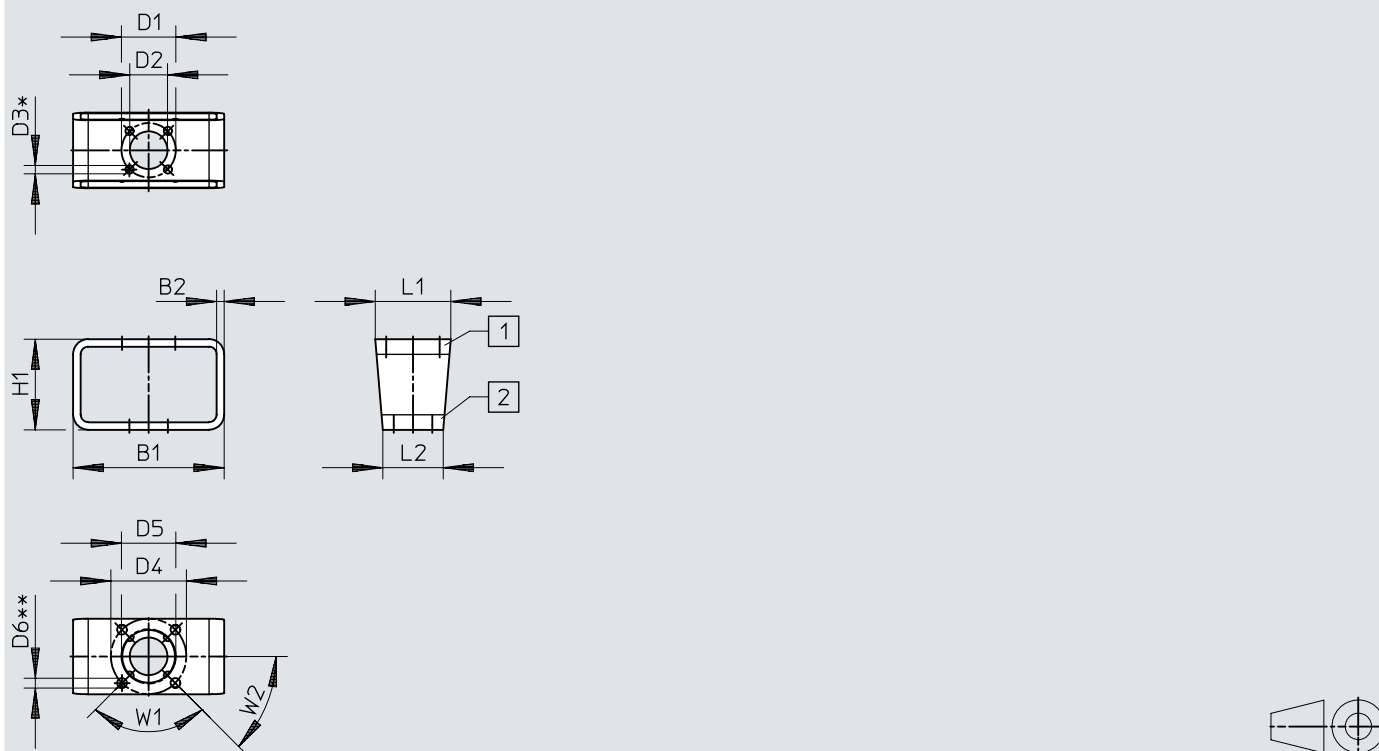
Dimensions

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

	B1	B2	D1	H1	H2	L1	L2	T1	W2 -0,1	W3 H11	± 1 h11
DARQ-K-Z-F03S9-F03S9-...	80	4	M5	50	9	40	40	14	9	12,1	9
DARQ-K-Z-F04S11-F03S9-...	80	4	M5	50	11	45	40	14	9	12,1	11
DARQ-K-Z-F04S11-F04S11-...	80	4	M5	50	11	45	45	17	11	14,1	11
DARQ-K-Z-F05S14-F03S9-...	100	5	M6	60	15	50	40	14	9	12,1	14
DARQ-K-Z-F05S14-F04S11-...	100	5	M6	60	15	50	45	17	11	14,1	14
DARQ-K-Z-F05S14-F05S14-...	100	5	M6	60	15	50	50	21	14	18,1	14
DARQ-K-Z-F07S17-F04S11-...	100	5	M8	60	18	70	45	17	11	14,1	17
DARQ-K-Z-F07S17-F05S14-...	100	5	M8	60	18	70	50	21	14	18,1	17
DARQ-K-Z-F07S17-F07S14-...	100	5	M8	60	18	70	70	21	14	18,1	17
DARQ-K-Z-F10S22-F05S14-...	120	5	M10	80	22,5	95	50	21	14	18,1	22
DARQ-K-Z-F10S22-F07S17-...	120	5	M10	80	22,5	95	70	26	17	22,2	22
DARQ-K-Z-F10S22-F10S22-...	120	5	M10	80	22,5	95	95	33	22	28,2	22

Dimensions

Dimensions – Mounting flange adapter DARQ

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- [1] Drive outlet flange 1
- [2] Reducing outlet flange 2
- [3] * = N1 (number of holes flange 1)
- [4] ** = N2 (number of holes flange 2)


Dimensions

	B1	B2	D1 ∅	D2 ∅	D3 ∅	D4 ∅	D5 ∅	D6 ∅	H1	L1	L2	*N1	**N2	W1	W2
DARQ-B-F03-F03-...	80	4	36	25	5,5	36	25	5,5	50	40	40	4	4	90°	45°
DARQ-B-F04-F03-...	80	4	36	25	5,5	42	30	5,5	50	45	40	4	4	90°	45°
DARQ-B-F04-F04-...	80	4	42	30	5,5	42	30	5,5	50	45	45	4	4	90°	45°
DARQ-B-F05-F03-...	100	5	36	25	5,5	50	35	6,5	60	50	40	4	4	90°	45°
DARQ-B-F05-F04-...	100	5	42	30	5,5	50	35	6,5	60	50	45	4	4	90°	45°
