Three-Way Ball Sector Valve 4080

DN 50 up to DN 150

Three-way ball sector valve in a distribution or mixing function for controlling neutral and aggressive media.

- High KVs-Values
- Excellent control characteristics
- High control spread
- High rangeability 300:1
- DN 50 up to DN 150
- Variable installation options
- Simple maintenance
- Suitable for liquids and gases

Technical Information Valve

Nominal sizes		DN 50 up to DN 150
Connection		Flanges according to DIN EN 1092-1
Total length		according to DIN EN 558-1 series 1
Body material	cast parts turned parts	1.4408 (CF8M) 1.4404 (316L)
Material of the bearing shaft		1.4122
Bearing material		high temperature plain bearing
Connection to the actuator		mounting kit DIN/ISO 5211
Nominal pressure	DN 50 DN 65 - DN150	PN40 PN25
Fluid Temperature		-40°C up to +220°C depending on the sealings
Ambient temperature		-20°C up to +80°C depending on the sealings special version on request
Vacuum		up to 50 mbar abs.
Characteristic		almost equal percentage
Rangeability		300:1
Leakage rate % of Kvs IEC 60534-4		Seat ring: PTFE / PEEK Ball sector: Polished stainless steel < 0,00005 IV-S1

Working pressure max.

DN	maximum differential pressure (delta p)						
	seat ring PTFE			seat ring PEEK			
	up to 80°C	120°C	170°C	up to 80°C	120°C	170°C	220°C
	bar	bar	bar	bar	bar	bar	bar
50	25	16	6	40	38,5	25	16
65-150	16	12	5	25	24	16	10

Actuators for mounting according DIN/ISO5211, pilot pressure 5 - 6 bar
(for less than 5 bar pilot pressure, please inform us)

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Temperature limits

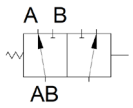
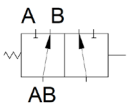
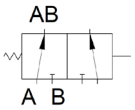
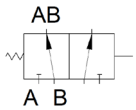
	O-ring behind seat ring							
	Viton		NBR		EPDM		FFKM	
Seatring	Tmin [°C]	Tmax [°C]	Tmin [°C]	Tmax [°C]	Tmin [°C]	Tmax [°C]	Tmin [°C]	Tmax [°C]
PTFE	-15	170	-30	100	-40	140	-15	170
PEEK	-15	200	-30	100	-40	140	-15	220

Torques and mounting kits

for retrofitting actuators

DN	rotation angle nominal	max. nominal pressure PN	req. torque [Nm]		mounting kit ISO 5211 diagonal square shaft	
			on/off-operation	control operation	series 1	series 2
50	90°	PN40	30	50	F05/SW14	F07/SW17
65	90°	PN25	60	100	F07/SW17	F10/SW22
80	90°	PN25	60	100	F07/SW17	F10/SW22
100	90°	PN25	90	150	F07/SW17	F10/SW22
125	90°	PN25	150	250	F10/SW22	F12/SW27
150	90°	PN25	150	250	F10/SW22	F12/SW27

Functions

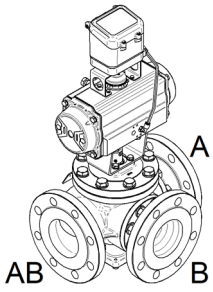
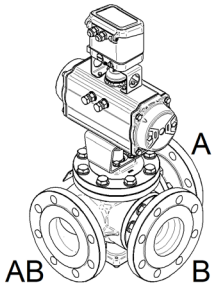
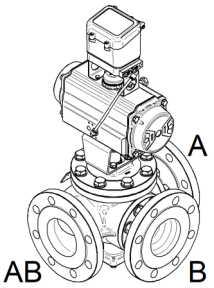
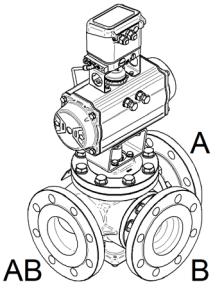
	Safety position	
	A-open	B-open
Distribution function		
Mixing function		

