

TORSIONALLY RIGID GEAR COUPLINGS

ZAPEX ZW SERIES



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ZAPEX ZW
FLENDER

GENERAL



Coupling suitable for use in potentially explosive atmospheres.

Complies with the current ATEX Directive for:

CE II 2G Ex h IIC T6 ... T5 Gb X

II 2D Ex h IIIC T85 °C ... 100 °C Db X

I M2 Ex h Mb X

Benefits

ZAPEX gear couplings link machine shafts and compensate for shaft misalignment with weak restorative forces. High transmissible torque combined with compactness and light weight are characteristic of ZAPEX couplings. ZAPEX coupling types are constructed on a modular principle.

This means that application-specific solutions can be delivered quickly. ZAPEX couplings require very little maintenance. Regular grease or oil changes at the prescribed intervals prolongs the service life of the coupling.

Application

ZAPEX couplings are especially suited for operation in harsh operating conditions, such as drives in the iron smelting or cement industry.

ZAPEX couplings are suitable for reverse operation and horizontal mounting positions and, in the case of type ZWNV, for vertical mounting positions.

GENERAL

Design and configurations

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A ZAPEX coupling comprises two hub sections with external teeth which are mounted on the machine shafts. Each set of external teeth engages in a flanged socket with mating internal teeth. The flanged sleeves are connected via two flanges with close-fitting bolts. The teeth are lubricated with oil or grease. On the ZAPEX type ZW, DUO sealing rings are used to seal the tooth space. The DUO sealing rings prevent the lubricant from escaping and dirt from entering the tooth space. The parallel keyways must be sealed during assembly to prevent lubricant from escaping. Customized hub designs are described after the types.

Type	Description
ZWN	Standard type
ZZS	with adapter
ZZW	with intermediate shaft
ZWH	with coupling sleeve
ZWBT	with offset brake disk
ZWBG	with straight brake disk
ZWB	with brake drum
ZWTR	for rope drums
ZBR	with shear pins
ZWS	Clutch
ZWNV	Vertical type
ZWSE	Simple clutch-coupling combination

Further application-specific coupling types are available; dimension sheets for and information on these are available on request.

Function

The torque is transmitted through the coupling teeth. The teeth are crowned, so angular displacement per tooth plane is possible. Radial displacement can be compensated for via the space VA between the tooth planes. The internal teeth of the flanged sleeves are significantly wider than the external teeth of the hub parts, permitting a relatively high axial misalignment.

A small angular misalignment on the coupling teeth results in an advantageous distribution of the lubricant film and a very low wear rate. This favorable condition can be deliberately set by aligning the drive with the machine shafts with a slight radial misalignment.

Technical specifications

Power ratings						
Size	Rated torque T_{KN} Nm	Maximum torque T_{Kmax} Nm	Overload torque T_{KOL} Nm	Fatigue torque T_{KW} Nm	Torsional stiffness ZW C_{Tdyn} kNm/rad	Permitted axial shaft misalignment ΔK_a mm
112	1300	2600	5200	520	2000	1.0
128	2500	5000	10000	1000	3600	1.0
146	4300	8600	17200	1720	6900	1.0
175	7000	14000	28000	2800	9360	1.0
198	11600	23200	46400	4640	15600	1.0
230	19000	38000	76000	7600	26300	1.0
255	27000	54000	108000	10800	33400	1.5
290	39000	78000	156000	15600	44000	1.5
315	54000	108000	216000	21600	64100	1.5
342	69000	138000	276000	27600	81600	1.5
375	98000	196000	392000	39200	115600	1.5
415	130000	260000	520000	52000	106000	1.5
465	180000	360000	720000	72000	134600	2.0
505	250000	500000	1000000	100000	168700	2.0
545	320000	640000	1280000	128000	216900	2.0
585	400000	800000	1600000	160000	263200	2.0
640	510000	1020000	2040000	204000	356000	2.0
690	660000	1320000	2640000	264000	431000	2.0
730	790000	1580000	3160000	316000	538000	2.0
780	1000000	2000000	4000000	400000	696000	3.0
852	1200000	2400000	4800000	480000	926000	3.0
910	1600000	3200000	6400000	640000	1118000	3.0
1020	1900000	3800000	7600000	760000	1339000	3.0
1080	2200000	4400000	8800000	880000	1605000	3.0
1150	2700000	5400000	10800000	1080000	2120000	3.0
1160	3350000	6700000	13400000	1340000	2474000	3.0
1240	3800000	7600000	15200000	1520000	3079000	3.0
1310	4600000	9200000	18400000	1840000	3693000	4.0
1380	5300000	10600000	21200000	2120000	4383000	4.0
1440	6250000	12500000	25000000	2500000	5056000	4.0
1540	7200000	14400000	28800000	2880000	6115000	4.0

In the case of type ZWTR, the rated torques which deviate from the above are specified in the dimension table.

The stated torsional stiffness "ZW" applies to coupling types ZWN and ZWNV.
Torsional stiffness of the remaining types on request.

The axial misalignment ΔK_a must be understood as the maximum permitted enlargement of the hub distance S of the coupling.

The axial misalignment for the types ZWBT, ZWBG and ZWNV is $1/2 \cdot \Delta K_a$.

Angular misalignment ΔK_w

Types ZWN, ZZS, ZZW, ZWH, ZWB, ZBR, ZWS: $\Delta K_w = 1^\circ$

Types ZWBT and ZWBG: $\Delta K_w = 0.2^\circ$

Type ZWSE: $\Delta K_w = 0.4^\circ$

Radial misalignment ΔK_r

Types ZWN, ZZS, ZZW, ZWH, ZWB, ZBR, ZWS:

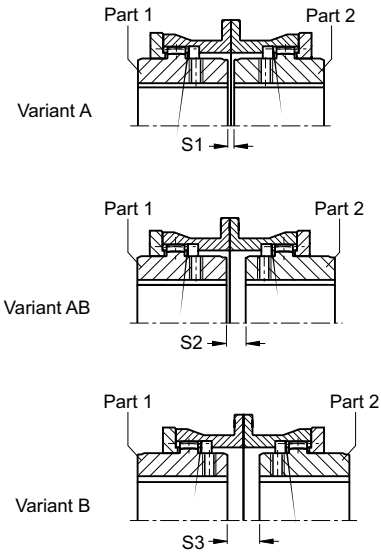
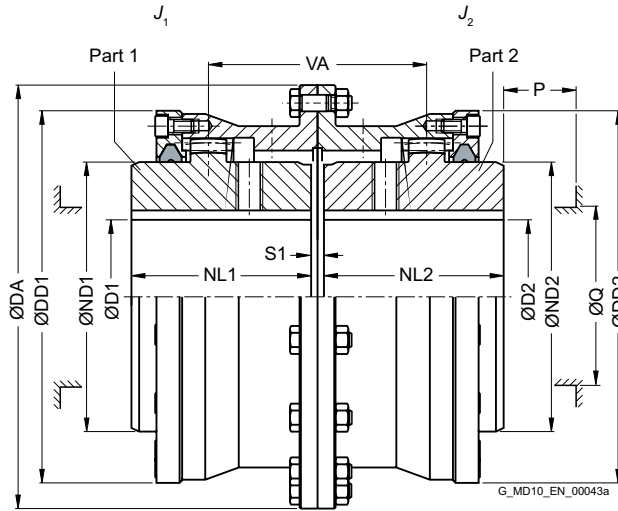
$\Delta K_r \leq VA \cdot \tan 1^\circ$

Types ZWBT and ZWBG: $\Delta K_r \leq VA \cdot \tan 0.2^\circ$

Type ZWSE: $\Delta K_r \leq VA \cdot 0.4^\circ$

For the tooth distance VA, see the relevant table for the subassembly.