DARQ-B-F05-F05-...	100	5	50	35	6,5	50	35	6,5	60	50	50	4	4	90°	45°
DARQ-B-F07-F04-...	100	5	42	30	5,5	70	55	9	60	70	45	4	4	90°	45°
DARQ-B-F07-F05-...	100	5	50	35	6,5	70	55	9	60	70	50	4	4	90°	45°
DARQ-B-F07-F07-...	100	5	70	55	9	70	55	9	60	70	70	4	4	90°	45°
DARQ-B-F10-F05-...	120	5	50	35	6,5	102	70	11	80	95	50	4	4	90°	45°
DARQ-B-F10-F07-...	120	5	70	55	9	102	70	11	80	95	70	4	4	90°	45°
DARQ-B-F10-F10-...	120	5	102	70	11	102	70	11	80	95	95	4	4	90°	45°
DARQ-B-F12-F07-...	160	6	70	55	9	125	85	13	80	115	70	4	4	90°	45°
DARQ-B-F12-F10-...	160	6	102	70	11	125	85	13	80	115	95	4	4	90°	45°
DARQ-B-F12-F12-...	160	6	125	85	13	125	85	13	80	115	115	4	4	90°	45°

	B1	B2	D1 ∅	D2 ∅	D3 ∅	D4 ∅	D5 ∅	D6 ∅	H1	L1	L2	*N1	**N2	W1	W2
DARQ-B-F14-F10-...	160	6	102	70	11	140	100	17	80	135	95	4	4	90°	45°
DARQ-B-F14-F12-...	160	6	125	85	13	140	100	17	80	135	115	4	4	90°	45°
DARQ-B-F14-F14-...	160	6	140	100	17	140	100	17	80	135	135	4	4	90°	45°
DARQ-B-F16-F12-...	200	6	125	85	13	165	130	21	100	160	115	4	4	90°	45°
DARQ-B-F16-F14-...	200	6	140	100	17	165	130	21	100	160	135	4	4	90°	45°
DARQ-B-F16-F16-...	200	6	165	130	21	165	130	21	100	160	160	4	4	90°	45°
DARQ-B-F25-F14-...	400	10	140	100	17	254	200	17	200	270	135	8	4	45°	22,5°
DARQ-B-F25-F16-...	400	10	165	130	21	254	200	17	200	270	160	8	4	45°	22,5°
DARQ-B-F25-F25-...	400	10	254	200	17	254	200	17	200	270	270	8	4	45°	22,5°
DARQ-B-F30-F16-...	400	10	165	130	21	298	230	21	200	320	160	8	4	45°	22,5°
DARQ-B-F30-F25-...	400	10	254	200	17	298	230	21	200	320	270	8	4	45°	22,5°
DARQ-B-F30-F30-...	400	10	298	200	21	298	230	21	200	320	320	8	4	45°	22,5°