Kvs-Values

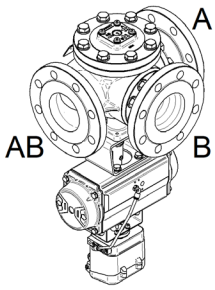
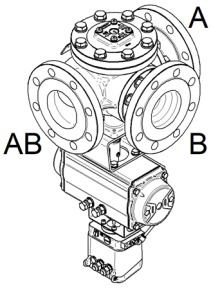
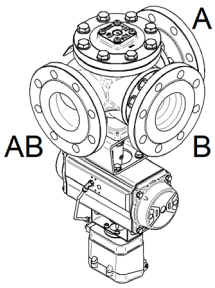
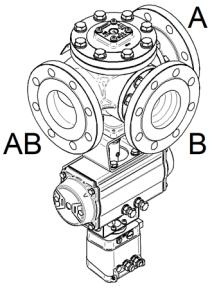
DN	Kvs-Value
50	61
65	106
80	139
100	202
125	296
150	382

Installation position of the actuator

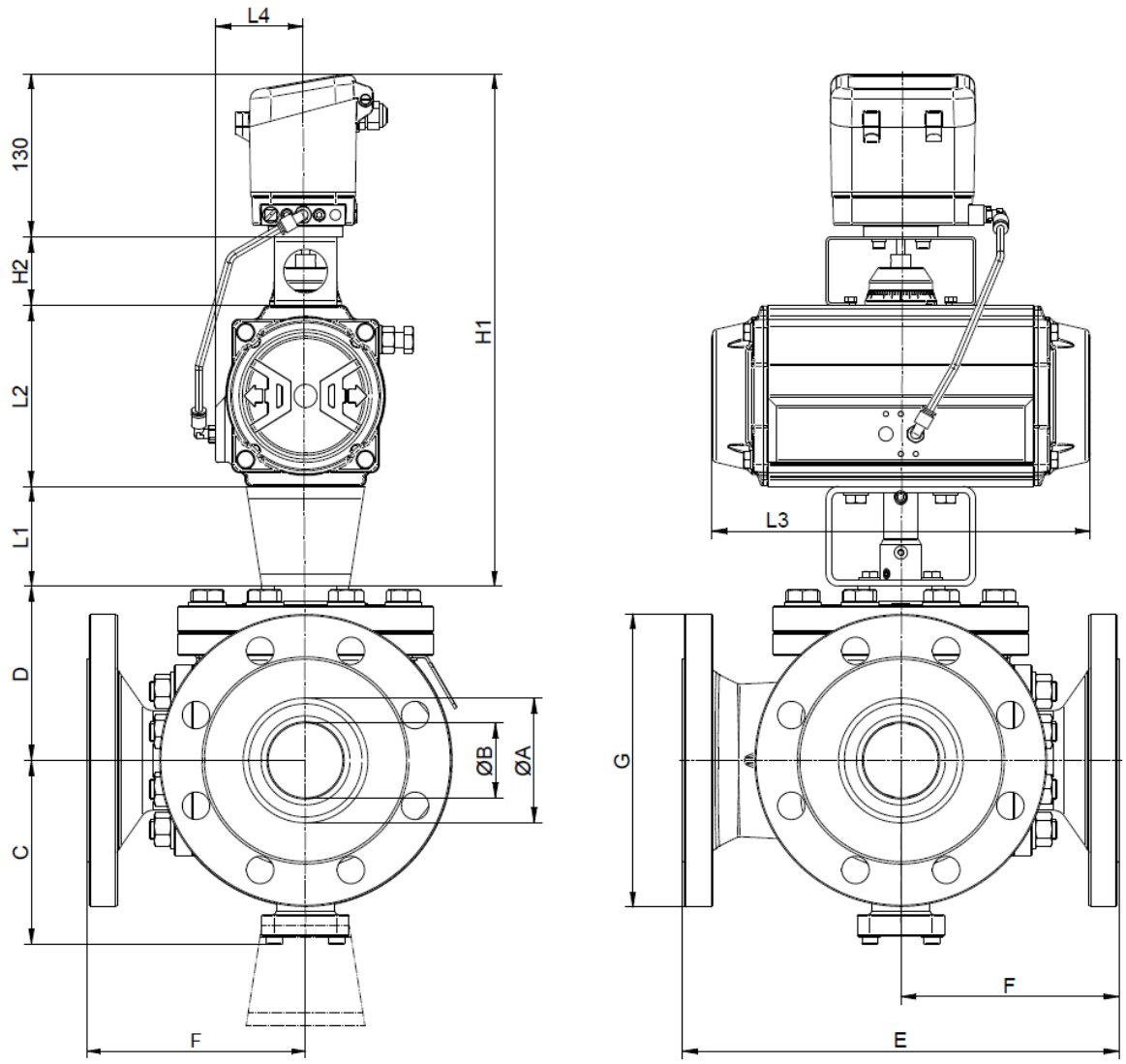
Actuator installation on the body cover

Standard installation position	Installation position code "1"	Installation position code "2"	Installation position code "3"
			

Actuator installation on the body flange

Installation position code "4"	Installation position code "5"	Installation position code "6"	Installation position code "7"
			

