



CONCENTRIC BUTTERFLY VALVES

BONDED LINER SERIES

S57 - S46 -

S64 - S60 -

S61 - S36 -

S112

*Time to change to the new
European valve Standard!*

ABOUT ALFA EUROPE



Alfa Europe B.V. was founded in 2001 as manufacturer for maritime butterfly valves. This was also the time when the management set the company's code of professional ethics and, together with the dynamic production team, began its drive to make the name ALFA Europe synonymous with bonded liner concentric butterfly, replaceable liner butterfly valves, incl. concentric PTFE liner valves and high performance double eccentric butterfly valves, triple eccentric butterfly Valves, actuation & controls, for various industries such as:



WATER TREATMENT



SHIPBUILDING



OIL



GAS



DESALINATION



BUILDING SERVICES



POWER STATIONS



DISTRICT COOLING

COMPANY PHILOSOPHY

As a privately owned company we stand for quick decision-making, high individual responsibility, continuity and sustainable investments in research and development. We offer customized, and standardized butterfly valve solutions for almost every individual application. By developing and producing our own ALFA Europe brand, we can guarantee an optimal selection of high quality wide range of butterfly valves. Furthermore, we are able to react flexibly and quickly to special market requirements for offering individually developed solutions to our clients.

SALES

Our products are sold through selected distributors and stock keeping agents in Europe, USA & Canada, Mid-East and Asia.

DESIGN / BONDED LINER CONCEPT

With our manufacturing - casting and vulcanisation experience Alfa Europe has created a full line of concentric highly reliable and efficient butterfly valves. All our valve liners are vulcanised with a bonded liner

to reduce maintenance and to give with a high flow performance. The Alfa Europe bonded liner butterfly valves a traditional way of construction with many years of experience in a variety of applications a 100% tight shut-off between disc and liner on all sizes due to precision machining of internal parts (Disc, Bronze bearings bushes and Shaft) and transfer moulding vulcanisation process with prevision tooling.

Due to accurate and repeatable liner dimensions in combination with the precision machined internal parts this bonded liner valve is very reliable and provides constant low torque and tight shut-off during many years of operation.

The Alfa Europe butterfly valves have a 100% tight shut-off on top and bottom shaft seal due to primary and secondary stem seal within the precision bonded liner. We do not use the traditional o-ring construction on the drive shaft, which could weaken the shaft.



The bonded liner creates a 100% tight-off on the process connections due to extended rubber lining beyond the flanges facing, no flange gasket required.

The bonded liner concept will create a corrosion proof design, complete elimination between body and liner. Bonded liner fully covers the valve body internally.

Due to the vulcanisation process all Alfa Europe valve bodies are extremely strong and are vulcanised at ± 150 Bar and can be used as fully pressure rated dead-end service valves for MONO S 60 and S 61, Double flange S 46 and LUG S 64.

All our valves are suitable for vacuum (negative pressure) services and high fluid velocity applications. (Liner cannot be sucked into the pipeline).

ALFA EUROPE BONDED LINER CONCEPT ENSURES THAT THE LINER CANNOT MOVE AROUND AS A RESULT OF WHICH:

- No tearing and distortion of the liner
- Very low wear of the seat
- Reliable low torque figures
- Exceptionally long seat life up to 3 x longer than replaceable liner valves
- Permanent dry lubrication free design due to stainless steel stem and PAP bearings
- Uniform sealing, bi-directional flow
- Low torque due to one shaft design

Alfa Europe butterfly valves are well known as **HIGH QUALITY** and **RELIABLE PRODUCTS**, as a result of continuous effort in improving research and manufacturing process. A comprehensive quality assurance program is the starting point from quotation to order entry and to in-time delivery of the products together with required documentation and certification.

ENGINEERING

Alfa Europe always engages in reaching technical innovations for its products to reach the best solution to any concrete problem.

DESIGN

With use of our CAD, 3D and manufacturing system we can assure the best results during the whole process of manufacturing.

MATERIALS

Alfa Europe has a casting background and a choice of qualified and certified suppliers.

PRODUCTION

Alfa Europe factory and subsuppliers are equipped with modern machinery managed by highly qualified technicians and inspectors.

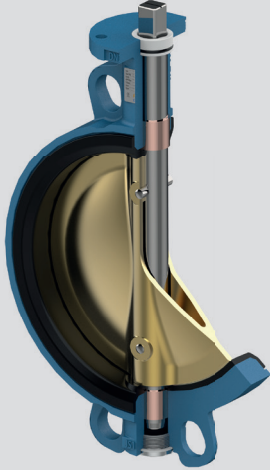
TEST

All Valves are pressure-, functional- and torque tested during and after assembly according to API-598 or BS 5155 with the pressure as indicated on the valve TAG plate, all other valves are pressure and functional tested according Alfa Europe quality standard which is within international quality standards.

VALVES - PRODUCT LINES

WAFER TYPE

SERIE 57



Wafer type S57, bonded liner

Size DN40 to DN1200

Design EN593

Face to face acc. EN 558.1 series 20

Flange connections DIN PN6-10-16-25

ANSI B 16.5 Cl. 150#

JIS B 2211 5K, 10K

Temperature range -40 / + 250 °C

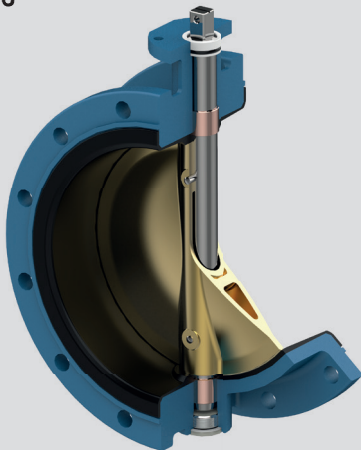
Various pressure ratings up to 25 bar

Top flange according ISO 5211

Vacuum to 1*10⁻³ 0.2 Torr absolute

DOUBLE FLANGED TYPE

SERIE 46



Double flanged type S46, bonded liner

Size DN40 to DN2000

Design EN593

Face to face acc. EN 558.1 series 13

Flange connections DIN PN6-10-16-25

ANSI B 16.5 Cl. 150#

JIS B 2211 5K, 10K

Temperature range -40 / + 250 °C

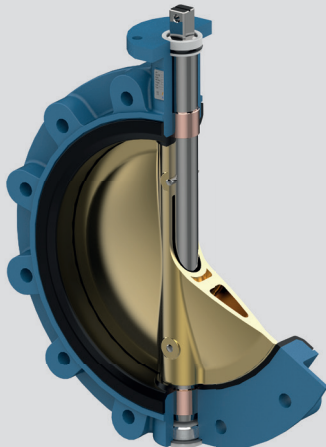
Various pressure ratings up to 25 bar

Top flange according ISO 5211

Vacuum to 1*10⁻³ 0.2 Torr absolute

LUG TYPE

SERIE 64



Lug type S64, bonded liner

Size DN40 to DN1200

Design EN593

Face to face acc. EN 558.1 series 20

Flange connections DIN PN6-10-16-25

ANSI B 16.5 Cl. 150#

JIS B 2211 5K, 10K

Temperature range -40 / + 250 °C

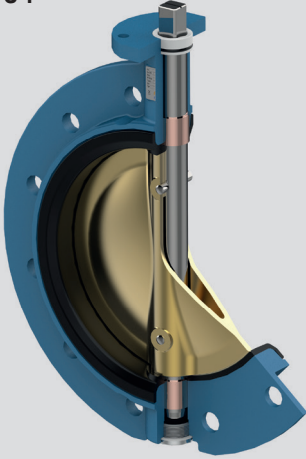
Various pressure ratings up to 25 bar

Top flange according ISO 5211

Vacuum to 1*10⁻³ 0.2 Torr absolute

MONO FLANGED TYPE

SERIE 60/61



Mono type S60/S61, bonded liner

Size DN50 to DN600

Design EN593

Face to face acc. EN 558.1 series 20/16

Flange connections DIN PN6-10-16-25

ANSI B 16.5 Cl. 150#

JIS B 2211 5K, 10K

Temperature range -40 / + 250 °C

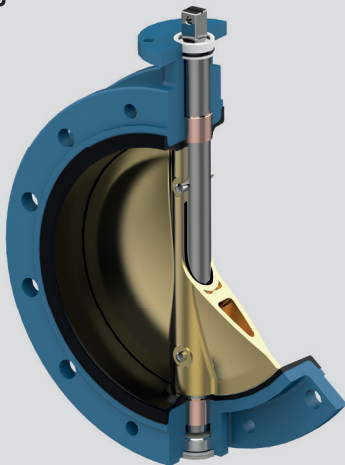
Various pressure ratings up to 25 bar

Top flange according ISO 5211

Vacuum to 1*10⁻³ 0.2 Torr absolute

DOUBLE FLANGED TYPE

SERIE 36



Double flanged type S36

Size DN50 to DN800

Design EN593

Face to face acc. JIS F7480

Flange connections JIS B 2211 5K, 10K

Temperature range -40 / + 250 °C

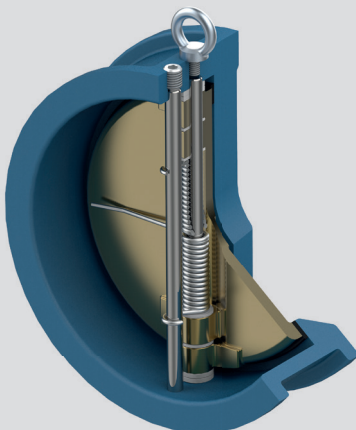
Various pressure ratings up to 16 bar

Top flange according ISO 5211

Vacuum to 1*10⁻³ 0.2 Torr absolute

DUO CHECK VALVE

SERIE 112



Duo Check Valve series S112

Size DN50 to DN600

Design API 598 / DIN3230

Face to face DIN 3202 K3 / EN 558-1 Row 16

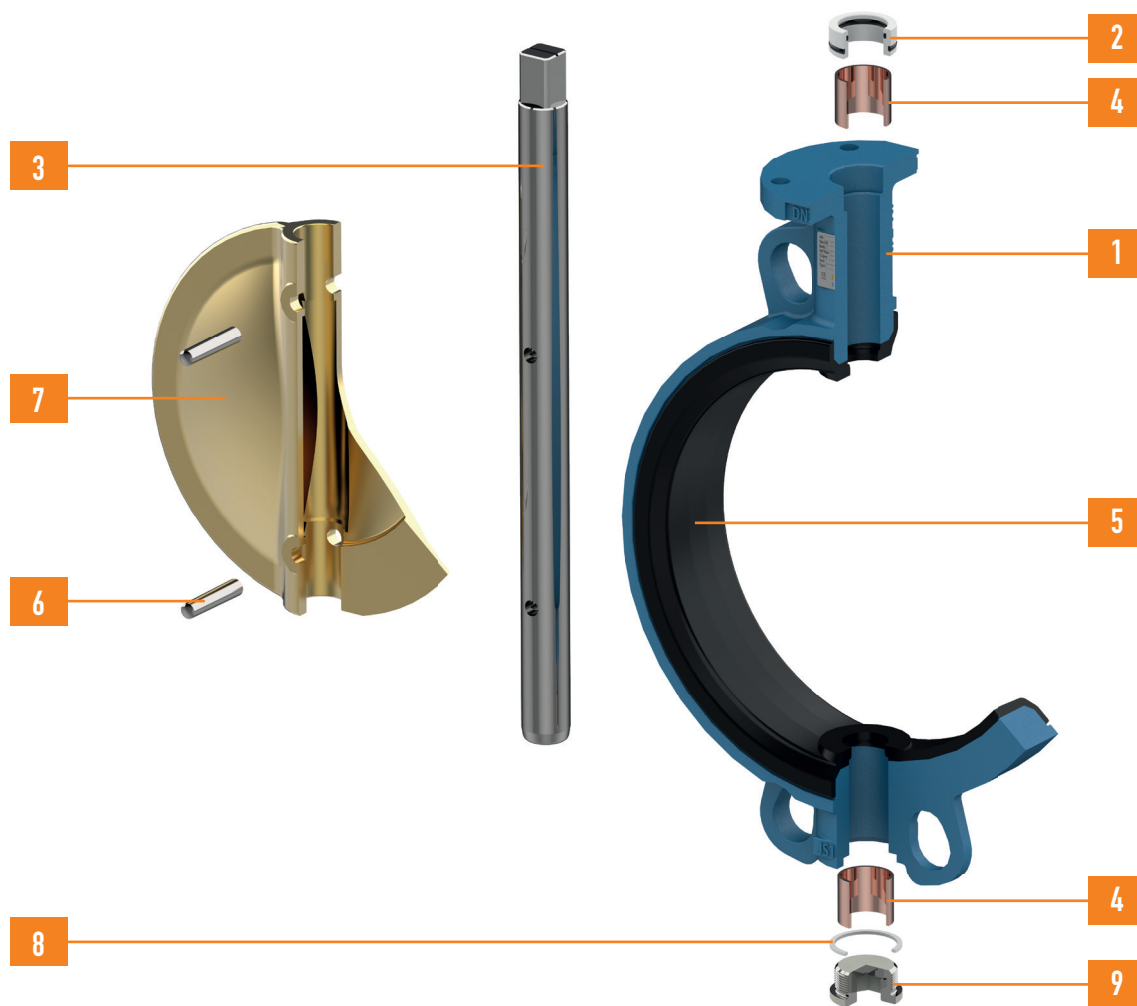
Flange connections DIN PN10-16 JIS10K

Temperature range -40 / + 250 °C

Various pressure ratings up to 16 bar

Tight shut off

MATERIALS



NO	PART	MATERIAL	NAME	NUMBER	STANDARD	FORMER	W. NR.
1	Body	Nodular Cast Iron	EN-GJS-400-15	JS1030	EN 1563	GGG-40	0.7040
		Cast Steel	A216 Grade WCB		ASTM A216		1.0619
		Cast Stainless Steel	A351 Grade CF8M		ASTM A351		1.4408
		Cast Aluminum Bronze	CuAl10Fe5Ni5-C	CC333G	EN 1982	BS 1400-AB2 Rg10	2.0976
		Cast Low Zinc Bronze	G-CuSn10Zn		DIN 1705		2.1086
2	Support	Polyaminde	PA66				
3	Shaft	Stainless Steel	X39CrMo 17-1		EN 10088	X35CrMo17	1.4122
		Duplex Stainless Steel	X2CrNiMoN22-5-3		ASTM A276		1.4462
		Monel K500®	NA 18		BS 3076		
		Aluminium Bronze	UNS C 63000		ASTM B150		2.0966
4	Bearing	Stainless steel + PTFE	PAP Bearing				
5	Liner	Elastomeric	NBR EPDM VITON Silicone				
6	Pin	Stainless Steel	X39CrMo 17-1		EN 10088	X35CrMo17	1.4122
		Stainless Steel	X2CrNiMo17-12-2		EN 10088		1.4404
		Monel K500®	NA 18		BS 3076		
		Aluminum Bronze	UNS C 63000		ASTM B150		2.0966
7	Disc	Nodular Cast Iron (Rilsan)	EN-GJS-400-15	JS1030	EN 1563	GGG-40	0.7040
		Aluminum Bronze	CuAl10Fe5Ni5-C	CC333G	EN 1982	BS 1400-AB2	
		Stainless Steel	A743 Grade CF8M		ASTM A743		1.4408
		Duplex Stainless Steel	X2CrNiMoN22-5-3		ASTM A276		1.4462
		Monel K400®	A494 M35		ASTM A494		
8	Gasket	Non asbestos					
9	Plug	Galvanized Steel					

COATINGS

CODE (COATING SYSTEM)	COATING		LAYER THICKNESS (MICRON)
A (Nibralux)	a	Nibralux solid primer Bleu	15-25
	b	Nibralux solid primer	35-40
			TDFT 50-65
B (Ameron)	a	Amerlock 2 C epoxyprimer	60
	b	Amerlock zinkepoxy 68G	50
		Amerlock 2C	150
			TDFT 200
	c	Amerlock 2C	100
		Amerlock 2C	100
		Amercoat 450 S	50
			TDFT 250
	d	Amerlock zink 68G	50
		Amerlock 2C	100
		Amercoat 450 S	50
			TDFT 200
C (International)	a	Intergard 475HS	60
	b	Interzinc 52	50
		Intergard 475HS	150
			TDFT 200
	c	Intergard 475 HS	100
		Intergard 475 HS	100
		Interfine 691	50
			TDFT 250
	c	Interzinc 52	100
		Intergard 475 HS	100
		Interfine 691	50
			TDFT 250
D (Hempel)	a	Hempadur primer 15300	60
	b	Hempadur primer 15300	100
		Hempadur Hi Build 45200	100
			TDFT 200
	c	Hempadur primer 15300	100
		Hempadur Hi Build 45200	100
		Hempathane 55210	50
			TDFT 250

TORQUES FIGURES

TORQUE FIGURES IN NM-ALFA EUROPE

▲P (bar)	PN-6				PN-10					
WP (BAR)	2,5 BAR wet	2,5 BAR dry	6 BAR wet	6 BAR wet dry	2,5 BAR wet	2,5 BAR dry	6 BAR wet	6 BAR dry	10 BAR wet	10 BAR dry
DN40	-	-	-	-	-	-	-	-	-	-
DN50	-	-	-	-	-	-	-	-	-	-
DN65	-	-	-	-	-	-	-	-	-	-
DN80	-	-	-	-	-	-	-	-	-	-
DN100	-	-	-	-	-	-	-	-	-	-
DN125	-	-	-	-	-	-	-	-	-	-
DN150	-	-	-	-	-	-	-	-	-	-
DN200	-	-	-	-	-	-	-	-	-	-
DN250	110	138	140	175	160	200	190	238	220	275
DN300	170	213	210	263	220	275	260	325	300	375
DN350	200	250	250	313	260	325	330	413	390	488
DN400	300	375	380	475	460	575	540	675	640	800
DN450	410	513	510	638	630	788	750	938	850	1063
DN500	540	675	670	838	800	1000	900	1125	1100	1375
DN550	680	850	880	1100	1000	1250	1200	1500	1500	1875
DN600	910	1138	1100	1375	1330	1663	1520	1900	1805	2256
DN700	1500	1875	1900	2375	2250	2813	2650	3313	3050	3813
DN750	1800	2250	2200	2750	2500	3125	3100	3875	3500	4375
DN800	2100	2625	2800	3500	2920	3650	3420	4275	3920	4900
DN900	3300	4125	4100	5125	3880	4850	4780	5975	5500	6875
DN1000	3800	4750	4900	6125	5510	6888	6555	8194	7695	9619
DN1100	5050	6313	6700	8375	7500	9375	9200	11500	11900	14875
DN1200	5950	7438	7950	9938	9000	11250	11500	14375	13500	16875

TORQUES FIGURES

TORQUE FIGURES IN NM-ALFA EUROPE

▲P (bar)	PN-16								PN-20			
WP (BAR)	2,5 BAR wet	2,5 BAR dry	6 BAR wet	6 BAR dry	10 BAR wet	10 BAR dry	16 BAR wet	16 BAR dry	20 BAR wet	20 BAR dry	25 BAR wet	25 BAR dry
DN40	7	9	8	10	9	11	10	13	12	15	15	23
DN50	7	9	8	10	10	13	11	14	15	19	20	30
DN65	8	10	9	11	12	15	15	19	20	25	25	38
DN80	13	16	15	19	19	24	21	26	30	38	43	65
DN100	18	23	23	29	28	35	35	44	50	63	62	93
DN125	29	36	32	40	38	48	48	60	80	100	110	165
DN150	55	69	65	81	75	94	85	106	135	169	180	270
DN200	110	138	125	156	150	188	175	219	210	263	245	368
DN250	210	263	240	300	270	338	330	413	450	563	620	930
DN300	290	363	340	425	390	488	460	575	650	813	850	1275
DN350	390	488	460	575	550	688	640	800	800	1000	1100	1650
DN400	670	838	760	950	860	1075	1000	1250	1550	1938	2000	3000
DN450	750	938	1000	1250	1200	1500	1400	1750	2000	2500	2500	3750
DN500	900	1125	1200	1500	1370	1713	1710	2138	2500	3125	3500	5250
DN550	1600	2000	1800	2250	2000	2500	2400	3000	-	-	-	-
DN600	2100	2625	2280	2850	2565	3206	2945	3681	-	-	-	-
DN700	3515	4394	3895	4869	4250	5313	4940	6175	-	-	-	-
DN750	4000	5000	4500	5625	4950	6188	5700	7125	-	-	-	-
DN800	4750	5938	5225	6531	5600	7000	6500	8125	-	-	-	-
DN900	5600	7000	6400	8000	7460	9325	8560	10700	-	-	-	-
DN1000	8360	10450	8800	11000	9690	12113	12350	15438	-	-	-	-
DN1100	11500	14375	13450	16813	15700	19625	18250	22813	-	-	-	-
DN1200	14250	17813	1550	1938	18035	22544	21100	26375	-	-	-	-

NOTE

1. The above torque values (N.M.) have included necessary safety factor from its normal application.
2. In case of severe application, it's expected to contact ALFA technical dept. for more datas.
3. The above torque values (N.M.) are based on wet-wet condition with pressure.
4. For Viton (FPM) liner, please take next higher ▲P.

DIN FLANGES

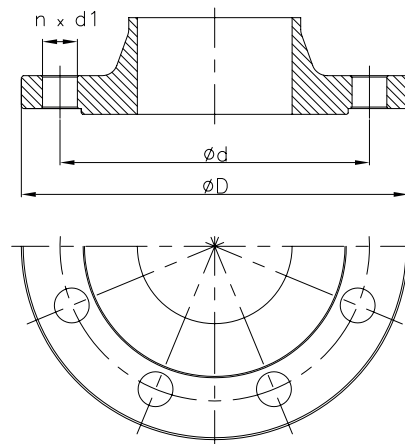
Flanged butterfly valves with PN6, PN10, PN16 or PN25

flanges are drilled in accordance with ISO 7005

- Steel valve bodies: ISO 7005/1
- Ductile iron valve bodies: ISO 7005/1
- Copper ally valve bodies: ISO 7005/1

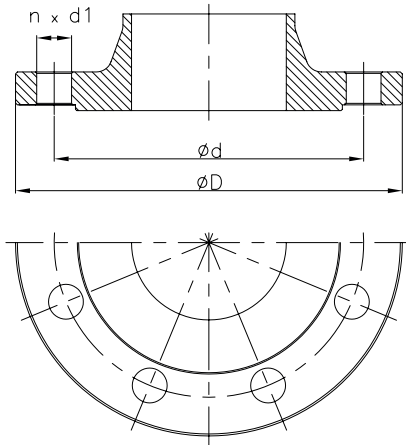
STANDARDS

- PN 6, 10, 16, 25: ISO 7005/1/2/3 - Metallic flanges
- PN 6, 10, 16: DIN2501 - Flansche, Anschlußmaße (Flanges, mating dimensions)
- PN 6, 10, 16: BS 4504 - Flanges and bolting, metric series
- ANSI, Class 150: ANSI B16.5 - Pipe flanges and flanged fittings
- MSS/BS, class 150: MSS SP 44 - Steel pipeline flanges
BSS 3293 - Carbon steel pipe flanges
- JIS 5K/10K: JIS B2220 - Steel pipe flanges



NOM	DIAM	DIN 6					DIN 10					DIN 16					DIN 25				
DN	Inch	D	d	d1	Bolt	n	D	d	d1	Bolt	n	D	d	d1	Bolt	n	D	d	d1	Bolt	n
50	2	140	110	14	M12	4	165	125	18	M16	4	165	125	18	M16	4	165	125	18	M16	4
65	2½	160	130	14	M12	4	185	145	18	M16	4	185	145	18	M16	4	185	145	18	M16	8
80	3	190	150	18	M16	4	200	160	18	M16	8	200	160	18	M16	8	200	160	18	M16	8
100	4	210	170	18	M16	4	220	180	18	M16	8	220	180	18	M16	8	235	190	22	M20	8
125	5	240	200	18	M16	8	250	210	18	M16	8	250	210	18	M16	8	270	220	26	M24	8
150	6	265	225	18	M16	8	285	240	22	M20	8	285	240	22	M20	8	300	250	26	M24	8
200	8	320	280	18	M16	8	340	295	22	M20	8	340	295	22	M20	12	360	310	26	M24	12
250	10	335	355	18	M16	12	395	350	22	M20	12	400	355	26	M24	12	425	370	30	M27	12
300	12	440	395	22	M20	12	445	400	22	M20	12	455	410	26	M24	12	485	430	30	M27	16
350	14	490	445	22	M20	12	505	460	22	M20	16	520	470	26	M24	16	555	490	33	M30	16
400	16	540	495	22	M20	16	565	515	26	M24	16	580	525	30	M27	16	620	550	36	M33	16
450	18	595	550	22	M20	16	615	565	26	M24	20	640	585	30	M27	20	670	600	36	M33	20
500	20	645	600	22	M20	20	670	620	26	M24	20	715	650	33	M30	20	730	660	36	M33	20
550																					
600	24	755	705	26	M24	20	780	725	30	M27	20	840	770	36	M33	20	845	770	39	M36	20
700	28	860	810	26	M24	24	895	840	30	M27	24	910	840	36	M33	24	960	875	42	M39	24
750	30	920	865	30	M27	24	965	900	33	M30	24	970	900	36	M33	24	1020	935	42	M39	24
800	32	975	920	30	M27	24	1015	950	33	M30	24	1025	950	39	M36	24	1085	990	48	M45	24
900	36	1075	1020	30	M27	24	1115	1050	33	M30	28	1125	1050	39	M36	28	1185	1090	48	M45	28
1000	40	1175	1120	30	M27	28	1230	1160	36	M33	28	1255	1170	42	M39	28	1320	1210	56	M52	28
1100	44	1305	1240	33	M30	28	1340	1270	36	M33	32	1355	1270	42	M39	32	1420	1310	56	M52	32
1200	48	1405	1340	33	M30	32	1455	1380	39	M36	32	1485	1390	48	M45	32	1530	1420	56	M52	32

JIS & ANSI FLANGES



NOM	DIAM	ANSI 150					JIS 5K					JIS 10K					JIS 16K				
DN	Inch	D	d	d1	Bolt	n	D	d	d1	Bolt	n	D	d	d1	Bolt	n	D	d	d1	Bolt	n
50	2	152,4	120,6	19	5/8	4	130	105	15	M12	4	155	120	19	M16	4	155	120	19	M16	8
65	2½	177,8	139,7	19	5/8	4	155	130	15	M12	4	175	140	19	M16	4	175	140	19	M16	8
80	3	190,5	152,4	19	5/8	4	180	145	19	M16	4	185	150	19	M16	8	200	160	23	M20	8
100	4	228,6	190,5	19	5/8	8	200	165	19	M16	8	210	175	19	M16	8	225	185	23	M20	8
125	5	254,0	215,9	22	3/4	8	235	200	19	M16	8	250	210	23	M20	8	270	225	25	M22	8
150	6	279,4	241,3	22	3/4	8	265	230	19	M16	8	280	240	23	M20	8	305	260	25	M22	12
200	8	342,9	298,4	22	3/4	8	320	280	23	M20	8	330	290	23	M20	12	350	305	25	M22	12
250	10	406,4	361,9	25	7/8	12	385	345	23	M20	12	400	355	25	M22	12	430	380	27	M24	12
300	12	482,6	431,8	25	7/8	12	430	390	23	M20	12	445	400	25	M22	16	480	430	27	M24	16
350	14	533,4	476,2	28	1	12	480	435	25	M22	12	490	445	25	M22	16	540	480	33	M30x3	16
400	16	596,9	539,7	28	1	16	540	495	25	M22	16	560	510	27	M24	16	605	540	33	M30x3	16
450	18	635,0	577,8	32	1.1/8	16	605	555	25	M22	16	620	565	27	M24	20	675	605	33	M30x3	20
500	20	698,5	635,0	32	1.1/8	20	655	605	25	M22	20	675	620	27	M24	20	730	660	33	M33x3	20
550	22	749	692,2	35	1.1/4	20	720	665	27	M24	20	745	680	33	M30	20	795	720	39	M36x3	20
600	24	812,8	749,3	35	1.1/4	20	770	715	27	M24	20	795	730	33	M30	24	845	770	39	M36x3	24
700	28	927,1	863,6	35	1.1/4	28	875	820	27	M24	24	905	840	33	M30	24	960	875	42	M39x3	24
750	30	984,2	914,4	35	1.1/4	28	945	880	33	M30	24	970	900	33	M30	24	1020	935	42	M39x3	24
800	32	1.060,4	977,9	41	1.1/2	28	995	930	33	M30	24	1020	950	33	M30	28	1085	990	48	M45x3	24
900	36	1.168,4	1.085,8	41	1.1/2	32	1095	1030	33	M30	24	1120	1050	33	M30	28	1185	1090	48	M45x3	28
1000	40	1.289,0	1.200,2	41	1.1/2	36	1195	1130	33	M30	28	1235	1160	39	M36	28	1320	1210	56	M52x3	28
1100	44	1.403,3	1.314,4	41	1.1/2	40	1305	1240	33	M30	28	1345	1270	39	M36	28	1420	1310	56	M52x3	32
1200	48	1.511,3	1.422,4	41	1.1/2	44	1420	1350	33	M30	32	1465	1380	39	M36	32	1530	1420	56	M52x3	32

FLOW DATA

The purpose of a butterfly valve as a regulator is to correct a flow process by changing the resistance with different valve settings.