TYPE ZWN



Size	Rated torque	Maximum speed	Dimensions in mm													Mass moment of inertia J_1/J_2	Article no. ¹⁾			Weight	
	T_{KN}		n_{Kmax}	D1, D2 Keyway DIN 6885-1		DA	ND1/ ND2	NL1/ NL2	DD1/ DD2	S1	S2	S3	VA	Q	P		Type	A	B		AB
	Nm			min.	max.																
112	1300	9400	0	49	143	65	50	110	6	-	-	56	50	35	0.007	2LC0300-0AA	2LC0300-0AB	2LC0300-0AC	5.8		
128	2500	8300	0	61	157	80	60	128	6	13	20	73	65	45	0.014	2LC0300-1AA	2LC0300-1AB	2LC0300-1AC	7.9		
146	4300	7300	0	72	177	95	75	146	6	13	20	88	75	45	0.021	2LC0300-2AA	2LC0300-2AB	2LC0300-2AC	11.5		
175	7000	6400	0	85	215	112	90	175	8	14	20	104	85	50	0.049	2LC0300-3AA	2LC0300-3AB	2LC0300-3AC	19		
198	11600	5500	0	100	237	135	100	198	8	19	30	119	110	50	0.086	2LC0300-4AA	2LC0300-4AB	2LC0300-4AC	26.5		
230	19000	4700	0	120	265	160	110	230	8	20	32	130	135	50	0.16	2LC0300-5AA	2LC0300-5AB	2LC0300-5AC	37		
255	27000	4100	0	140	294	185	125	255	10	25	40	150	160	50	0.26	2LC0300-6AA	2LC0300-6AB	2LC0300-6AC	49		
290	39000	3700	70	160	330	210	140	290	10	30	50	170	180	60	0.51	2LC0300-7AA	2LC0300-7AB	2LC0300-7AC	72		
315	54000	3300	80	175	366	230	160	315	10	30	50	190	200	60	0.81	2LC0300-8AA	2LC0300-8AB	2LC0300-8AC	99		
342	69000	3000	90	195	392	255	180	340	12	42	72	222	225	60	1.2	2LC0301-0AA	2LC0301-0AB	2LC0301-0AC	125		
375	98000	2700	100	220	430	290	200	375	12	42	72	242	260	60	2	2LC0301-1AA	2LC0301-1AB	2LC0301-1AC	170		
415	130000	2500	120	240	478	320	220	415	12	74	136	294	285	80	3.1	2LC0301-2AA	2LC0301-2AB	2LC0301-2AC	225		
465	180000	2200	140	270	528	360	240	465	16	96	176	336	325	80	5.2	2LC0301-3AA	2LC0301-3AB	2LC0301-3AC	300		
505	250000	2000	160	300	568	400	260	505	16	106	196	366	365	80	7.7	2LC0301-4AA	2LC0301-4AB	2LC0301-4AC	380		
545	320000	1800	180	330	620	440	280	545	16	126	236	406	405	80	12	2LC0301-5AA	2LC0301-5AB	2LC0301-5AC	490		
585	400000	1700	210	360	660	480	310	585	20	150	280	460	445	80	17	2LC0301-6AA	2LC0301-6AB	2LC0301-6AC	620		
640	510000	1600	230	360	738	480	330	640	20	149	278	479	445	90	25	2LC0301-7AA	2LC0301-7AB	2LC0301-7AC	780		
			>360	390		520							475		27				800		
690	660000	1450	250	390	788	520	350	690	20	166	312	516	475	90	35	2LC0301-8AA	2LC0301-8AB	2LC0301-8AC	950		
			>390	420		560							515		38				980		
730	790000	1350	275	420	834	560	380	730	20	180	340	560	515	90	48	2LC0302-0AA	2LC0302-0AB	2LC0302-0AC	1150		
			>420	450		600							555		52				1200		

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on flender.com.

↗ For online configuration on flender.com, click on the item no.

Size	Rated torque	Maximum speed	Dimensions in mm														Mass moment of inertia J_1/J_2	➤ Article no. ¹⁾			Weight
	T_{KN}		n_{Kmax}	D1, D2 Keyway DIN 6885-1		DA	ND1/ ND2	NL1/ NL2	DD1/ DD2	S1	S2	S3	VA	Q	P	Type		A	B	AB	
	Nm	rpm	min.	max.												kgm ²				kg	
780	1000000	1250	300	450	900	600	400	780	25	176	327	576	555	110	68	2LC0302-1AA	2LC0302-1AB	2LC0302-1AC	1450		
			>450	490		650							595		77				1450		
852	1200000	1150	325	490	970	650	420	850	25	185	345	605	595	110	100	2LC0302-2AA	2LC0302-2AB	2LC0302-2AC	1750		
			>490	535		710							655		110				1800		
910	1600000	1050	350	535	1030	710	450	910	25	215	405	665	655	110	140	2LC0302-3AA	2LC0302-3AB	2LC0302-3AC	2100		
			>535	570		750							695		145				2150		
1020	1900000	1000	375	570	1112	750	480	1020	25	213	401	693	695	130	200	2LC0302-4AA	2LC0302-4AB	2LC0302-4AC	2600		
			>570	600		800							735		220				2800		
1080	2200000	950	400	600	1162	800	500	1080	30	226	422	726	735	135	255	2LC0302-5AA	2LC0302-5AB	2LC0302-5AC	3100		
			>600	650		860							795		285				3200		
1150	2700000	900	425	650	1222	860	520	1150	30	238	446	758	795	135	330	2LC0302-6AA	2LC0302-6AB	2LC0302-6AC	3600		
			>650	705		930							865		380				3700		
1160	3350000	850	450	650	1292	860	550	1160	30	260	490	810	795	135	420	2LC0302-7AA	2LC0302-7AB	2LC0302-7AC	4000		
			>650	705		930							1160		450				4100		
			>705	750		990							1210		500				4300		
			475	705		930							1240		580				4900		
1240	3800000	800	>705	750	1400	990	580	1240	30	250	470	830	910	155	620	2LC0302-8AA	2LC0302-8AB	2LC0302-8AC	5000		
			>750	800		1055		1290					700		5300						
			500	705		930		1310					730		5600						
			>705	750		990		1310					770		5700						
1310	4600000	750	>750	800	1470	1055	610	1310	35	265	495	875	975	155	840	2LC0303-0AA	2LC0303-0AB	2LC0303-0AC	5900		
			>800	850		1120		1370					930		6200						
			525	750		990		1380					910		6500						
			>750	800		1055		1380					1000		6800						
1380	5300000	700	>800	850	1540	1120	640	1380	35	275	515	915	1030	155	1050	2LC0303-1AA	2LC0303-1AB	2LC0303-1AC	6900		
			>850	890		1170		1430					1150		7100						
			550	800		1055		1440					975		7500						
			>800	850		1120		1440					1250		7600						
1440	6250000	670	>850	890	1600	1170	670	1440	35	295	555	965	1080	155	1300	2LC0303-2AA	2LC0303-2AB	2LC0303-2AC	7700		
			>890	940		1240		1510					1450		8200						
			575	850		1120		1540					975		7500						
			>850	890		1170		1540					1600		8800						
1540	7200000	630	>890	940	1710	1240	700	1540	35	275	515	975	1080	175	1700	2LC0303-3AA	2LC0303-3AB	2LC0303-3AC	9200		
			>940	995		1310		1610					1900		9600						

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- Mass moments of inertia apply to a coupling half with maximum bore diameter.
- Weights apply to the entire coupling with maximum bores.
- Q Diameter required for renewing the sealing rings.
P Length required for renewing the sealing rings.

Ordering example

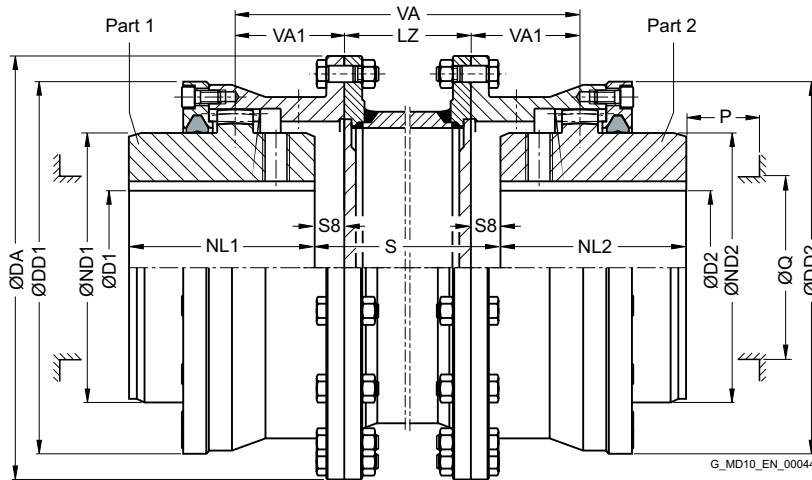
- ZAPEX ZWN coupling, size 146, variant A
- Part 1: Bore 40H7mm, keyway to DIN 6885-1 P9 and set screw
- Part 2: Bore 45K7 mm, keyway to DIN 6885-1 P9 and set screw

Article no.: 2LC0300-2AA99-0AA0-Z L0W+M1A+M13

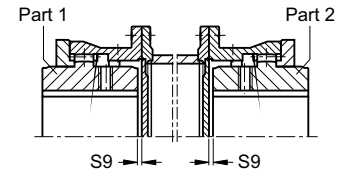
¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on [flender.com](https://www.flender.com).