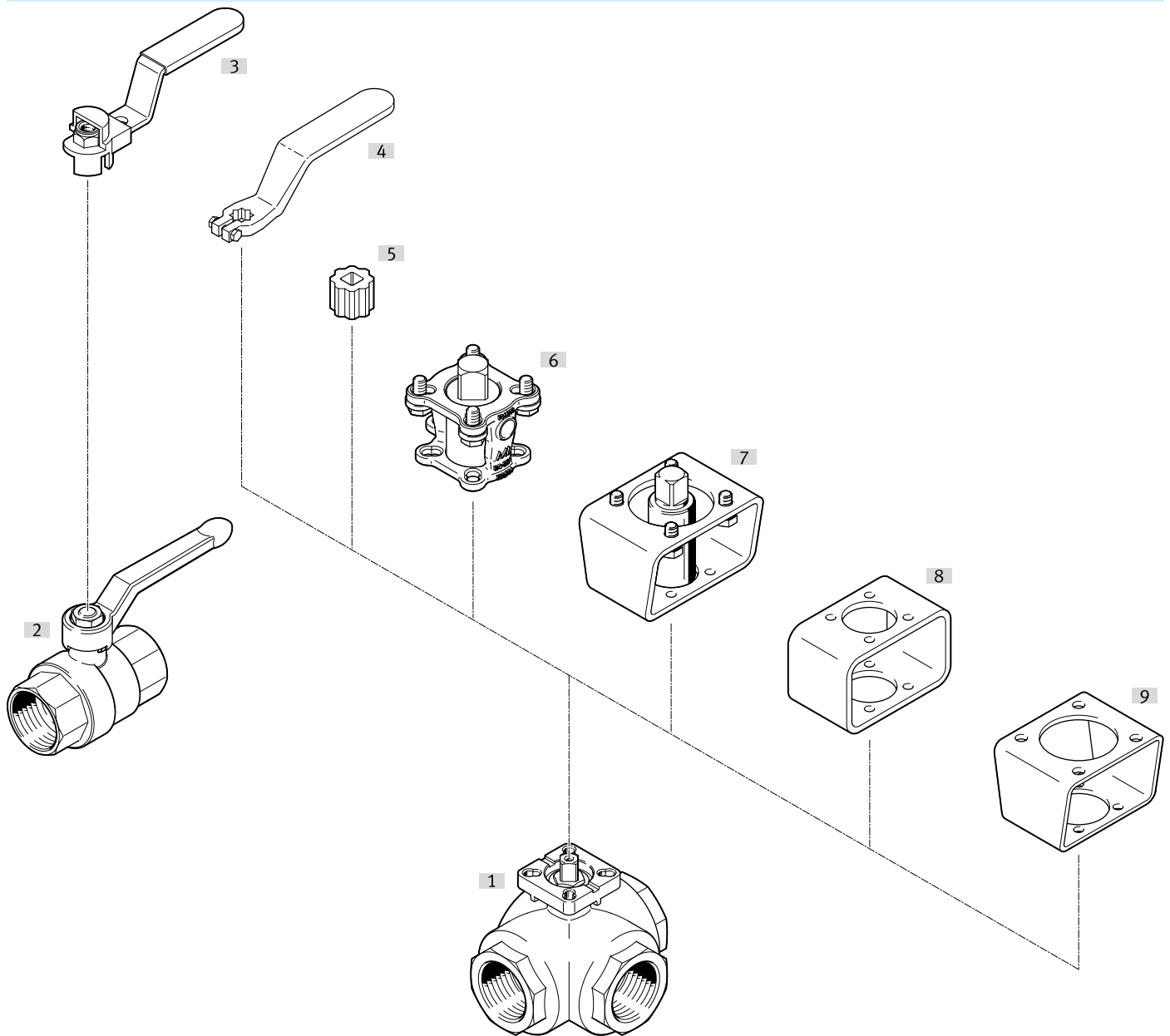
Ordering data

Ball valves VZBM, 3-way				
	Connection Process valve	Product weight	Part no.	Type
	Rp1/4	530 g	4451869	VZBM-1/4-RP-40-F-3L-F03-B2B3
			4451861	VZBM-1/4-RP-40-F-3T-F03-B2B3
	Rp3/8	460 g	4451854	VZBM-3/8-RP-40-F-3T-F03-B2B3
			4451868	VZBM-3/8-RP-40-F-3L-F03-B2B3
	Rp1/2	460 g	4451855	VZBM-1/2-RP-40-F-3T-F03-B2B3
			4451867	VZBM-1/2-RP-40-F-3L-F03-B2B3
	Rp3/4	710 g	4451856	VZBM-3/4-RP-40-F-3T-F03-B2B3
			4451866	VZBM-3/4-RP-40-F-3L-F03-B2B3
	Rp1	1,250 g	4451857	VZBM-1-RP-40-F-3T-F0304-B2B3
			4451862	VZBM-1-RP-40-F-3L-F0304-B2B3
	Rp1 1/4	2,930 g	4451858	VZBM-11/4-RP-40-F-3T-F0405-B2B3
			4451863	VZBM-11/4-RP-40-F-3L-F0405-B2B3
	Rp1 1/2	3,190 g	4451859	VZBM-11/2-RP-25-F-3T-F0405-B2B3
			4451864	VZBM-11/2-RP-25-F-3L-F0405-B2B3
Rp2	4,320 g	4451860	VZBM-2-RP-25-F-3T-F05-B2B3	
		4451865	VZBM-2-RP-25-F-3L-F05-B2B3	

Ball valves VZBM, manual				
	Connection Process valve	Product weight	Part no.	Type
	Rp1/4	130 g	4405684	VZBM-1/4-RP-50-D-2-M-B2B3
	Rp3/8	120 g	4405685	VZBM-3/8-RP-50-D-2-M-B2B3
	Rp1/2	200 g	4405686	VZBM-1/2-RP-50-D-2-M-B2B3
	Rp3/4	335 g	4405687	VZBM-3/4-RP-50-D-2-M-B2B3