The unit used is the KV value which can be defined as follows:

Q = Flow [m³/hr]

P = Specific gravity [kg/m³]

P0 = Specific gravity of water under normal conditions (P0= 1000kg/m³ at 288K)

P1 = Inlet pressure [bar]

P2 = Outlet pressure [bar]

G = Relative specific gravity in relation to air (G = P/P air) under normal conditions

Ti = Inlet temperature [K]

$$KV(\text{gas}) = \frac{Q}{457} \times \sqrt{\frac{G \times T_i}{(P_1 - P_2) \times P_1}}$$

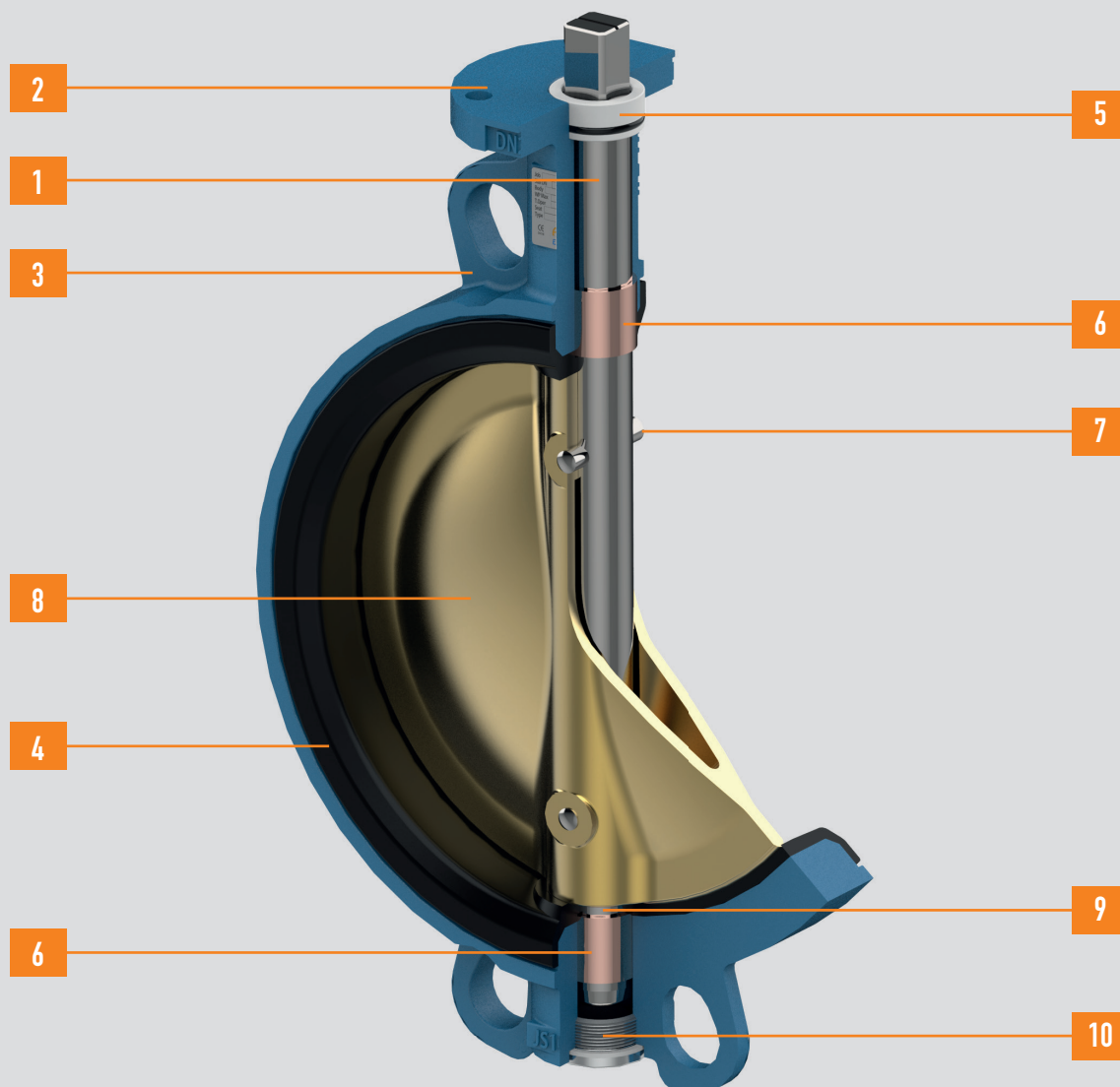
$$KV(\text{liquids}) = Q \times \sqrt{\frac{P/P_0}{P_1 - P_2}}$$

The KV value equals the total volume of water at 20°C that will pass through the valve in one hour at a differential pressure of 1 bar, measured in m³/hr.

KV VALUES TABLE BONDED LINER VALVES

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°
DN40	0	0,2	0,6	2	9	22	36	56	81	110
DN50	0	0,4	0,9	3,4	14	35	57	88	126	172
DN65	0	0,6	1,4	5,1	21	53	86	132	189	258
DN80	0	1	1,9	7,8	31	78	128	197	283	388
DN100	0	1,7	3,5	14	55	138	228	352	504	690
DN125	0	2,7	5,3	22	86	216	355	549	786	1078
DN150	0	3,9	7,8	31	124	310	512	791	1133	1552
DN200	0	6,9	14	55	221	552	918	1407	2014	2759
DN250	0	10	22	86	345	862	1422	2198	3147	4310
DN300	0	15	31	124	497	1241	2048	3166	4531	6207
DN350	0	21	42	151	676	1513	2496	3858	5522	7565
DN400	0	27	55	200	883	2004	3307	5110	7316	10022
DN450	0	35	70	256	1117	2565	4231	6540	9360	12823
DN500	0	43	86	319	1379	3194	5270	8144	11658	15970
DN550	0	55	110	405	1765	4058	6696	10347	14789	20291
DN600	0	62	124	466	1986	4660	7688	11881	17054	23297
DN700	0	79	157	891	2528	6321	10429	16118	23071	31605
DN750	0	88	175	832	2812	7030	11600	17927	25661	35152
DN800	0	96	194	774	3096	7740	12771	19737	28251	38700
DN900	0	129	259	1038	4828	10380	17127	26469	37844	51901
DN1000	0	161	324	1295	5179	12948	21365	33018	47261	64742
DN1100	0	201	405	1619	6474	16185	26706	41273	59076	80928
DN1200	0	252	506	2023	8092	20231	33383	51591	73845	101159

WAFER TYPE S57



1 TOP AND BOTTOM SHAFT

- Rigid 1 piece shaft
- High accuracy polished material
- ISO fit system
- High strength stainless steel
- Square shaft end with position indication
- Available in various materials

- Certified material from Maritime classification societies approved foundries
- Extreme High Strength body, during vulcanization body is exposed to internal pressures of up to 150 barg
- Extra reinforced centering lugs for centering and end of line service
- Easy to mount, install and forget

- Suitable for end of line service
- Suitable for vacuum and high fluid velocity applications
- Suitable for dry service
- Available in various materials

- Vibration proof
- Shaft to disc connection
- Available in various materials

2 EN ISO 5211 Top Flange

- for Direct Mount of
- Hand levers
- Gear boxes
- Pneumatic actuators
- Electric actuators
- Hydraulic actuators

4 BONDED LINER

- High accuracy bonded liner fully vulcanized to body
- Vulcanization in precision machined transfer molding tools
- Repeatable accurate liner dimensions
- Reliable low torque figures
- No corrosion between liner and body
- No flange gasket required
- No rolling up of liner
- Long life liner
- Non collapsible, stretch resistant, blow out proof liner

5 ADDITIONAL SUPPORT

- Preventing shaft distortion and ensuring low torque values
- Preventing foreign matter from entering the valve

8 DISC

- Streamlined disc for low pressure loss in fully open position
- Precision machined
- Bubble tight shut off
- Low torque

3 BODY

- Standard EN JS1030 Nodular Cast Iron body, painted in RAL 5011 (60µm 2 layer coating)

6 TOP AND BOTTOM BEARINGS

- S.S. PAP high accuracy bearings
- Self lubricating
- ISO fit system
- Perfect alignment of valve shaft

9 SHAFT SEALING SYSTEM

- Top and bottom shaft sealing with primary and secondary sealing system

7 PRECISION PIN(S)

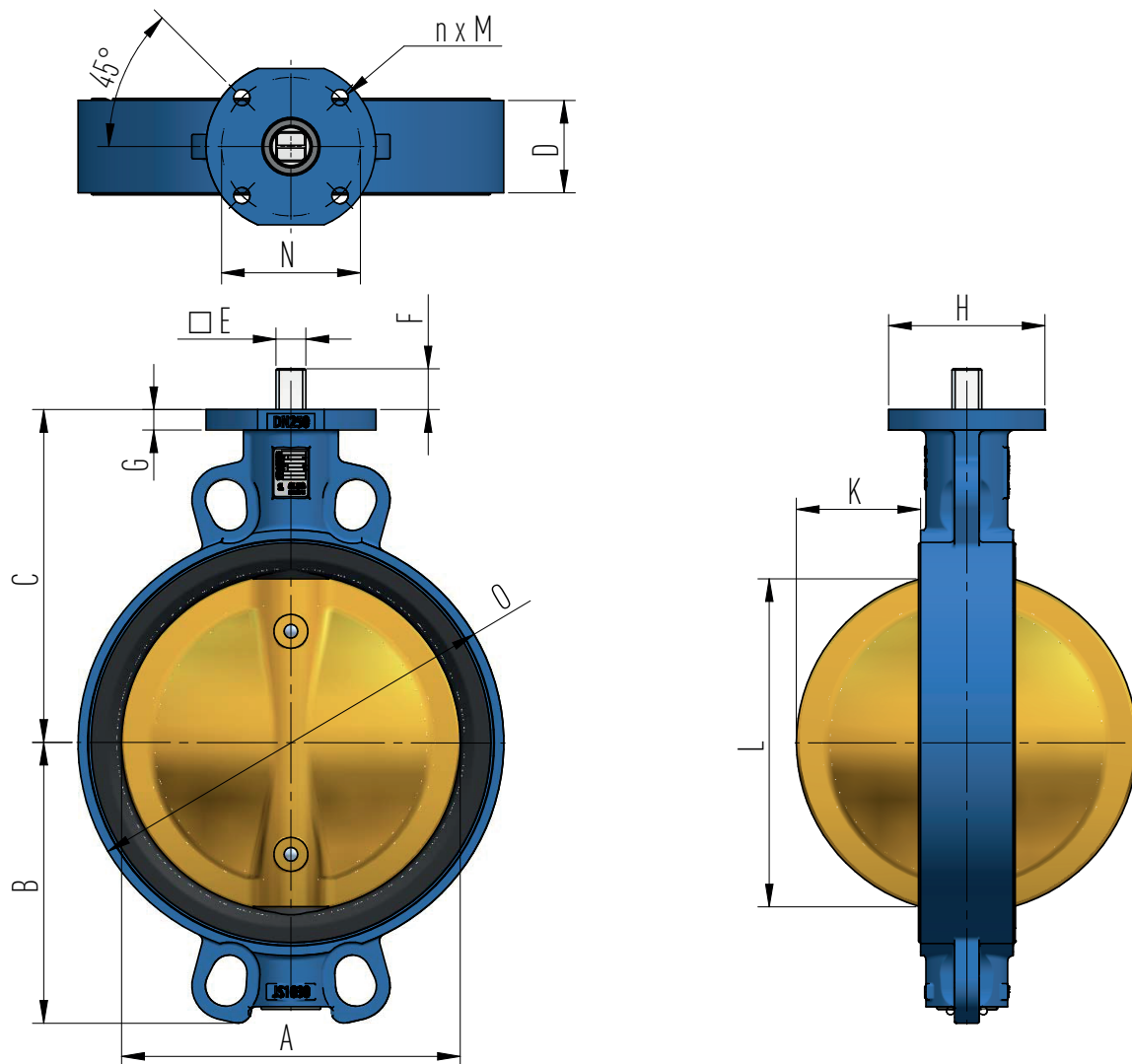
- High accuracy polished pin(s)
- Press fitted in through; no leakage over pin

10 PLUG AND GASKET

- Bottom shaft support
- Safety sealing system

WAFER TYPE S57

BARE SHAFT DN40 - DN1200

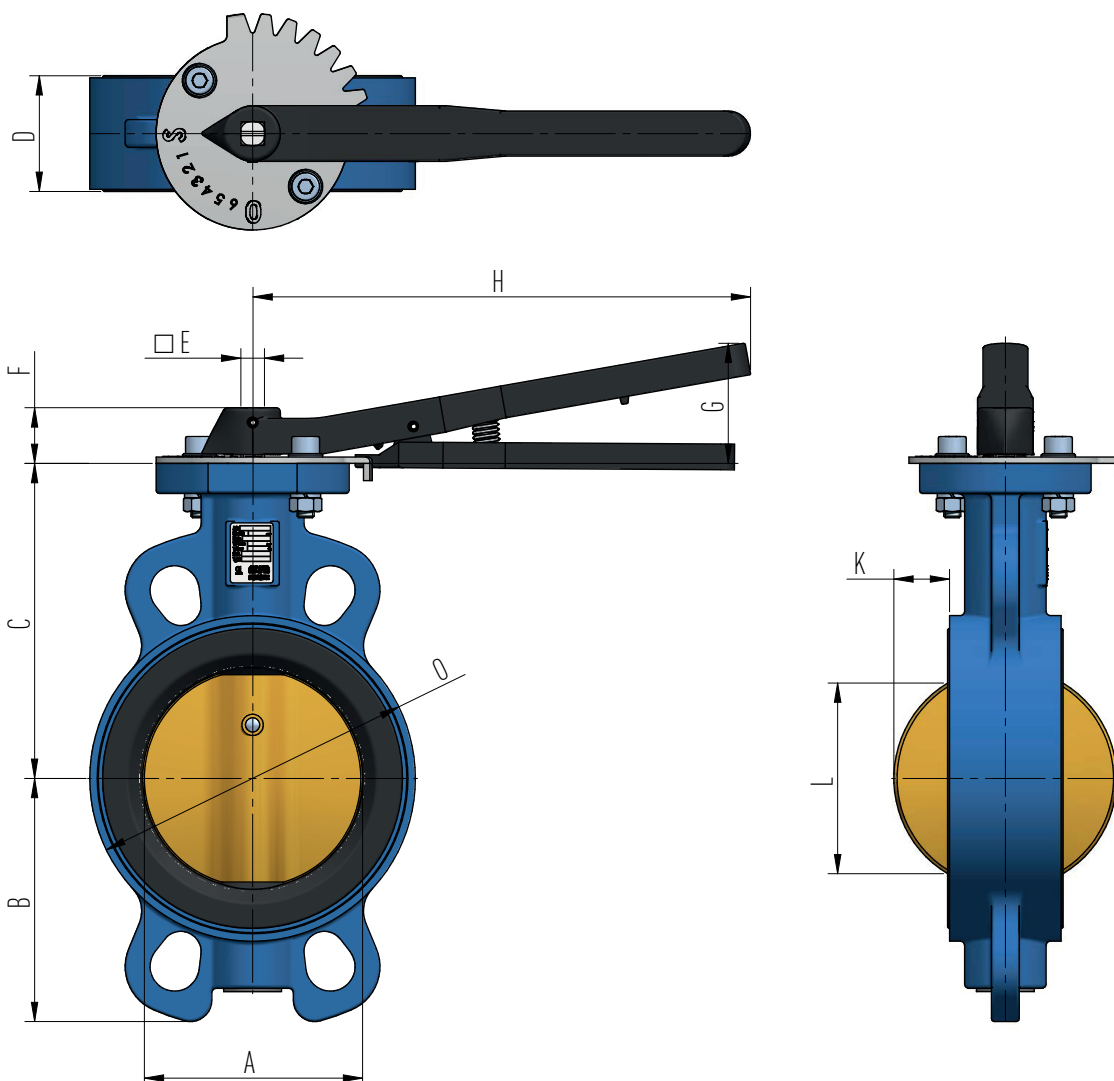


SIZE	A	B	C	D	E	F	G	TOPFLANGE				K	L	O	WEIGHT ± Kg
								ISO 5211	H	N	n X M				
DN 40	41	58	113	33	[] 11	26	12	F07	ø90	ø70	4 x ø10	4	24	72	1,5
DN 50	52	65	118	43	[] 11	26	12	F07	ø90	ø70	4 x ø10	5	27	93	2,8
DN 65	63	89	126	46	[] 11	26	13	F07	ø90	ø70	4 x ø10	9	43	108	3,8
DN 80	78	96	133	46	[] 11	26	14	F07	ø90	ø70	4 x ø10	16	62	124	4,0
DN 100	103	113	147	52	[] 11	26	14	F07	ø90	ø70	4 x ø10	26	90	152	5,4
DN 125	125	130	160	56	[] 14	28	14	F07	ø90	ø70	4 x ø10	34	110	177	7,5
DN 150	155	146	180	56	[] 14	28	14	F07	ø90	ø70	4 x ø10	50	145	210	9,5
DN 200	201	177	204	60	[] 17	30	14	F07	ø90	ø70	4 x ø10	71	193	265	14,0
DN 250	249	205	245	68	[] 22	30	15	F10	ø125	ø102	4 x ø12	91	241	313	21,2
DN 300	302	239	270	78	[] 22	32	16	F10	ø125	ø102	4 x ø12	112	291	371	33,4
DN 350	340	295	315	78	[] 27	29	20	F12	ø175	ø125	4 x ø14	128	324	434	56,2
DN 400	397	319	350	102	[] 27	29	20	F12	ø175	ø125	4 x ø14	144	376	480	75,0
DN 450	438	352	375	114	[] 36	38	20	F14	ø175	ø140	4 x ø18	163	426	536	106
DN 500	489	387	415	127	[] 36	38	20	F14	ø175	ø140	4 x ø18	182	475	590	138
DN 600	590	453	562	154	[] 46	48	25	F16	ø210	ø165	4 x ø22	219	572	693	211
DN 700	692	491	560	165	[] 46	55	25	F16	ø175	ø140	4 x ø18	265	676	800	275
DN 800	792	550	620	190	[] 55	55	30	F25	ø300	ø254	4 x ø18	302	772	905	410
DN 900	861	615	675	203	[] 55	60	30	F25	ø300	ø254	4 x ø18	330	840	1005	550
DN 1000	961	668	735	216	[] 55	60	30	F25	ø300	ø254	4 x ø18	374	940	1115	700
DN 1200	1156	785	917	254	[] 60	60	35	F30	ø350	ø298	4 x ø22	458	1142	1325	1250

* The details of this datasheet are subject to change without prior notification.

WAFER TYPE S57

LEVER OPERATED DN40 - DN200

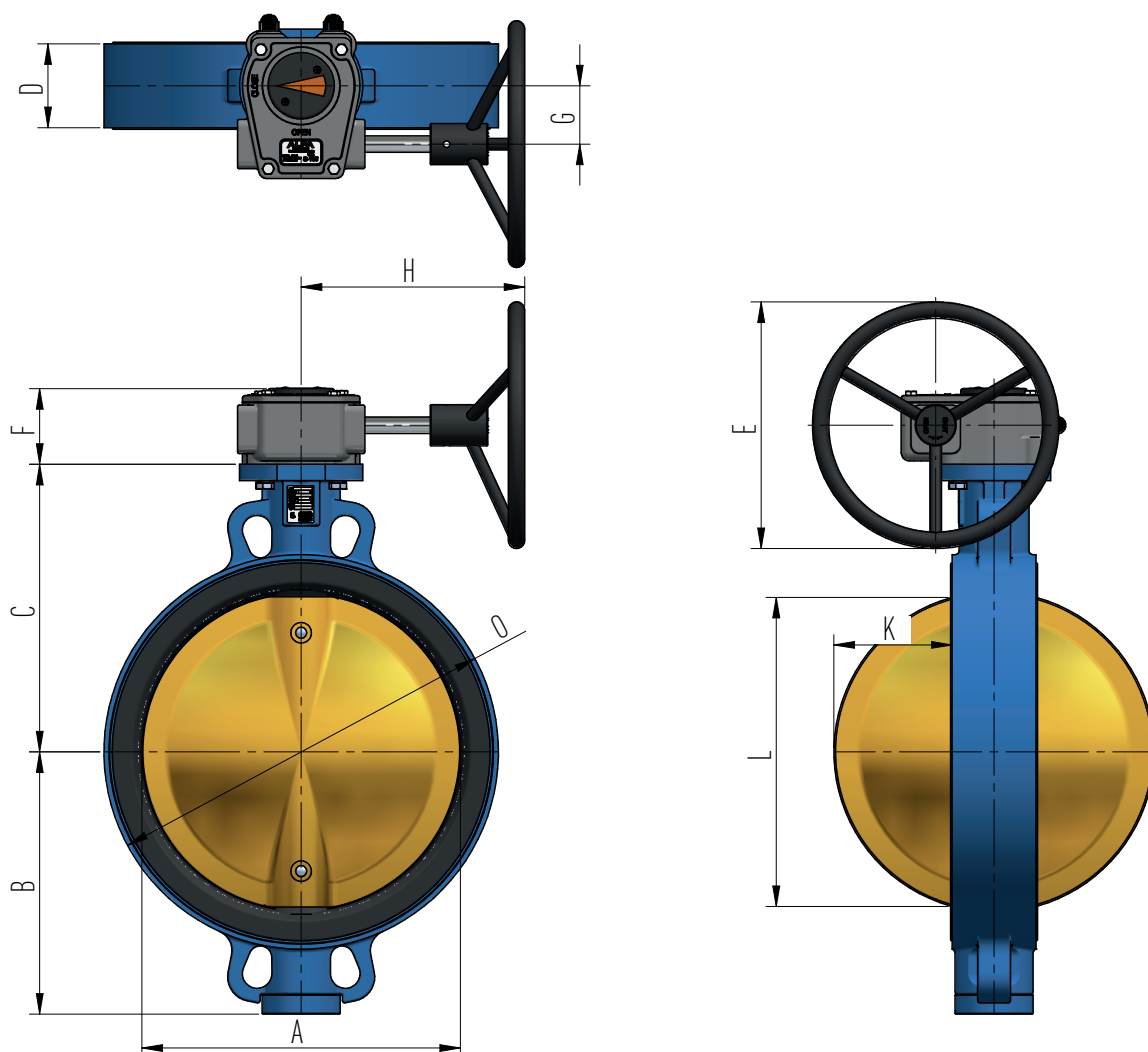


SIZE	A	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 40	41	58	113	33	[] 11	26	56	223	4	24	72	2.3
DN 50	52	65	118	43	[] 11	26	56	223	5	27	93	3.6
DN 65	63	89	126	46	[] 11	26	56	223	9	43	108	4.6
DN 80	78	96	133	46	[] 11	26	56	223	16	62	124	4.8
DN 100	103	113	147	52	[] 11	26	56	223	26	90	152	6.2
DN 125	125	130	160	56	[] 14	28	68	325	34	110	177	8.7
DN 150	155	146	180	56	[] 14	28	68	325	50	145	210	10.7
DN 200	201	177	204	60	[] 17	30	68	325	71	193	265	15.2

* The details of this datasheet are subject to change without prior notification.