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TYPE ZZS



Variant B



Variant A

Size	Rated torque T_{KN}	Dimensions in mm												➤ Article no. ¹⁾		Weight each 100 mm pipe	
		D1, D2 Keyway DIN 6885-1		DA	ND1/ND2	NL1/NL2	DD1/DD2	S8	S9	VA1	Q	P	LZ	Type		m	m
		min.	max.											A	B	kg	kg
112	1300	0	49	143	65	50	110	3	3	28	50	35	120	2LC0300-0AD	2LC0300-0AE	0.8	9.4
128	2500	0	61	157	80	60	128	10	3	36.5	65	45	120	2LC0300-1AD	2LC0300-1AE	1.3	12.5
146	4300	0	72	177	95	75	146	10	3	44	75	45	120	2LC0300-2AD	2LC0300-2AE	1.8	17
175	7000	0	85	215	112	90	175	10	4	52	85	50	130	2LC0300-3AD	2LC0300-3AE	2.3	27.5
198	11600	0	100	237	135	100	198	15	4	59.5	110	50	130	2LC0300-4AD	2LC0300-4AE	3.5	37
230	19000	0	120	265	160	110	230	16	4	65	135	50	130	2LC0300-5AD	2LC0300-5AE	4.5	50
255	27000	0	140	294	185	125	255	20	5	75	160	50	140	2LC0300-6AD	2LC0300-6AE	6.3	68
290	39000	70	160	330	210	140	290	25	5	85	180	60	140	2LC0300-7AD	2LC0300-7AE	7.2	93
315	54000	80	175	366	230	160	315	25	5	95	200	60	180	2LC0300-8AD	2LC0300-8AE	9.1	135
342	69000	90	195	392	255	180	340	36	6	111	225	60	180	2LC0301-0AD	2LC0301-0AE	12	170
375	98000	100	220	430	290	200	375	36	6	121	260	60	180	2LC0301-1AD	2LC0301-1AE	15	220
415	130000	120	240	478	320	220	415	68	6	147	285	80	200	2LC0301-2AD	2LC0301-2AE	17	295
465	180000	140	270	528	360	240	465	88	8	168	325	80	200	2LC0301-3AD	2LC0301-3AE	19	380
505	250000	160	300	568	400	260	505	98	8	183	365	80	200	2LC0301-4AD	2LC0301-4AE	24	470
545	320000	180	330	620	440	280	545	118	8	203	405	80	220	2LC0301-5AD	2LC0301-5AE	30	640
585	400000	210	360	660	480	310	585	140	10	230	445	80	220	2LC0301-6AD	2LC0301-6AE	33	780
640	510000	230	360	738	480	330	640	139	10.0	239.5	445	90	250	2LC0301-7AD	2LC0301-7AE	39	1010
		>360	390		520						475						1050
690	660000	250	390	788	520	350	690	156	10.0	258	475	90	250	2LC0301-8AD	2LC0301-8AE	48	1200
		>390	420		560						515						1250
730	790000	275	420	834	560	380	730	170	10.0	280	515	90	250	2LC0302-0AD	2LC0302-0AE	51	1450
		>420	450		600						555						1500
780	1000000	300	450	900	600	400	780	163.5	12.5	288	555	110	280	2LC0302-1AD	2LC0302-1AE	55	1850
		>450	490		650						595						1900

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on flender.com.

➤ For online configuration on flender.com, click on the item no.

Size	Rated torque	Dimensions in mm												➤ Article no. ¹⁾		Weight each 100 mm pipe <i>m</i>	
		D1, D2 Keyway DIN 6885-1		DA	ND1/ND2	NL1/NL2	DD1/DD2	S8	S9	VA1	Q	P	LZ				
	Nm	min.	max.										min.	A	B	kg	kg
852	1200000	325	490	970	650	420	850	172.5	12.5	302.5	595	110	280	2LC0302-2AD	2LC0302-2AE	68	2300
		>490	535		710						655						2400
910	1600000	350	535	1030	710	450	910	202.5	12.5	332.5	655	110	280	2LC0302-3AD	2LC0302-3AE	94	2800
		>535	570		750						695						2850
1020	1900000	375	570	1112	750	480	1020	200.5	12.5	346.5	695	130	380	2LC0302-4AD	2LC0302-4AE		
		>570	600		800						735						
1080	2200000	400	600	1162	800	500	1080	211	15.0	363	735	135	380	2LC0302-5AD	2LC0302-5AE		
		>600	650		860						795						
1150	2700000	425	650	1222	860	520	1150	223	15.0	379	795	135	380	2LC0302-6AD	2LC0302-6AE		
		>650	705		930						865						
1160	3350000	450	650	1292	860	550	1160	245	15.0	405	795	135	380	2LC0302-7AD	2LC0302-7AE		
		>650	705		930						865						
1240	3800000	>705	750	1292	990	550	1160	245	15.0	405	910	135	380	2LC0302-7AD	2LC0302-7AE		
		475	705		930						865						
1240	3800000	>705	750	1400	990	580	1240	235	15.0	415	910	155	400	2LC0302-8AD	2LC0302-8AE		
		>750	800		1055						975						
1310	4600000	500	705	1470	930	610	1310	247.5	17.5	437.5	865	155	400	2LC0303-0AD	2LC0303-0AE		
		>705	750		990						910						
1310	4600000	>750	800	1470	1055	610	1310	247.5	17.5	437.5	975	155	400	2LC0303-0AD	2LC0303-0AE		
		>800	850		1120						1030						
1380	5300000	525	750	1540	990	640	1380	257.5	17.5	457.5	910	155	400	2LC0303-1AD	2LC0303-1AE		
		>750	800		1055						975						
1380	5300000	>800	850	1540	1120	640	1380	257.5	17.5	457.5	1030	155	400	2LC0303-1AD	2LC0303-1AE		
		>850	890		1170						1080						
1440	6250000	550	800	1600	1055	670	1440	277.5	17.5	482.5	975	155	400	2LC0303-2AD	2LC0303-2AE		
		>800	850		1120						1030						
1440	6250000	>850	890	1600	1170	670	1440	277.5	17.5	482.5	1080	155	400	2LC0303-2AD	2LC0303-2AE		
		>890	940		1240						1150						
1540	7200000	575	850	1710	1120	700	1540	257.5	17.5	487.5	1030	175	600	2LC0303-3AD	2LC0303-3AE		
		>850	890		1170						1080						
1540	7200000	>890	940	1710	1240	700	1540	257.5	17.5	487.5	1150	175	600	2LC0303-3AD	2LC0303-3AE		
		>940	995		1310						1220						

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- Mass moments of inertia apply to a coupling half with maximum bore diameter.
- Weights apply to maximum bores and an adapter length of LZ min.
- Weights from size 1020 on request.
- $VA = 2 \cdot VA1 + LZ$
- Mass moment of inertia on request.
- Maximum speed, limited by weight and critical adapter speed, on request.
- Q Diameter required for renewing the sealing rings.
P Length required for renewing the sealing rings.

