

Ball Sector Valve 4040

DN 25 up to DN 300



- DN 25 up to DN300
- High Kvs-values up to 3840
- Excellent control characteristics
- Suitable for abrasive media
- Easily exchangeable seat ring
- Low maintenance
- Actuators can be easily fitted
- Efficient and easy to install
- optional Volume booster Type 4090 (from DN150)
in order to reduce the response time



Technical Information Valve

Design	DN 25 - DN 250 flangeless wafertype DN 300 flange connection	
Nominal sizes	DN 25 up to DN 300	
Body material	cast parts	1.4408 (CF8M)
	turned parts	1.4404 (316L)
Material of the bearing shaft	1.4122	
Bearing material	high temperature plain bearing (Iglidur Z)	
Connection to the actuator	mounting kit DIN/ISO 5211	
Nominal pressure	DN 25 - DN 50	PN40 (for flanges PN 10 - PN 40), ANSI300, ANSI150
	DN 80 - DN100	PN25 (for flanges PN 10 - PN 25), ANSI150
	DN 150 - DN 300	PN16 (for flanges PN 10 - PN 16), ANSI150
Fluid Temperature	-40°C up to +220°C according to the sealings	
Ambient temperature	-40°C up to +80°C according to the acuator	
	special version on request	
Characteristic	almost equal percentage	
Rangeability	300:1	

Valve sizes, Kvs-Values, Torques

DN	Kvs	hole mm	rotation angle nominal*	max. press. nominal DIN	max. press. nominal ANSI	req. torque [Nm]		mounting kit DIN/ISO	
						on/off-operation	control operation	series 1	series 2
25-50%	12,5	15	65°	PN40	ANSI 300	15	25	F04/SW11	F05/SW14
25	21	19	90°	PN40	ANSI 300	15	25	F04/SW11	F05/SW14
40-50%	34	25	60°	PN40	ANSI 300	30	50	F05/SW14	F07/SW17
40	64	32	90°	PN40	ANSI 300	30	50	F05/SW14	F07/SW17
50	94	40	90°	PN40	ANSI 300	30	50	F05/SW14	F07/SW17
80	255	64	90°	PN25	ANSI 150	60	100	F07/SW17	F10/SW22
100	390	80	90°	PN25	ANSI 150	90	150	F07/SW17	F10/SW22
150	810	120	90°	PN16	ANSI 150	150	250	F10/SW22	F12/SW27
200	1365	155	90°	PN16	ANSI 150	210	350	F12/SW27	F14/SW36
250	2220	195	90°	PN16	ANSI 150	360	600	F12/SW27	F14/SW36
300	3840	250	90°	PN16	ANSI 150	900	1500	F14/SW36	F16/SW46

* All Valves can be rotated 90° when actuated. Though for valves with reduced bore holes a smaller angle of rotation is sufficient.

Valve seat combinations

Seat ring	Ball sector	Leakage	min. temp [°C]*
PTFE	stainless steel polished or hard chrome plated or lapped	5x10 ⁻⁷ of max. Kvs	-40 up to +170°C
PEEK	stainless steel polished or hard chrome plated or lapped	5x10 ⁻⁷ of max. Kvs	-40 up to +220°C
Stellit	stainless steel, hard chrome plated and lapped	Class IV-S1 acc. EN 1349 (IEC 534-4) 5x10 ⁻⁶ of max. Kvs	-40 up to +220°C
PTFE	stainless steel, hard chrome plated and lapped	Class VI acc. EN 1349 (IEC 534-4)	-40 up to +170°C
Stellit	stainless steel, hard chrome plated and lapped, seat holding ring hard chrome plated	5x10 ⁻⁶ of max. Kvs	-40 up to +220°C

* Please note the restrictions of the o-ring material!

Shaft seals (o-ring)

	min. temp [°C]	max. temp [°C]	comment
Viton (Standard)	-15	200	
EPDM	-30	140	suitable for steam
NBR (P700)	-40	100	
FFKM (Perlast/Kalrez)	-15	220	suitable for steam

special material on request

Actuators

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

Working pressure max.

