

BUTTERFLY VALVE, CONTINUOUS SPINDLE, WAFER TYPE / LUG TYPE



photo: KLA15 with free spindle (option)

Description:

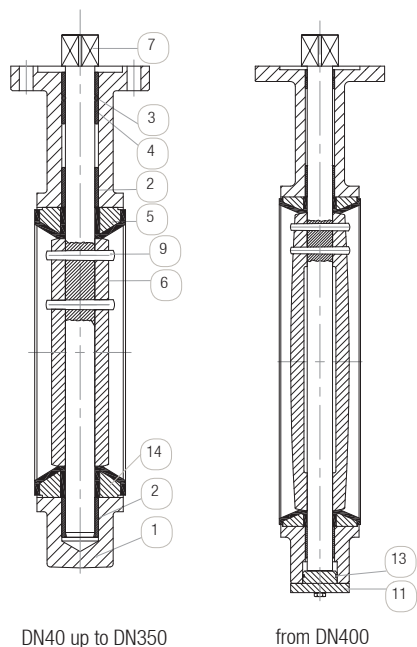
- Butterfly valve
KLA15: wafer type
KLC15: lug type
- continuous spindle
- flanges PN16 / PN10 acc. to EN10-1092-1
- latching hand lever, from DN300 with hand gear
- top flange acc. to EN ISO 5211
- central disc position
- any installation position
- Collar vulcanized onto a support ring
- length of body acc. to EN558-1, line 20

Range of application:

- max pressure difference PN16 (DN40 up to DN300) and PN10 (from DN350). (see pressure-temperature-diagram)
- temperature range: -20°C up to +80°C and higher temperatures with other sealing.
- with top flange for direct pneumatic or electric automation
- suitable for industrial applications and for drinking water applications with EPDM-collar. (DVGW approved)
- Support ring with interchangeable collar
- following certificates are available: VdS, DVGW (gas), DVGW (water), Det Norske Veritas (shipbuilding), GOST

Comments:

Alternative **flanges acc. to ANSI B 16.5 Class 150 / 300** are available. Design for installation **between hemmed flanges acc. to DIN2642** is also possible. Further **flanged bores on request (BS, JIS)**. Furthermore, you can order a **round spindle with feather key** or the **end of the spindle as a dihedral**.



DN40 up to DN350

from DN400

For details about the order code see "Order information". An overview of the complete material code you can find at the beginning of each product section of the product catalogue.

***Attention!**

different working pressure for PTFE-collar:

- max. 8bar

different medium temperature for alternative sealings:

- NBR with DVGW gas: max. 60°C
- EPDM: -30°C up to +120°C
- FKM: -10°C up to 180°C
- for other sealings on request with specification of the medium

**except FKM and VSI: support ring in fibre-glass reinforced epoxy resin

pos.	part	standard material		optional material	
1	body	EN-GJS-400-15 (GGG40)	M	EN-GJL 250 (GG25) cast steel (GSC25) 1.4408	L K O
5	seat ring / collar	NBR	B	EPDM* (DVGW for drinking water) FKM* HNBR CSM (hypalon) CR (neoprene) VSI (silicone) PTFE*	E V H W Y S T
6	disc	1.4408	O	EN-GJS-400-15 (GGG40) • copper plated + nickel plated • hard- and soft rubberized • rilsan coated • ECTFE coated duplex-steel monel hastelloy titanium	M
2	connector (long)				
7	spindle	1.4005		1.4401 1.4542 1.4462 monel	
3	o-ring	NBR	B	alternatives see Pos. 5 (E / V / H / W / Y / S / T)	
4	connector (short)				
9	taper pin				
14	support ring**	phenolic resin (DN40 - DN350) alloy (from DN400)			
11	bearing cover (from DN400)				
13	o-ring (from DN400)				

BUTTERFLY VALVE, CONTINUOUS SPINDLE, WAFER TYPE / LUG TYPE

Options:

- HG: hand gear
- FW: free spindle
- SF: free of silicone
- ZG: certificate / approval

For electric actuated valves only:

- AP: accumulator security pack
- PT: potentiometer
- PO: positioning system

For pneumatic actuated valves only:

- SD: sound absorber
- AD: exhaust air regulator
- PV: pilot valve

For details see data sheet "GMV3197", "GMV3163" (3/2 way) and "MVA01" (5/2 way). Other types on request.