WAFER TYPE S57

GEARBOX OPERATED DN40 - DN1000



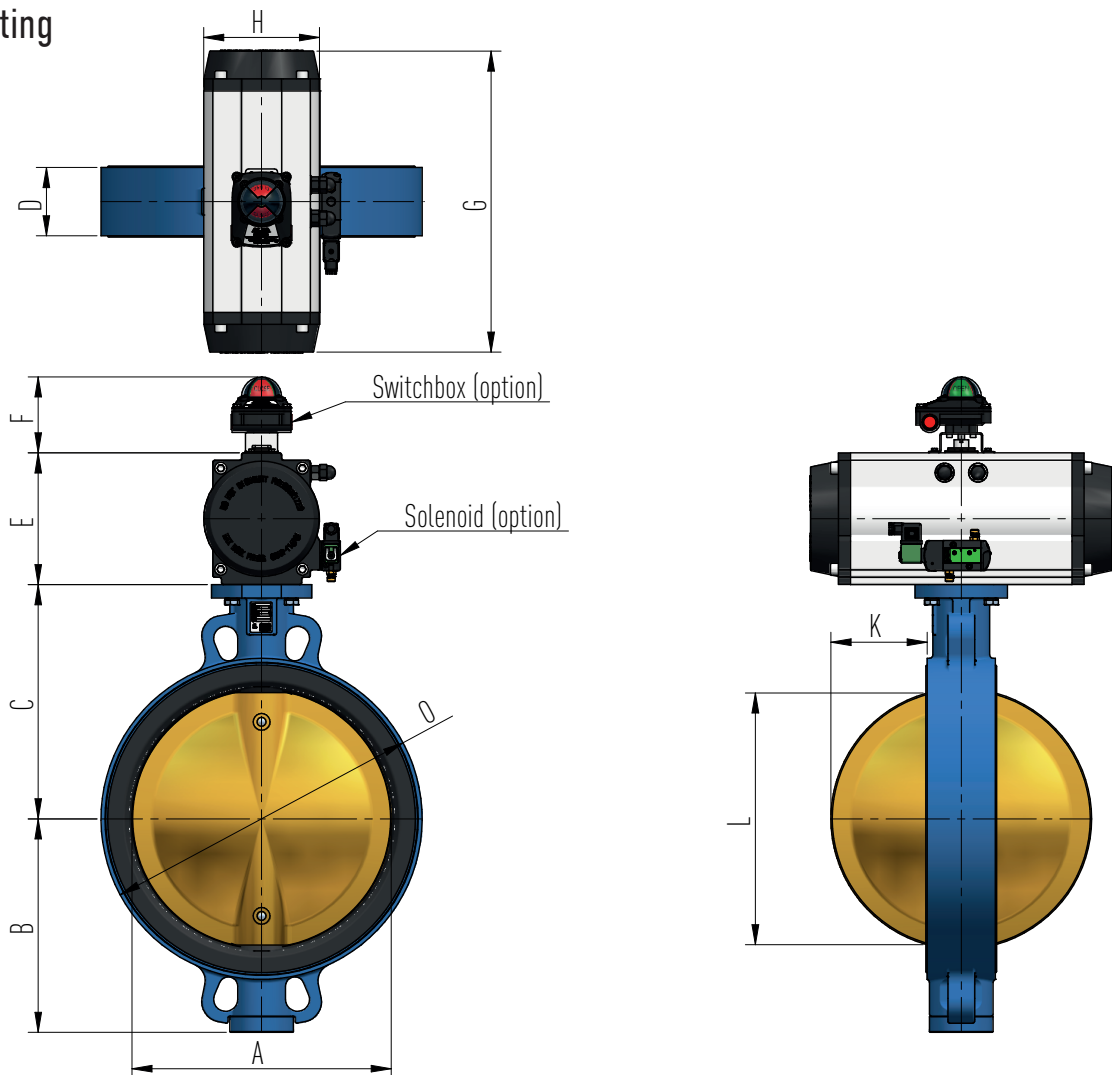
SIZE	GEARBOX	A	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 40	ALFA - 12	41	58	113	33	SP-100	50	36,5	114	4	24	72	5,0
DN 50	ALFA - 12	52	65	118	43	SP-100	50	36,5	114	5	27	93	6,3
DN 65	ALFA - 12	63	89	126	46	SP-100	50	36,5	114	9	43	108	7,3
DN 80	ALFA - 12	78	96	133	46	SP-100	50	36,5	114	16	62	124	7,5
DN 100	ALFA - 12	103	113	147	52	SP-100	50	36,5	114	26	90	152	8,9
DN 125	ALFA - 12	125	130	160	56	SC-150	50	36,5	114	34	110	177	11,0
DN 150	ALFA - 12	155	146	180	56	SC-150	50	36,5	114	50	145	210	13,0
DN 200	ALFA - 25	201	177	204	60	SC-150	62	44,6	151	71	193	265	17,5
DN 250	ALFA - 55	249	205	245	68	SW-250	73	55	235	91	241	313	28,0
DN 300	ALFA - 55	302	239	270	78	SW-250	73	55	235	112	291	371	40,2
DN 350	ALFA - 100	340	295	315	78	SW-300	95	71	272	128	324	434	68,9
DN 400	ALFA - 100	397	319	350	102	SW-300	95	71	272	144	376	480	87,7
DN 450	ALFA - 200	438	352	375	114	SW-400	102	86	310	163	426	536	127,0
DN 500	ALFA - 200	489	387	415	127	SW-400	102	86	310	182	475	590	159,0
DN 600	ALFA - 350	590	453	562	154	SW-500	106	104,5	336	219	572	693	236,4
DN 700	ALFA - 700 / 6	692	491	560	165	SW-500	125	130	420	265	676	800	320
DN 800	ALFA - 900 / 4	792	550	620	190	SW-500	123	150	435	302	772	905	455
DN 900	ALFA - 1100 / 6	861	615	675	203	SW-500	123	150	435	330	840	1005	600
DN 1000	ALFA - 1100 / 6	961	668	735	216	SW-500	123	150	435	374	940	1115	750

* The details of this datasheet are subject to change without prior notification.

WAFER TYPE S57

PNEUMATIC ACTUATOR (DA) DN40 - DN1000

Double acting



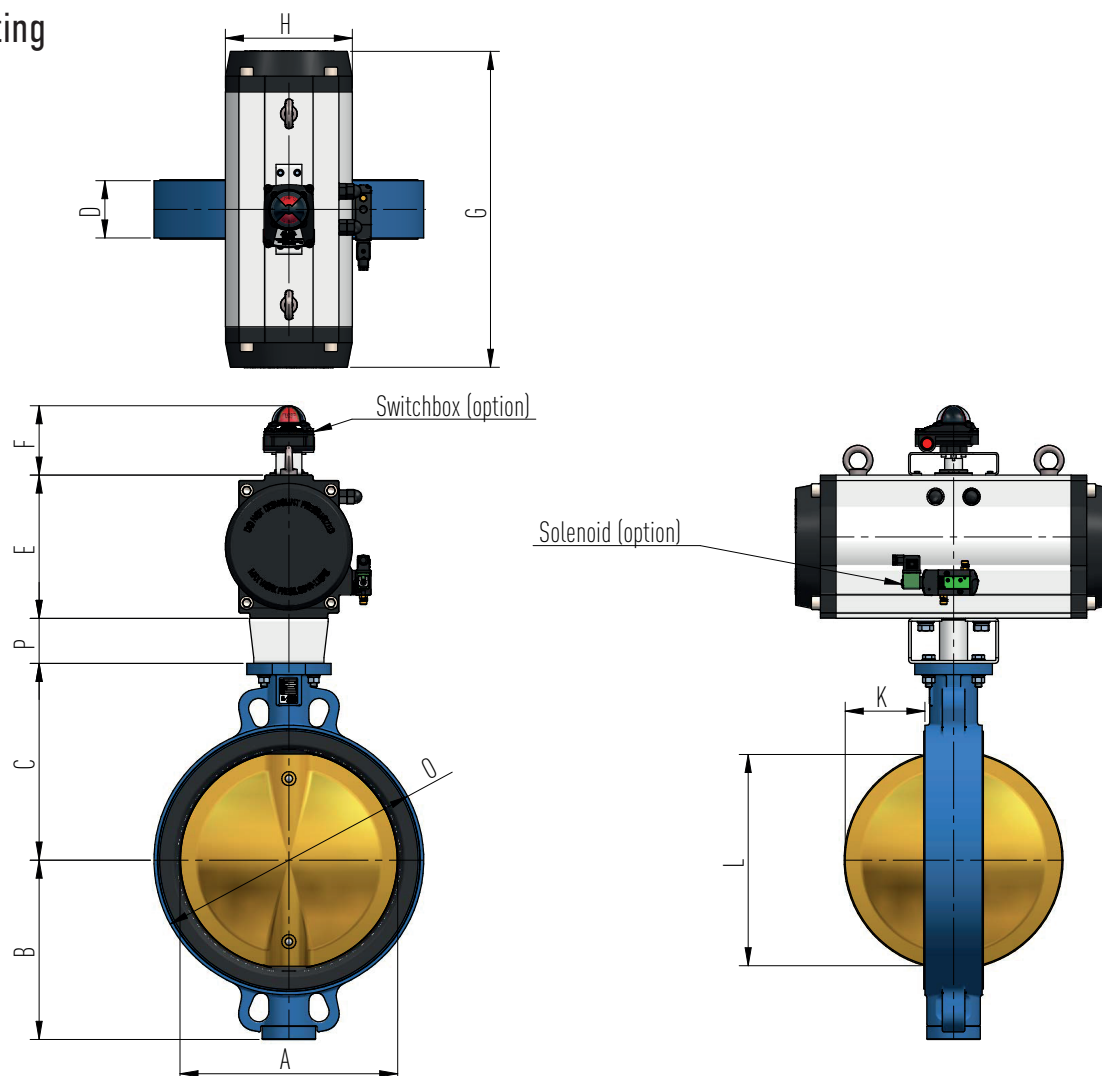
SIZE	PNEUMATIC	A	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 40	ALFA - 063 D	41	58	113	33	88	114	169	82	4	24	72	4,6
DN 50	ALFA - 063 D	52	65	118	43	88	114	169	82	5	27	93	5,9
DN 65	ALFA - 063 D	63	89	126	46	88	114	169	82	9	43	108	6,9
DN 80	ALFA - 063 D	78	96	133	46	88	114	169	82	16	62	124	7,1
DN 100	ALFA - 063 D	103	113	147	52	88	114	169	82	26	90	152	8,5
DN 125	ALFA - 075 D	125	130	160	56	100	114	201	94	34	110	177	11,2
DN 150	ALFA - 083 D	155	146	180	56	108	114	209	101	50	145	210	13,7
DN 200	ALFA - 105 D	201	177	204	60	133	114	275	122	71	193	265	21,8
DN 250	ALFA - 125 D	249	205	245	68	155	114	332	138	91	241	313	31,1
DN 300	ALFA - 140 D	302	239	270	78	172	114	385	153	112	291	371	47,7
DN 350	ALFA - 140 D	340	295	315	78	172	114	385	153	128	324	434	70
DN 400	ALFA - 160 D	397	319	350	102	197	114	450	174	144	376	480	96
DN 450	ALFA - 190 D	438	352	375	114	230	124	507	206	163	426	536	138
DN 500	ALFA - 210 D	489	387	415	127	255	124	562	226	182	475	590	182
DN 600	ALFA - 240 D	590	453	562	154	290	124	646	258	219	572	693	279
DN 700	ALFA - 270 D	692	491	560	165	320	124	722	292	265	676	800	373
DN 800	ALFA - 350 D	792	550	620	190	410	144	866	385	302	772	905	494
DN 900	ALFA - 350 D	861	615	675	203	410	144	866	385	330	840	1005	644
DN 1000	ALFA - 350 D	961	668	735	216	410	144	866	385	374	940	1115	894

* The details of this datasheet are subject to change without prior notification.

WAFER TYPE S57

PNEUMATIC ACTUATOR (SR) DN40 - DN600

Single acting

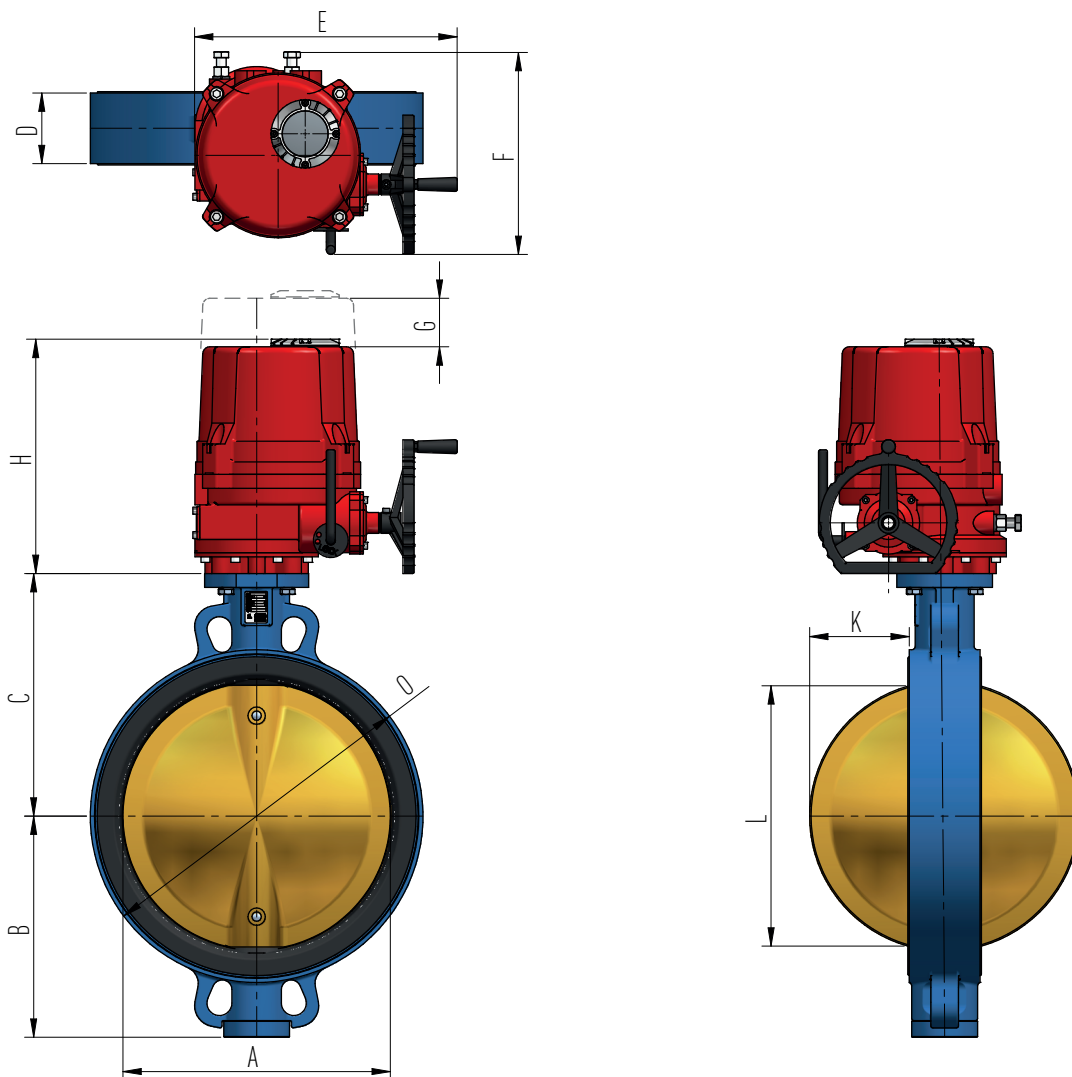


SIZE	PNEUMATIC	A	B	C	D	E	F	G	H	K	L	O	P	WEIGHT ± Kg
DN 40	ALFA - 063 SR	41	58	113	33	88	114	169	82	4	24	72	N/A	4,6
DN 50	ALFA - 063 SR	52	65	118	43	88	114	169	82	5	27	93	N/A	5,9
DN 65	ALFA - 063 SR	63	89	126	46	88	114	169	82	9	43	108	N/A	6,9
DN 80	ALFA - 075 SR	78	96	133	46	100	114	201	82	16	62	124	N/A	7,9
DN 100	ALFA - 083 SR	103	113	147	52	108	114	209	82	26	90	152	N/A	10
DN 125	ALFA - 092 SR	125	130	160	56	120	114	242	108	34	110	177	N/A	13,7
DN 150	ALFA - 105 SR	155	146	180	56	133	114	275	122	50	145	210	N/A	17,4
DN 200	ALFA - 140 SR	201	177	204	60	232	114	385	153	71	193	265	N/A	31,6
DN 250	ALFA - 140 SR	249	205	245	68	172	114	385	153	91	241	313	N/A	37,8
DN 300	ALFA - 160 SR	302	239	270	78	197	114	450	174	112	291	371	N/A	58,4
DN 350	ALFA - 190 SR	340	295	315	78	230	124	507	206	128	324	434	80	95
DN 400	ALFA - 210 SR	397	319	350	102	255	124	562	226	144	376	480	80	131
DN 450	ALFA - 240 SR	438	352	375	114	290	124	646	258	163	426	536	70	189
DN 500	ALFA - 240 SR	489	387	415	127	290	124	646	258	182	475	590	70	220
DN 600	ALFA - 300 SR	590	453	562	154	354	124	748	330	219	572	693	N/A	354

* The details of this datasheet are subject to change without prior notification.

WAFER TYPE S57

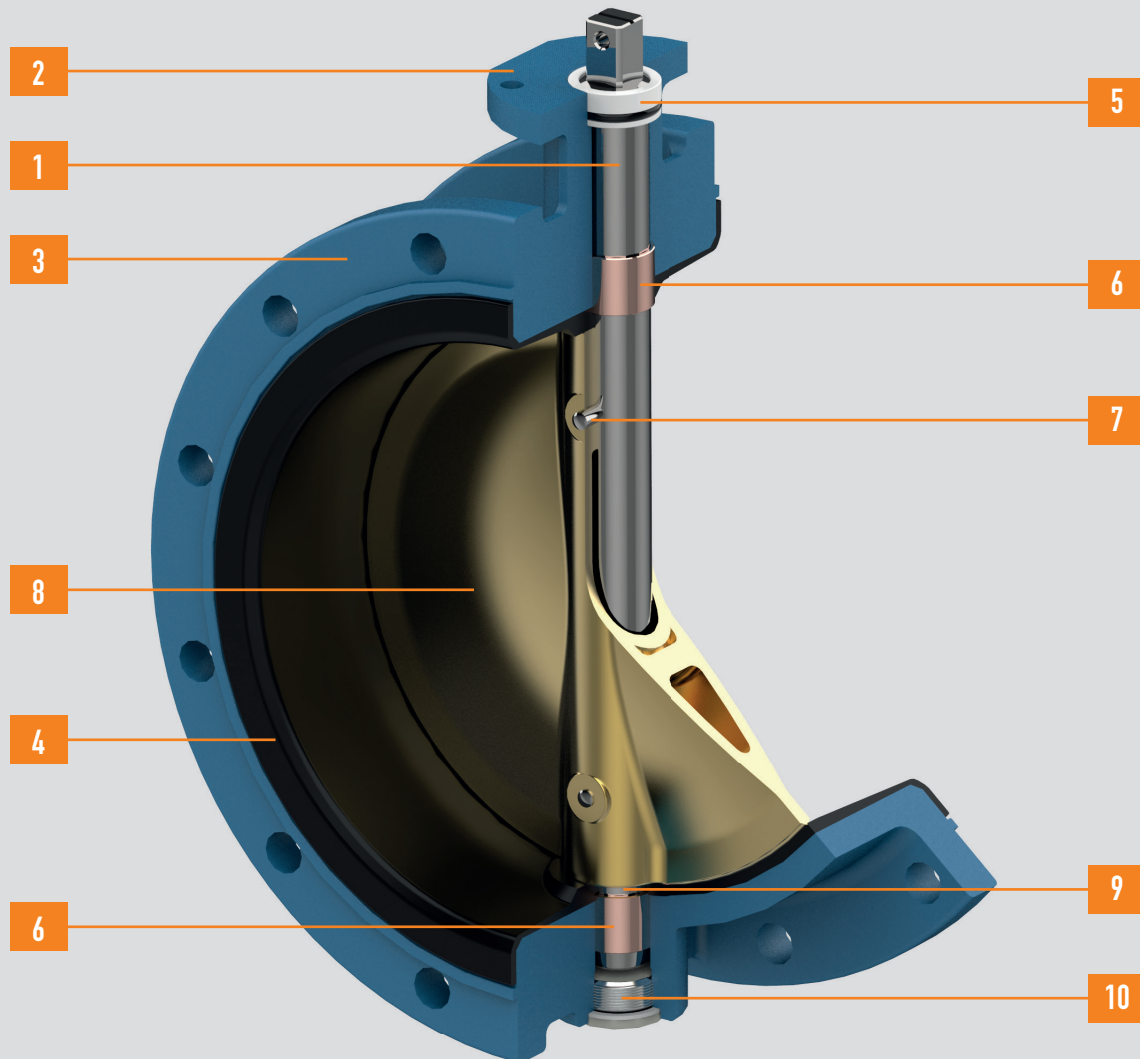
ELECTRIC ACTUATOR DN40 - DN600



SIZE	ELECTRIC	A	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 40	ITQ - 160	41	58	113	33	388	229	140	284	4	24	72	16,5
DN 50	ITQ - 160	52	65	118	43	388	229	140	284	5	27	93	17,8
DN 65	ITQ - 160	63	89	126	46	388	229	140	284	9	43	108	18,8
DN 80	ITQ - 160	78	96	133	46	388	229	140	284	16	62	124	19,0
DN 100	ITQ - 160	103	113	147	52	388	229	140	284	26	90	152	20,4
DN 125	ITQ - 160	125	130	160	56	388	229	140	284	34	110	177	22,5
DN 150	ITQ - 160	155	146	180	56	388	229	140	284	50	145	210	24,5
DN 200	ITQ - 240	201	177	204	60	388	229	140	284	71	193	265	29,0
DN 250	ITQ - 500	249	205	245	68	357	244	170	313	91	241	313	41,2
DN 300	ITQ - 500	302	239	270	78	357	244	170	313	112	291	371	53,4
DN 350	ITQ - 500	340	295	315	78	357	244	170	313	128	324	434	76,2
DN 400	ITQ - 800	397	319	350	102	380	287	195	338	144	376	480	100,0
DN 450	ITQ - 1100	438	352	375	114	380	287	195	338	163	426	536	131,0
DN 500	ITQ - 2000	489	387	415	127	440	375	225	385	182	475	590	180,0
DN 600	ITQ - 2000	590	453	562	154	440	375	225	385	219	572	693	253,0

* The details of this datasheet are subject to change without prior notification.

DOUBLE FLANGED TYPE S46



1 TOP AND BOTTOM SHAFT

- Rigid 1 piece shaft
- High accuracy polished material
- ISO fit system
- High strength stainless steel
- Square shaft end with position indication
- Available in various materials

- Certified material from Maritime classification societies approved foundries
- Extreme High Strength body, during vulcanization body is exposed to internal pressures of up to 150 barg
- Extra reinforced centering lugs for centering and end of line service
- Easy to mount, install and forget

- Suitable for end of line service
- Suitable for vacuum and high fluid velocity applications
- Suitable for dry service
- Available in various materials

- Vibration proof
- Shaft to disc connection
- Available in various materials

2 EN ISO 5211 Top Flange

- for Direct Mount of
- Hand levers
- Gear boxes
- Pneumatic actuators
- Electric actuators
- Hydraulic actuators

4 BONDED LINER

- High accuracy bonded liner fully vulcanized to body
- Vulcanization in precision machined transfer molding tools
- Repeatable accurate liner dimensions
- Reliable low torque figures
- No corrosion between liner and body
- No flange gasket required
- No rolling up of liner
- Long life liner
- Non collapsible, stretch resistant, blow out proof liner

5 ADDITIONAL SUPPORT

- Preventing shaft distortion and ensuring low torque values
- Preventing foreign matter from entering the valve

8 DISC

- Streamlined disc for low pressure loss in fully open position
- Precision machined
- Bubble tight shut off
- Low torque

3 BODY

- Standard EN JS1030 Nodular Cast Iron body, painted in RAL 5011 (60µm 2 layer coating)

6 TOP AND BOTTOM BEARINGS

- S.S. PAP high accuracy bearings
- Self lubricating
- ISO fit system
- Perfect alignment of valve shaft

9 SHAFT SEALING SYSTEM

- Top and bottom shaft sealing with primary and secondary sealing system

7 PRECISION PIN(S)

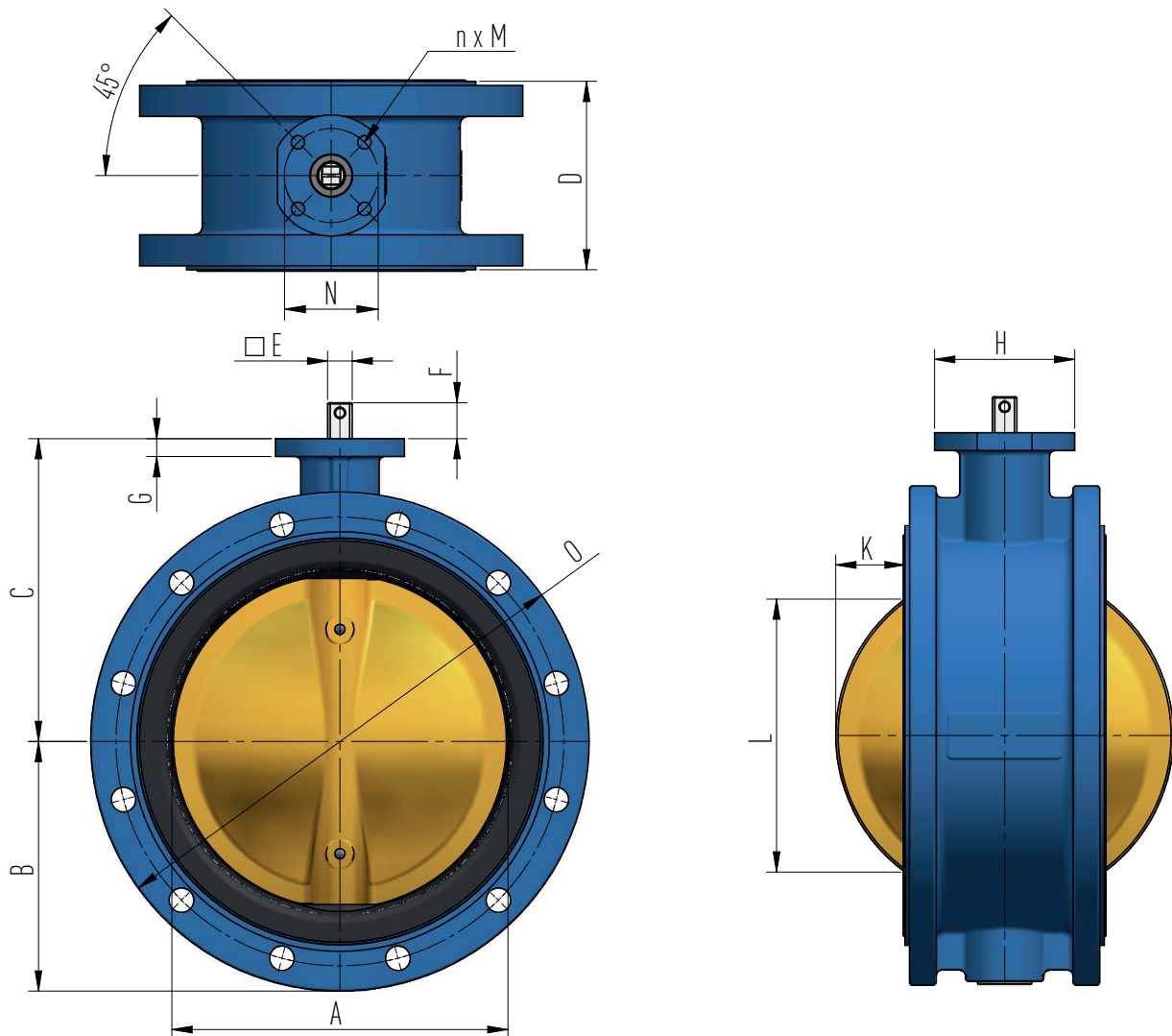
- High accuracy polished pin(s)
- Press fitted in through; no leakage over pin