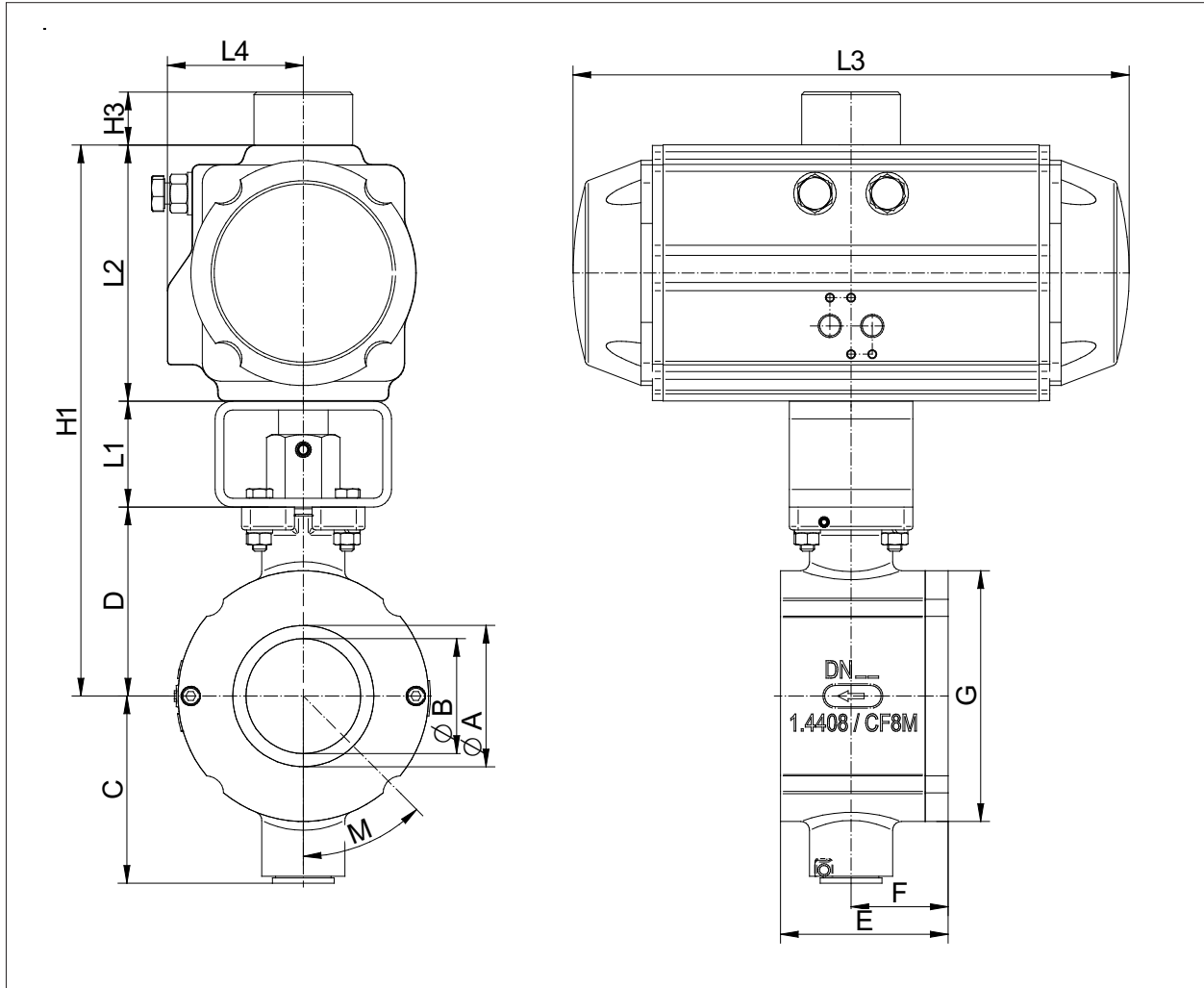
Nominal size	maximum differential pressure (delta p)									
	seat ring PTFE			seat ring PEEK				seat ring Stellit		
	up to 80°C bar	120°C bar	170°C bar	up to 80°C bar	120°C bar	170°C bar	220°C bar	up to 80°C bar	170°C bar	220°C bar
25-50	25	16	6	40	40	25	16	40	40	25
80-100	16	12	5	25	25	16	10	25	25	16
150-300	16	12	4	16	16	12	8	16	16	12

Ordering Number System

Ordering Number:

Nominal Size	4040/										M								Z	...
e.g. DN 25 = 025		xxx																		
Article																				
valve																				V
repair-kit																				R
seat kit																				D
Connection																				
flangeless design according DIN EN 1092-1																				1
flangeless design according ASME B 16.5, ANSI 150																				E
flangeless design according ASME B 16.5, ANSI 300																				F
Body material																				
stainless steel 1.4408 (CF8M) / 1.4404																				1
Material combination																				
seat ring: PTFE; ball sector: 1.4408, polished																				1
seat ring: PTFE; ball sector: 1.4408, hard chrome plated																				A
seat ring: Stellite; ball sector: 1.4408, hard chrome plated and lapped																				B
seat ring: PTFE; ball sector: 1.4408, hard chrome plated and lapped																				E
seat ring: TECAPEEK; ball sector: 1.4408, hard chrome plated																				P
Seal combination																				
all seals (part 13-16) from VITON, medium temperature: -15°C to +200																				1
all seals (part 13-16) from FFKM (Perlast/Kalrez), medium temperature: -15°C to +220°C																				A
all seals (part 13-16) from EPDM, medium temperature: -30°C to +140°C																				D
all seals (part 13-16) from NBR(P700), medium temperature: -40°C to +100°C																				N
Actuator																				
without mounting kit, without actuator																				0
without actuator, with standard mounting kit according DIN/ISO 5211																				1
pneumatic quarter-turn actuator (Air Torque) with mounting kit according DIN/ISO 5211																				T
hand lever																				H
Safety position:																				
without																				0
single acting, spring to close																				1
double acting, without safety position																				2
single acting, spring to open																				3
Positioner																				
without																				-
without positioner, with mounting kit according VDI/VDE 3845 for positioners																				0
i/p-positioner SIPART PS2																				2
i/p-positioner PMV Typ EP5																				8
digital positioner Schubert & Salzer Type 8049, 4-wire																				L
digital positioner Schubert & Salzer Type 8049, 2-wire																				R
Additional specifications for the positioner																				
without																				-
positioner single acting																				1
positioner double acting																				2
positioner single acting with gauge																				3
positioner double acting with gauge																				4
Positioner settings																				
standard																				-
double acting 20 - 4 mA (20mA closed, 4mA open)																				1
single acting 20 - 4 mA (inverse function, safety position at 20mA)																				2
Kvs-value																				
100%																				-
50%																				1

Dimensions with AirTorque actuator (designed for a pilot pressure of 5 - 6 bar)