Ordering example

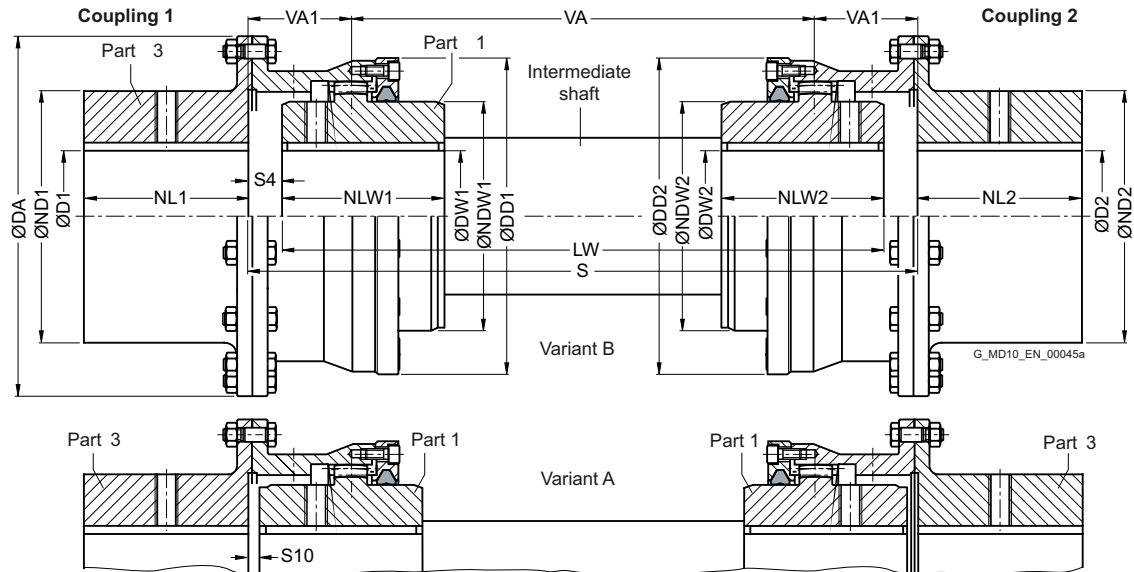
- ZAPEX ZZS coupling, size 146, variant B
- Part 1: Bore 40H7mm, keyway to DIN 6885-1 P9 and set screw
- Part 2: Bore 45K7 mm, keyway to DIN 6885-1 P9 and set screw

Article no.: 2LC0300-2AE99-0AZ0-Z L0W+M1A+Q0Y+M13
Plain text to Q0Y: 250 mm (dimension S)

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on [flender.com](https://www.flender.com).

➤ For online configuration on [flender.com](https://www.flender.com), click on the item no.

TYPE ZZW



Size	Rated torque	Dimensions in mm												➤ Article no. ¹⁾		Weight
	T_{KN}	D1, D2 Keyway DIN 6885-1		DA	ND1/ ND2	NL1/ NL2/ NLW1/ NLW2	DW1, DW2 Keyway DIN 6885-1		NDW1/ NDW2	DD1/ DD2	S4	S10	VA1	Type		m
	Nm	min.	max.				min.	max.						A	B	kg
112	1300	20	61	143	80	50	0	49	65	110	12.5	12.5	37.5	2LC0300-0BD	2LC0300-0BE	5.1
128	2500	25	72	157	95	60	0	61	80	128	12.5	5.5	39	2LC0300-1BD	2LC0300-1BE	6.8
146	4300	30	85	177	112	75	0	72	95	146	12.5	5.5	46.5	2LC0300-2BD	2LC0300-2BE	9.8
175	7000	35	100	215	135	90	0	85	112	175	12.5	6.5	54.5	2LC0300-3BD	2LC0300-3BE	16.5
198	11600	40	120	237	160	100	0	100	135	198	17.5	6.5	62	2LC0300-4BD	2LC0300-4BE	23
230	19000	50	140	265	185	110	0	120	160	230	18.5	6.5	67.5	2LC0300-5BD	2LC0300-5BE	32
255	27000	60	160	294	210	125	0	140	185	255	23.5	8.5	78.5	2LC0300-6BD	2LC0300-6BE	43
290	39000	70	175	330	230	140	70	160	210	290	28.5	8.5	88.5	2LC0300-7BD	2LC0300-7BE	61
315	54000	80	195	366	255	160	80	175	230	315	28.5	8.5	98.5	2LC0300-8BD	2LC0300-8BE	86
342	69000	90	220	392	290	180	90	195	255	340	39.5	9.5	114.5	2LC0301-0BD	2LC0301-0BE	115
375	98000	100	240	430	320	200	100	220	290	375	39.5	9.5	124.5	2LC0301-1BD	2LC0301-1BE	150
415	130000	120	270	478	360	220	120	240	320	415	71.5	9.5	150.5	2LC0301-2BD	2LC0301-2BE	205
465	180000	140	300	528	400	240	140	270	360	465	91.5	11.5	171.5	2LC0301-3BD	2LC0301-3BE	275
505	250000	160	330	568	440	260	160	300	400	505	102.5	12.5	187.5	2LC0301-4BD	2LC0301-4BE	350
545	320000	180	360	620	480	280	180	330	440	545	122.5	12.5	207.5	2LC0301-5BD	2LC0301-5BE	450
585	400000	210	360	660	480	310	210	360	480	585	144.5	14.5	234.5	2LC0301-6BD	2LC0301-6BE	540
		>360	390		520											570
640	510000	230	390	738	520	330	230	360	480	640	143.5	14.5	244	2LC0301-7BD	2LC0301-7BE	700
		>390	420		560		>360	390	520							740
690	660000	250	420	788	560	350	250	390	520	690	160.5	14.5	262.5	2LC0301-8BD	2LC0301-8BE	850
		>420	450		600		>390	420	560							900
730	790000	275	450	834	600	380	275	420	560	730	176	16	286	2LC0302-0BD	2LC0302-0BE	1050
		>450	490		650		>420	450	600							1100
780	1000000	300	490	900	650	400	300	450	600	780	171.5	20.5	296	2LC0302-1BD	2LC0302-1BE	1300
		>490	535		710		>450	490	650							1350

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on flender.com.

➤ For online configuration on flender.com, click on the item no.

Size	Rated torque	Dimensions in mm												↗ Article no. ¹⁾		Weight			
		D1, D2 Keyway DIN 6885-1		DA	ND1/ND2	NL1/ NL2/ NLW1/ NLW2	DW1, DW2 Keyway DIN 6885-1		NDW1/ NDW2	DD1/ DD2	S4	S10	VA1	Type	m				
	min.	max.	min.				max.	A								B	kg		
852	1200000	325	535	970	710	420	325	490	650	850	180.5	20.5	310.5	2LC0302-2BD	2LC0302-2BE	1550			
		>535	570				>490	535								710	1650		
910	1600000	350	570	1030	750	450	350	535	710	910	210.5	20.5	340.5	2LC0302-3BD	2LC0302-3BE	1900			
		>570	600				>535	570								750	2000		
1020	1900000	375	600	1112	800	480	375	570	750	1020	210.5	22.5	356.5	2LC0302-4BD	2LC0302-4BE	2300			
		>600	650				>570	600								800	2500		
1080	2200000	400	650	1162	860	500	400	600	800	1080	221	25	373	2LC0302-5BD	2LC0302-5BE	2750			
		>650	705				>600	650								860	2900		
1150	2700000	425	650	1222	860	520	425	650	860	1150	233	25	389	2LC0302-6BD	2LC0302-6BE	3100			
		>650	705				>650	705								930	3200		
		>705	750				990	>650								705	930	3400	
1160	3350000	450	705	1292	930	550	450	650	860	1160	255	25	415	2LC0302-7BD	2LC0302-7BE	3600			
		>705	750				>650	705								930	1160	3700	
		>750	800				1055	>705								750	990	1210	4000
1240	3800000	475	705	1400	930	580	475	705	930	1240	245	25	425	2LC0302-8BD	2LC0302-8BE	4200			
		>705	750				990	475								705	930	1240	4400
		>750	800				1055	>705								750	990	1240	4600
		>800	850				1120	>750								800	1055	1290	4900
1310	4600000	500	750	1470	990	610	500	705	930	1310	257.5	27.5	447.5	2LC0303-0BD	2LC0303-0BE	4900			
		>750	800				1055	>705								750	990	1310	5100
		>800	850				1120	>750								800	1055	1310	5300
		>850	890				1170	>800								850	1120	1370	5600
1380	5300000	525	800	1540	1055	640	525	750	990	1380	267.5	27.5	467.5	2LC0303-1BD	2LC0303-1BE	5700			
		>800	850				1120	>750								800	1055	1380	5900
		>850	890				1170	>800								850	1120	1380	6100
		>890	940				1240	>850								890	1170	1430	6500
1440	6250000	550	850	1600	1120	670	550	800	1055	1440	287.5	27.5	492.5	2LC0303-2BD	2LC0303-2BE	6500			
		>850	890				1170	>800								850	1120	1440	6700
		>890	940				1240	>850								890	1170	1440	7000
		>940	995				1310	>890								940	1240	1510	7400
1540	7200000	575	890	1710	1170	700	575	850	1120	1540	267.5	27.5	497.5	2LC0303-3BD	2LC0303-3BE	7700			
		575	890				>850	890								1170	1540	7700	
		>890	940				1240	>890								940	1240	1540	8100
		>940	1040				1390	>940								995	1310	1610	8900

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- $VA = S - 2 \cdot VA1$
- Mass moment of inertia on request.
- Weights apply to either coupling 1 or 2 with maximum bore diameter, without intermediate shaft.
- Maximum speed, limited by weight and critical speed of intermediate shaft, on request.