Dimensions with actuator and positioner 8049

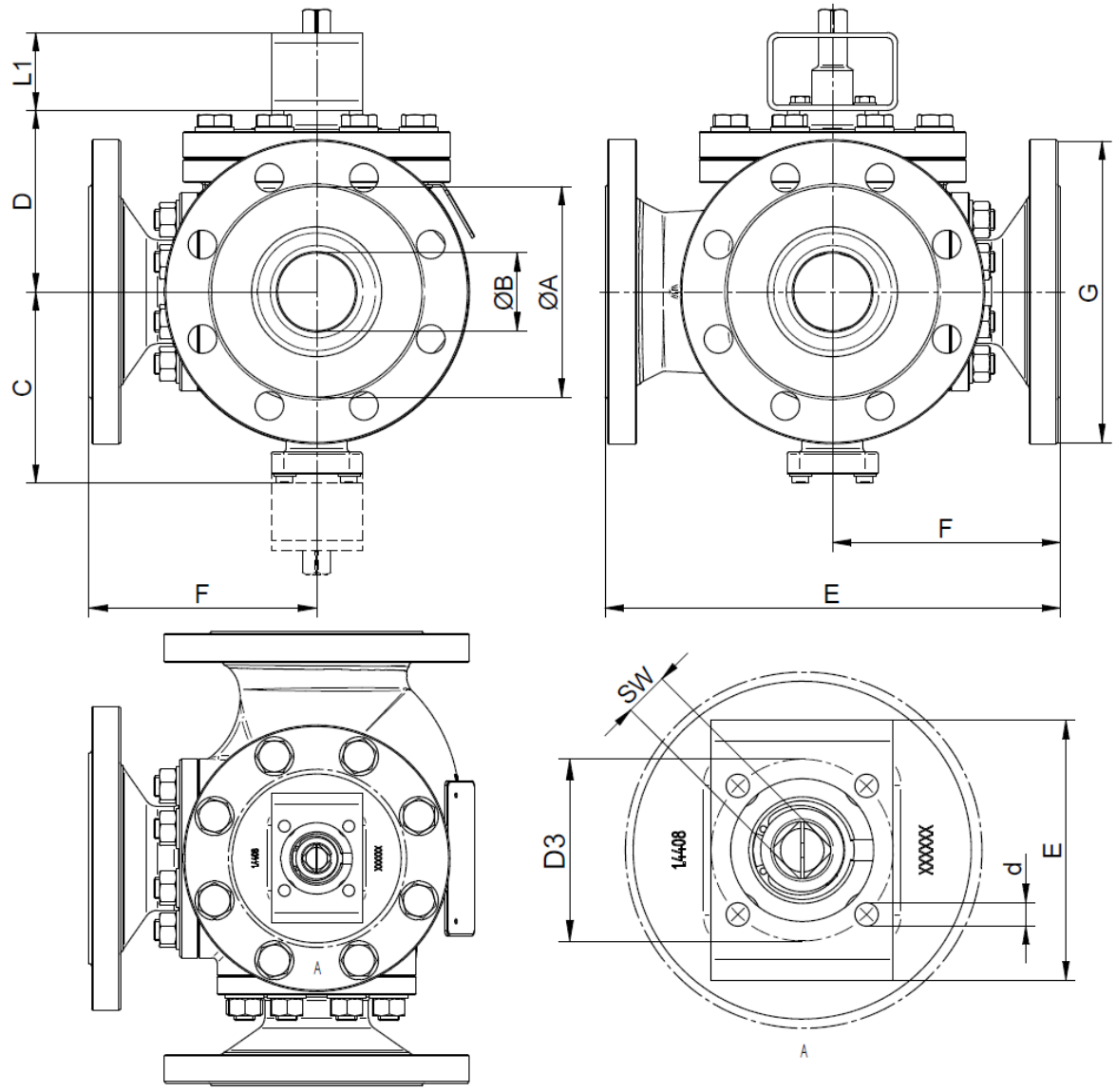


DN	actuator single acting						actuator double acting					
	L1	L2	L3	L4	H1	weight [kg]	L1	L2	L3	L4	H1	weight [kg]
50	60	115	247,5	56,8	350	29,8	60	102	210,5	52	337	26,6
65	80	145	315	77	410	46,2	60	115	247,5	53,8	360	39,0
80	80	145	315	77	410	54,9	60	115	247,5	53,8	360	47,8
100	80	157	345	82	422	69,5	60	127	268,5	67	372	60,7
125	80	177	408,5	91,5	442	125,9	80	157	345	82	422	113,0
150	80	177	408,5	91,5	442	163,6	80	157	345	82	422	155,5

DN	A	B	C	D	E	F	G	H2
50	50	35	105	96	230	115	165	45
65	65	45	125	116,5	290	145	185	55
80	80	50	133	125	310	155	200	55
100	100	60	148	139,5	350	175	235	55
125	125	75	182	168,5	400	200	270	55
150	150	85	196,5	183	480	240	300	55