10 PLUG AND GASKET

- Bottom shaft support
- Safety sealing system

DOUBLE FLANGED TYPE S46

BARE SHAFT DN40 - DN1200

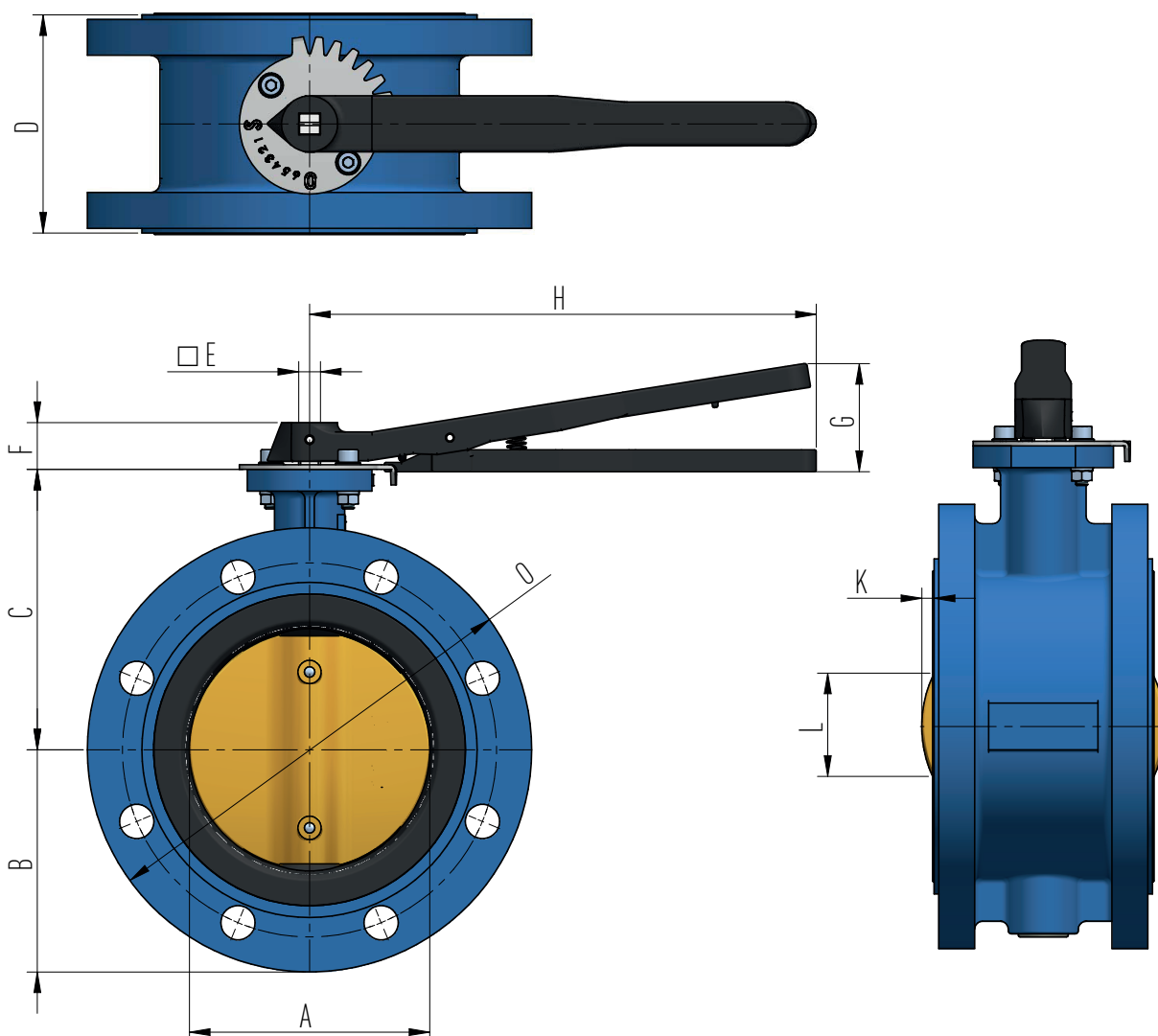


SIZE	A	B	C	D	E	F	G	TOPFLANGE				K	L	O	WEIGHT ± Kg
								ISO 5211	H	N	n X M				
DN 40	41	75,0	113	106	[] 11	26	12	F07	ø90	ø70	4 x ø10	-	-	150	5,5
DN 50	52	82,5	118	108	[] 11	26	12	F07	ø90	ø70	4 x ø10	-	-	165	7,5
DN 65	63	92,5	126	112	[] 11	26	13	F07	ø90	ø70	4 x ø10	-	-	185	9,0
DN 80	78	100,0	133	114	[] 11	26	14	F07	ø90	ø70	4 x ø10	-	-	200	10,7
DN 100	103	110,0	147	127	[] 11	26	14	F07	ø90	ø70	4 x ø10	-	-	220	13,6
DN 125	125	125,0	160	140	[] 14	28	14	F07	ø90	ø70	4 x ø10	-	-	250	19,3
DN 150	155	142,5	180	140	[] 14	28	14	F07	ø90	ø70	4 x ø10	8	69	285	22,7
DN 200	201	170,0	204	152	[] 17	30	14	F07	ø90	ø70	4 x ø10	25	134	340	32,4
DN 250	249	197,5	245	165	[] 22	30	15	F10	ø125	ø102	4 x ø12	43	189	395	49,4
DN 300	302	222,5	270	178	[] 22	32	16	F10	ø125	ø102	4 x ø12	62	244	445	58,6
DN 350	340	252,5	315	190	[] 27	29	20	F12	ø175	ø125	4 x ø14	72	275	505	89,2
DN 400	397	282,5	350	216	[] 27	29	20	F12	ø175	ø125	4 x ø14	87	325	565	109,3
DN 450	438	353	375	222	[] 36	38	20	F14	ø175	ø140	4 x ø18	109	381	615	135
DN 500	489	387	415	229	[] 36	38	20	F14	ø175	ø140	4 x ø18	131	435	670	172
DN 600	590	453	562	267	[] 46	48	25	F16	ø210	ø165	4 x ø22	163	529	780	256
DN 700	692	491	560	292	[] 46	55	25	F16	ø175	ø140	4 x ø18	202	631	895	350
DN 800	792	550	620	318	[] 55	50	30	F25	ø300	ø254	4 x ø18	238	728	1055	540
DN 900	861	615	675	330	[] 55	50	30	F25	ø300	ø254	4 x ø18	267	799	1115	650
DN 1000	961	670	735	410	[] 55	50	30	F25	ø300	ø254	4 x ø18	277	873	1230	850
DN 1200	1156	788	917	470	[] 60	60	35	F30	ø350	ø298	4 x ø22	345	1059	1455	1375

* The details of this datasheet are subject to change without prior notification.

DOUBLE FLANGED TYPE S46

LEVER OPERATED DN40 - DN200

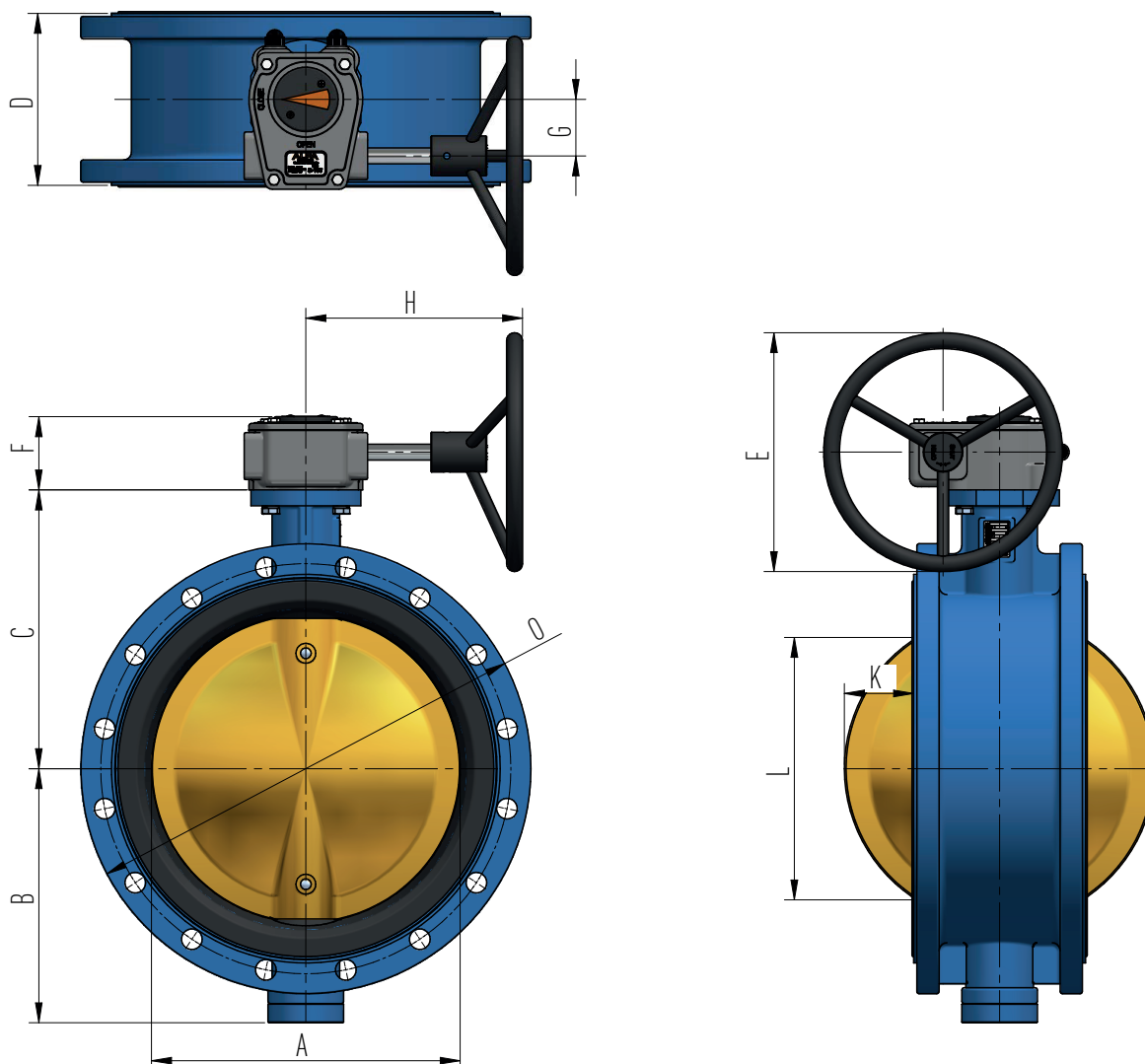


SIZE	A	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 40	41	75	113	106	[] 11	26	56	223	-	-	150	6,3
DN 50	52	82,5	118	108	[] 11	26	56	223	-	-	165	8,3
DN 65	63	82,5	126	112	[] 11	26	56	223	-	-	185	9,8
DN 80	78	92,5	133	114	[] 11	26	56	223	-	-	200	11,5
DN 100	103	100,0	147	127	[] 11	26	56	223	-	-	220	14,4
DN 125	125	110,0	160	140	[] 14	28	68	325	-	-	250	20,6
DN 150	155	125,0	180	140	[] 14	28	68	325	8	69	285	24,0
DN 200	201	170	204	152	[] 17	30	68	325	25	134	340	33,7

* The details of this datasheet are subject to change without prior notification.

DOUBLE FLANGED TYPE S46

GEARBOX OPERATED DN40 - DN1000



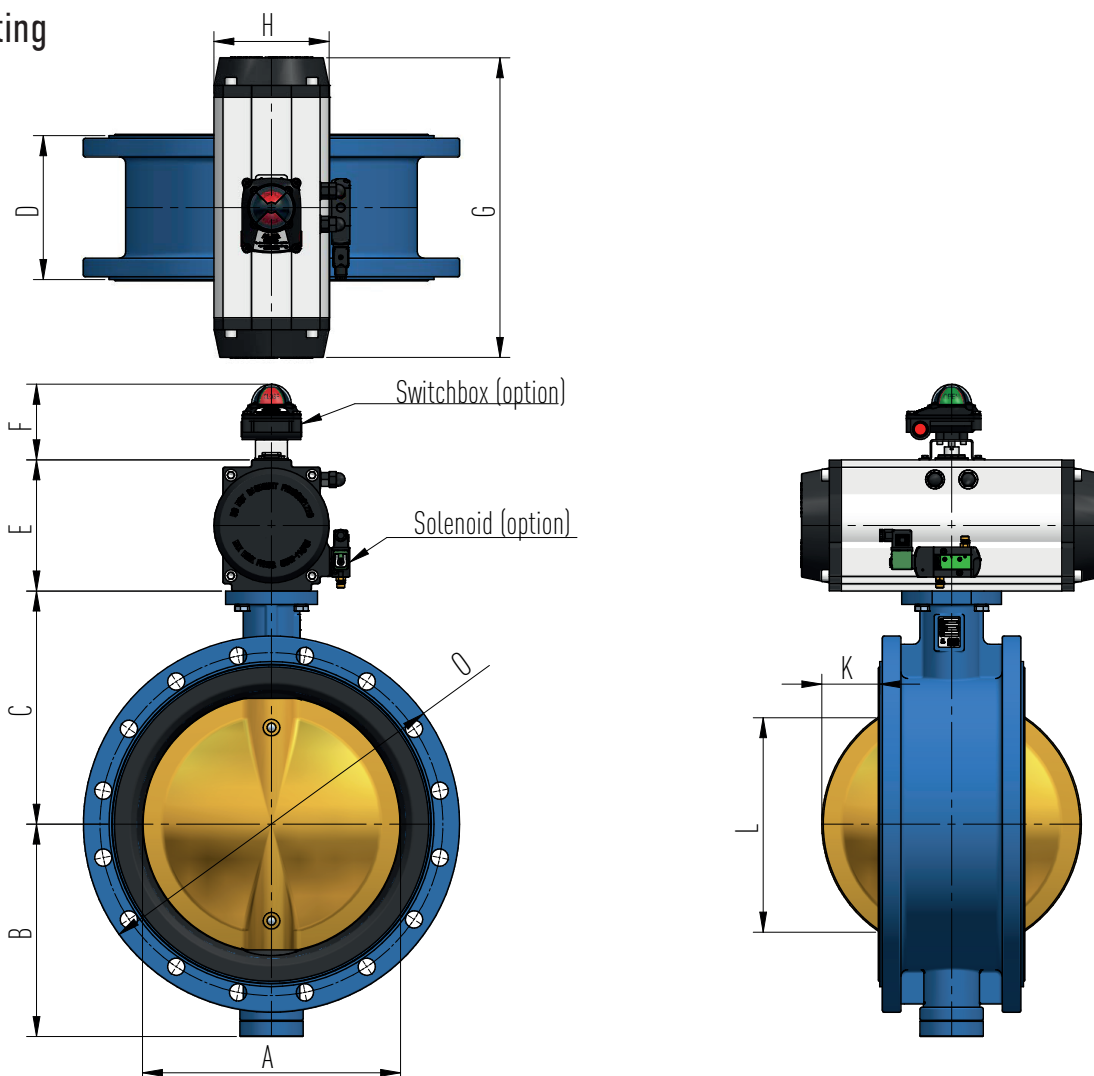
SIZE	GEARBOX	A	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 40	ALFA - 12	41	75,0	113	106	SP-100	50	36,5	114	-	-	150	9,0
DN 50	ALFA - 12	52	82,5	118	108	SP-100	50	36,5	114	-	-	165	11,0
DN 65	ALFA - 12	63	92,5	126	112	SP-100	50	36,5	114	-	-	185	12,5
DN 80	ALFA - 12	78	100,0	133	114	SP-100	50	36,5	114	-	-	200	14,2
DN 100	ALFA - 12	103	110,0	147	127	SP-100	50	36,5	114	-	-	220	17,1
DN 125	ALFA - 12	125	125,0	160	140	SC-150	50	36,5	114	-	-	250	22,8
DN 150	ALFA - 12	155	142,5	180	140	SC-150	50	36,5	114	8	69	285	26,2
DN 200	ALFA - 25	201	170,0	204	152	SC-150	62	44,6	151	25	134	340	35,9
DN 250	ALFA - 55	249	197,5	245	165	SW-250	73	55	235	43	189	395	56,1
DN 300	ALFA - 55	302	222,5	270	178	SW-250	73	55	235	62	244	445	65,3
DN 350	ALFA - 100	340	252,5	315	190	SW-300	95	71	272	72	275	505	101,9
DN 400	ALFA - 100	397	282,5	350	216	SW-300	95	71	272	87	325	565	122,0
DN 450	ALFA - 200	438	353	375	222	SW-400	102	86	310	109	381	615	155,0
DN 500	ALFA - 200	489	387	415	229	SW-400	102	86	310	131	435	670	192,0
DN 600	ALFA - 350	590	453	562	267	SW-500	106	104,5	336	163	529	780	282,0
DN 700	ALFA - 700 / 6	692	491	560	292	SW-500	125	130	420	265	676	800	320
DN 800	ALFA - 900 / 4	792	550	620	318	SW-500	123	150	435	302	772	905	455
DN 900	ALFA - 1100 / 6	861	615	675	330	SW-500	123	150	435	330	840	1005	600
DN 1000	ALFA - 1100 / 6	961	668	735	410	SW-500	123	150	435	374	940	1115	750

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DOUBLE FLANGED TYPE S46

PNEUMATIC ACTUATOR (DA) DN40 - DN1000

Double acting



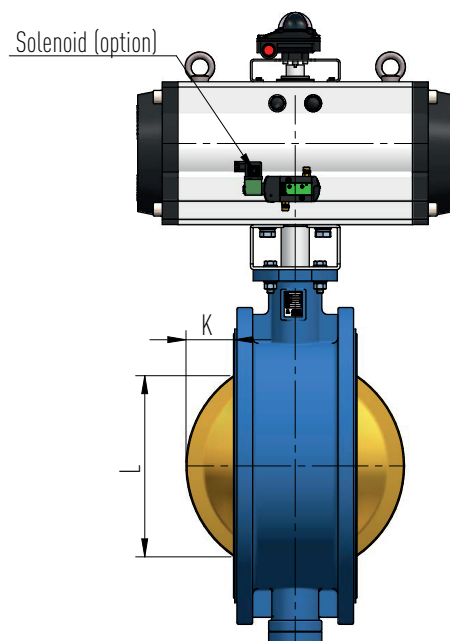
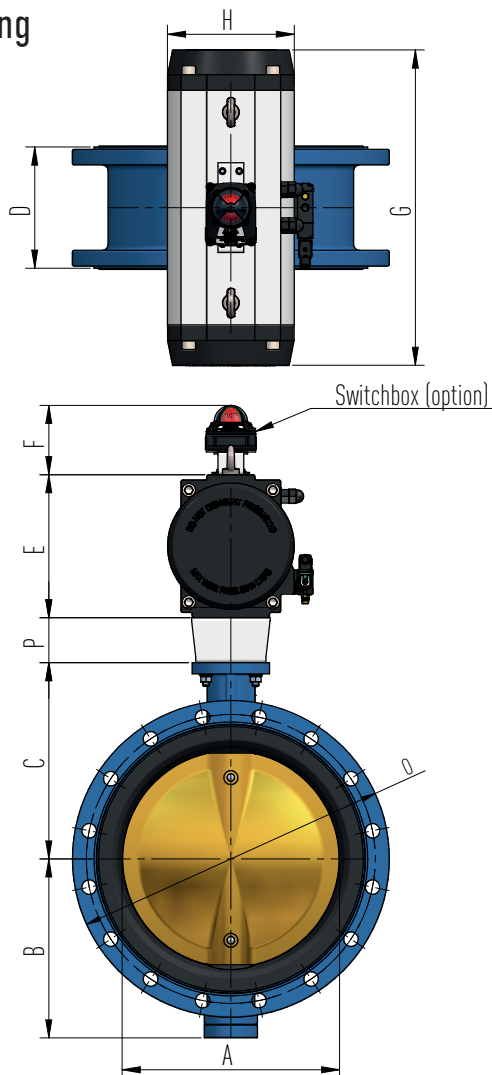
SIZE	PNEUMATIC	A	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 40	ALFA - 063 D	41	75,0	113	106	88	114	169	82	-	-	150	8,6
DN 50	ALFA - 063 D	52	82,5	118	108	88	114	169	82	-	-	165	10,6
DN 65	ALFA - 063 D	63	92,5	126	112	88	114	169	82	-	-	185	12,1
DN 80	ALFA - 063 D	78	100,0	133	114	88	114	169	82	-	-	200	13,8
DN 100	ALFA - 063 D	103	110,0	147	127	88	114	169	82	-	-	220	16,7
DN 125	ALFA - 075 D	125	125,0	160	140	100	114	201	94	-	-	250	23,0
DN 150	ALFA - 083 D	155	142,5	180	140	108	114	209	101	8	69	285	28,3
DN 200	ALFA - 105 D	201	170,0	204	152	133	114	275	122	25	134	340	40,2
DN 250	ALFA - 125 D	249	197,5	245	165	155	114	332	138	43	189	395	59,3
DN 300	ALFA - 140 D	302	222,5	270	178	172	114	385	153	62	244	445	72,9
DN 350	ALFA - 140 D	340	252,5	315	190	172	114	385	153	72	275	505	103,5
DN 400	ALFA - 160 D	397	282,5	350	216	197	114	450	174	87	325	565	130,5
DN 450	ALFA - 190 D	438	353	375	222	230	124	507	206	109	381	615	167,3
DN 500	ALFA - 210 D	489	387	415	229	255	124	562	226	131	435	670	215,6
DN 600	ALFA - 240 D	590	453	562	267	290	124	646	258	163	529	780	324,3
DN 700	ALFA - 270 D	692	491	560	292	320	124	722	292	202	631	895	448
DN 800	ALFA - 350 D	792	550	620	318	410	144	866	385	238	728	1055	684
DN 900	ALFA - 350 D	861	615	675	330	410	144	866	385	267	799	1115	794
DN 1000	ALFA - 350 D	1156	670	735	410	410	144	866	385	277	873	1230	994

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DOUBLE FLANGED TYPE S46

PNEUMATIC ACTUATOR (SR) DN40 - DN600

Single acting

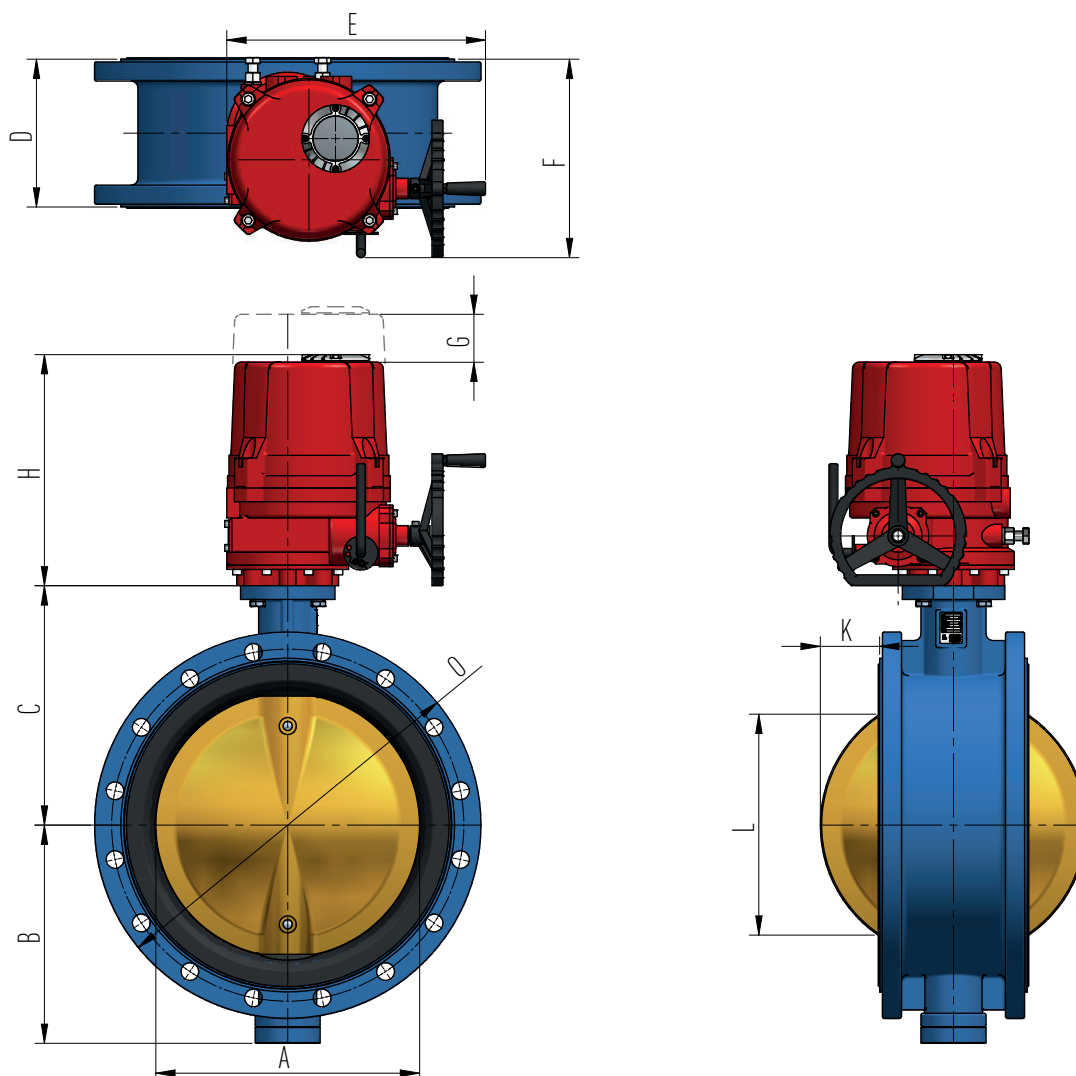


SIZE	PNEUMATIC	A	B	C	D	E	F	G	H	K	L	O	P	WEIGHT ± Kg
DN 40	ALFA - 063 SR	41	75,0	113	106	88	114	169	82	-	-	150	N/A	8,6
DN 50	ALFA - 063 SR	52	82,5	118	108	88	114	169	82	-	-	165	N/A	10,6
DN 65	ALFA - 063 SR	63	92,5	126	112	88	114	169	82	-	-	185	N/A	12,1
DN 80	ALFA - 075 SR	78	100,0	133	114	100	114	201	82	-	-	200	N/A	14,6
DN 100	ALFA - 083 SR	103	110,0	147	127	108	114	209	82	-	-	220	N/A	18,2
DN 125	ALFA - 092 SR	125	125,0	160	140	120	114	242	108	-	-	250	N/A	25,5
DN 150	ALFA - 105 SR	155	142,5	180	140	133	114	275	122	8	69	285	N/A	30,6
DN 200	ALFA - 140 SR	201	170,0	204	152	232	114	385	153	25	134	340	N/A	49,0
DN 250	ALFA - 140 SR	249	197,5	245	165	172	114	385	153	43	189	395	N/A	66,0
DN 300	ALFA - 160 SR	302	222,5	270	178	197	114	450	174	62	244	445	N/A	83,6
DN 350	ALFA - 190 SR	340	252,5	315	190	230	124	507	206	72	275	80	80	505
DN 400	ALFA - 210 SR	397	282,5	350	216	255	124	562	226	87	325	80	80	565
DN 450	ALFA - 240 SR	438	353	375	222	290	124	646	258	109	381	70	70	615
DN 500	ALFA - 240 SR	489	387	415	229	290	124	646	258	131	435	70	70	670
DN 600	ALFA - 300 SR	590	453	562	267	354	124	748	330	163	529	N/A	N/A	780