- PS: positioning indicator

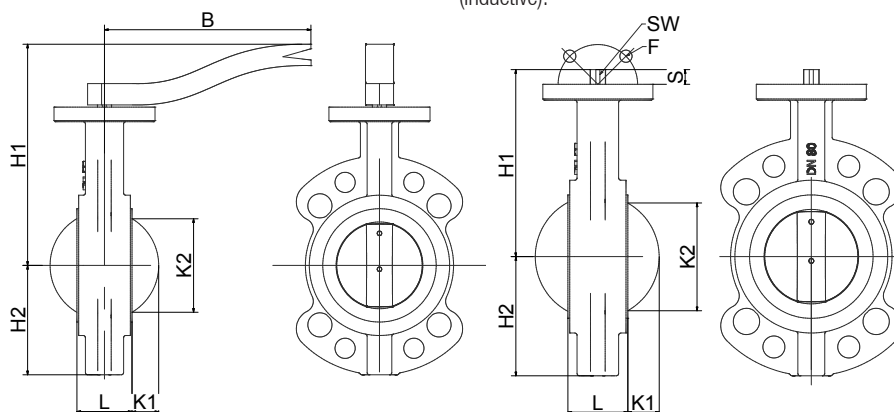
For details see data sheet "MCM2" (mechanical), "MCN2" (inductive, with ATEX 94/9/EC) and "MCS2" (inductive).

* Spindle as square

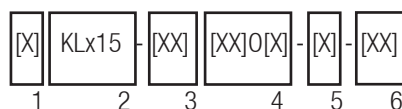
**CV value: The nominal flow rate CVs acc. to VDI/VDE 2173 shows the water quantity in cubic meter per hour with the valve fully opened, $\Delta p=1$ and the water temperature between 5°C and 30°C.

***Zeta value: non-dimensional value, that shows the pressure drop constant for passed through bodies in a piping having the valve fully opened.

Breakaway torque: all data is determined with water at max Δp and normal ambient temperature. Multiplier for frictional media is 1.3. If your configuration has special sealing material or your application has critical media consultation is obligatory.



match code	size [inch]	max. pres- sure diffe- rence	L [mm]	H1 [mm]		H2 [mm]	K1 [mm]	K2 [mm]	B [mm]	F	SW*	S [mm]	CV** [m³/h]	zeta value ***	breakaway torque**** [Nm]	weight [kg]	
				-FW												KLA15	KLC15
KLx15-56-1xx0x	DN40	PN16	33	162	130	61	5	27	267	F05	11	12	55	1.33	8	2.7	3.5
KLx15-57-1xx0x	DN50	PN16	43	156	124	77.5	6	33	267	F05 / F07	11	12	100	0.98	23	3.8	4.4
KLx15-58-1xx0x	DN65	PN16	46	166	134	89.5	10	47	267	F05 / F07	11	12	170	0.97	33	3.9	6.5
KLx15-59-1xx0x	DN80	PN16	46	173	141	97.5	17	66	267	F05 / F07	11	12	260	0.95	36	4.8	7.1
KLx15-60-1xx0x	DN100	PN16	52	190	156	115	26	91	267	F05 / F07	14	16	515	0.59	42	5.6	7.7
KLx15-61-1xx0x	DN125	PN16	56	204	170	121.5	35	111	267	F07	14	16	875	0.5	58	7.9	10.4
KLx15-62-1xx0x	DN150	PN16	56	220	186	148	50	147	267	F07	17	19	1355	0.43	105	8.7	12.4
KLx15-63-1xx0x	DN200	PN16	60	265	218	179.5	72	195	355	F07 / F10	17	19	2865	0.31	195	15.5	23.6
KLx15-64-1xx0x	DN250	PN16	68	296	249	210	92	243	355	F10	22	24	4570	0.29	295	21.9	29.5
KLx15-65-1xx0x-HG	DN300	PN16	78	448	285	250	112	293	209	F12	27	29	7060	0.25	450	39	54.6
KLx15-66-0xx0x-HG	DN350	PN10	78	552	369	280	129	327	222	F12	27	29	10200	0.23	545	48	76
KLx15-67-0xx0x-HG	DN400	PN10	102	628	400	305	144	377	247	F12	27	29	14030	0.2	700	80	122
KLx15-68-0xx0x-HG	DN450	PN10	114	701.5	423	365	164	427	287	F14 / F16	36	38	18580	0.19	920	106	140
KLx15-69-0xx0x-HG	DN500	PN10	127	758.5	480	372	183	476	287	F14 / F16	36	38	23890	0.17	1140	128	203
KLx15-70-0xx0x-HG	DN600	PN10	154	862.5	562	458	220	574	287	F16	46	48	36900	0.15	1450	214	290