Dimensions in mm

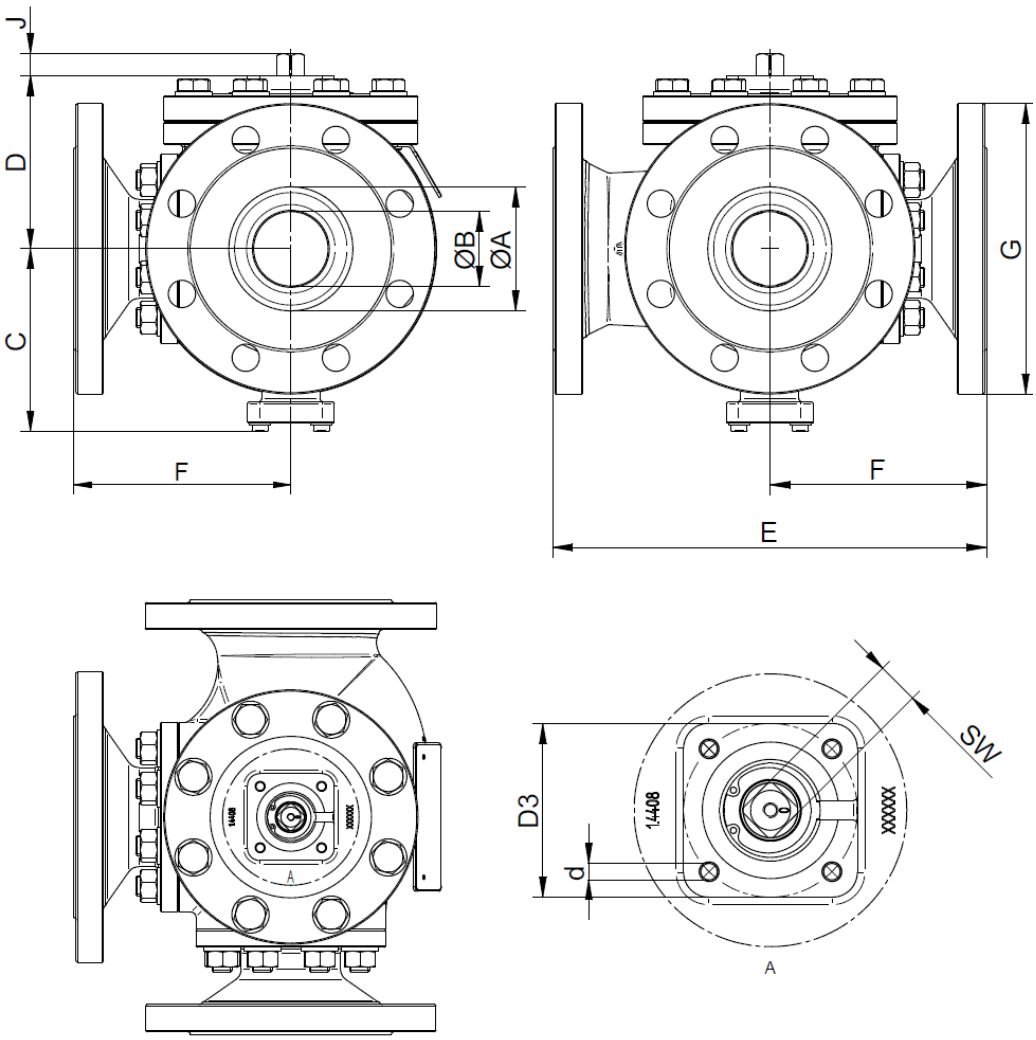
Dimensions without drive (with mounting kit ISO 5211)



DN	A	B	C	D	E	F	G	series 1						series 2					
								L1	SW	d	D3	DIN ISO 5211	weight [kg]	L1	SW	d	D3	DIN ISO 5211	weight [kg]
50	50	35	105	96	230	115	165	60	14	6,6	50	F 05	22,6	60	17	9	70	F 07	24,0
65	65	45	125	116,5	290	145	185	60	17	9	70	F 07	33,8	80	22	11	102	F 10	35,4
80	80	50	133	125	310	155	200	60	17	9	70	F 07	42,6	80	22	11	102	F 10	44,2
100	100	60	148	139,5	350	175	235	60	17	9	70	F 07	54,2	80	22	11	102	F 10	55,7
125	125	75	182	168,5	400	200	270	80	22	11	102	F 10	106,5	80	27	13,5	125	F 12	107,4
150	150	85	196,5	183	480	240	300	80	22	11	102	F 10	144,2	80	27	13,5	125	F 12	145,1