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DOUBLE FLANGED TYPE S46

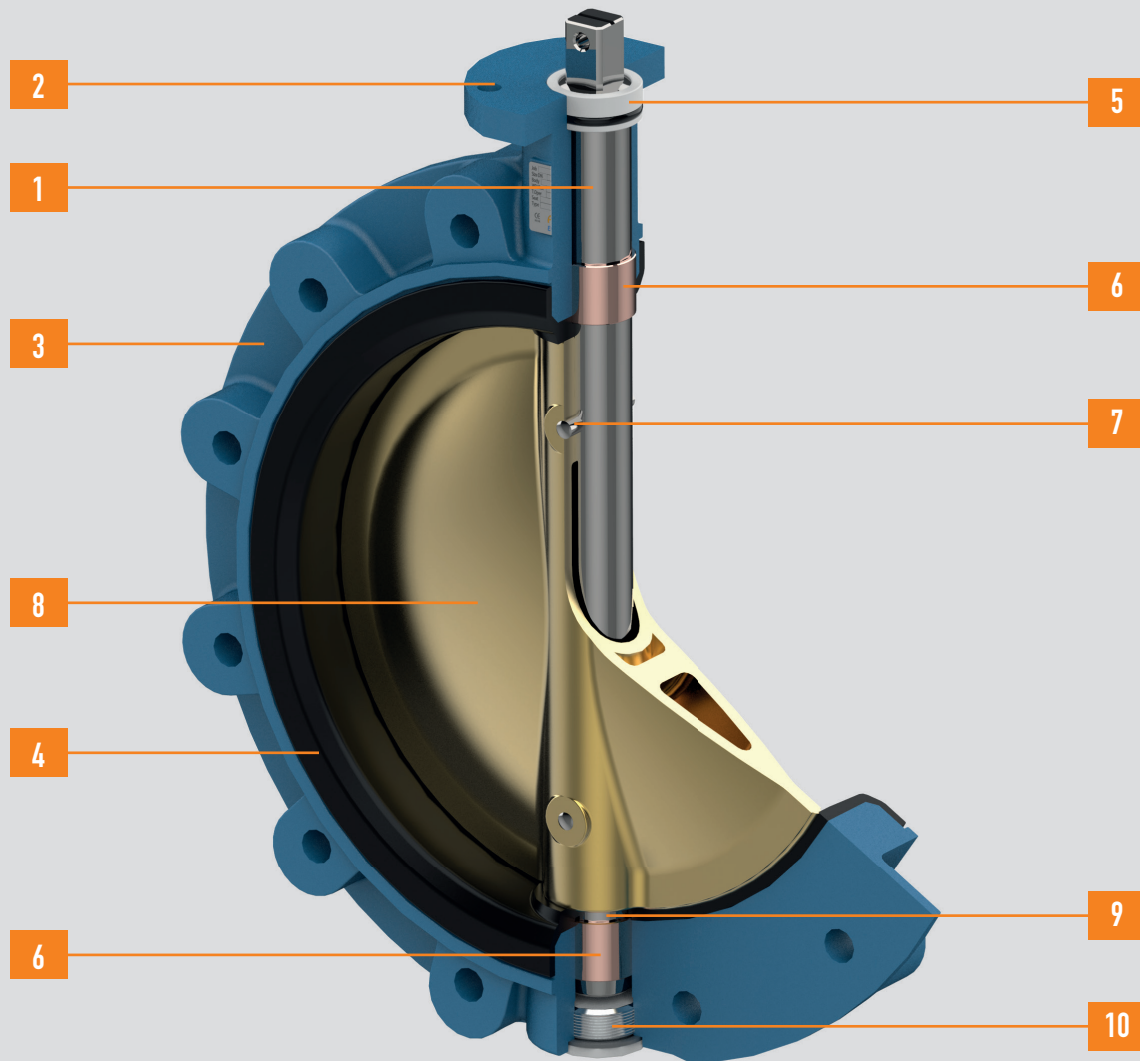
ELECTRIC ACTUATOR DN40 - DN600



SIZE	ELECTRIC	A	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 40	ITQ - 160	41	75,0	113	106	338	229	140	284	-	-	150	20,5
DN 50	ITQ - 160	52	82,5	118	108	338	229	140	284	-	-	165	22,5
DN 65	ITQ - 160	63	92,5	126	112	338	229	140	284	-	-	185	24,0
DN 80	ITQ - 160	78	100,0	133	114	338	229	140	284	-	-	200	25,7
DN 100	ITQ - 160	103	110,0	147	127	338	229	140	284	-	-	220	28,6
DN 125	ITQ - 160	125	125,0	160	140	338	229	140	284	-	-	250	34,3
DN 150	ITQ - 160	155	142,5	180	140	338	229	140	284	8	69	285	37,7
DN 200	ITQ - 240	201	170	204	152	338	229	140	284	25	134	340	47,4
DN 250	ITQ - 350	249	197,5	245	165	357	244	170	313	43	189	395	69,4
DN 300	ITQ - 500	302	222,5	270	178	357	244	170	313	62	244	445	78,6
DN 350	ITQ - 500	340	252,5	315	190	357	244	170	313	72	275	505	109,2
DN 400	ITQ - 800	397	282,5	350	216	380	287	195	338	87	325	565	134,3
DN 450	ITQ - 1100	438	353,0	375	222	380	287	195	338	109	381	615	160,0
DN 500	ITQ - 2000	489	387,0	415	229	440	375	225	385	131	435	670	214,0
DN 600	ITQ - 2000	590	453,0	562	267	440	375	225	385	163	529	780	298

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LUG TYPE S64



1 TOP AND BOTTOM SHAFT

- Rigid 1 piece shaft
- High accuracy polished material
- ISO fit system
- High strength stainless steel
- Square shaft end with position indication
- Available in various materials

- Certified material from Maritime classification societies approved foundries
- Extreme High Strength body, during vulcanization body is exposed to internal pressures of up to 150 barg
- Extra reinforced centering lugs for centering and end of line service
- Easy to mount, install and forget

- Suitable for end of line service
- Suitable for vacuum and high fluid velocity applications
- Suitable for dry service
- Available in various materials

- Vibration proof
- Shaft to disc connection
- Available in various materials

2 EN ISO 5211 Top Flange

- Hand levers
- Gear boxes
- Pneumatic actuators
- Electric actuators
- Hydraulic actuators

4 BONDED LINER

- High accuracy bonded liner fully vulcanized to body
- Vulcanization in precision machined transfer molding tools
- Repeatable accurate liner dimensions
- Reliable low torque figures
- No corrosion between liner and body
- No flange gasket required
- No rolling up of liner
- Long life liner
- Non collapsible, stretch resistant, blow out proof liner

5 ADDITIONAL SUPPORT

- Preventing shaft distortion and ensuring low torque values
- Preventing foreign matter from entering the valve

8 DISC

- Streamlined disc for low pressure loss in fully open position
- Precision machined
- Bubble tight shut off
- Low torque

3 BODY

- Standard EN JS1030 Nodular Cast Iron body, painted in RAL 5011 (60µm 2 layer coating)

6 TOP AND BOTTOM BEARINGS

- S.S. PAP high accuracy bearings
- Self lubricating
- ISO fit system
- Perfect alignment of valve shaft

9 SHAFT SEALING SYSTEM

- Top and bottom shaft sealing with primary and secondary sealing system

10 PLUG AND GASKET

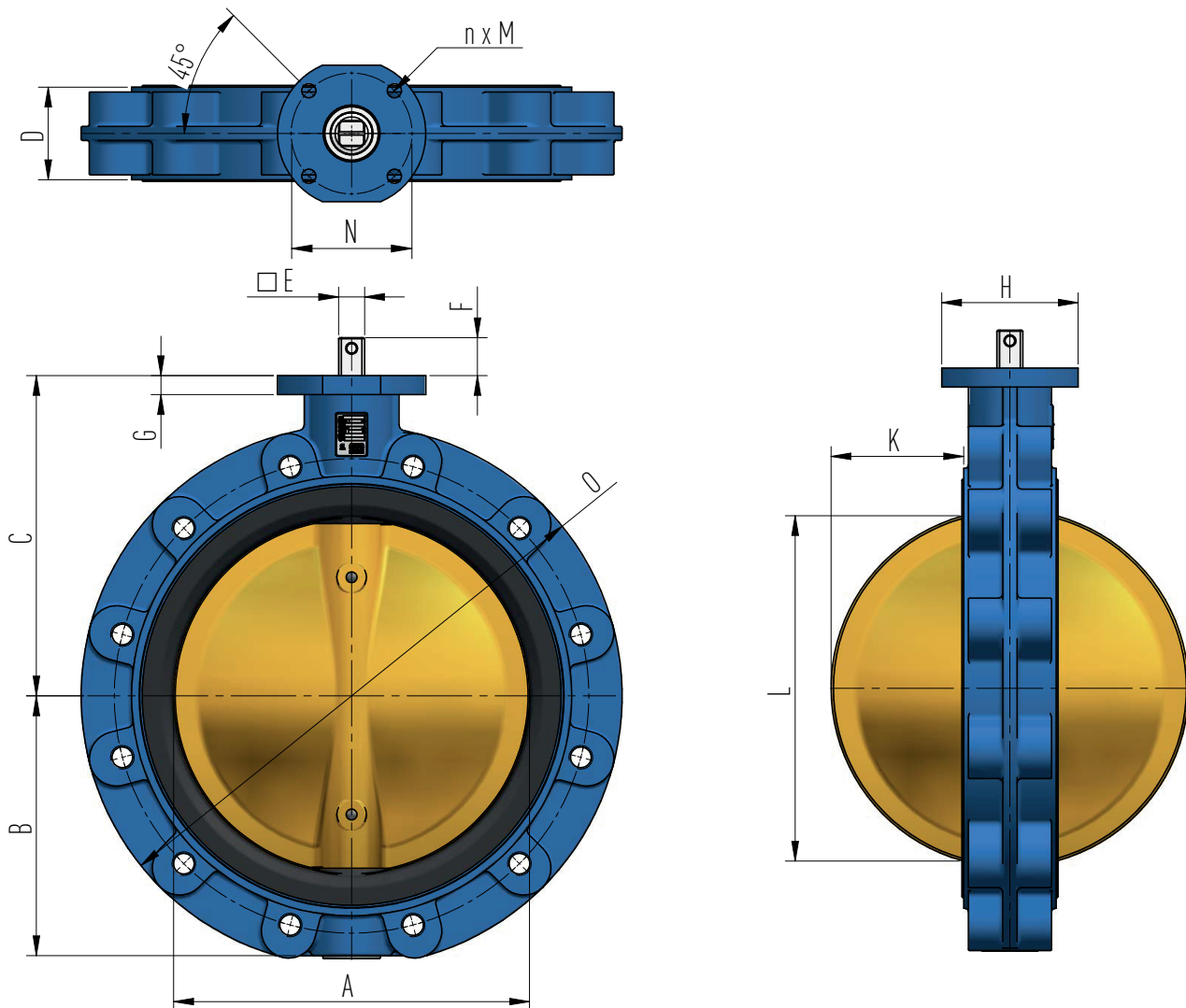
- Bottom shaft support
- Safety sealing system

7 PRECISION PIN(S)

- High accuracy polished pin(s)
- Press fitted in through; no leakage over pin

LUG TYPE S64

BARE SHAFT DN40 - DN1200

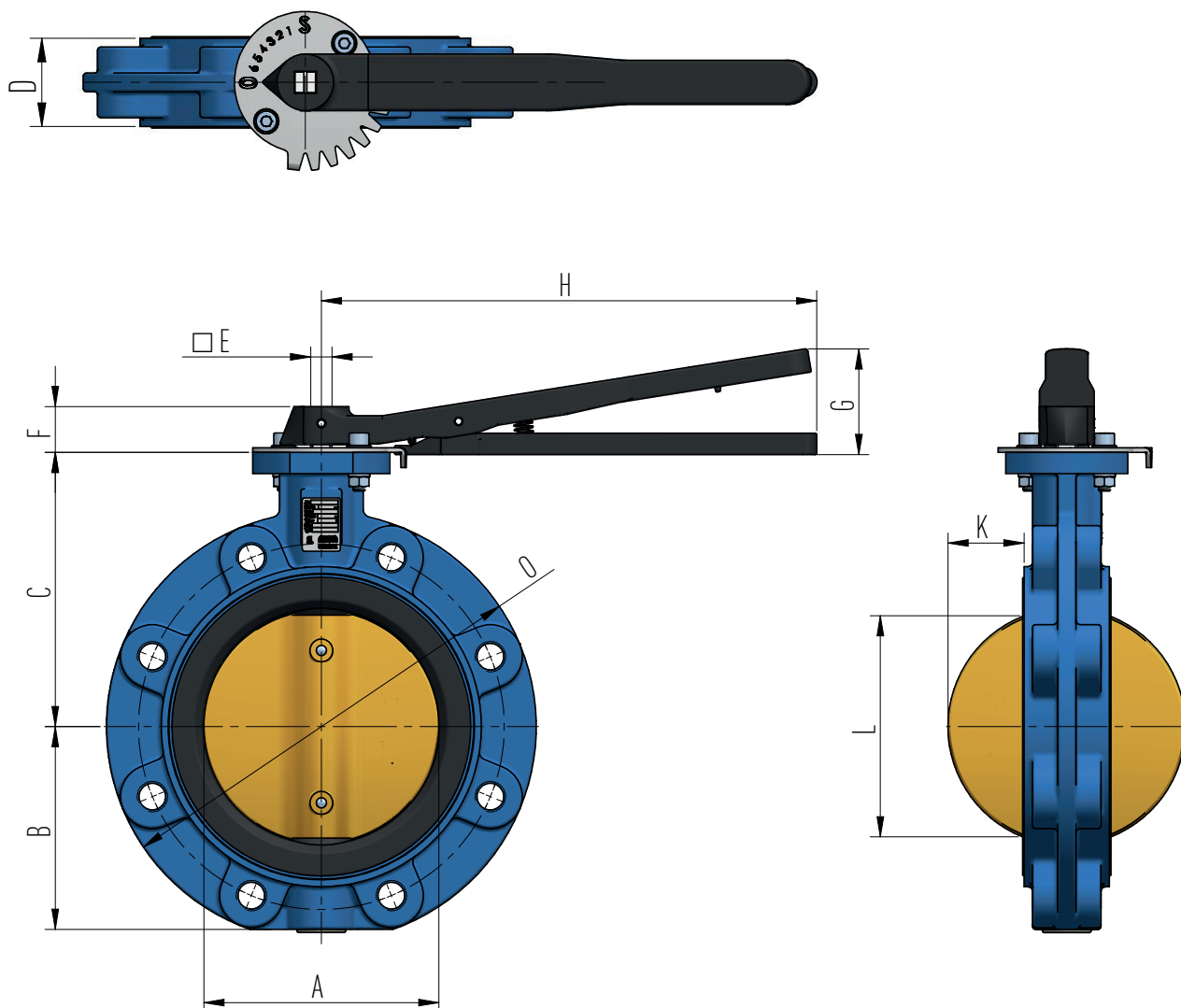


SIZE	A	B	C	D	E	F	G	TOPFLANGE				K	L	O	WEIGHT ± Kg
								ISO 5211	H	N	n X M				
DN 40	41	58	113	33	[] 11	26	12	F07	ø90	ø70	4 x ø10	5	27	147	2,6
DN 50	52	65	118	43	[] 11	26	12	F07	ø90	ø70	4 x ø10	5	31	162	3,8
DN 65	63	73	126	46	[] 11	26	13	F07	ø90	ø70	4 x ø10	9	45	182	4,7
DN 80	78	95	133	46	[] 11	26	14	F07	ø90	ø70	4 x ø10	16	64	197	6,3
DN 100	103	102	147	52	[] 11	26	14	F07	ø90	ø70	4 x ø10	26	90	217	7,9
DN 125	125	116	160	56	[] 14	28	14	F07	ø90	ø70	4 x ø10	34	110	247	10,4
DN 150	155	133	180	56	[] 14	28	14	F07	ø90	ø70	4 x ø10	50	146	282	13,0
DN 200	201	160	204	60	[] 17	30	14	F07	ø90	ø70	4 x ø10	71	194	337	18,2
DN 250	249	194	245	68	[] 22	30	15	F10	ø125	ø102	4 x ø12	91	241	401	30,7
DN 300	302	221	270	78	[] 22	32	16	F10	ø125	ø102	4 x ø12	112	291	456	43,9
DN 350	340	295	315	78	[] 27	29	20	F12	ø175	ø125	4 x ø14	128	325	520	70,4
DN 400	397	319	350	102	[] 27	29	20	F12	ø175	ø125	4 x ø14	144	377	575	97,4
DN 450	438	353	375	114	[] 36	38	20	F14	ø175	ø140	4 x ø18	163	426	635	132
DN 500	489	387	415	127	[] 36	38	20	F14	ø175	ø140	4 x ø18	182	475	705	170
DN 600	590	453	562	154	[] 46	48	25	F16	ø210	ø165	4 x ø22	219	572	835	256
DN 700	692	491	560	165	[] 46	55	25	F16	ø175	ø140	4 x ø18	265	676	905	330
DN 800	792	550	620	190	[] 55	55	30	F25	ø300	ø254	4 x ø18	302	772	1012	450
DN 900	861	615	675	203	[] 55	60	30	F25	ø300	ø254	4 x ø18	330	840	1120	630
DN 1000	961	670	735	216	[] 55	60	30	F25	ø300	ø254	4 x ø18	374	940	1250	830
DN 1200	1156	775	917	254	[] 60	60	35	F30	ø350	ø298	4 x ø22	458	1142	1480	1420

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LUG TYPE S64

LEVER OPERATED DN40 - DN200

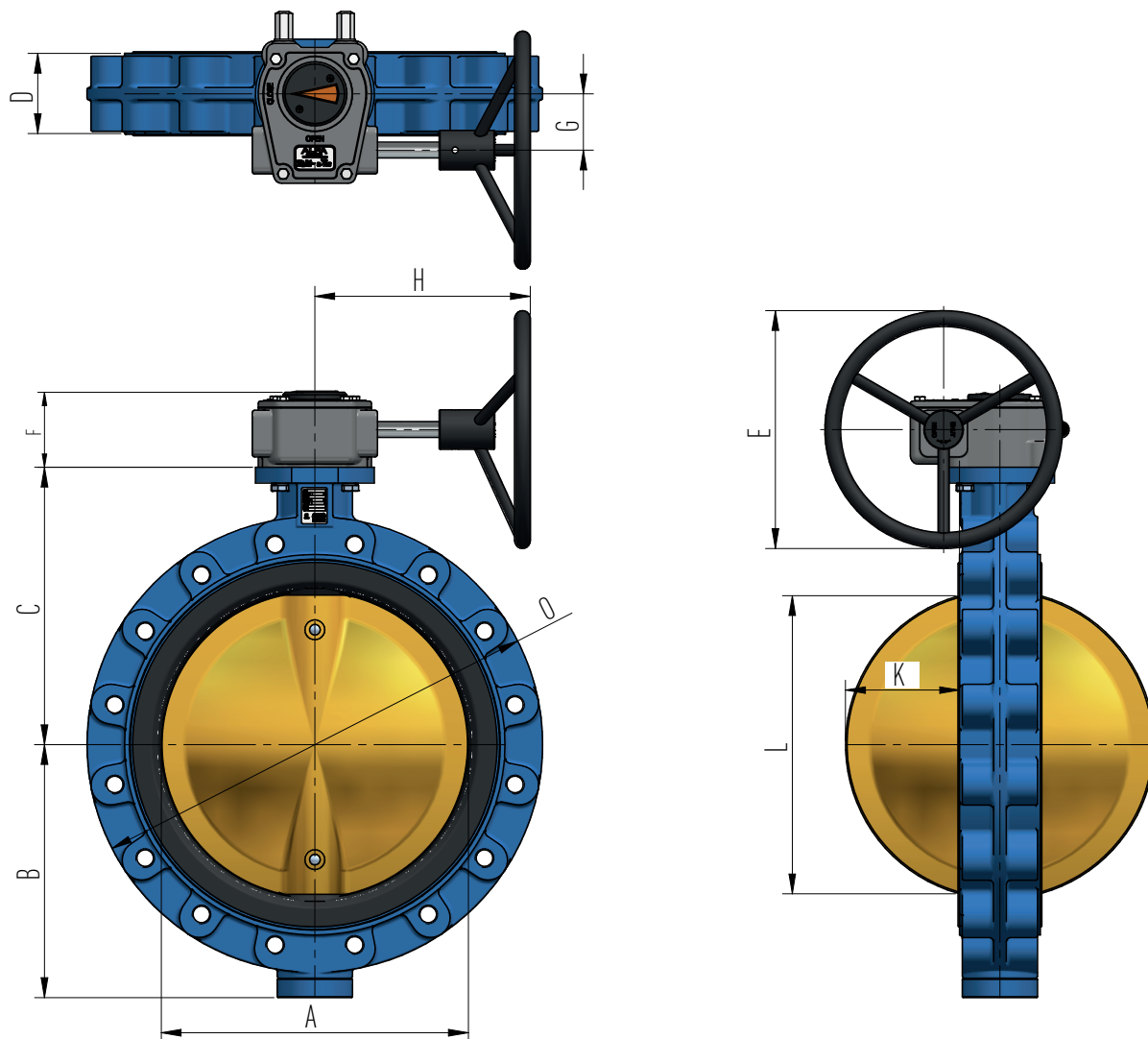


SIZE	A	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 40	41	58	113	33	[] 11	26	56	223	5	27	147	3,4
DN 50	52	65	118	43	[] 11	26	56	223	5	31	162	4,6
DN 65	63	73	126	46	[] 11	26	56	223	9	45	182	5,5
DN 80	78	95	133	46	[] 11	26	56	223	16	64	197	7,1
DN 100	103	102	147	52	[] 11	26	56	223	26	90	217	8,7
DN 125	125	116	160	56	[] 14	28	68	325	34	110	247	11,6
DN 150	155	133	180	56	[] 14	28	68	325	50	146	282	14,2
DN 200	201	160	204	60	[] 17	30	68	325	71	194	337	19,4

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LUG TYPE S64

GEARBOX OPERATED DN40 - DN1000

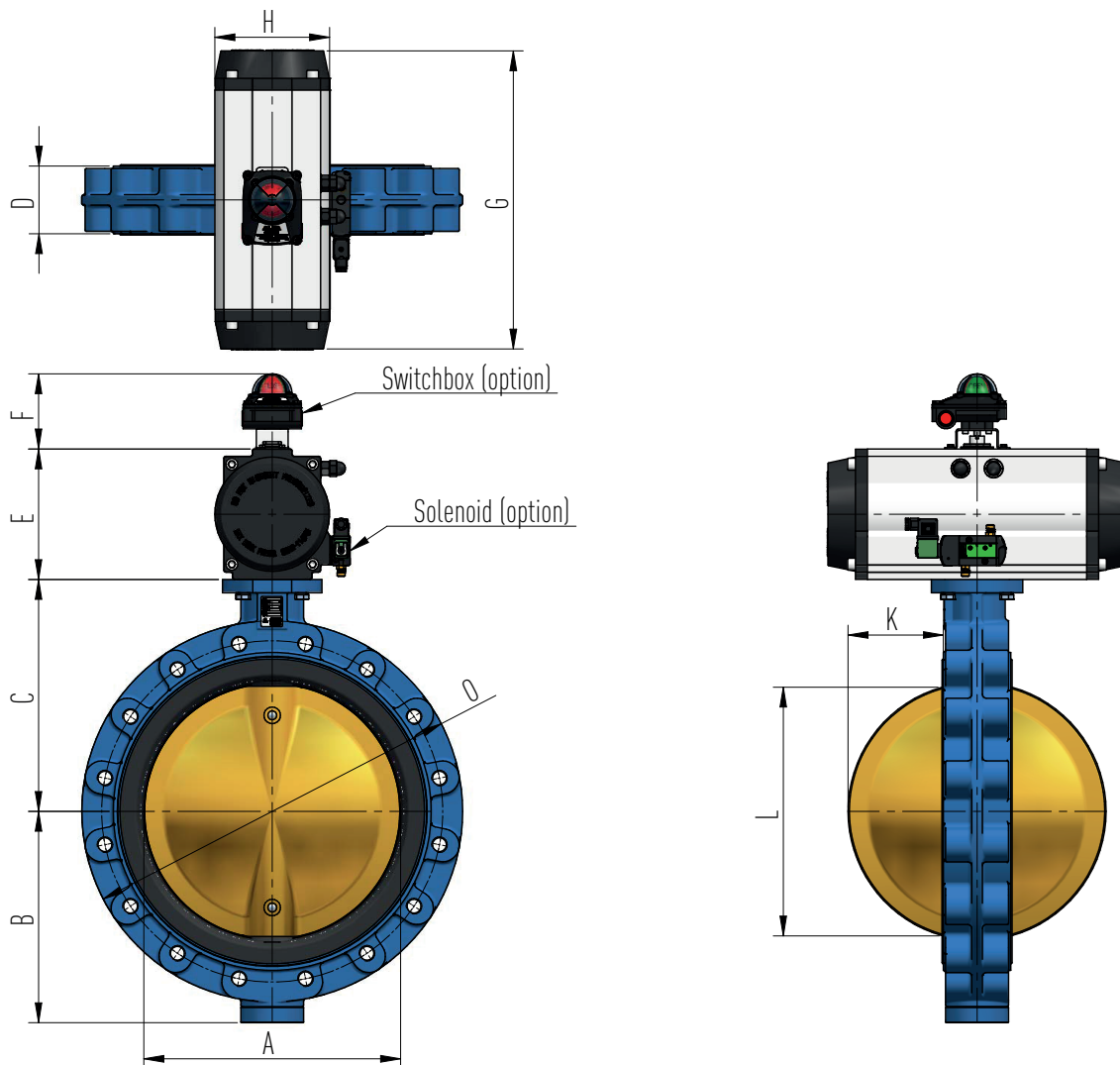


SIZE	GEARBOX	A	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 40	ALFA - 12	41	58	113	33	SP-100	50	36,5	114	4	24	147	6,1
DN 50	ALFA - 12	52	65	118	43	SP-100	50	36,5	114	5	27	162	7,3
DN 65	ALFA - 12	63	73	126	46	SP-100	50	36,5	114	9	43	182	8,2
DN 80	ALFA - 12	78	95	133	46	SP-100	50	36,5	114	16	62	197	9,8
DN 100	ALFA - 12	103	102	147	52	SP-100	50	36,5	114	26	90	217	11,4
DN 125	ALFA - 12	125	116	160	56	SC-150	50	36,5	114	34	110	247	13,9
DN 150	ALFA - 12	155	133	180	56	SC-150	50	36,5	114	50	145	282	16,5
DN 200	ALFA - 25	201	160	204	60	SC-150	62	44,6	151	71	193	337	21,7
DN 250	ALFA - 55	249	194	245	68	SW-250	73	55	235	91	241	401	37,4
DN 300	ALFA - 55	302	221	270	78	SW-250	73	55	235	112	291	456	50,6
DN 350	ALFA - 100	340	295	315	78	SW-300	95	71	272	128	324	520	83,1
DN 400	ALFA - 100	397	319	350	102	SW-300	95	71	272	144	376	575	110,1
DN 450	ALFA - 200	438	353	375	114	SW-400	102	86	310	163	426	635	151,5
DN 500	ALFA - 200	489	387	415	127	SW-400	102	86	310	182	475	705	190,0
DN 600	ALFA - 350	590	453	562	154	SW-500	106	104,5	336	219	572	835	281,7
DN 700	ALFA - 700 / 6	692	491	560	165	SW-500	125	130	420	265	676	800	320
DN 800	ALFA - 900 / 4	792	550	620	190	SW-500	123	150	435	302	772	905	455
DN 900	ALFA - 1100 / 6	861	615	675	203	SW-500	123	150	435	330	840	1005	600
DN 1000	ALFA - 1100 / 6	961	668	735	216	SW-500	123	150	435	374	940	1115	750