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on [flender.com](https://www.flender.com).

➤ For online configuration on [flender.com](https://www.flender.com), click on the item no.

Ordering example

- Coupling 1:
ZAPEX ZZW coupling, size 146, variant B,
Part 3: Bore D1 = 45K7 mm, keyway to DIN 6885-1 P9 and set screw, Part 1: Bore DW1 = 45H7 mm, keyway to DIN 6885-1 P9 and set screw.

Article no.: 2LC0300-2BE99-0AA0-Z L1A+M1A+L13

- Intermediate shaft:
Intermediate shaft for ZAPEX coupling ZZW, size 146,
length LW = 570 mm, for shaft distance S = 595 mm
shaft journal Ø45p6 x 75 long; keyway DIN 6885-1.

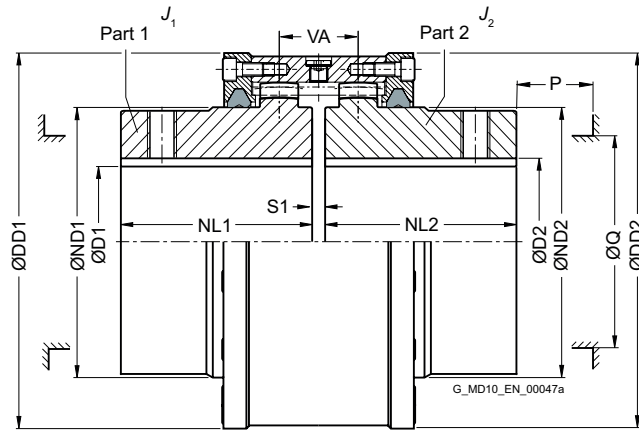
Article no.: 2LC0308-8XX00-0AA0-Z Y99

Plain text to Y99: DW1 = 45p6 mm, NLW1 = 75 mm,
DW2 = 45p6 mm, NLW2 = 75 mm, LW = 570 mm

- Coupling 2:
ZAPEX ZZW coupling, size 146, variant B,
Part 1: Bore DW2 = 45H7 mm, keyway to DIN 6885-1 P9 and set screw, Part 3: Bore D2 = 45K7 mm, keyway to DIN 6885-1 P9 and set screw.

Article no.: 2LC0300-2BE99-0AA0-Z L1A+M1A+L13

TYPE ZWH



Size	Rated torque	Maximum speed	Dimensions in mm									Mass moment of inertia	↗ Article no. ¹⁾	Weight
	T_{KN}	n_{Kmax}	D1, D2 Keyway DIN 6885-1		ND1/ND2	NL1/NL2	DD1/DD2	S1	VA	Q	P	J_1/J_2		m
	Nm	rpm	min.	max.								kgm²		kg
112	1300	9400	0	49	65	50	110	6	28	50	35	0.003	2LC0300-0BB	3.5
128	2500	8300	0	61	80	60	128	6	30	65	45	0.007	2LC0300-1BB	5.1
146	4300	7300	0	72	95	75	146	6	33	75	45	0.012	2LC0300-2BB	7.8
175	7000	6400	0	85	112	90	175	8	46	85	50	0.031	2LC0300-3BB	13.5
198	11600	5500	0	100	135	100	198	8	48	110	50	0.056	2LC0300-4BB	20
230	19000	4700	0	120	160	110	230	8	50	135	50	0.11	2LC0300-5BB	28.5
255	27000	4100	0	140	185	125	255	10	55	160	50	0.18	2LC0300-6BB	38
290	39000	3700	70	160	210	140	290	10	58	180	60	0.35	2LC0300-7BB	56
315	54000	3300	80	175	230	160	315	10	62	200	60	0.55	2LC0300-8BB	74
342	69000	3000	90	195	255	180	340	12	70	225	60	0.82	2LC0301-0BB	95
375	98000	2700	100	220	290	200	375	12	72	260	60	1.3	2LC0301-1BB	130
415	130000	2500	120	240	320	220	415	12	76	285	80	2.3	2LC0301-2BB	175
465	180000	2200	140	270	360	240	465	16	90	325	80	4	2LC0301-3BB	245
505	250000	2000	160	300	400	260	505	16	92	365	80	6	2LC0301-4BB	310
545	320000	1800	180	330	440	280	545	16	96	405	80	8.8	2LC0301-5BB	390
585	400000	1700	210	360	480	310	585	20	102	445	80	13	2LC0301-6BB	500
640	510000	1600	230	360	480	330	640	20	105	445	90	18	2LC0301-7BB	620
			>360	390	520					475		19.5		650
690	660000	1450	250	390	520	350	690	20	108	475	90	25.5	2LC0301-8BB	760
			>390	420	560					515		28		790
730	790000	1350	275	420	560	380	730	20	112	515	90	35	2LC0302-0BB	920
			>420	450	600					555		39		950
780	1000000	1250	300	450	600	400	780	25	120	555	110	48	2LC0302-1BB	1150
			>450	490	650					595		57		

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- Larger size couplings on request.
- Mass moments of inertia apply to a coupling half with maximum bore diameter.
- Weights apply to the entire coupling with maximum bores.
- Q Diameter required for renewing the sealing rings.
P Length required for renewing the sealing rings.

Ordering example

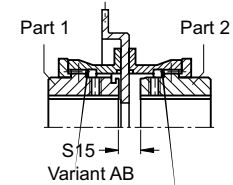
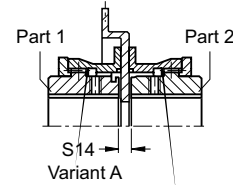
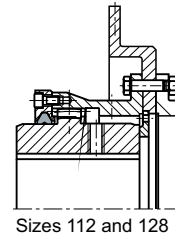
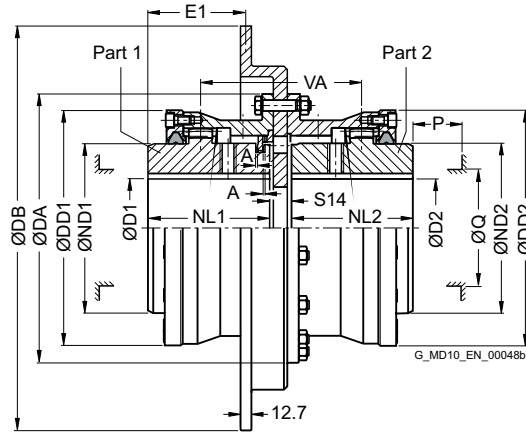
- ZAPEX ZWH coupling, size 146
- Part 1: Bore 40H7mm, keyway to DIN 6885-1 P9 and set screw
- Part 2: Bore 45K7 mm, keyway to DIN 6885-1 P9 and set screw

Article no.: 2LC0300-2BB99-0AA0-Z L0W+M1A+M13

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on [flender.com](https://www.flender.com).

➤ For online configuration on [flender.com](https://www.flender.com), click on the item no.

