

3/2-way ball valve type 23 with pneumatic actuator



Body material	PVC-U	PVC-C	PP	PVDF
Ball seat	PTFE			
Other seats	• EPDM	• FKM	• *)	• FKM-F
Working temperature	0 °C up to 50 °C ¹⁾	0 °C up to 90 °C ¹⁾	-20 °C up to 80 °C ¹⁾	-20 °C up to 100 °C ¹⁾
Nominal size	DN 15 up to DN 100			
Connection with pipe	<ul style="list-style-type: none"> • Cement socket or spigot • Flange connection acc. to DIN EN 1092-1 - PN 10 (16) 		<ul style="list-style-type: none"> • Welding socket or spigot • Threaded socket 	
Length	DIN EN 558 - 1 series FTF 1 (DIN 3202 - series F 1)			
Actuator	Pneumatic, double acting			
Accessories	Limit switches, solenoid valves			

*) Special version: CSM, NBR, FKM-F, FEP / Parofluor on request

¹⁾ Working temperatures for sealing materials:

EPDM: -20 up to 90 °C

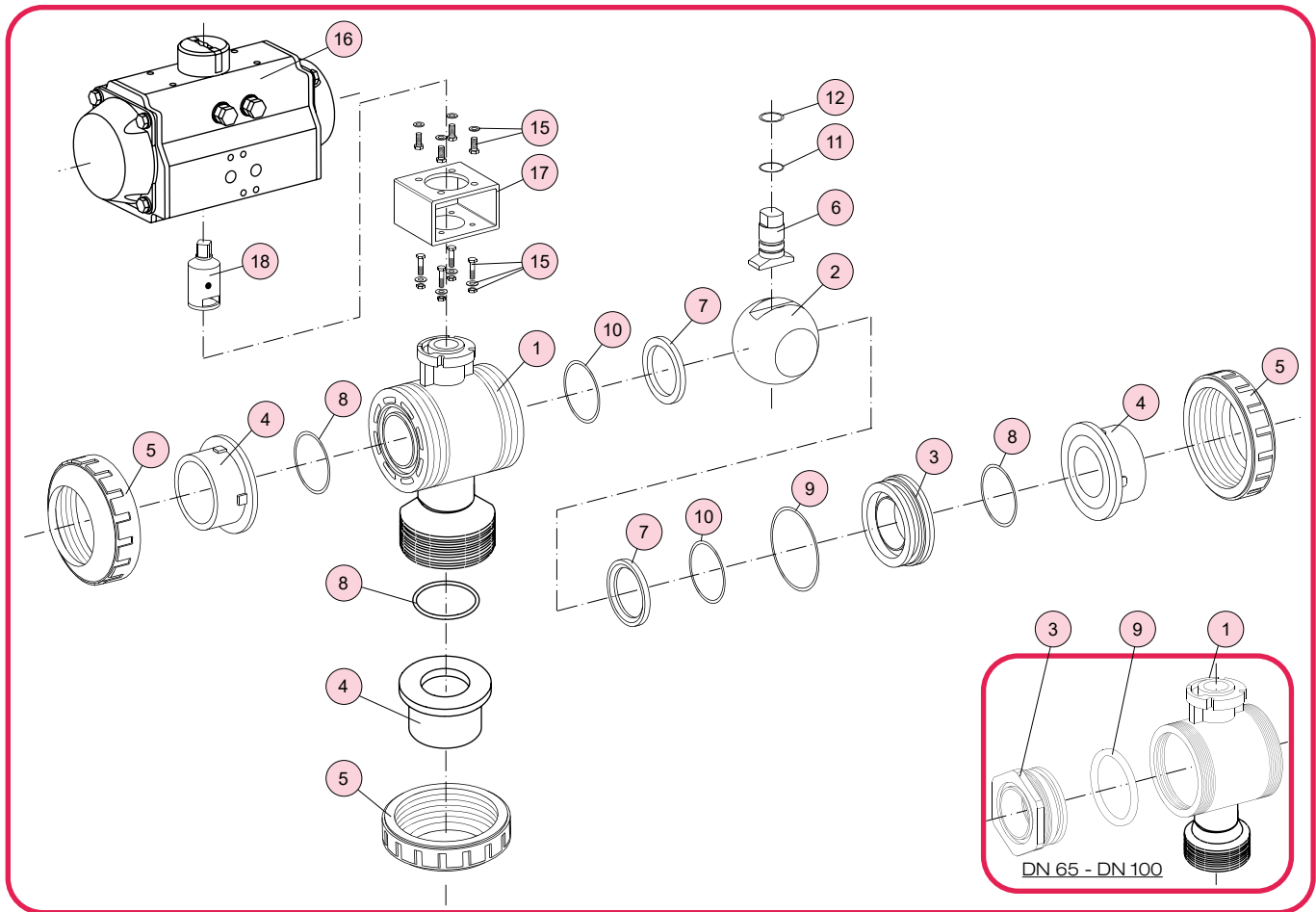
FKM / FKM-F: -8 up to 100 °C

Example for an invitation to tender text:

3/2-way ball valve type 23, DN 50, PN 10, PVC-U / EPDM, union with cement socket d 63, true union, with pneumatic actuator type DR 15/6 180°, double acting, 6 bar air pressure, optical position indicator

Document: FRANK_DB_L4_Kugelhahn 3-2-Wege Typ 23 pneum._01-2024_EN

3/2-way ball valve type 23 with pneumatic actuator



No.	Description	Number	Material
1	Body	1	PVC-U, PVC-C, PP, PVDF
2	Ball ^{*)}	1	PVC-U, PVC-C, PP, PVDF
3	Carrier	2	PVC-U, PVC-C, PP, PVDF
4	End connector (socket, spigot, flange)	3	PVC-U, PVC-C, PE, PP, PVDF
5	Union nut	3	PVC-U, PVC-C, PP-G, PVDF
6	Stem ^{*)}	1	PVC-U, PVC-C, PP, PVDF
7	Ball seat ^{*)}	2	PTFE
8	O-ring (A) ^{*)}	3	EPDM, FKM ¹⁾