Dimensions in mm

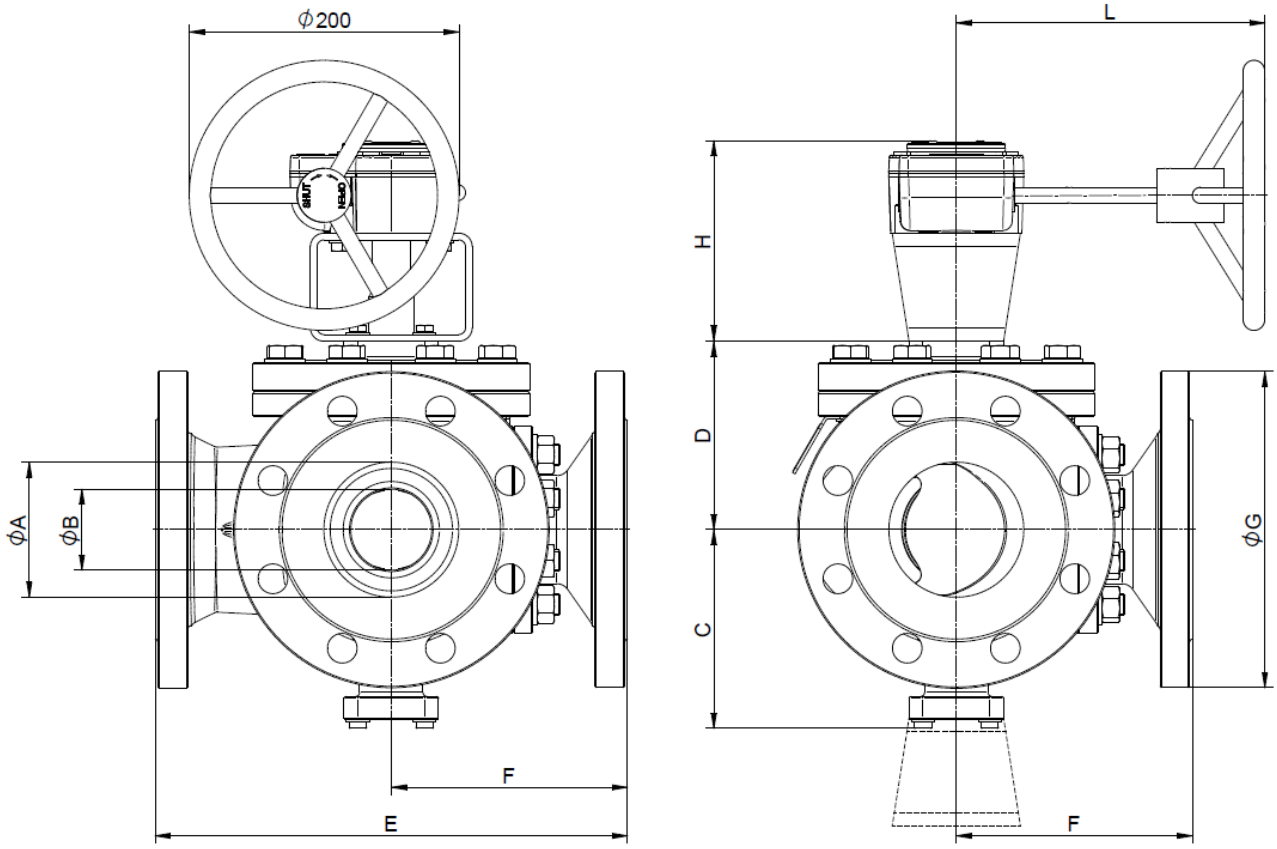
Dimensions without drive Version with square



DN	A	B	C	D	E	F	J	SW	d	D3	DIN ISO 5211	Weight [kg]
50	50	35	105	96	230	115	15	14	M6	50	F 05	21,9
65	65	45	125	116,5	290	145	18	17	M8	70	F 07	33,1
80	80	50	133	125	310	155	18	17	M8	70	F 07	41,9
100	100	60	148	139,5	350	175	18	17	M8	70	F 07	53,4
125	125	75	182	168,5	400	200	22,5	22	M10	102	F 10	105,1
150	150	85	196,5	183	480	240	22,5	22	M10	102	F 10	142,8