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LUG TYPE S64

PNEUMATIC ACTUATOR (DA) DN40 - DN1000

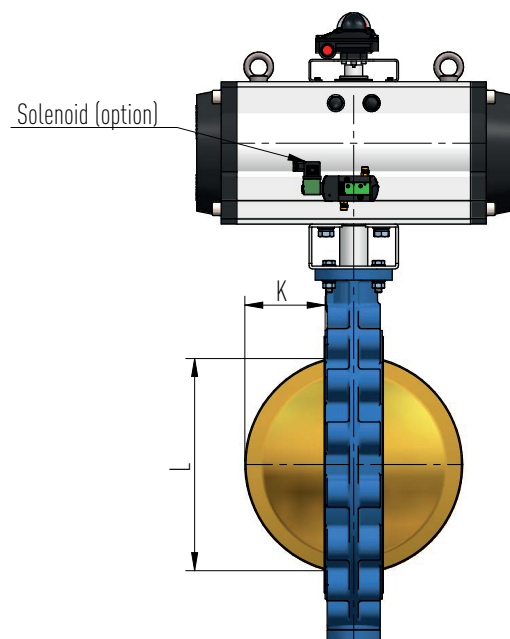
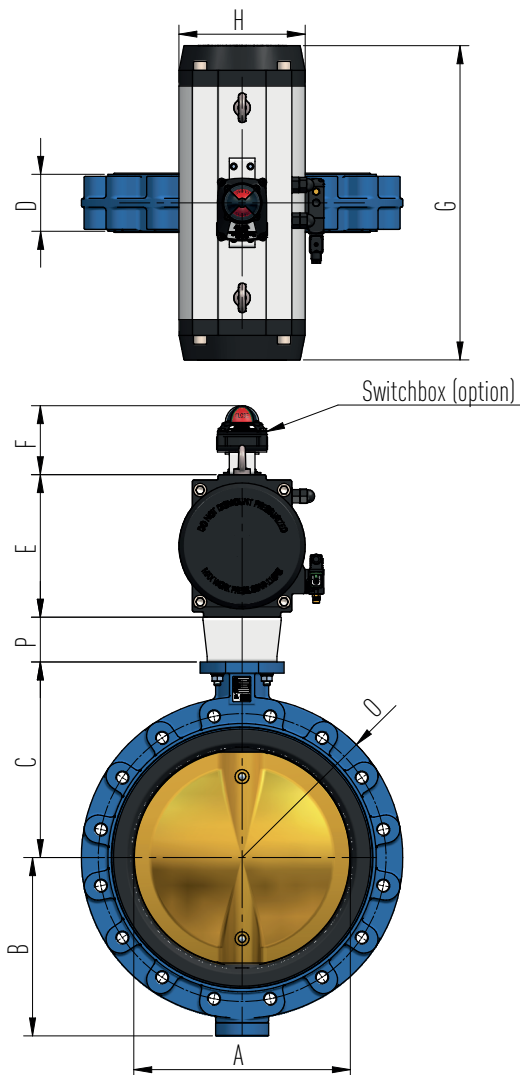


SIZE	PNEUMATIC	A	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 40	ALFA - 063 SR	41	58	113	33	88	114	169	82	5	27	147	5,7
DN 50	ALFA - 063 SR	52	65	118	43	88	114	169	82	5	31	162	6,9
DN 65	ALFA - 063 SR	63	73	126	46	88	114	169	82	9	45	182	7,8
DN 80	ALFA - 075 SR	78	95	133	46	100	114	201	82	16	64	197	10,2
DN 100	ALFA - 083 SR	103	102	147	52	108	114	209	82	26	90	217	12,5
DN 125	ALFA - 092 SR	125	116	160	56	120	114	242	108	34	110	247	16,6
DN 150	ALFA - 105 SR	155	133	180	56	133	114	275	122	50	146	282	20,9
DN 200	ALFA - 140 SR	201	160	204	60	232	114	385	153	71	194	337	34,8
DN 250	ALFA - 140 SR	249	194	245	68	172	114	385	153	91	241	401	47,3
DN 300	ALFA - 160 SR	302	221	270	78	197	114	450	174	112	325	456	68,9
DN 350	ALFA - 140 D	340	295	315	78	172	114	385	153	128	324	520	84,7
DN 400	ALFA - 160 D	397	319	350	102	197	114	450	174	144	376	575	118,6
DN 450	ALFA - 190 D	438	353	375	114	230	124	507	206	163	426	635	163,6
DN 500	ALFA - 210 D	489	387	415	127	255	124	562	226	182	475	705	213,6
DN 600	ALFA - 240 D	590	453	562	154	290	124	646	258	219	572	835	324,3
DN 700	ALFA - 270 D	692	491	560	165	320	124	722	292	265	676	905	427,9
DN 800	ALFA - 350 D	792	550	620	190	410	144	866	385	302	772	1012	595,0
DN 900	ALFA - 350 D	861	615	675	203	410	144	866	385	330	840	1120	775,0
DN 1000	ALFA - 350 D	1156	669	735	216	410	144	866	385	374	940	1250	975,0

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LUG TYPE S64

PNEUMATIC ACTUATOR (SR) DN40 - DN600

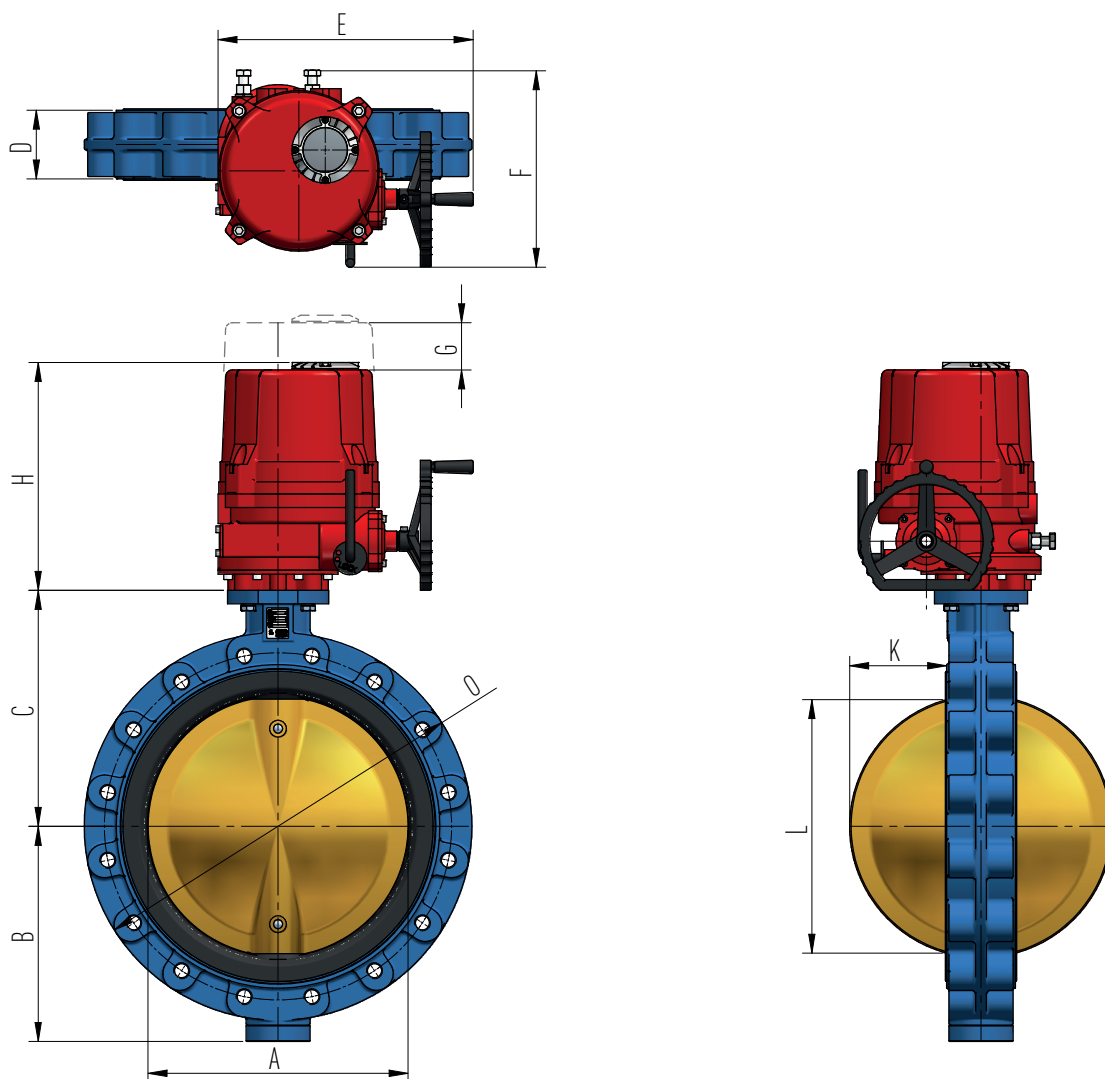


SIZE	PNEUMATIC	A	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 40	ALFA - 063 SR	41	58	113	33	88	114	169	82	5	27	147	5,7
DN 50	ALFA - 063 SR	52	65	118	43	88	114	169	82	5	31	162	6,9
DN 65	ALFA - 063 SR	63	73	126	46	88	114	169	82	9	45	182	7,8
DN 80	ALFA - 075 SR	78	95	133	46	100	114	201	82	16	64	197	10,2
DN 100	ALFA - 083 SR	103	102	147	52	108	114	209	82	26	90	217	12,5
DN 125	ALFA - 092 SR	125	116	160	56	120	114	242	108	34	110	247	16,6
DN 150	ALFA - 105 SR	155	133	180	56	133	114	275	122	50	146	282	20,9
DN 200	ALFA - 140 SR	201	160	204	60	232	114	385	153	71	194	337	34,8
DN 250	ALFA - 140 SR	249	194	245	68	172	114	385	153	91	241	401	47,3
DN 300	ALFA - 160 SR	302	221	270	78	197	114	450	174	112	325	456	68,9
DN 350	ALFA - 190 SR	340	295	315	78	230	124	507	206	128	324	520	80
DN 400	ALFA - 210 SR	397	319	350	102	255	124	562	226	144	376	575	80
DN 450	ALFA - 240 SR	438	353	375	114	290	124	646	258	163	426	635	70
DN 500	ALFA - 240 SR	489	387	415	127	290	124	646	258	182	475	705	70
DN 600	ALFA - 300 SR	590	453	562	154	354	124	748	330	219	572	835	N/A

* The details of this datasheet are subject to change without prior notification.

LUG TYPE S64

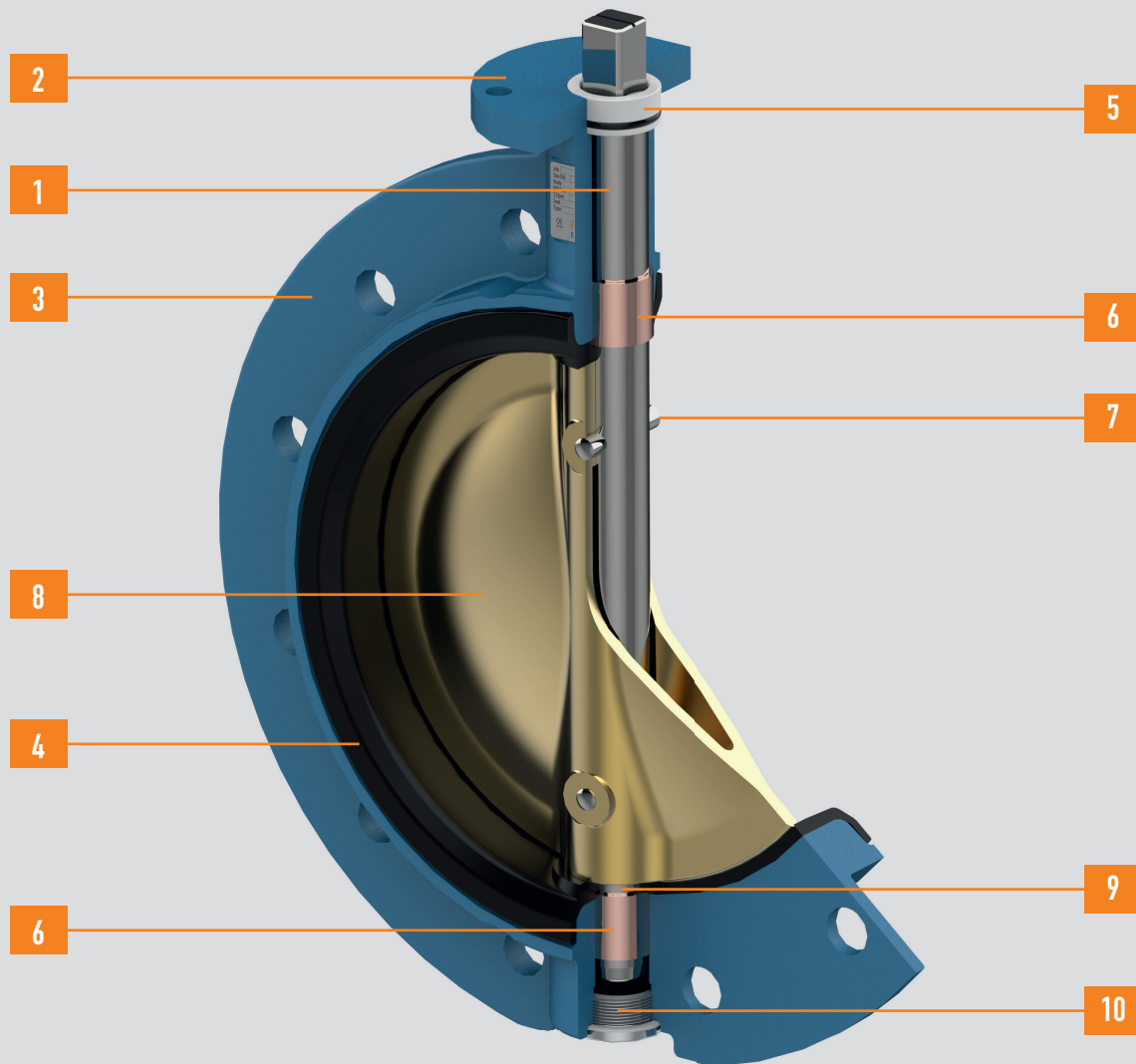
ELECTRIC ACTUATOR DN40 - DN600



SIZE	ELECTRIC	A	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 40	ITQ - 160	41	58	113	33	338	229	140	284	5	27	147	17,6
DN 50	ITQ - 160	52	65	118	43	338	229	140	284	5	31	162	18,8
DN 65	ITQ - 160	63	73	126	46	338	229	140	284	9	45	182	19,7
DN 80	ITQ - 160	78	95	133	46	338	229	140	284	16	64	197	21,3
DN 100	ITQ - 160	103	102	147	52	338	229	140	284	26	90	217	22,9
DN 125	ITQ - 160	125	116	160	56	338	229	140	284	34	110	247	25,4
DN 150	ITQ - 160	155	133	180	56	338	229	140	284	50	146	282	28,0
DN 200	ITQ - 240	201	160	204	60	338	229	140	284	71	194	337	23,2
DN 250	ITQ - 500	249	194	245	68	357	244	170	313	91	241	401	50,7
DN 300	ITQ - 500	302	221	270	78	357	244	170	313	112	291	456	63,9
DN 350	ITQ - 500	340	295	315	78	357	244	170	313	128	325	520	90,4
DN 400	ITQ - 800	397	319	350	102	380	287	195	338	144	377	575	122,4
DN 450	ITQ - 1100	438	353	375	114	380	287	195	338	163	426	635	157,0
DN 500	ITQ - 2000	489	387	415	127	440	375	225	385	182	475	705	212
DN 600	ITQ - 2000	590	453	562	154	440	375	225	385	219	572	835	298

* The details of this datasheet are subject to change without prior notification.

MONO FLANGED TYPE S60/S61



1 TOP AND BOTTOM SHAFT

- Rigid 1 piece shaft
- High accuracy polished material
- ISO fit system
- High strength stainless steel
- Square shaft end with position indication
- Available in various materials

- Certified material from Maritime classification societies approved foundries
- Extreme High Strength body, during vulcanization body is exposed to internal pressures of up to 150 barg
- Extra reinforced centering lugs for centering and end of line service
- Easy to mount, install and forget

- Suitable for end of line service
- Suitable for vacuum and high fluid velocity applications
- Suitable for dry service
- Available in various materials

- Vibration proof
- Shaft to disc connection
- Available in various materials

2 EN ISO 5211 Top Flange

- for Direct Mount of
- Hand levers
- Gear boxes
- Pneumatic actuators
- Electric actuators
- Hydraulic actuators

4 BONDED LINER

- High accuracy bonded liner fully vulcanized to body
- Vulcanization in precision machined transfer molding tools
- Repeatable accurate liner dimensions
- Reliable low torque figures
- No corrosion between liner and body
- No flange gasket required
- No rolling up of liner
- Long life liner
- Non collapsible, stretch resistant, blow out proof liner

5 ADDITIONAL SUPPORT

- Preventing shaft distortion and ensuring low torque values
- Preventing foreign matter from entering the valve

8 DISC

- Streamlined disc for low pressure loss in fully open position
- Precision machined
- Bubble tight shut off
- Low torque

6 TOP AND BOTTOM BEARINGS

- S.S. PAP high accuracy bearings
- Self lubricating
- ISO fit system
- Perfect alignment of valve shaft

9 SHAFT SEALING SYSTEM

- Top and bottom shaft sealing with primary and secondary sealing system

3 BODY

- Standard EN JS1030 Nodular Cast Iron body, painted in RAL 5011 (60µm 2 layer coating)

10 PLUG AND GASKET

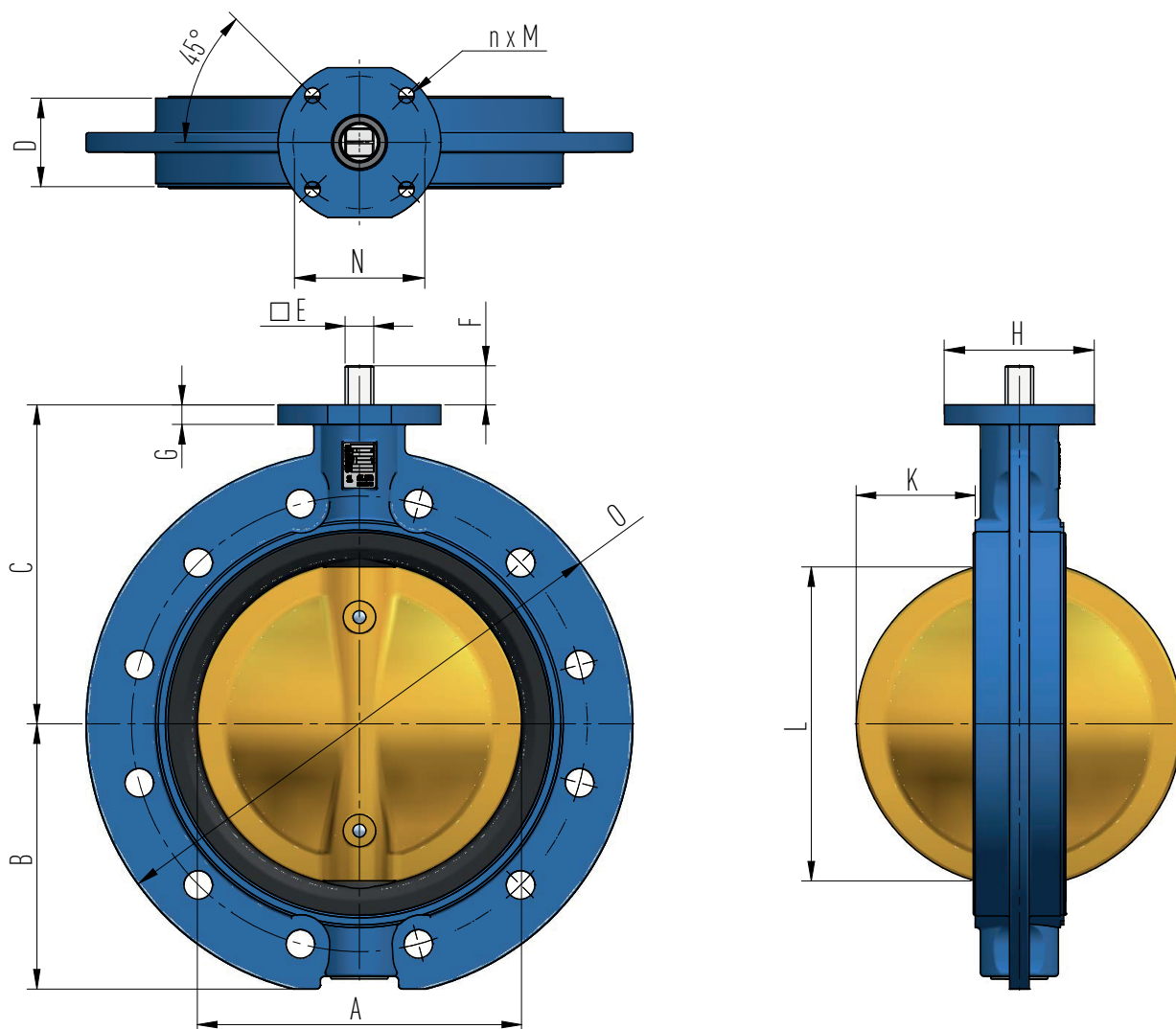
- Bottom shaft support
- Safety sealing system

7 PRECISION PIN(S)

- High accuracy polished pin(s)
- Press fitted in through; no leakage over pin

MONO TYPE S60/S61

BARE SHAFT DN50 - DN600

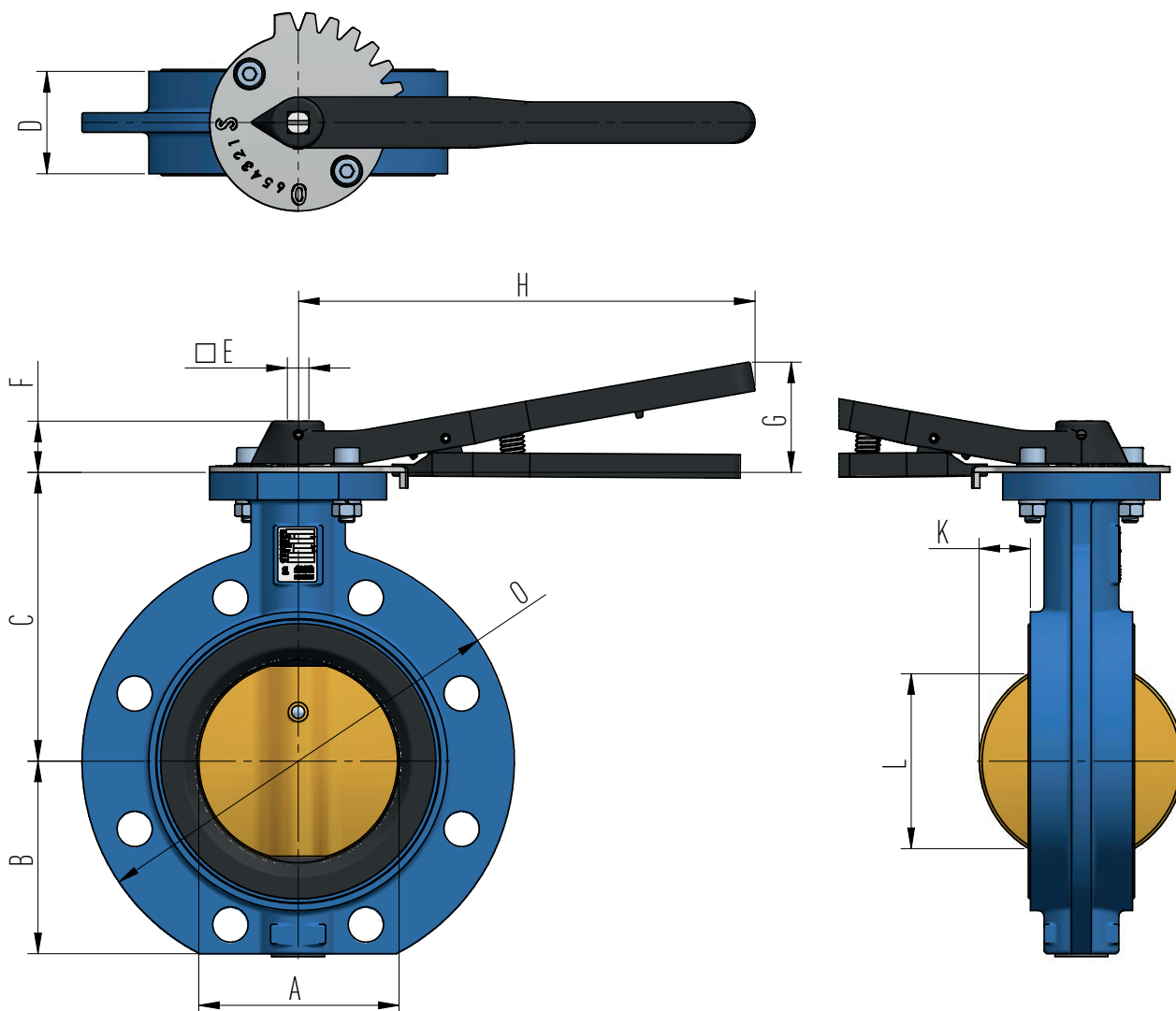


SIZE	A	B	C	S60	S61	E	F	G	TOPFLANGE				K	L	O	WEIGHT ± Kg
				D					ISO 5211	H	N	n X M				
DN 50	52	65	118	43	43	[] 11	26	12	F07	ø90	ø70	4 x ø10	5	31	165	3.0
DN 65	63	78	126	46	46	[] 11	26	13	F07	ø90	ø70	4 x ø10	9	45	185	3.8
DN 80	78	97	133	46	64	[] 11	26	14	F07	ø90	ø70	4 x ø10	16	64	200	4.6
DN 100	103	98	147	52	64	[] 11	26	14	F07	ø90	ø70	4 x ø10	26	90	220	6.1
DN 125	125	110	160	56	70	[] 14	28	14	F07	ø90	ø70	4 x ø10	34	110	250	8.4
DN 150	155	133	180	56	76	[] 14	28	14	F07	ø90	ø70	4 x ø10	50	145	285	10.9
DN 200	201	168	204	60	89	[] 17	30	14	F07	ø90	ø70	4 x ø10	71	193	340	15.9
DN 250	249	204	245	68	114	[] 22	30	15	F10	ø125	ø102	4 x ø12	91	241	420	25.9
DN 300	302	239	270	78	114	[] 22	32	16	F10	ø125	ø102	4 x ø12	112	291	455	37.8
DN 350	340	295	315	78	127	[] 27	29	20	F12	ø175	ø125	4 x ø14	128	324	515	61.9
DN 400	397	320	350	102	140	[] 27	29	20	F12	ø175	ø125	4 x ø14	144	376	580	81.9
DN 450	438	353	375	114	-	[] 36	38	20	F14	ø175	ø140	4 x ø18	163	426	635	114
DN 500	489	387	415	127	-	[] 36	38	20	F14	ø175	ø140	4 x ø18	182	475	715	148
DN 600	590	453	562	154	-	[] 46	48	25	F16	ø210	ø165	4 x ø22	219	572	835	238

* The details of this datasheet are subject to change without prior notification.