	Rp1	480 g	4405689	VZBM-1-RP-40-D-2-M-B2B3
	Rp1 1/4	770 g	4405690	VZBM-11/4-RP-40-D-2-M-B2B3
	Rp1 1/2	1,116 g	4405691	VZBM-11/2-RP-40-D-2-M-B2B3

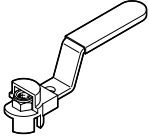
Peripherals

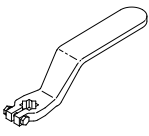
Peripherals overview

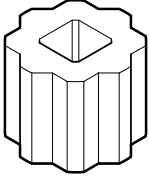


Accessories			→ Link
Type/order code	Description		
[1] Ball valve VZBM	Ball valve, 3-way, brass, L-bore or T-bore version		vzbm
[2] Ball valve VZBM	With hand lever		vzbm
[3] Hand lever VAOH	Lockable for VZBM, manual		19
[4] Hand lever VAOH	High-alloy stainless steel		19
[5] Reducing sleeve DARQ	<ul style="list-style-type: none"> • Connection 1, drive outlet function • Connection 2, reducing outlet function 		20
[6] Mounting kit DARQ	<ul style="list-style-type: none"> • Connection 1, drive outlet function • Connection 2, reducing outlet function 		20
[7] Mounting kit DARQ-K...R13	<ul style="list-style-type: none"> • DARQ-K-V... (female square and male square) • DARQ-K-V... (two-flats and male square) 		21
[8] Mounting flange adapter DARQ	Drive outlet function		21
[9] Mounting flange adapter DARQ	Reducing outletfunction		22