TYPE ZWBT



Size	Rated torque T_{KN} Nm	Maximum speed n_{Kmax} rpm	Dimensions in mm														Brake disk		Article no. ¹⁾		Weight m kg
			D1 Keyway DIN 6885-1		D2 Keyway DIN 6885-1		DA	ND1/ ND2	NL1/ NL2	DD1/ DD2	S14	S15	A	VA	Q	P	DB	E1	Type		
			min.	max.	min.	max.													A	B	
112	1300	3800	0	49	0	49	143	65	50	110	20	–	0.5	70	50	35	300	32.35	2LC0300-0AS	2LC0300-0AT	13
		3200									23	–		73			356	22.35	2LC0300-0AS	2LC0300-0AT	16.5
128	2500	3200	0	61	0	61	157	80	60	128	23.5	30.5	0.5	90.5	65	45	356	32.85	2LC0300-1AS	2LC0300-1AT	19
		2800									20.5	27.5		87.5			406	29.85	2LC0300-1AS	2LC0300-1AT	21.5
146	4300	2800	0	65	0	72	177	95	75	146	19	26	0.5	101	75	45	406	43.35	2LC0300-2AS	2LC0300-2AT	25
		2500									22	29		104			457	46.35	2LC0300-2AS	2LC0300-2AT	30
175	7000	2800	0	80	0	85	215	112	90	175	21	27	0.5	117	85	50	406	59.35	2LC0300-3AS	2LC0300-3AT	33
		2500									24	30		120			457	62.35	2LC0300-3AS	2LC0300-3AT	38
198	11600	2200	0	95	0	100	237	135	100	198	24	30	0.5	120	110	50	514	62.35	2LC0300-3AS	2LC0300-3AT	43
		2500									24	35		135			457	72.35	2LC0300-4AS	2LC0300-4AT	46
230	19000	2200	0	117	0	120	265	160	110	230	24	36	0.5	146	135	50	514	72.35	2LC0300-4AS	2LC0300-4AT	51
		1850									24	36		146			610	82.35	2LC0300-5AS	2LC0300-5AT	62
255	27000	2200	0	140	0	140	294	185	125	255	26	41	1	166	160	50	514	82.35	2LC0300-5AS	2LC0300-5AT	73
		1850									26	41		166			610	98.35	2LC0300-6AS	2LC0300-6AT	84
290	39000	2200	70	155	70	160	330	210	140	290	26	46	1	186	180	60	610	113.35	2LC0300-7AS	2LC0300-7AT	110
		1600									29	49		189			711	116.35	2LC0300-7AS	2LC0300-7AT	125
315	54000	1850	80	175	80	175	366	230	160	315	26	46	1	206	200	60	610	133.35	2LC0300-8AS	2LC0300-8AT	135
		1600									29	49		209			711	136.35	2LC0300-8AS	2LC0300-8AT	150
342	69000	1600	90	195	90	195	392	255	180	340	31	61	1	241	225	60	711	157.35	2LC0301-0AS	2LC0301-0AT	180
375	98000	1600	100	220	100	220	430	290	200	375	31	61	1	261	260	60	711	177.35	2LC0301-1AS	2LC0301-1AT	220
415	130000	1400	120	240	120	240	478	320	220	415	37	99	1	319	285	80	812	203.35	2LC0301-2AS	2LC0301-2AT	320
465	180000	1400	140	270	140	270	528	360	240	465	41	121	1	361	325	80	812	225.35	2LC0301-3AS	2LC0301-3AT	400

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- Mass moment of inertia on request.
- Weights apply to maximum bores.
- Variant limited in displacement and axial movement. Max. displacement 0.2°.
- Q Diameter required for renewing the sealing rings.
P Length required for renewing the sealing rings.

Ordering example

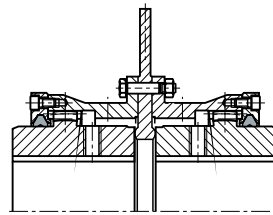
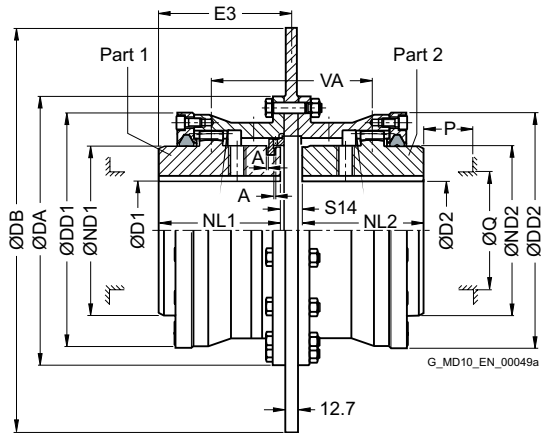
- ZAPEX ZWBT coupling, size 146, variant A, brake disk diameter DB = 457 mm
- Part 1: Bore 40H7mm, keyway to DIN 6885-1 P9 and set screw
- Part 2: Bore 45K7 mm, keyway to DIN 6885-1 P9 and set screw

Article no.: 2LC0300-2AS99-0BA0-Z L0W+M1A+M13

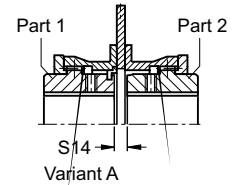
¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on [flender.com](https://www.flender.com).

➤ For online configuration on [flender.com](https://www.flender.com), click on the item no.

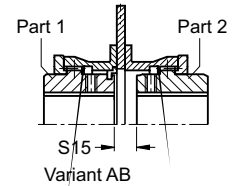
TYPE ZWBG



Sizes 112 and 128



Variant A



Variant AB

Size	Rated torque	Maximum speed	Dimensions in mm														Brake disk		Article no. ¹⁾		Weight
			D1 Keyway DIN 6885-1		D2 Keyway DIN 6885-1		DA	ND1/ND2	NL1/NL2	DD1/DD2	S14	S15	A	VA	Q	P			DB	E3	
	min.	max.	min.	max.	A	AB											kg				
112	1300	3800	0	49	0	49	143	65	50	110	19	—	0.5	69	50	35	300	59.5	2LC0300-0AU	2LC0300-0AV	13
		22									—	72		356			61	2LC0300-0AU	2LC0300-0AV	16	
128	2500	3200	0	61	0	61	157	80	60	128	22	29	0.5	89	65	45	356	71	2LC0300-1AU	2LC0300-1AV	18
		19									26	86		406			69.5	2LC0300-1AU	2LC0300-1AV	20.5	
146	4300	2800	0	65	0	72	177	95	75	146	19	26	0.5	101	75	45	406	84.5	2LC0300-2AU	2LC0300-2AV	24
		22									29	104		457			86	2LC0300-2AU	2LC0300-2AV	28.5	
175	7000	2800	0	80	0	85	215	112	90	175	21	27	0.5	117	85	50	406	100.5	2LC0300-3AU	2LC0300-3AV	31
		24									30	120		457			102	2LC0300-3AU	2LC0300-3AV	35	
198	11600	2500	0	95	0	100	237	135	100	198	24	35	0.5	135	110	50	514	102	2LC0300-3AU	2LC0300-3AV	40
		24									35	135		457			112	2LC0300-4AU	2LC0300-4AV	43	
230	19000	2200	0	117	0	120	265	160	110	230	24	36	0.5	146	135	50	514	122	2LC0300-5AU	2LC0300-5AV	58
		24									36	146		610			122	2LC0300-5AU	2LC0300-5AV	66	
255	27000	2200	0	140	0	140	294	185	125	255	26	41	1	166	160	50	514	138	2LC0300-6AU	2LC0300-6AV	69
		26									41	166		610			138	2LC0300-6AU	2LC0300-6AV	77	
290	39000	1850	70	155	70	160	330	210	140	290	26	46	1	186	180	60	610	153	2LC0300-7AU	2LC0300-7AV	100
		29									49	189		711			154.5	2LC0300-7AU	2LC0300-7AV	110	
315	54000	1850	80	175	80	175	366	230	160	315	26	46	1	206	200	60	610	173	2LC0300-8AU	2LC0300-8AV	130
		29									49	209		711			174.5	2LC0300-8AU	2LC0300-8AV	140	
342	69000	1600	90	195	90	195	392	255	180	340	31	61	1	241	225	60	711	195.5	2LC0301-0AU	2LC0301-0AV	165
375	98000	1600	100	220	100	220	430	290	200	375	31	61	1	261	260	60	711	215.5	2LC0301-1AU	2LC0301-1AV	205
415	130000	1400	120	240	120	240	478	320	220	415	37	99	1	319	285	80	812	238.5	2LC0301-2AU	2LC0301-2AV	280
465	180000	1400	140	270	140	270	528	360	240	465	41	121	1	361	325	80	812	260.5	2LC0301-3AU	2LC0301-3AV	360

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- Mass moment of inertia on request.
- Weights apply to maximum bores.
- Variant limited in displacement and axial movement. Max. displacement 0.2°.
- Modified brake disk dimensions on request
- Q Diameter required for renewing the sealing rings.
P Length required for renewing the sealing rings.