MONO TYPE S60/S61

LEVER OPERATED DN50 - DN200

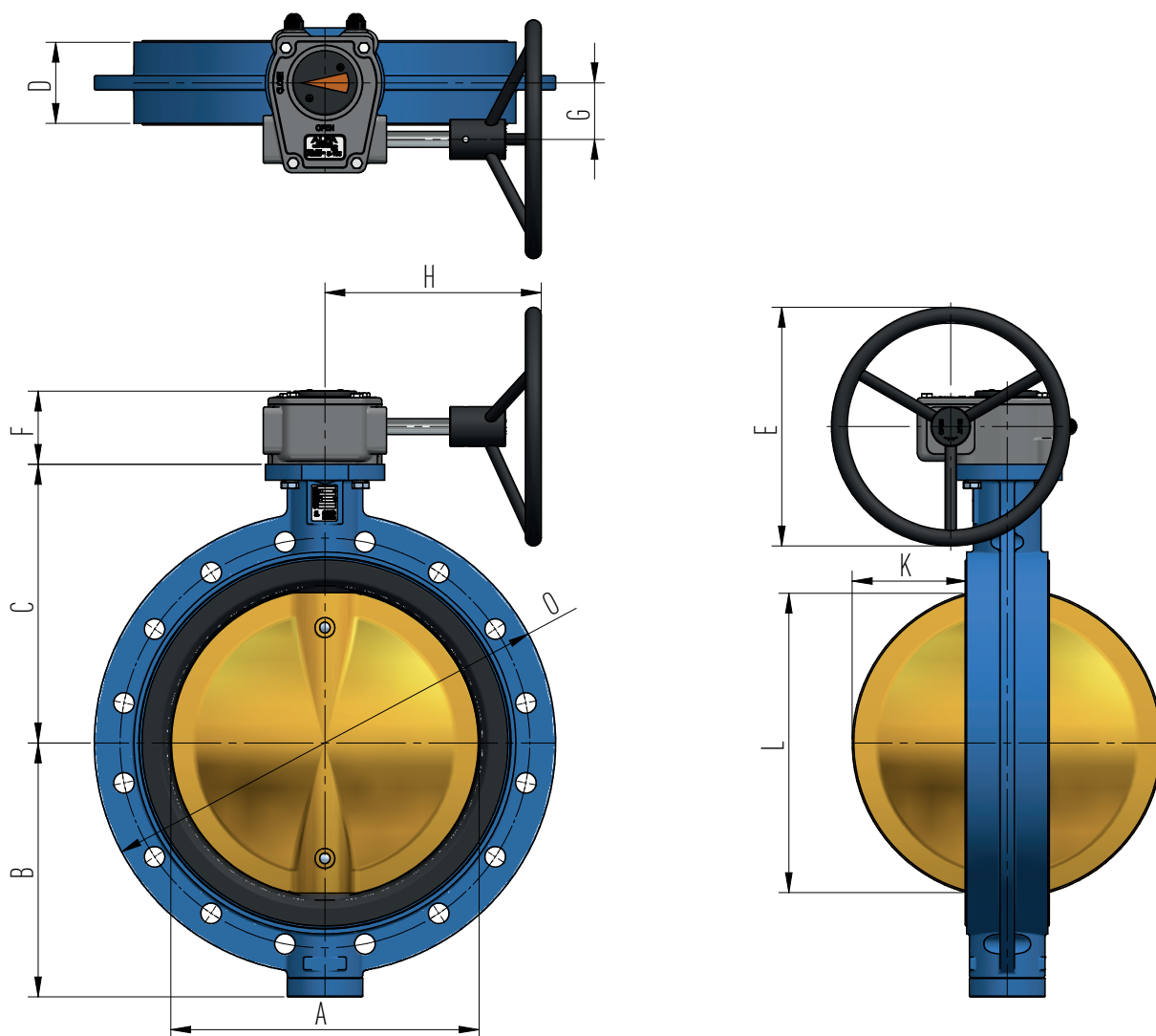


SIZE	A	B	C	S60	S61	E	F	G	H	K	L	O	WEIGHT ± Kg
				D									
DN 50	52	65	118	43	43	[] 11	26	56	223	5	27	165	3,5
DN 65	63	78	126	46	46	[] 11	26	56	223	9	43	185	4,9
DN 80	78	97	133	46	64	[] 11	26	56	223	16	62	200	5,1
DN 100	103	98	147	52	64	[] 11	26	56	223	26	90	220	6,6
DN 125	125	110	160	56	70	[] 14	28	68	325	34	110	250	9,6
DN 150	155	133	180	56	76	[] 14	28	68	325	50	145	285	12,1
DN 200	201	168	204	60	89	[] 17	30	68	325	71	193	340	17,1

* The details of this datasheet are subject to change without prior notification.

MONO TYPE S60/S61

GEARBOX OPERATED DN50 - DN600

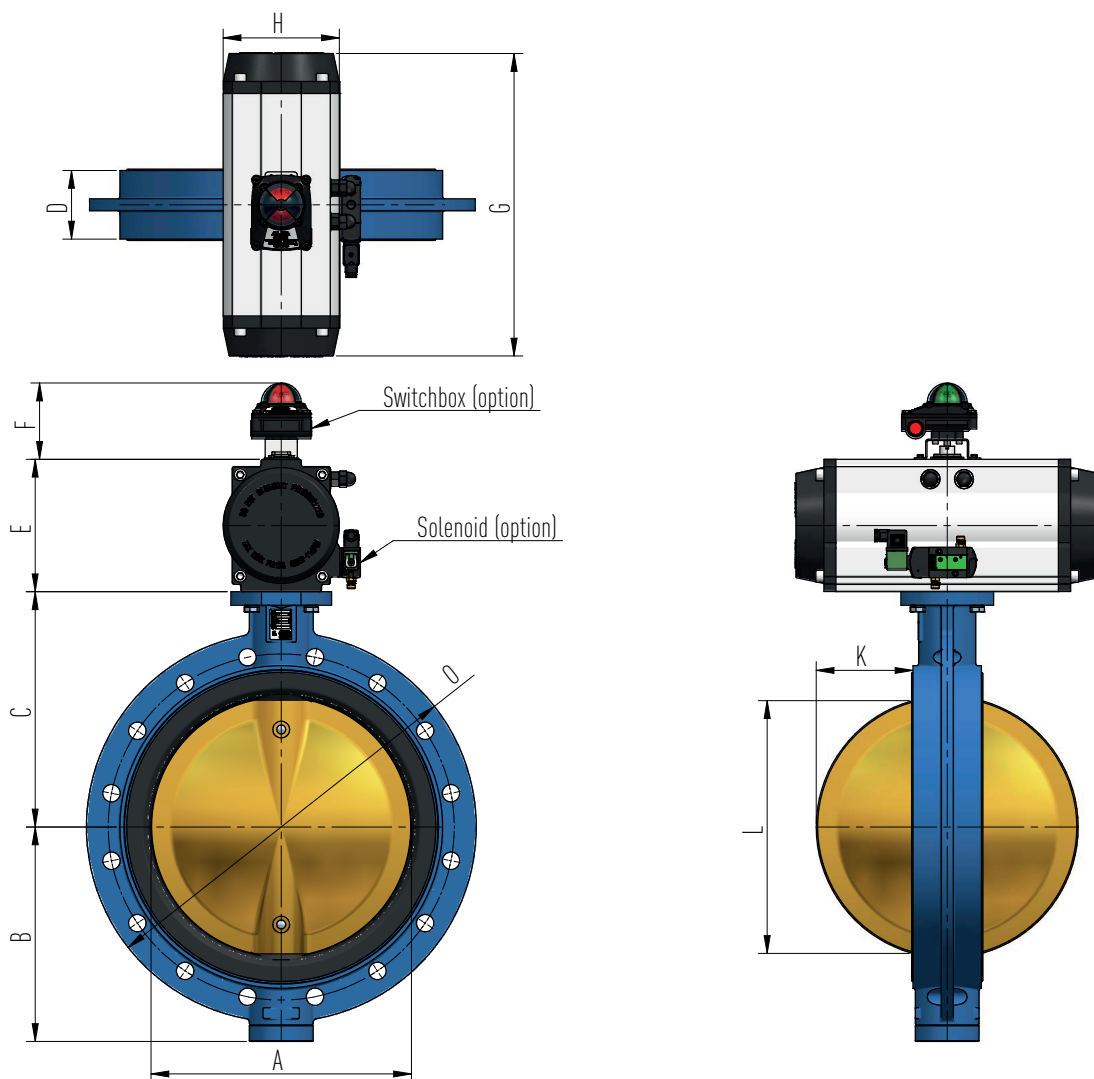


SIZE	GEARBOX	A	B	C	S60	S61	E	F	G	H	K	L	O	WEIGHT ± Kg
					D									
DN 50	ALFA - 25	52	65	118	43	43	SC-150	62	44,6	151	5	27	165	6,6
DN 65	ALFA - 25	63	78	126	46	46	SC-150	62	44,6	151	9	43	185	7,4
DN 80	ALFA - 25	78	97	133	46	64	SC-150	62	44,6	151	16	62	200	8,2
DN 100	ALFA - 25	103	98	147	52	64	SC-150	62	44,6	151	26	90	220	9,7
DN 125	ALFA - 25	125	110	160	56	70	SC-150	62	44,6	151	34	110	250	12,0
DN 150	ALFA - 25	155	133	180	56	76	SC-150	62	44,6	151	50	145	285	14,5
DN 200	ALFA - 25	201	168	204	60	89	SC-150	62	44,6	151	71	193	340	19,5
DN 250	ALFA - 55	249	204	245	68	114	SW-250	73	55	235	91	241	420	32,2
DN 300	ALFA - 55	302	239	270	78	114	SW-250	73	55	235	112	291	455	44,1
DN 350	ALFA - 100	340	295	315	78	127	SW-300	95	71	272	128	324	515	74,7
DN 400	ALFA - 100	397	320	350	102	140	SW-300	95	71	272	144	376	580	94,7
DN 450	ALFA - 200	438	353	375	114	-	SW-400	102	86	310	163	426	635	134,1
DN 500	ALFA - 200	489	387	415	127	-	SW-400	102	86	310	182	475	715	168,1
DN 600	ALFA - 350	590	453	562	154	-	SW-500	106	104,5	336	219	572	835	263,8

* The details of this datasheet are subject to change without prior notification.

MONO TYPE S60/S61

PNEUMATIC ACTUATOR (DA) DN50 - DN600

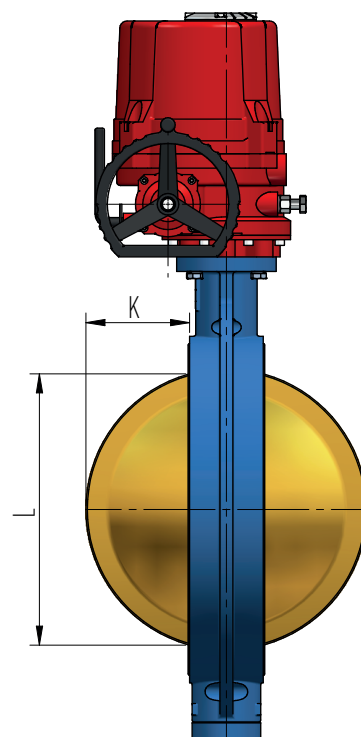
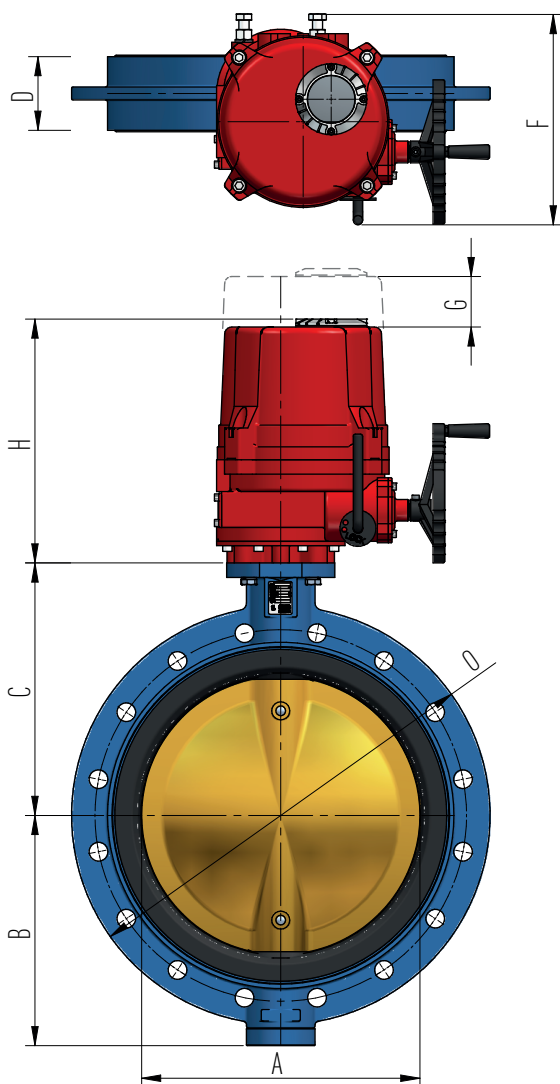


SIZE	PNEUMATIC	A	B	C	S60	S61	E	F	G	H	K	L	O	WEIGHT ± Kg
					D									
DN 50	ALFA - 063 D	52	65	118	43	43	88	114	169	82	5	27	165	6.1
DN 65	ALFA - 063 D	63	78	126	46	46	88	114	169	82	9	43	185	6.9
DN 80	ALFA - 063 D	78	97	133	46	64	88	114	169	82	16	62	200	7.7
DN 100	ALFA - 063 D	103	98	147	52	64	88	114	169	82	26	90	220	9.2
DN 125	ALFA - 075 D	125	110	160	56	70	100	114	201	94	34	110	250	12.1
DN 150	ALFA - 083 D	155	133	180	56	76	108	114	209	101	50	145	285	18.7
DN 200	ALFA - 105 D	201	168	204	60	89	133	114	275	122	71	193	340	23.7
DN 250	ALFA - 125 D	249	204	245	68	114	155	114	332	138	91	241	420	35.8
DN 300	ALFA - 140 D	302	239	270	78	114	172	114	385	153	112	291	455	52.1
DN 350	ALFA - 140 D	340	295	315	78	127	172	114	385	153	128	324	515	76.2
DN 400	ALFA - 160 D	397	320	350	102	140	197	114	450	174	144	376	580	103.1
DN 450	ALFA - 190 D	438	353	375	114	-	230	114	507	206	163	426	635	146.1
DN 500	ALFA - 210 D	489	387	415	127	-	255	114	562	226	182	475	715	191.6
DN 600	ALFA - 240 D	590	453	562	154	-	290	114	646	258	219	572	835	306.3

* The details of this datasheet are subject to change without prior notification.

MONO TYPE S60/S61

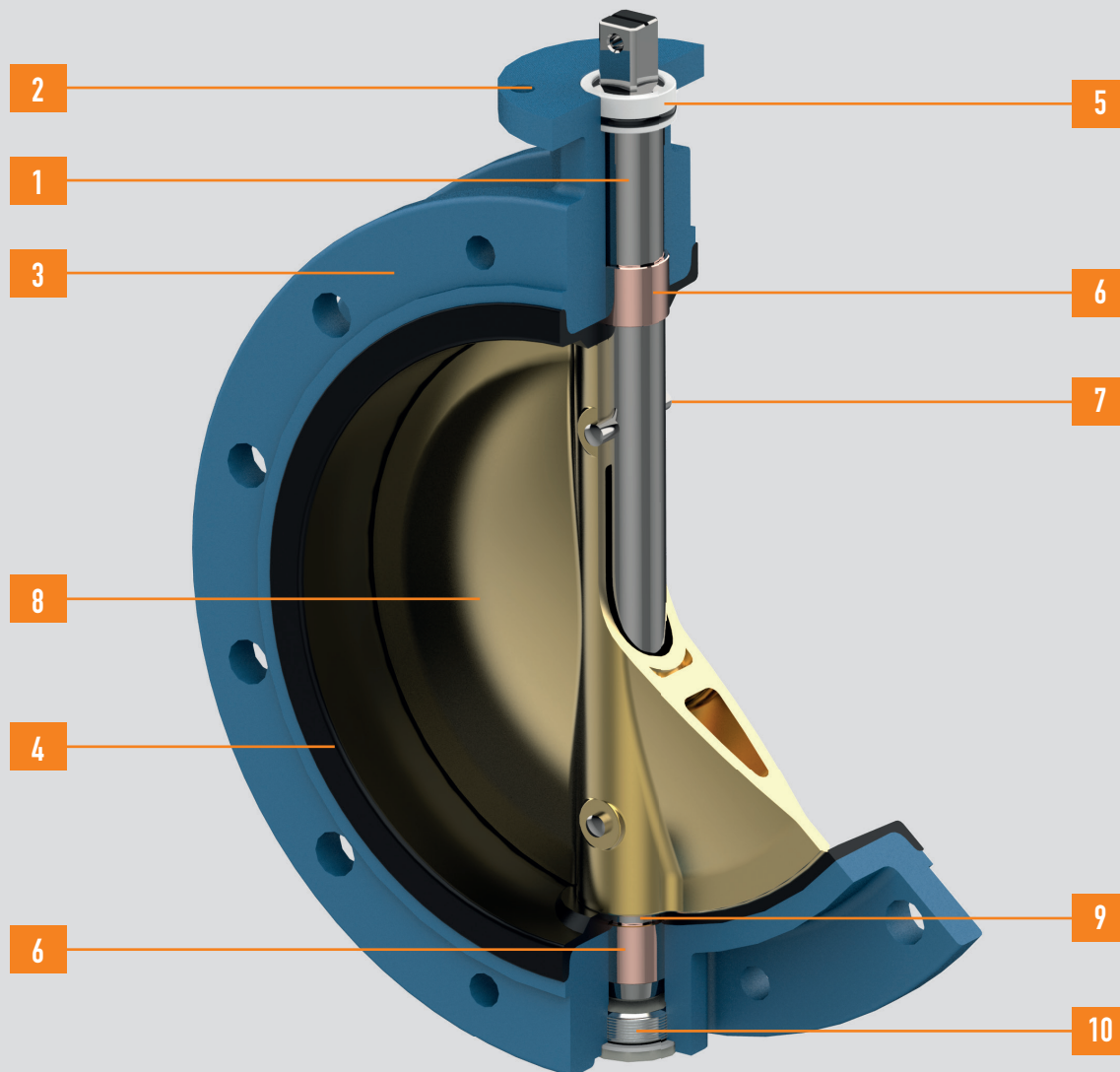
ELECTRIC ACTUATOR DN50 - DN600



SIZE	ELECTRIC	A	B	C	S60	S61	E	F	G	H	K	L	O	WEIGHT ± Kg
					D									
DN 50	ITQ - 160	52	65	118	43	43	338	229	140	284	5	27	165	18
DN 65	ITQ - 160	63	78	126	46	46	338	229	140	284	9	43	185	18,8
DN 80	ITQ - 160	78	97	133	46	64	338	229	140	284	16	62	200	19,6
DN 100	ITQ - 160	103	98	147	52	64	338	229	140	284	26	90	220	21,1
DN 125	ITQ - 160	125	110	160	56	70	338	229	140	284	34	110	250	23,4
DN 150	ITQ - 160	155	133	180	56	76	338	229	140	284	50	145	285	25,9
DN 200	ITQ - 240	201	168	204	60	89	338	229	140	284	71	193	340	30,9
DN 250	ITQ - 350	249	204	245	68	114	357	244	170	313	91	241	420	45,9
DN 300	ITQ - 500	302	239	270	78	114	357	244	170	313	112	291	455	57,8
DN 350	ITQ - 500	340	295	315	78	127	357	244	170	313	128	324	515	81,9
DN 400	ITQ - 800	397	320	350	102	140	380	287	195	338	144	376	580	106,9
DN 450	ITQ - 1100	438	353	375	114	-	380	287	195	338	163	426	635	139,0
DN 500	ITQ - 2000	489	387	415	127	-	440	375	225	385	182	475	715	190,0
DN 600	ITQ - 2000	590	453	562	154	-	440	375	225	385	219	572	835	280

* The details of this datasheet are subject to change without prior notification.

DOUBLE FLANGED TYPE S36



1 TOP AND BOTTOM SHAFT

- Rigid 1 piece shaft
- High accuracy polished material
- ISO fit system
- High strength stainless steel
- Square shaft end with position indication
- Available in various materials

- Certified material from Maritime classification societies approved foundries
- Extreme High Strength body, during vulcanization body is exposed to internal pressures of up to 150 barg
- Extra reinforced centering lugs for centering and end of line service
- Easy to mount, install and forget

- Suitable for end of line service
- Suitable for vacuum and high fluid velocity applications
- Suitable for dry service
- Available in various materials

- Vibration proof
- Shaft to disc connection
- Available in various materials

2 EN ISO 5211 Top Flange

- for Direct Mount of
- Hand levers
- Gear boxes
- Pneumatic actuators
- Electric actuators
- Hydraulic actuators

4 BONDED LINER

- High accuracy bonded liner fully vulcanized to body
- Vulcanization in precision machined transfer molding tools
- Repeatable accurate liner dimensions
- Reliable low torque figures
- No corrosion between liner and body
- No flange gasket required
- No rolling up of liner
- Long life liner
- Non collapsible, stretch resistant, blow out proof liner

5 ADDITIONAL SUPPORT

- Preventing shaft distortion and ensuring low torque values
- Preventing foreign matter from entering the valve

8 DISC

- Streamlined disc for low pressure loss in fully open position
- Precision machined
- Bubble tight shut off
- Low torque

3 BODY

- Standard EN JS1030 Nodular Cast Iron body, painted in RAL 5011 (60µm 2 layer coating)

6 TOP AND BOTTOM BEARINGS

- S.S. PAP high accuracy bearings
- Self lubricating
- ISO fit system
- Perfect alignment of valve shaft

9 SHAFT SEALING SYSTEM

- Top and bottom shaft sealing with primary and secondary sealing system

10 PLUG AND GASKET

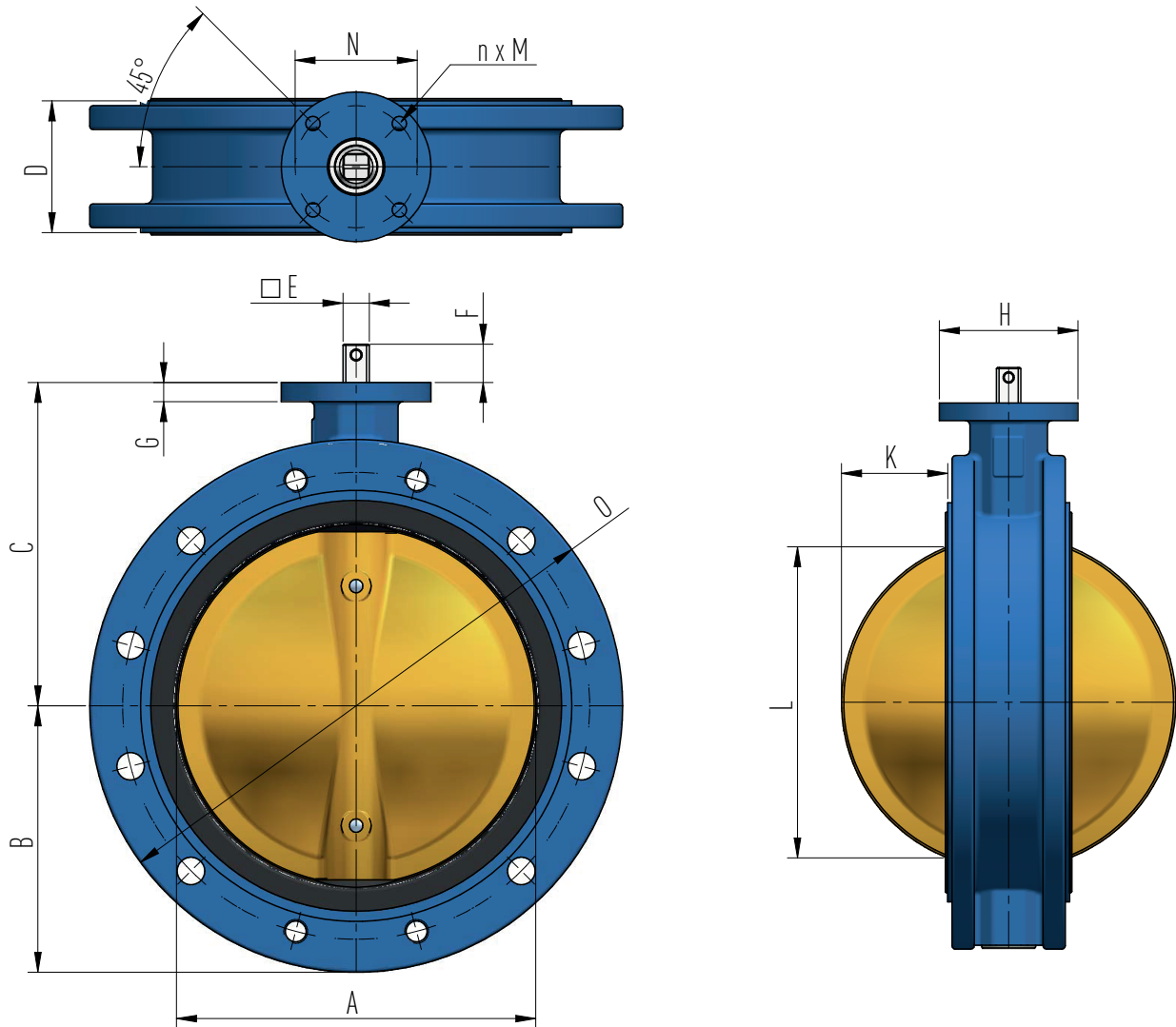
- Bottom shaft support
- Safety sealing system