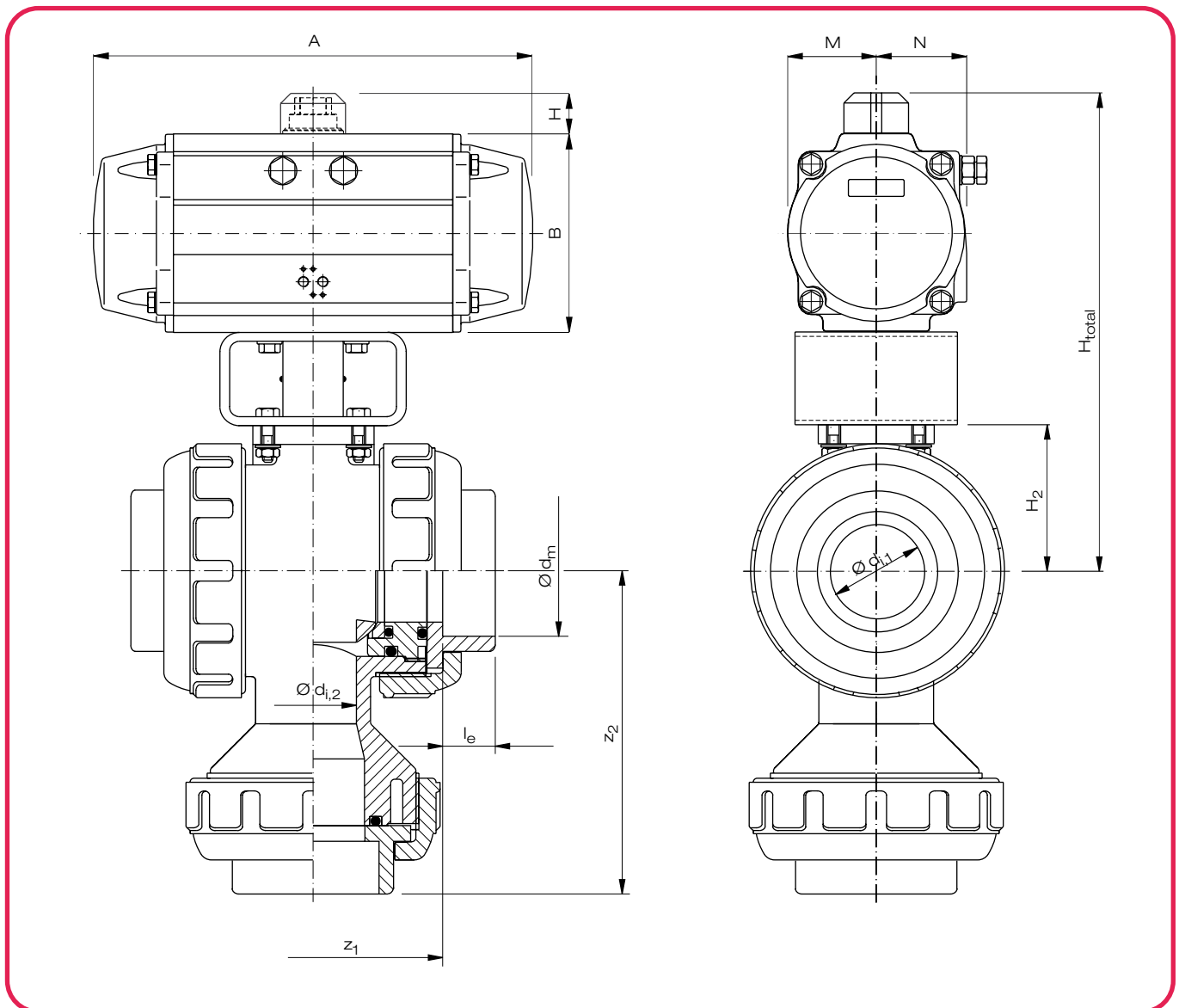
^{*)} Wearing parts

No.	Description	Number	Material
9	O-ring (B) ^{*)}	2	EPDM, FKM ¹⁾
10	O-ring (C) / flat seat ^{*,2)}	2	EPDM, FKM ¹⁾
11	O-ring (D) ^{*)}	1	EPDM, FKM ¹⁾
12	O-ring (E) ^{*)}	1	EPDM, FKM ¹⁾
15	Screw, washer, nut	8/4	A2 - 1.4301 (SUS 304)
16	Actuator	1	aluminium alloy
17	Bracket / ISO	1	A2 - 1.4301 (SUS 304)
18	Coupling	1	A2 - 1.4301 (SUS 304)

¹⁾ Special version: CSM, NBR, FKM-F, FEP / Parofluor on request

²⁾ Flat seat for DN 80 and above

3/2-way ball valve type 23 with pneumatic actuator, double acting, 4 to 8 bar air pressure



Dimensions in mm												Actuator			Weight in kg / pc.									
DN	Cement socket				Welding socket				H ₂	B	H	H _{total}	A	M	N	Type	LV ^{*)} [l/ft]	ts [sec]	Cement socket		Welding socket			