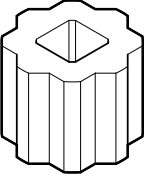
Accessories

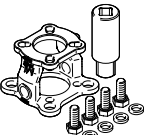
Hand lever VAOH				
	Description	Product weight	Part no.	Type
	For connection Rp1/4 ... Rp1/2	50 g	4650069	VAOH-F10-D7-H9-A
	For connection Rp3/4 ... Rp1	75 g	4650070	VAOH-F10-D9-H9-A
	For connection Rp1 1/4 ... Rp1 1/2	145 g	4650071	VAOH-F10-D12-H9-A

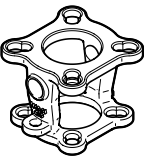
Hand lever VAOH				
	Description	Product weight	Part no.	Type
	For connection Rp1/4 ... Rp2	100 g	542702	VAOH-9-H9
	For connection Rp1 1/4 ... Rp1 1/2	200 g	542703	VAOH-11-H9
	For connection Rp2	300 g	542704	VAOH-14-H9

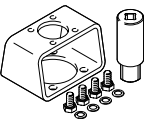
Reducing sleeve DARQ				
	Length	Product weight	Part no.	Type
	11 mm	5 g	8082117	DARQ-R-A-S11-S9-11
		25 g	8082131	DARQ-R-A-S11-S9-11-P5
		50 g	8082140	DARQ-R-A-S11-S9-11-P10
		250 g	8082145	DARQ-R-A-S11-S9-11-P50
	12 mm	7 g	8082116	DARQ-R-A-S11-S8-12
		35 g	8082130	DARQ-R-A-S11-S8-12-P5
	16 mm	10 g	8082121	DARQ-R-A-S14-S12-16
		13 g	8082120	DARQ-R-A-S14-S11-16
		16 g	8082119	DARQ-R-A-S14-S10-16
		18 g	8082118	DARQ-R-A-S14-S9-16
		20 g	8086383	DARQ-R-A-S14-S8-16
		65 g	8082133	DARQ-R-A-S14-S11-16-P5
		90 g	8082132	DARQ-R-A-S14-S9-16-P5
		100 g	8086388	DARQ-R-A-S14-S8-16-P5
		130 g	8082142	DARQ-R-A-S14-S11-16-P10
		180 g	8082141	DARQ-R-A-S14-S9-16-P10
		650 g	8082147	DARQ-R-A-S14-S11-16-P50
		900 g	8082146	DARQ-R-A-S14-S9-16-P50
		17 mm	19 g	8082123
	25 g		8086385	DARQ-R-A-S17-S12-17
	29 g		8082122	DARQ-R-A-S17-S11-17
	34 g		8096914	DARQ-R-A-S17-S9-17
	36 g		8086384	DARQ-R-A-S17-S8-17
	95 g		8082135	DARQ-R-A-S17-S14-17-P5
	125 g		8086389	DARQ-R-A-S17-S12-17-P5
	145 g		8082134	DARQ-R-A-S17-S11-17-P5
	190 g		8082143	DARQ-R-A-S17-S14-17-P10
	1,450 g	8082148	DARQ-R-A-S17-S11-17-P50	
	22 mm	46 g	8082126	DARQ-R-A-S22-S17-22
		52 g	8082125	DARQ-R-A-S22-S16-22
		62 g	8082124	DARQ-R-A-S22-S14-22
		75 g	8086386	DARQ-R-A-S22-S11-22
		230 g	8082137	DARQ-R-A-S22-S17-22-P5
310 g		8082136	DARQ-R-A-S22-S14-22-P5	
460 g		8082144	DARQ-R-A-S22-S17-22-P10	
2,300 g		8082149	DARQ-R-A-S22-S17-22-P50	