7 PRECISION PIN(S)

- High accuracy polished pin(s)
- Press fitted in through; no leakage over pin

JIS SHORT DOUBLE FLANGED TYPE 36

BARE SHAFT DN50 - DN600

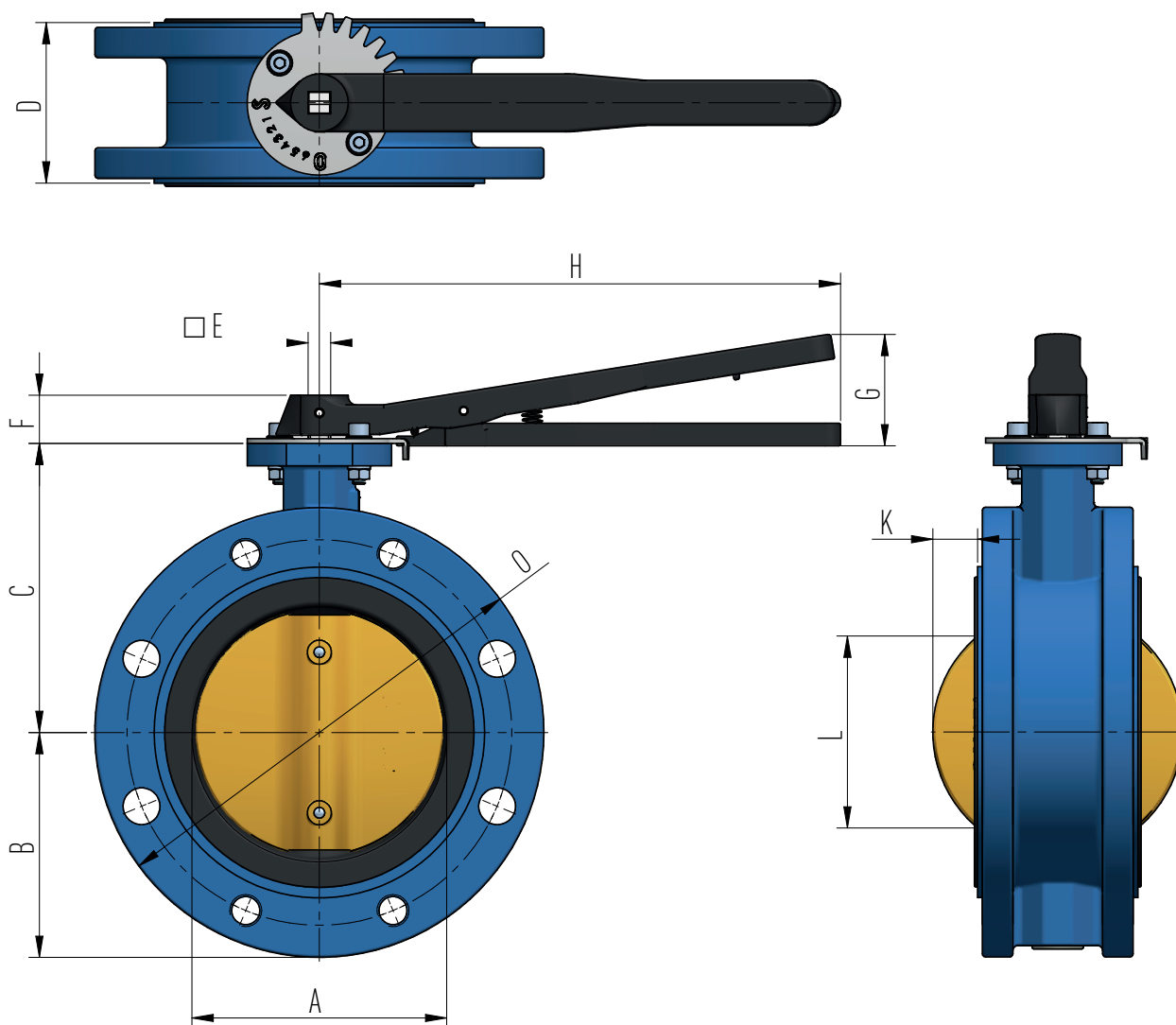


SIZE	A	B	C	D	E	F	G	TOPFLANGE				K	L	O	WEIGHT ± Kg
								ISO 5211	H	N	n X M				
DN 50	52	77,5	118	45	[] 11	26	12	F07	ø90	ø70	4 x ø10	4	28	155	4,0
DN 65	63	87,5	126	45	[] 11	26	13	F07	ø90	ø70	4 x ø10	10	46	175	5,2
DN 80	78	92,5	133	60	[] 11	26	14	F07	ø90	ø70	4 x ø10	10	51	185	6,5
DN 100	103	105,0	147	60	[] 11	26	14	F07	ø90	ø70	4 x ø10	22	85	210	8,0
DN 125	125	125,0	160	100	[] 14	28	14	F07	ø90	ø70	4 x ø10	12	73	250	14,1
DN 150	155	140,0	180	100	[] 14	28	14	F07	ø90	ø70	4 x ø10	28	120	280	17,9
DN 200	201	165,0	204	100	[] 17	30	14	F07	ø90	ø70	4 x ø10	51	176	22,8	32,4
DN 250	249	200,0	245	110	[] 22	30	15	F10	ø125	ø102	4 x ø12	70	226	37,9	49,4
DN 300	302	222,5	270	110	[] 22	32	16	F10	ø125	ø102	4 x ø12	94	277	45,1	58,6
DN 350	340	295,0	315	120	[] 27	29	20	F12	ø175	ø125	4 x ø14	107	312	67,1	89,2
DN 400	397	320,0	350	130	[] 27	29	20	F12	ø175	ø125	4 x ø14	130	368	89,4	109,3
DN 450	438	353	375	150	[] 36	38	20	F14	ø175	ø140	4 x ø18	145	415	620	118
DN 500	489	387	415	160	[] 36	38	20	F14	ø175	ø140	4 x ø18	164	462	675	140
DN 600	590	452	562	170	[] 46	48	25	F16	ø210	ø165	4 x ø22	211	568	795	208

* The details of this datasheet are subject to change without prior notification.

JIS SHORT DOUBLE FLANGED TYPE 36

LEVER OPERATED DN50 - DN200

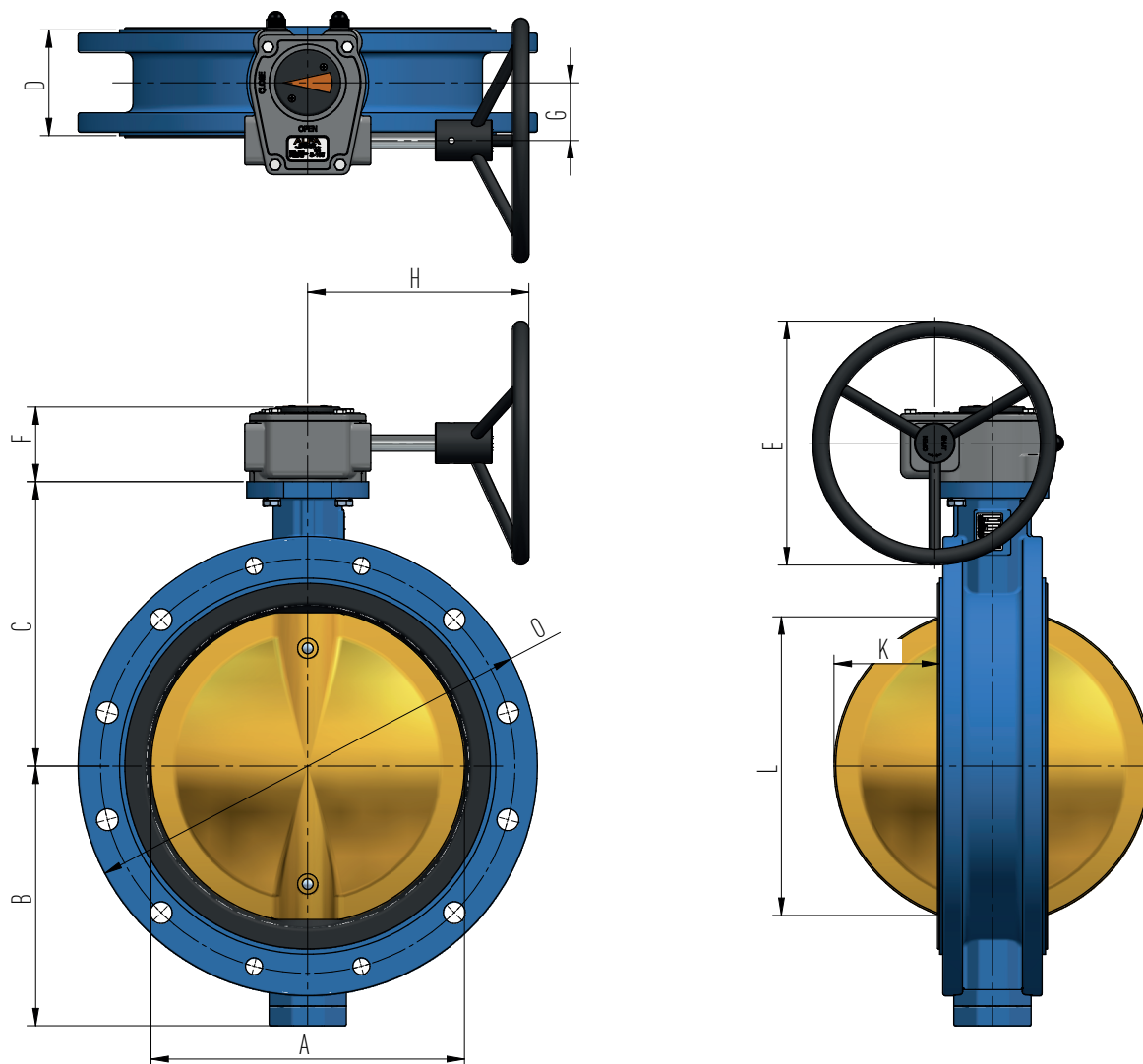


SIZE	A	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 50	52	77,5	118	45	[] 11	26	56	223	4	28	155	4,8
DN 65	63	87,5	126	45	[] 11	26	56	223	10	46	175	6,0
DN 80	78	92,5	133	60	[] 11	26	56	223	10	51	185	7,3
DN 100	103	105,0	147	60	[] 11	26	56	223	22	85	210	8,8
DN 125	125	125,0	160	100	[] 14	28	68	325	12	73	250	15,3
DN 150	155	140,0	180	100	[] 14	28	68	325	28	120	280	19,1
DN 200	201	165,0	204	100	[] 17	30	68	325	51	176	330	24,0

* The details of this datasheet are subject to change without prior notification.

JIS SHORT DOUBLE FLANGED TYPE 36

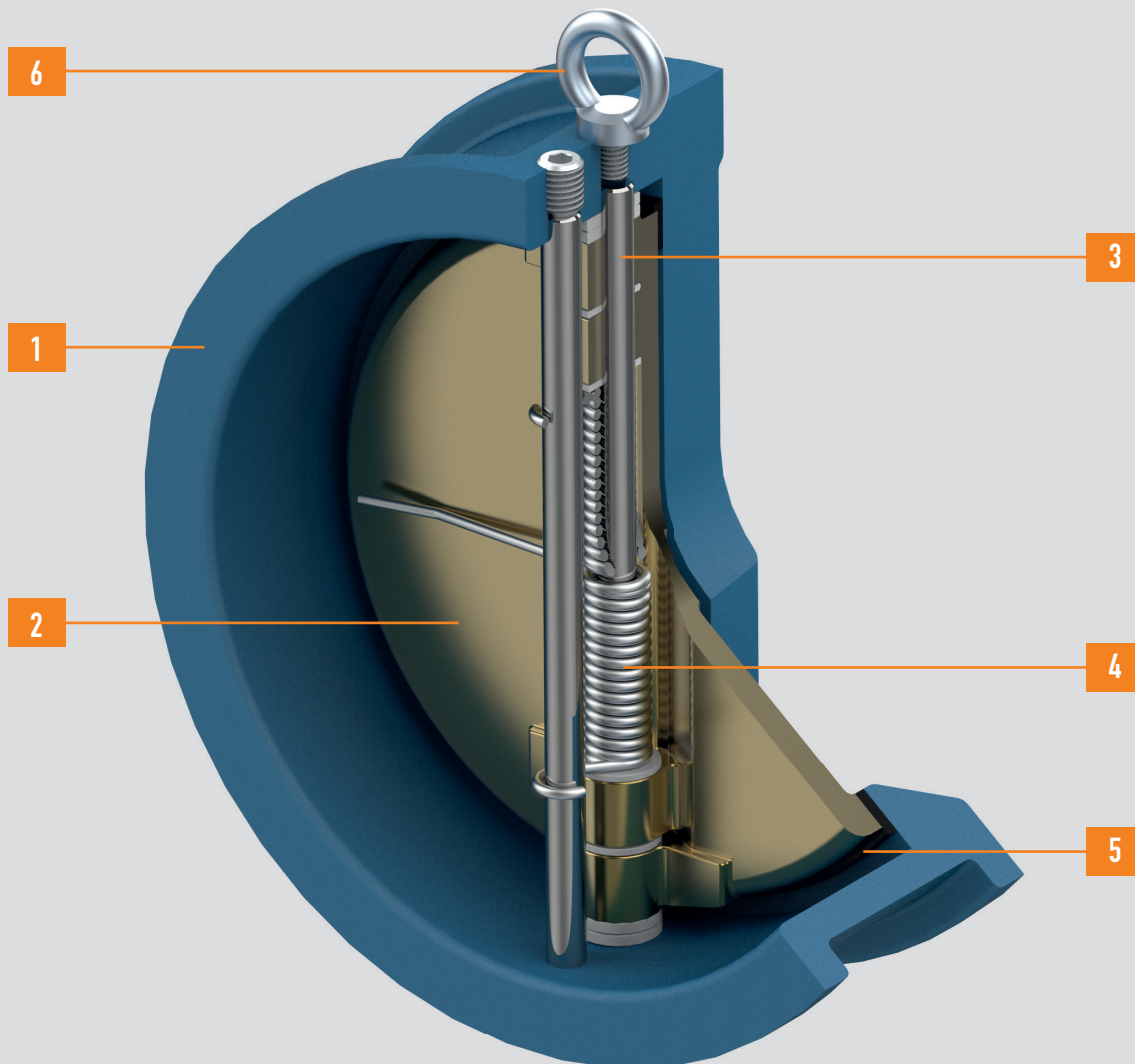
GEARBOX OPERATED DN50 - DN600



SIZE	GEARBOX	A	B	C	D	E	F	G	H	K	L	O	WEIGHT ± Kg
DN 50	ALFA - 25	52	77,5	118	45	SC-150	62	44,6	151	4	28	155	7,5
DN 65	ALFA - 25	63	87,5	126	45	SC-150	62	44,6	151	10	46	175	8,7
DN 80	ALFA - 25	78	92,5	133	60	SC-150	62	44,6	151	10	51	185	10,0
DN 100	ALFA - 25	103	105,0	147	60	SC-150	62	44,6	151	22	85	210	11,5
DN 125	ALFA - 25	125	125,0	160	100	SC-150	62	44,6	151	12	73	250	17,6
DN 150	ALFA - 25	155	140,0	180	100	SC-150	62	44,6	151	28	120	280	21,4
DN 200	ALFA - 25	201	165	204	100	SC-150	62	44,6	151	51	176	330	26,3
DN 250	ALFA - 55	249	200	245	110	SW-250	73	55	235	70	226	400	44,1
DN 300	ALFA - 55	302	222,5	270	110	SW-250	73	55	235	94	277	445	51,3
DN 350	ALFA - 100	340	295	315	120	SW-300	95	71	272	107	312	490	79,7
DN 400	ALFA - 100	397	320	350	130	SW-300	95	71	272	130	368	565	102,1
DN 450	ALFA - 200	438	353	375	150	SW-400	102	86	310	145	415	620	138,0
DN 500	ALFA - 200	489	387	415	160	SW-400	102	86	310	164	462	675	160,0
DN 600	ALFA - 350	590	452	562	170	SW-500	106	104,5	336	211	568	795	233,7

* The details of this datasheet are subject to change without prior notification.

WAFER TYPE CHECK VALVE S112



Manufactured in accordance with the most severe product norms. With its innovative construction, the valve features several benefits and provides cost-, maintenance, and installation efficiency. The valve is known for compact settlement and does prevent the water hammer phenomenon, hence belongs to the silent type of check valves.

The S112 is a check valve of the double disc wafer type. The valve is maintenance free. The design is compact and space saving. The S112 check valve has a superior closing response prior to flow reversal. The standard stainless steel springs are designed to quickly close the valve at zero flow to prevent undesirable pressure. In the closed position the valve is tight shut off. It opens when the flow starts.

Pressure test: API 598 DIN 3230

Dimensions: Face-to-Face acc. to DIN 3202 K3 (EN 558-1 row 16)

Max. temperature: -23 to 120 °C EPDM, -10 to 80 °C NBR

Max. working pressure: 16 bar - Back flow prevention

1 BODY

- Ductile cast iron ($\geq 250/10''$) GGG 40, DIN 1693 60-40-18, ASTM A536 400-18, BS 2789 Aluminium bronze: G-CuAl10Ni, DIN 1714 C95800, ASTM B148 AB2, BS 1400

2 DISC

- Aluminium bronze: G-CuAl10Ni, DIN 1714 C95800, ASTM B148 AB2, BS 1400

3 SHAFT / STOP PIN

- Stainless steel: X5CrNiMo 17 12 2 AISI 316 316S16, BS 970

4 SPRING

- Stainless steel: X5CrNiMo 17 12 2 AISI 316 316S16, BS 970 Inconel: NiCrMo9Nb, DIN 17744 UNS N06625, ASTM B446 NA 21, BS 3076

5 SEAT RUBBER

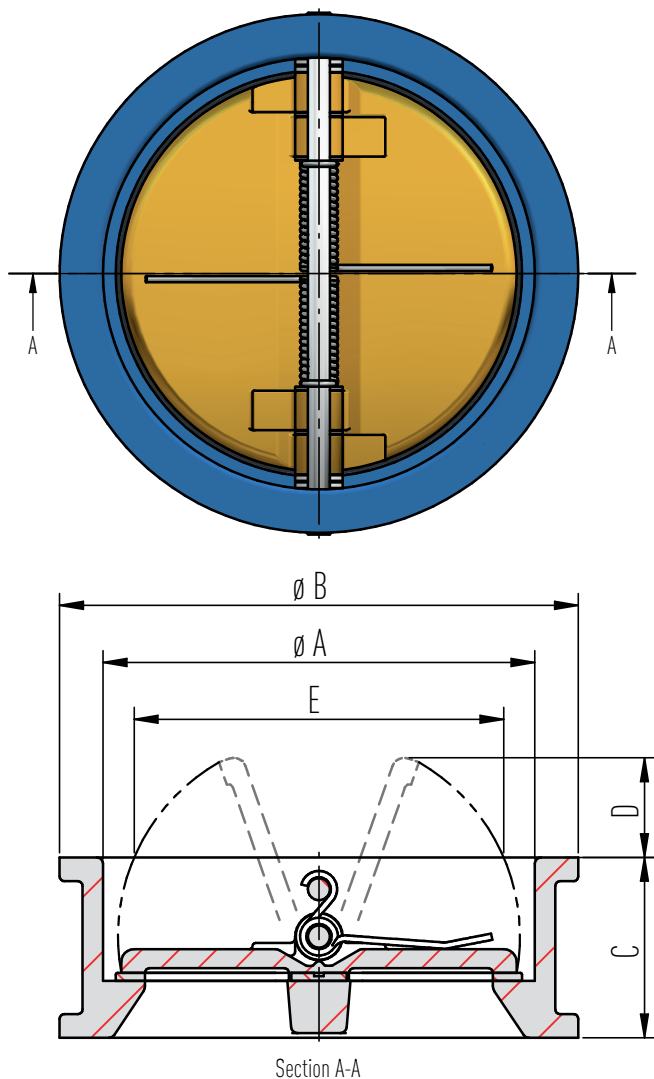
- EPDM, NBR, VITON, Silicone

6 LIFTING EYE

- Bolt, C45

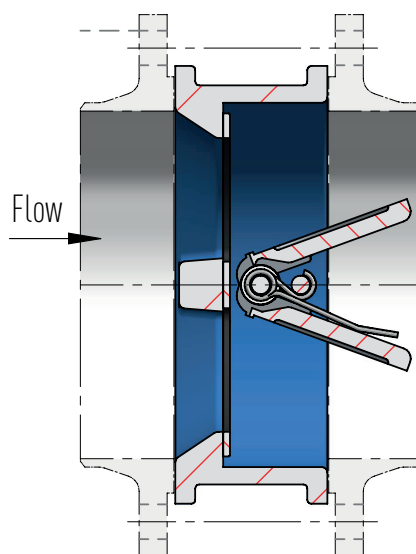
WAFER TYPE CHECK VALVE S112

S112 CHECK VALVE DN50 - DN600



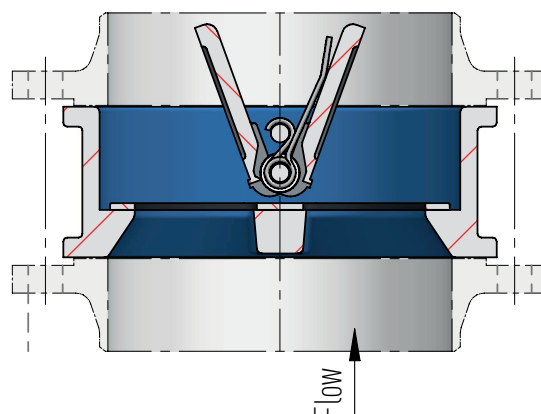
The S112 check valve is designed for steady flow conditions and can be installed in horizontal and vertical pipelines but the instructions shown must be adhered to. **Note:** The valve must not be installed in pipelines with pulsating flow or near to reciprocating pumps.

INSTALLATION IN A HORIZONTAL PIPELINE



The disc shaft must be in the vertical position.

INSTALLATION IN A VERTICAL PIPELINE



As standard the valve must be installed with flow up.

Note: Additional pressure drop can be expected due to the weight of the discs.

SIZE	A	B	C	D	E	WEIGHT ± Kg
DN 50	65	107	43	9	42	1,5
DN 65	80	127	46	15	60	2
DN 80	94	142	61	17	70	3,3
DN 100	117	162	61	26	91	4
DN 125	145	192	70	35	111	5,5
DN 150	170	218	76	44	137	8
DN 200	224	273	89	62	186	13,5
DN 250	265	328	114	73	226	20
DN 300	310	378	114	98	279	42
DN 350	360	438	127	123	332	55
DN 400	410	489	140	148	382	75
DN 450	450	539	152	153	429	100
DN 500	505	594	152	160	489	120
DN 600	624	695	178	217	576	200

* The details of this datasheet are subject to change without prior notification.

APPROVALS - QA

1. Quality assurance system

Alfa butterfly valves are designed and manufactured in accordance with ISO 9001/EN 29001 and module H of the European legislation for Pressure Equipment Directive.

2. Type approvals

Alfa butterfly valves are approved for applications in a number of market areas by international classifications societies. The most important ones are listed in the following table.

MARKET AREA	TYPE APPROVALS
Water supply	WRAS
Ship building	Lloyd's Register DNV Bureau Veritas China Classification Society American Bureau of Shipping
Fire protection systems	Lloyd's Register
General approval confirming for standard compliance	EN 593 API 609

3. Product certificate

MARKET AREA	TYPE APPROVALS
Ship building	NKK RINA Lloyd's Register Bureau Veritas Korean Register DNV Russian Maritime Register China Classification Society American Bureau of Shipping

4. Material inspection certificates

Valve parts, eg body, disc, can be supplied on request with inspection certificates of the material supplier (foundry) according EN 10204, 3.1 subject to material type. Other specifications are possible.

5. Testing inspection certificates

All valves are pressure and functional tested after assembly according to internal quality procedures which comply with international standards. Inspection certificates according EN 10204, 3.1, 3.2 can be submitted on request.



STORAGE AND INSTALLATION

STORAGE

Store the valve in dry, dark and cool conditions, preferably indoors with the actual valve temperature higher than 0°C.

If outdoor storage is unavoidable, store the valves off the ground and protect the valves with a watertight cover.

Do not remove the valve packaging or end port protection, until necessary for inspection or installation.

Store the valve in the slightly open position to avoid permanent deformation of the rubber lining.

INSPECTION PRIOR TO INSTALLATION

1. Inspect the valve visually for damage or contamination during transport, handling and storage as this could affect valve performance.
2. Carefully unpack the valve.
3. Check the tag plates, which should be attached on the valve.
4. Inspect the valve interior and lining. Valve interior shall be clean and free from foreign particles or damage.
5. If possible, actuate the valve the complete open / close / open cycle to check the correct function.

Warning: Avoid contact with the valve disc.

6. Immediately prior to installation check the flanges to which the valve is to be fastened. The flanges shall have a raised face or a flat face. The sealing face shall be flat, without burrs, grooves, weld spatters, sharp edges and free from oil.
7. The inside diameter shall be large enough to accommodate the protrusion of the valve disc when the valve is in the complete open position. The possibility of interference between disc and pipe shall be checked and avoided.
8. Check the diameter of the raised face, stub end or equivalent of all pipe ends to ensure sufficient face to face contact with the metal face of the valve.

INSTALLATION

Note: New valves may not be installed with additional flange gaskets.

The lining will seal against the mating flange face.

- As the valve is bi-directional tight shut off, the direction of installation is not dependent of the flow direction.
- When installed in a horizontal pipeline, valves larger than DN 300 should be installed with the shaft positioned horizontally.

Option: Vertical shaft position on request (to be specified at order).

1. Weld the flange to the pipe so that the sealing faces are parallel.

Caution: Do not weld a connecting flange to the pipe with the valve installed! Doing so will damage valve liner and valve will be useless!

2. After cooling the flange, position the valve in the centre of the pipeline and with the shaft horizontally if possible.
3. Tighten the bolts in a criss - cross fashion until the valve body (metal) touches the flange face. (do not exceed the torque on the bolts as specified by the supplier of the bolts).

TESTING

- 1 Open and close the valve (preferably by hand) slowly to ensure no disc interference with the pipe work.
- 2 Clean the pipe interior with a rinsing fluid compatible with the rubber lining and process.
- 3 Connect the actuator (if applicable) to the power supply in accordance with the user manual of the actuator.
- 4 Check the operation and tightness under working conditions.



*Time to change to the new
European valve Standard!*

Alfa Europe B.V.
Oosterveldsingel 37
7558 PJ Hengelo
The Netherlands

t 0031 - 74 30 31 940
e info@alfa-europe.com
w www.alfa-europe.com