Order information:

1: automation:

- no specification: latching hand lever/ hand gear
- D: pneumatic double acting
- S: pneumatic single acting
- E: electric actuated

2: type:

- KLA15: wafer type
- KLC15: lug type

3: connection size:

- 54 -69 (see table)
- attached is the flange pressure:
0: PN10 1: PN16

4: materials:

- 1. digit: body material (M/L/K/O)
- 2. digit: sealing for spindle (E/V/H/W/Y/S/T)
- 3. digit: disc (0 = stainless steel)
- 4. digit: collar (E/V/H/W/Y/S/T)

5: actuator:

- no specification: latching hand lever (from DN300 hand gear)
- free spindle: option FW
- automated: see column "actuator"

6: options (see "options")

Please ask for field specifications that are not listed in this data sheet.

Before installation please consider the installation and maintenance manual, especially the safety indications!

**DKLA15 / SKLA15 / DKLC15 / SKLC15**

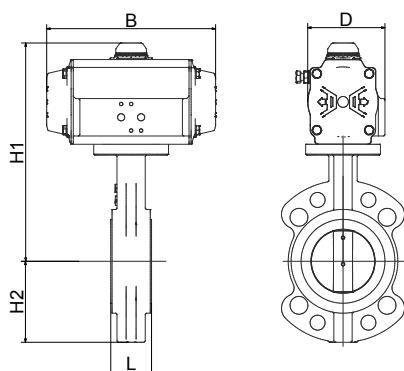
High quality pneumatic actuator made of alloy with air connection according to NAMUR and positioning indicator. The actuator works with the rack/bevel method. For further details see the technical data sheet "DR/SC".

Types double acting (the actuator opens and closes with compressed air) and single acting (the actuator opens with compressed air and closes with spring pressure).

The actuators are configured for use with fluid, gas and antifriction medium. **For critical media it is strictly recommended to inform us!**

Description:

- working pressure: 0 - 16bar / 0 - 10bar (from DN350)
 - ambient temperature: -20°C up to +80°C
 - pilot pressure: 6 - 8 bar
 - medium temperature: -20°C up to +80°C (180°C with ambient temperature up to 35°C)
- Other temperature conditions upon request.