Ordering example

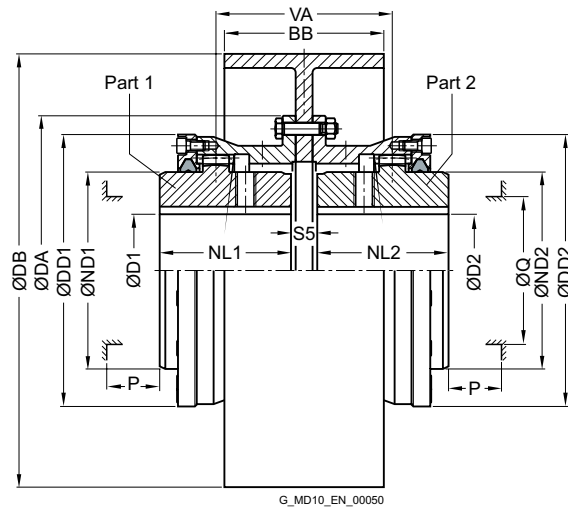
- ZAPEX ZWBG coupling, size 146, variant A, brake disk diameter DB = 457 mm
- Part 1: Bore 40H7mm, keyway to DIN 6885-1 P9 and set screw
- Part 2: Bore 45K7 mm, keyway to DIN 6885-1 P9 and set screw

Article no.: 2LC0300-2AU99-0BA0-Z L0W+M1A+M13

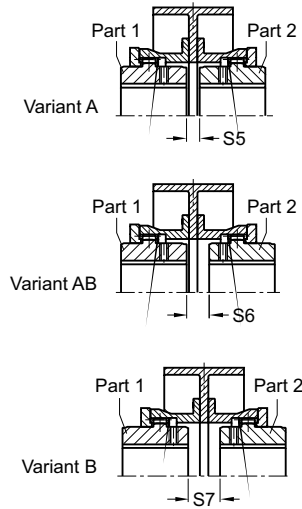
¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on flender.com.

➤ For online configuration on flender.com, click on the item no.

TYPE ZWB



G_MD10_EN_00050



Size	Rated torque	Maximum speed n_{Kmax}	Dimensions in mm												Brake disk		↗ Article no. ¹⁾			Weight
	T_{KN}		D1, D2 Keyway DIN 6885-1 min. max.	DA	ND1/ ND2	NL1/ NL2	DD1/ DD2	S5	S6	S7	VA	Q	P	Type			m			
	Nm													rpm	A	B		AB	kg	
128	2500	2500	0	61	157	80	60	128	16	23	30	83	60	45	200	75	2LC0300-1AW	2LC0300-1AX	2LC0300-1BA	12.5
		2000							250	95	2LC0300-1AW	2LC0300-1AX			2LC0300-1BA	15.5				
146	4300	2000	0	72	177	95	75	146	16	23	30	98	75	45	250	95	2LC0300-2AW	2LC0300-2AX	2LC0300-2BA	19
		1600							315	118	2LC0300-2AW	2LC0300-2AX			2LC0300-2BA	26.5				
175	7000	1600	0	85	215	112	90	175	20	26	32	100	85	50	315	118	2LC0300-3AW	2LC0300-3AX	2LC0300-3BA	33
		1250							400	150	2LC0300-3AW	2LC0300-3AX			2LC0300-3BA	47				
198	11600	1600	0	100	237	135	100	198	20	31	42	131	110	50	315	118	2LC0300-4AW	2LC0300-4AX	2LC0300-4BA	41
		1250							400	150	2LC0300-4AW	2LC0300-4AX			2LC0300-4BA	54				
230	19000	1250	0	120	265	160	110	230	22	34	46	144	135	50	400	150	2LC0300-5AW	2LC0300-5AX	2LC0300-5BA	64
		1000							500	190	2LC0300-5AW	2LC0300-5AX			2LC0300-5BA	85				
255	27000	1000	0	140	294	185	125	255	25	40	55	165	160	50	500	190	2LC0300-6AW	2LC0300-6AX	2LC0300-6BA	95
		1000							630	236	2LC0300-6AW	2LC0300-6AX			2LC0300-6BA	140				
290	39000	1000	70	160	330	210	140	290	28	48	68	188	180	60	630	236	2LC0300-7AW	2LC0300-7AX	2LC0300-7BA	160
		750							710	265	2LC0300-7AW	2LC0300-7AX			2LC0300-7BA	195				

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- Mass moment of inertia on request.
- Weights apply to maximum bores.
- Q Diameter required for renewing the sealing rings.
P Length required for renewing the sealing rings.

Ordering example

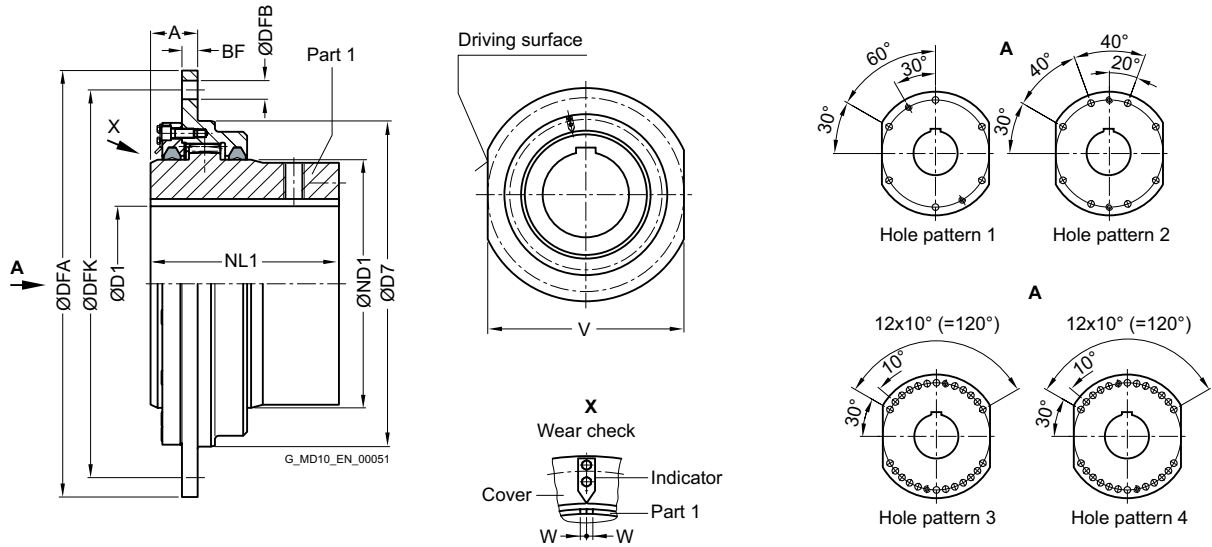
- ZAPEX ZWB coupling, size 146, variant A,
brake disk diameter DB = 315 mm, BB = 118 mm
- Part 1: Bore 40H7mm, keyway to DIN 6885-1 P9
and set screw
- Part 2: Bore 45K7 mm, keyway to DIN 6885-1 P9
and set screw

Article no.: 2LC0300-2AW99-0BA0-Z L0W+M1A+M13

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on [flender.com](https://www.flender.com).

↗ For online configuration on [flender.com](https://www.flender.com), click on the item no.

TYPE ZWTR



Size	Rated torque T_{KN}	Max. perm. radial load N	Dimensions in mm													Article no. ¹⁾	Weight m kg
			D1 Keyway DIN 6885-1		ND1	NL1	DFA	D7	V	A	BF	DFK	DFB	Hole pattern	Perm. wear W		
			min.	max.													
198	14500	32500	0	95	135	125	340	220	300	45	15	300	15	1	2	2LC0300-4BN	25
230	17500	36500	0	110	160	130	360	240	320	45	15	320	15	1	2	2LC0300-5BN	30
255	24000	45500	0	125	185	145	380	260	340	45	15	340	19	1	2	2LC0300-6BN	35
290 ²⁾	31500	50000	0	145	210	170	400	280	360	45	15	360	19	1	3	2LC0300-7BN	45
315	42000	70000	0	160	230	175	420	310	380	60	20	380	24	1	3	2LC0300-8BN	60
342 ²⁾	55000	90000	0	180	255	185	450	340	400	60	20	400	24	1	3	2LC0301-0BN	70
375	78000	110000	0	200	290	220	510	400	460	60	20	460	24	1	3	2LC0301-1BN	100
415 ²⁾	104000	150000	0	220	320	240	550	420	500	60	20	500	24	1	3	2LC0301-2BN	130
465 ²⁾	155000	165000	0	250	360	260	580	450	530	60	20	530	24	2	4	2LC0301-3BN	160
505 ²⁾	235000	200000	0	275	400	315	650	530	580	65	25	600	24	2	4	2LC0301-4BN	240
545 ²⁾	390000	325000	0	300	440	350	680	560	600	65	25	630	24	3	4	2LC0301-5BN	320
585 ²⁾	460000	380000	0	330	480	380	710	600	640	81	35	660	28	4	4	2LC0301-6BN	400
640 ²⁾	600000	420000	0	360	520	410	780	670	700	81	35	730	28	4	4	2LC0301-7BN	510
730 ²⁾	880000	500000	0	415	600	450	850	730	760	81	35	800	28	4	5	2LC0302-0BN	690

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore

Notes

- Total wear must not exceed 1 x W.
- Mass moment of inertia on request.
- Weights apply to maximum bores.