	di,1	di,2	dm	z1	le	z2	dm	z1											le	z2	PVC-U	PVC-C	PP	PVDF
15	15	15	20	65	16	60	19,5	66	14,5	60	30	69	20	169	192	29	42	DR18	3,36	0,6	3,06	3,06	3,06	3,06
20	20	20	25	79	19	72,5	24,5	79	16	71,5	36,5	69	20	176	192	29	42	DR18	3,36	0,6	3,26	3,26	3,16	3,26
25	25	25	32	91	22	88	31,5	90	18	87	43,5	69	20	183	192	29	42	DR18	3,36	0,6	3,46	3,46	3,36	3,46
40	40	32	50	116	31	137,5	49,4	114	24	134	61	69	20	200	192	29	42	DR18	3,36	0,6	3,76	3,86	3,66	3,86
50	51	43	63	137	38	142,5	62,5	135	28	142,5	72,5	69	20	212	192	29	42	DR18	3,36	0,6	4,36	4,56	4,16	4,46
80	78	68,5	90	187	51	196,5	89,2	186	36	196	94	102	20	276	291	43	52	DR68	11,20	0,8	9,58	10,18	8,68	9,78
100	100	90	110	249	61	243,5	109	243	42	243	126	127	20	341	372	56	67	DR158	25,48	1,0	19,56	20,56	15,96	21,36