Dimensions in mm

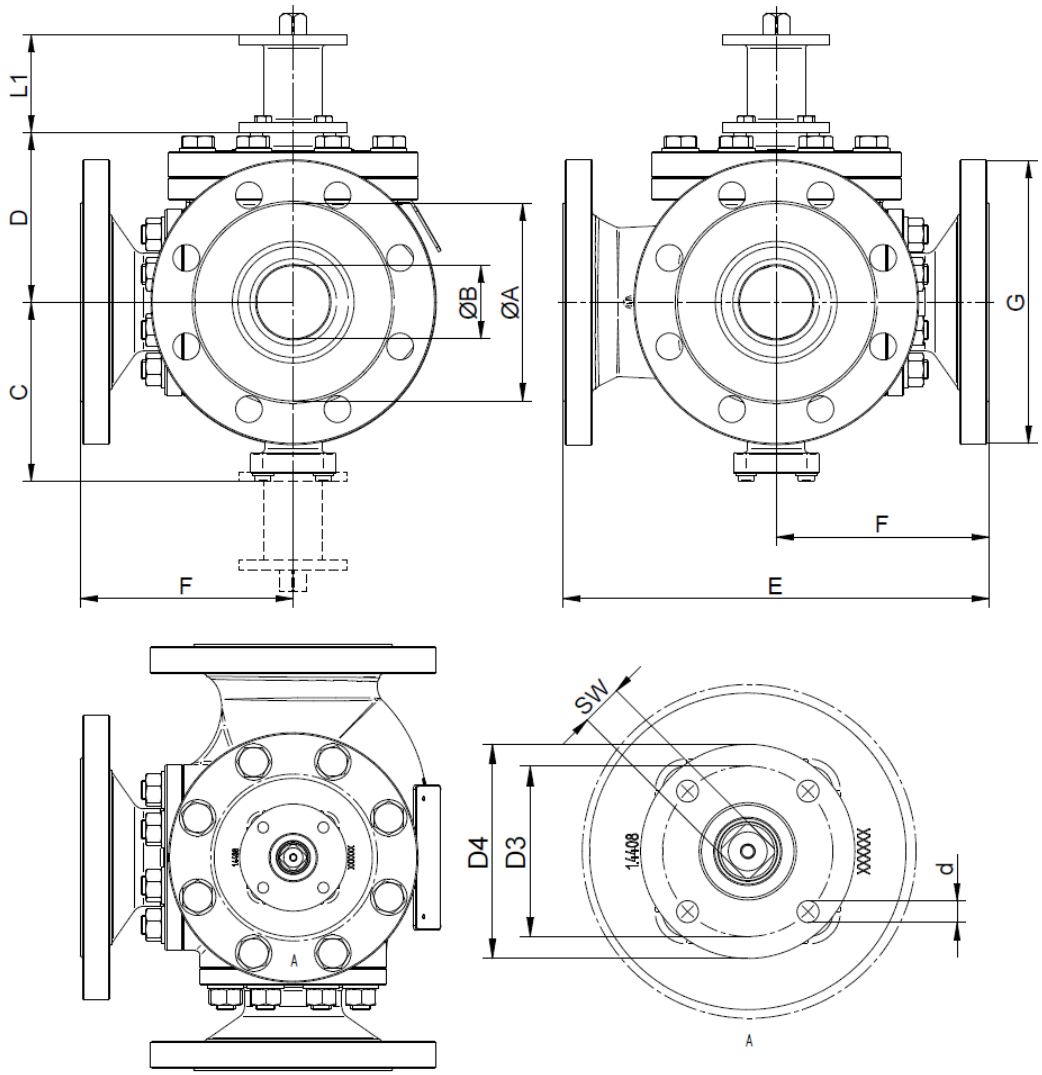
Dimensions with handwheel drive



DN	A	B	C	D	E	F	G	H	L	Weight (kg)
50	50	35	105	96	230	115	165	120	213	25,9
65	65	45	125	116,5	290	145	185	120	213	35,7
80	80	50	133	125	310	155	200	120	213	44,5
100	100	60	148	139,5	350	175	235	149	259	58,3
125	125	75	182	168,5	400	200	270	149	259	109,1
150	150	85	196,5	183	480	240	300	149	259	146,8

Dimensions in mm

Dimensions with spindle extension for better insulation



DN	A	B	C	D	E	F	G	L1	SW	d	D3	D4	weight [kg]
50	50	35	105	96	230	115	165	60	14	6,6	50	68	24,0
65	65	45	125	116,5	290	145	185	80	17	9	70	88	35,4
80	80	50	133	125	310	155	200	80	17	9	70	88	44,2
100	100	60	148	139,5	350	175	235	80	17	9	70	88	55,7
125	125	75	182	168,5	400	200	270	80	22	11	102	128	107,4
150	150	85	196,5	183	480	240	300	80	22	11	102	128	145,1

Dimensions in mm