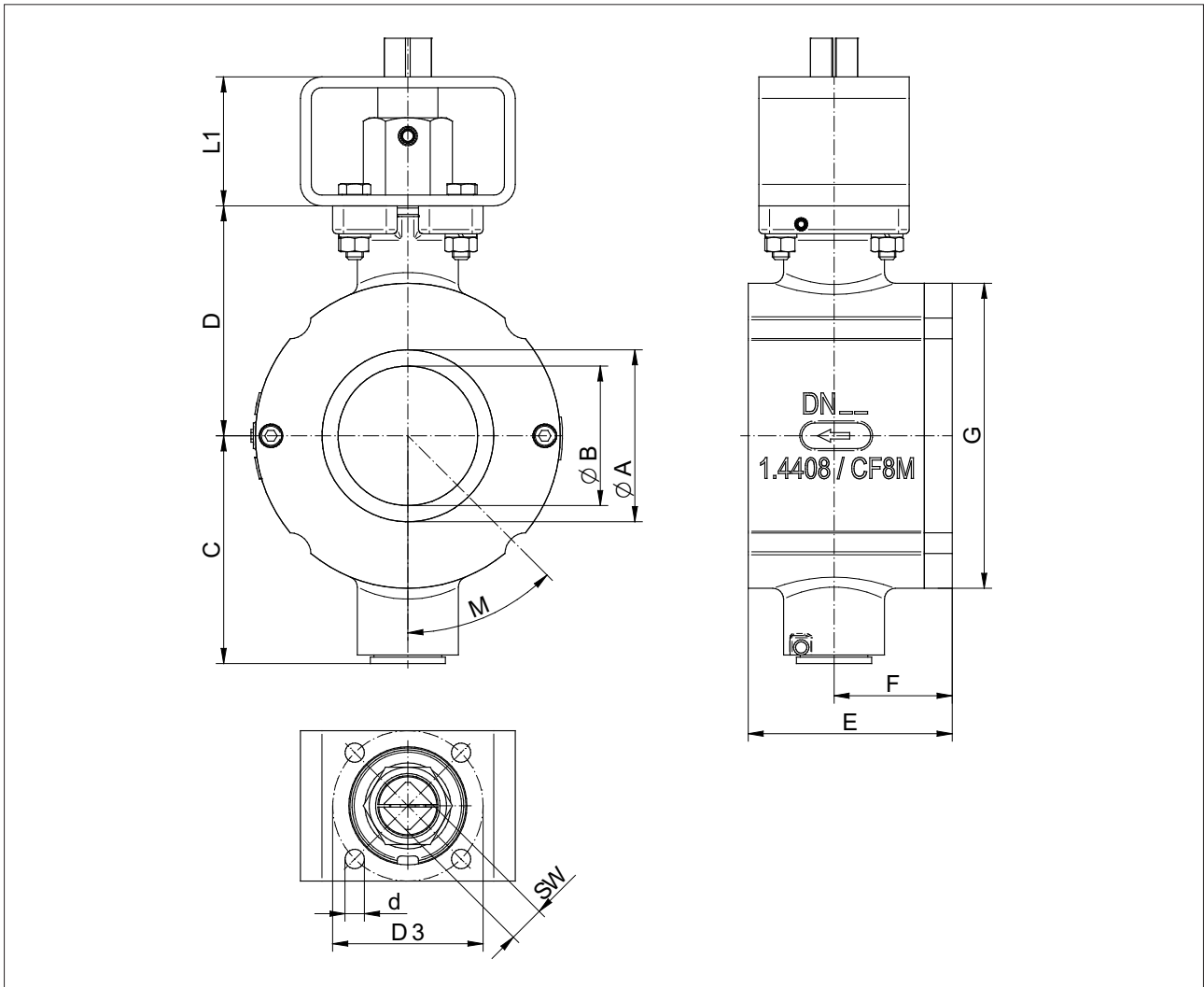


DN	A	B	C	D	E	F	G	L1	single acting					double acting				
									L2	L3	L4	H1	weight (kg)	L2	L3	L4	H1	weight (kg)
25	25	20(15)	73	74	50	26	73	60	102	210,5	52	236	5,5	85	158,5	47	219	4
40	41	32(25)	79	80	58	31	94	60	115	247,5	56,8	255	7,6	102	210,5	52	242	6
50	53	40	82	83	71	38	112	60	115	247,5	56,8	258	8,6	102	210,5	52	245	7
80	80	65	106	107	95	55	142	60	145	315	77	312	17,7	115	247,5	56,8	282	11,8
100	100	80	117	118	112	62	174	60	157	345	82	335	23,9	127	268,5	67	305	16,9
150	150	120	155	156	170	95	220	80	177	408,5	91,5	413	41,2	157	345	82	393	33,6
200	200	155	184	185	210	120	280	80	220,5	487	105	485,5	73,5	177	408,5	91,5	442	56,9
250	250	195	228	229	270	145	338	80	245	543	112	554	110,4	196	437,5	99	505	85,9

Dimensions for DN300 on request.

Dimension in mm

Dimensions without actuator (with mounting kit ISO 5211)



DN	A	B	C	D	E	F	G	L1	d	D3	SW	DIN/ISO 5211	weight (kg)
25	25	20(15)	73	74	50	26	73	60	6,6	50	14	F 05	2,4
40	41	32(25)	79	80	58	31	94	60	6,6	50	14	F 05	3,3
50	53	40	82	83	71	38	112	60	6,6	50	14	F 05	4,3
80	80	65	106	107	95	55	142	60	9	70	17	F 07	8
100	100	80	117	118	112	62	174	60	9	70	17	F 07	11,5
150	150	120	155	156	170	95	220	80	11	102	22	F 10	23,4
200	200	155	184	185	210	120	280	80	13,5	125	27	F 12	42,5
250	250	195	228	229	270	145	338	80	13,5	125	27	F 12	66,1

Dimensions for DN300 on request.

Dimension in mm