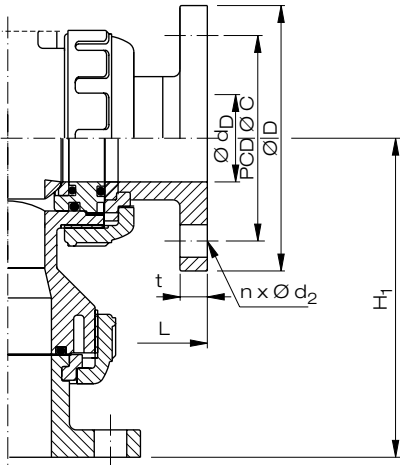
other connections see L4-34

Data of actuators see L11-1,2

^{*)} Air consumption with turning range 180° in litre/ft at 6 bar air pressure

3/2-way ball valve type 23 externally controlled, other connections

Connection with flange



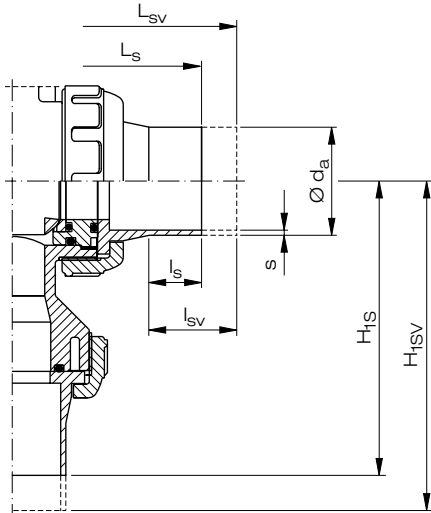
Dimensions in mm

DN	C	D	d_D	t	$n \times d_2$	L	H_1
15	65	95	15	12	4 x 14	130	88
20	75	105	20	14	4 x 14	150	104
25	85	115	25	14	4 x 14	160	120
40	110	150	40	16	4 x 18	200	159
50	125	165	51	16	4 x 18	230	185
80	160	200	78	18	8 x 18	310	259
100	180	220	100	18	8 x 18	350	305

Additional weight in kg / pc.

DN	Additional weight in kg / pc.			
	PVC-U	PVC-C	PP	PVDF
15	0,37	0,41	0,24	0,48
20	0,51	0,57	0,34	0,66
25	0,64	0,72	0,42	0,83
40	1,24	1,38	0,81	1,59
50	1,48	1,66	0,98	1,91
80	2,49	2,79	1,64	3,22
100	2,99	3,34	1,97	3,85

Connection with welding spigot



Dimensions in mm

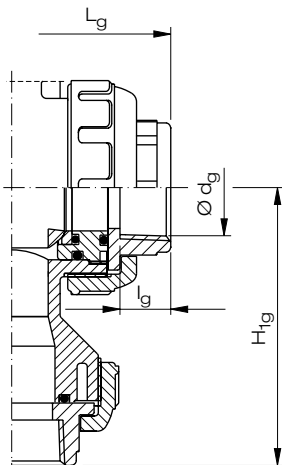
DN	d_a	$s^{(3)}$		$l_{sv}^{(2)}$	$l_s^{(1)}$	$L_{sv}^{(2)}$	$L_s^{(1)}$	H_{1S}	H_{1SV}
		SDR 17	SDR 11						
15	20	-	1,9	64	30	239	167	94	135
20	25	-	2,3	61	25	244	168	101	137
25	32	-	2,9	61	25	253	175	114	150
40	50	3,0	4,6	69	22	295	199	150	186
50	63	3,8	5,8	78	20	360	212	170	241
80	90	5,4	8,2	101	40	451	325	266	325
100	110	6,6	10,0	115	38	516	352	306	387

1) Weld spigot (PE 100, PP-R, PVDF)

2) long weld spigots (PE 100, PP-R) for electric welding

3) PVDF-weld spigot SDR 33 / SDR 21 with differing wall thickness

Connection with threaded socket



Dimensions in mm

DN	d_g	l_g	L_g	H_{1g}
15	Rp 1/2"	14	85	59
20	Rp 3/4"	16	105	68
25	Rp 1"	19	117	84
40	Rp 1 1/2"	25	141	126
50	Rp 2"	28	184	151