match code	double acting: DKLA15/DKLC15					
	actuator	H1 [mm]	B [mm]	D [mm]	weight [kg]	
					DKLA15	DKLC15
DKLx15-56-1xx0x-	DR030	235	153.5	84.5	3.3	4.3
DKLx15-57-1xx0x-	DR030	229	153.5	84.5	4.5	5
DKLx15-58-1xx0x-	DR060	256	203.5	93	5.7	7.2
DKLx15-59-1xx0x-	DR060	263	203.5	93	6.5	8.8
DKLx15-60-1xx0x-	DR060	278	203.5	93	7.3	9.5
DKLx15-61-1xx0x-	DR060	292	203.5	93	9.6	12.2
DKLx15-62-1xx0x-	DR100	321	241	106	11.5	14.9
DKLx15-63-1xx0x-	DR220	393	304	136	21.8	30
DKLx15-64-1xx0x-	DR300	436	333	146.5	30	37.7
DKLx15-65-1xx0x-	DR450	492	394.5	166	46.2	60.2
DKLx15-66-0xx0x-	DR600	595	422.5	181	62	86.5
DKLx15-67-0xx0x-	DR900	670.5	474	200	85	123
DKLx15-68-0xx0x-	DR1200	718	528	221.5	130.5	161.5
DKLx15-69-0xx0x-	DR1200	775	528	221.5	151.5	217.5
DKLx15-70-0xx0x-	DR2000	910.5	605	262	203	318

match code	single acting: SKLA15 / SKLC15					
	actuator	H1 [mm]	B [mm]	D [mm]	weight [kg]	
					SKLA15	SKLC15
SKLx15-56-1xx0x-	SC030-I	235	153.3	84.5	3.4	4.4
SKLx15-57-1xx0x-	SC100-G	259	241	106	7.2	7.7
SKLx15-58-1xx0x-	SC100-K	269	241	106	7.3	8.8
SKLx15-59-1xx0x-	SC150-H	288	259	118.5	9.9	12.2
SKLx15-60-1xx0x-	SC150-J	303	259	118.5	10.7	12.9
SKLx15-61-1xx0x-	SC220-H	345	304	136	16.2	18.8
SKLx15-62-1xx0x-	SC300-K	373	333	146.5	19.8	23.2
SKLx15-63-1xx0x-	SC600-I	444	422.5	181	35.8	44
SKLx15-64-1xx0x-	SC900-J	599.5	474	200	54.8	62.5
SKLx15-65-1xx0x-	SC1200-K	580	528	221.5	74.2	88.2
SKLx15-66-0xx0x-	SC2000-H	797.5	605	262	113.2	137.7
SKLx15-67-0xx0x-	SC2000-K	828.5	605	262	130.2	168.2
SKLx15-68-0xx0x-	SC3000-I	803	710	330	189.5	220.5
SKLx15-69-0xx0x-	SC3000-J	860	710	330	210.5	276.5
SKLx15-70-0xx0x-	SC4000-J	995	812	371	305	420

Attention!

To avoid corrosion inside the spring chamber for single acting actuators caused by aggressive ambient air we recommend pilot valves with integrated air recirculation.

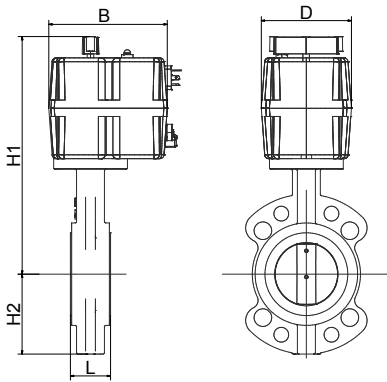
**EKLA15 / EKLC15**

High-quality electric actuator in compact design with a body made of high-strength plastics. It has a high-performance motor and a gear drive made of metal. A central control room heater and an electronic torque limiter are equipped as standard. For further details see the technical data sheet "J".

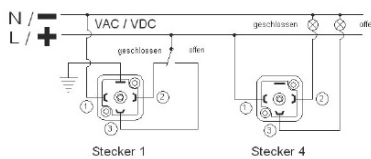
The actuators are configured for use with fluid, gas and antifriction medium. For critical media it is strictly recommended to inform us!