Accessories

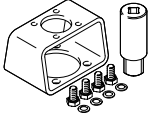
Reducing sleeve DARQ				
	Length	Product weight	Part no.	Type
	27 mm	80 g	8082127	DARQ-R-A-S27-S22-27
		121 g	8086387	DARQ-R-A-S27-S17-27
		400 g	8082138	DARQ-R-A-S27-S22-27-P5
	36 mm	140 g	8096913	DARQ-R-A-S27-S14-27
		215 g	8082128	DARQ-R-A-S36-S27-36
		286 g	8096915	DARQ-R-A-S36-S22-36
		1,075 g	8082139	DARQ-R-A-S36-S27-36-P5
	46 mm	410 g	8082129	DARQ-R-A-S46-S36-46
		618 g	8215769	DARQ-R-A-S46-S27-46
		709 g	8215771	DARQ-R-A-S46-S22-46

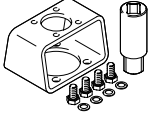
Mounting kit DARQ			
	Product weight	Part no.	Type
	232 g	8088299	DARQ-K-V-F04S11-F03S9-R1
	255 g	8088301	DARQ-K-V-F05S14-F03S9-R1
	342 g	8088297	DARQ-K-V-F05S14-F04S11-R1
	563 g	8088302	DARQ-K-V-F07S17-F04S11-R1
	771 g	8088303	DARQ-K-V-F07S17-F05S14-R1
	1,515 g	8088300	DARQ-K-V-F10S22-F05S14-R1
	1,977 g	8215767	DARQ-K-V-F10S27-F07S17-R1
	2,010 g	8088298	DARQ-K-V-F10S22-F07S17-R1

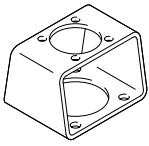
Mounting flange adapter DARQ			
	Product weight	Part no.	Type
	120 g	8087462	DARQ-B-F0405-F0304-R1
	300 g	8087463	DARQ-B-F0507-F0405-R1
	950 g	8087464	DARQ-B-F1012-F10-R1
	1,610 g	8087465	DARQ-B-F0710-F0507-R1

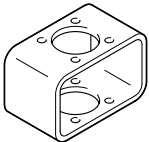
Mounting kit DARQ-K-V			
	Product weight	Part no.	Type
	392 g	8084186	DARQ-K-V-F03S9-F03S9-R13
	410 g	8084187	DARQ-K-V-F04S11-F03S9-R13
	480 g	8084188	DARQ-K-V-F04S11-F04S11-R13
	630 g	8084189	DARQ-K-V-F05S14-F03S9-R13
	725 g	8084190	DARQ-K-V-F05S14-F04S11-R13
	823 g	8084192	DARQ-K-V-F07S17-F04S11-R13
	830 g	8084191	DARQ-K-V-F05S14-F05S14-R13
	866 g	8132814	DARQ-K-V-F07S17-F03S9-R13
	926 g	8084193	DARQ-K-V-F07S17-F05S14-R13
	980 g	8084194	DARQ-K-V-F07S17-F07S14-R13
	986 g	8084195	DARQ-K-V-F07S22-F05S11-R13
	1,410 g	8133487	DARQ-K-V-F10S22-F04S11-R13
	1,432 g	8084196	DARQ-K-V-F10S22-F05S14-R13
	1,935 g	8084199	DARQ-K-V-F10S27-F05S14-R13
	2,045 g	8084197	DARQ-K-V-F10S22-F07S17-R13
	2,113 g	8084198	DARQ-K-V-F10S22-F10S22-R13
	2,116 g	8084200	DARQ-K-V-F10S27-F07S17-R13
	2,134 g	8086439	DARQ-K-V-F10S27-F07S14-R13
	2,615 g	8084201	DARQ-K-V-F12S27-F07S17-R13
	2,655 g	8131545	DARQ-K-V-F12S27-F07S14-R13
2,728 g	8133486	DARQ-K-V-F12S27-F05S14-R13	