Description:

- working pressure: 0 - 16 bar
- temperature range: -20°C up to +70°C
- ambient temperature: -20°C up to +70°C
- medium temperature: -20°C up to +80°C (150°C with ambient temperature up to 35°C)
- Other temperature conditions upon request.



match code	actuator	H1 [mm]	B [mm]	D [mm]	weight [kg]	
					EKLA15	EKLC15
EKLx15-56-1xx0x-	J210-5	256.5	169	104	2.45	3.45
EKLx15-57-1xx0x-	J335-6	295	177	110	4.6	5.1
EKLx15-58-1xx0x-	J335-6	305	177	110	4.7	6.2
EKLx15-59-1xx0x-	J355-6	337	177	110	6.1	8.4
EKLx15-60-1xx0x-	J355-6	352	177	110	6.9	9.1
EKLx15-61-1xx0x-	J385-6	366	177	110	9.7	12.3
EKLx15-62-1xx0x-	J2140-6	450	177	110	13	16.4
EKLx15-63-1xx0x-	J2300-6	482	177	110	19	27.2
EKLx15-64-1xx0x-	J2300-6	513	177	110	25.4	33.1
EKLx15-65-1xx0x-	CH500-0	573	367	244	52.2	66.2
EKLx15-66-1xx0x-	CH800-0	682	386	284	69	93.5
EKLx15-67-1xx0x-	CH800-0	713	386	284	86	124
EKLx15-68-1xx0x-	CH1100	736	386	284	121.5	152.5
EKLx15-69-1xx0x-	on request	-	-	-	-	-
EKLx15-70-1xx0x-	on request	-	-	-	-	-

AC/DC Beschaltung
(3 Draht):**connection voltage type:**

- 19: 24V AC/DC up to 240V AC/ DC
- other voltages on request

supplemental sheet: important table for the type

Kv values [m³ / h] dependent on the opening angle:

DN	10°	20°	30°	40°	50°	60°	70°	80°
DN40	-	-	4	8	14	24	39	53
DN50	0.05	2.6	6	13	23	38	60	90
DN65	0.08	5	10	21	38	64	102	152
DN80	0.17	8	15	33	60	99	157	235
DN100	0.26	14	31	67	119	197	312	467
DN125	0.43	25	52	114	203	336	530	796
DN150	0.68	38	81	175	313	518	820	1230
DN200	1.7	76	161	349	622	1020	1629	2443
DN250	2.6	129	274	594	1059	1752	2773	4159
DN300	3.4	200	424	918	1636	2707	4284	6426
DN350	5.1	289	612	1326	2363	3910	6189	9282
DN400	6.8	397	841	1823	3250	5377	8510	12760
DN450	9.4	526	1115	2416	4304	7122	11272	16908
DN500	12	677	1433	3105	5534	9157	14493	21739
DN600	19	1046	2214	4798	8550	14148	22390	33586

breakaway torque [Nm] dependent on working pressure and medium

Comments of the table:

- condition A: antifriction media (oil, grease etc.)
- condition B: non-antifriction and dry media (solvent) and water

DN	3 bar		7 bar		10 bar		20 bar	
	A	B	A	B	A	B	A	B
DN40	8	14	8	14	8	14	8	14
DN50	11	18	11	18	18	28	23	33
DN65	14	24	14	24	28	43	33	48
DN80	18	28	18	28	28	45	36	53
DN100	22	33	22	33	33	50	42	58
DN125	26	41	32	48	48	72	58	78
DN150	48	68	55	83	88	133	105	159
DN200	110	165	140	205	155	232	195	290
DN250	180	270	210	320	235	350	295	445
DN300	275	405	350	485	400	560	450	630
DN350	370	550	460	685	545	810	620	920
DN400	450	700	580	860	700	990	820	1200
DN450	620	900	780	1120	920	1330	1100	1600
DN500	780	1130	960	1400	1140	1670	1410	2050
DN600	980	1300	1220	1650	1450	1960	1820	2450