Accessories

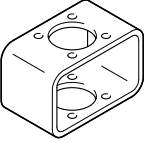
Mounting kit DARQ-K-V			
	Product weight	Part no.	Type
	2,753 g	8084202	DARQ-K-V-F12S27-F10S22-R13
	3,552 g	8084203	DARQ-K-V-F12S27-F12S27-R13

Mounting kit DARQ-K-Z			
	Product weight	Part no.	Type
	385 g	8085017	DARQ-K-Z-F03S9-F03S9-R13
	400 g	8085016	DARQ-K-Z-F04S11-F03S9-R13
	465 g	8085018	DARQ-K-Z-F04S11-F04S11-R13
	620 g	8085019	DARQ-K-Z-F05S14-F03S9-R13
	710 g	8085020	DARQ-K-Z-F05S14-F04S11-R13
	795 g	8085021	DARQ-K-Z-F05S14-F05S14-R13
	810 g	8085022	DARQ-K-Z-F07S17-F04S11-R13
	890 g	8085023	DARQ-K-Z-F07S17-F05S14-R13
	945 g	8085024	DARQ-K-Z-F07S17-F07S14-R13
	1,396 g	8085026	DARQ-K-Z-F10S22-F05S14-R13
	1,970 g	8085027	DARQ-K-Z-F10S22-F07S17-R13
	1,980 g	8085025	DARQ-K-Z-F10S22-F10S22-R13

Mounting flange adapter DARQ, function drive outlet			
	Product weight	Part no.	Type
	270 g	8082978	DARQ-B-F04-F03-R13
	442 g	8082980	DARQ-B-F05-F03-R13
	461 g	8082981	DARQ-B-F05-F04-R13
	514 g	8082983	DARQ-B-F07-F04-R13
	530 g	8082984	DARQ-B-F07-F05-R13
	836 g	8082986	DARQ-B-F10-F05-R13
	920 g	8082987	DARQ-B-F10-F07-R13
	1,504 g	8082989	DARQ-B-F12-F07-R13
	1,688 g	8082990	DARQ-B-F12-F10-R13
	1,775 g	8082992	DARQ-B-F14-F10-R13
	1,889 g	8082993	DARQ-B-F14-F12-R13
	2,305 g	8083005	DARQ-B-F05-F04-R13-P5
	2,648 g	8082995	DARQ-B-F16-F12-R13
	2,650 g	8083007	DARQ-B-F07-F05-R13-P5
	2,792 g	8082996	DARQ-B-F16-F14-R13
	4,600 g	8083009	DARQ-B-F10-F07-R13-P5
	14,734 g	8082998	DARQ-B-F25-F14-R13
	15,384 g	8082999	DARQ-B-F25-F16-R13
16,740 g	8083001	DARQ-B-F30-F16-R13	
20,250 g	8083002	DARQ-B-F30-F25-R13	

Mounting flange adapter DARQ, function reducing outlet			
	Product weight	Part no.	Type
	260 g	8082977	DARQ-B-F03-F03-R13
	275 g	8082979	DARQ-B-F04-F04-R13
	478 g	8082982	DARQ-B-F05-F05-R13
	583 g	8082985	DARQ-B-F07-F07-R13
	1,037 g	8082988	DARQ-B-F10-F10-R13
	1,375 g	8083004	DARQ-B-F04-F04-R13-P5
	1,802 g	8082991	DARQ-B-F12-F12-R13

Accessories

Mounting flange adapter DARQ, function reducing outlet			
	Product weight	Part no.	Type
	1,976 g	8082994	DARQ-B-F14-F14-R13
	2,390 g	8083006	DARQ-B-F05-F05-R13-P5
	2,844 g	8082997	DARQ-B-F16-F16-R13
	2,915 g	8083008	DARQ-B-F07-F07-R13-P5
	5,185 g	8083010	DARQ-B-F10-F10-R13-P5
	18,895 g	8083000	DARQ-B-F25-F25-R13
	21,644 g	8083003	DARQ-B-F30-F30-R13