Ordering example

- ZAPEX ZWTR coupling, size 198, bore 80H7 mm, keyway to DIN 6885-1 P9 and set screw.

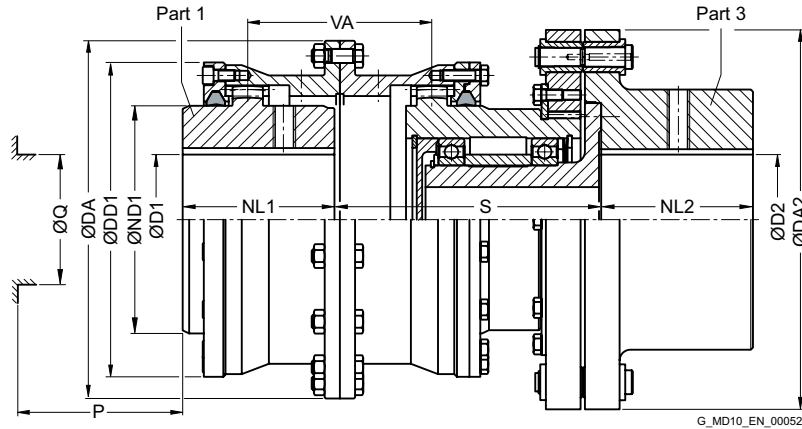
Article no.: 2LC0300-4BN90-0AA0-Z L1J

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on flender.com.

²⁾ These sizes have connection dimensions according to SEB 666 212.

↗ For online configuration on flender.com, click on the item no.

TYPE ZBR



Size	Rated torque T_{KN}	Max. shear torque T_{BR}	Maximum speed n_{Kmax}	Dimensions in mm													↗ Article no. ¹⁾	Weight m kg
				D1 Keyway DIN 6885-1		D2 Keyway DIN 6885-1		DA	ND1	NL1/ NL2	DA2	DD1	S	VA	Q	P		
	Nm	Nm	rpm	min.	max.	min.	max.											
112	1300	1690	9400	0	49	0	60	143	65	50	170	110	115	56	50	35	2LC0300-0BH	14.5
128	2500	3250	8300	0	61	0	75	157	80	60	190	128	125	73	65	45	2LC0300-1BH	19
146	4300	5590	7300	0	72	0	90	177	95	75	205	146	140	88	75	45	2LC0300-2BH	27.5
175	7000	9100	6400	0	85	0	105	215	112	90	235	175	170	104	85	50	2LC0300-3BH	43
198	11600	15080	5500	0	100	0	120	237	135	100	285	198	185	119	110	50	2LC0300-4BH	67
230	19000	24700	4700	0	120	0	135	265	160	110	300	230	200	130	135	50	2LC0300-5BH	91
255	27000	35100	4100	0	140	0	155	294	185	125	335	255	215	150	160	50	2LC0300-6BH	120
290	39000	50700	3700	70	160	70	185	330	210	140	390	290	240	170	180	60	2LC0300-7BH	170
315	54000	70200	3300	80	175	80	200	366	230	160	415	315	257	190	200	60	2LC0300-8BH	215
342	69000	89700	3000	90	195	90	235	392	255	180	460	340	290	222	225	60	2LC0301-0BH	295
375	98000	127400	2700	100	220	100	240	430	290	200	495	375	300	242	260	60	2LC0301-1BH	380
415	130000	169000	2500	120	240	120	255	478	320	220	540	415	370	294	285	80	2LC0301-2BH	520
465	180000	234000	2200	140	270	140	285	528	360	240	635	465	400	336	325	80	2LC0301-3BH	720
505	250000	325000	2000	160	300	160	320	568	400	260	710	505	420	366	365	80	2LC0301-4BH	970
545	320000	416000	1800	180	330	180	370	620	440	280	800	545	460	406	405	80	2LC0301-5BH	1250
585	400000	520000	1700	210	360	210	390	660	480	310	860	585	500	460	445	80	2LC0301-6BH	1600
640	510000	663000	1600	230	360	230	425	738	480	330	900	640	530	479	445	90	2LC0301-7BH	1850
				>360	390				520						475			
690	660000	858000	1450	250	390	250	450	788	520	350	1020	690	580	516	475	90	2LC0301-8BH	2600
				>390	420				560						515			2650
730	790000	1027000	1350	275	420	275	485	834	560	380	1080	730	620	560	515	90	2LC0302-0BH	3200
				>420	450				600						555			

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- Mass moment of inertia on request.
- Weights apply to maximum bores.
- Q Diameter required for renewing the sealing rings.
- P Length required for renewing the sealing rings.

Ordering example

- ZAPEX coupling ZBR, size 146,
ultimate moment $T_{break} = 3500$ Nm
- Part 1: Bore 40H7mm, keyway to DIN 6885-1 P9
and set screw
- Part 3: Bore 45K7 mm, keyway to DIN 6885-1 P9
and set screw

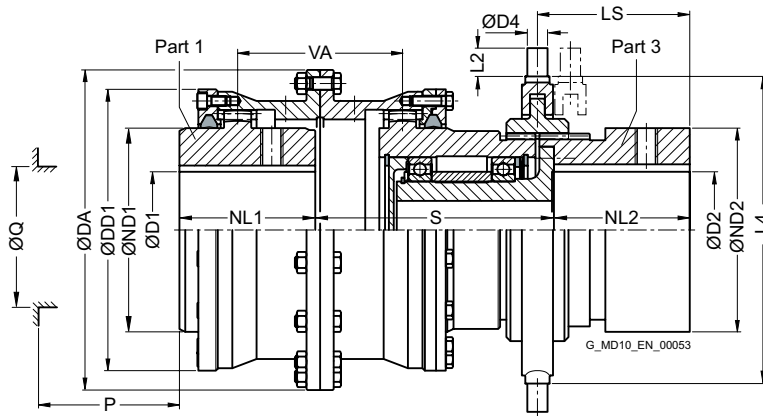
Article no.: 2LC0300-2BH99-0BA0-Z L0W+M1A+M13+Y99

Plain text to Y99: $T_{break} = 3500$ Nm

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on [flender.com](https://www.flender.com).

↗ For online configuration on [flender.com](https://www.flender.com), click on the item no.

TYPE ZWS



Size	Rated torque	Maximum speed	Dimensions in mm																		↗ Article no. ¹⁾	Weight
	T_{KN}		n_{Kmax}	D1 Keyway DIN 6885-1		D2 Keyway DIN 6885-1		DA	ND1/ND2	NL1/NL2	DD1	S	VA	Q	P	LS	Shift ring			Switch size		
	Nm	rpm		min.	max.	min.	max.											L4	D4	L2		
128	2500	1500	0	61	0	50	157	80	60	128	135	73	65	45	70	150	15	14	14/11	–	2LC0300-1BK	16
146	4300	1300	0	72	0	50	177	95	75	146	131	88	75	45	86	180	16	16	16/12	–	2LC0300-2BK	22
175	7000	1100	0	85	0	70	215	112	90	175	165	104	85	50	101	180	16	16	16/12	–	2LC0300-3BK	35
198	11600	960	0	100	0	80	237	135	100	198	182	119	110	50	116	210	20	18	18/13	–	2LC0300-4BK	52
230	19000	830	0	120	0	90	265	160	110	230	198	130	135	50	126	260	22	20	18/15	14/14	2LC0300-5BK	77
255	27000	750	0	140	0	115	294	185	125	255	215	150	160	50	142	300	25	22	21/17	16/17	2LC0300-6BK	98
290	39000	660	70	160	70	130	330	210	140	290	236	170	180	60	157	315	25	35	–	16/211	2LC0300-7BK	140
315	54000	600	80	175	80	140	366	230	160	315	257	190	200	60	182	360	30	24	–	18/18	2LC0300-8BK	200
342	69000	560	90	195	90	160	392	255	180	340	280	222	225	60	202	360	30	24	–	18/18	2LC0301-0BK	230
375	98000	510	100	220	100	180	430	290	200	375	292	242	260	60	222	430	34	26	–	24/20	2LC0301-1BK	340
415	130000	460	120	240	120	210	478	320	220	415	349	294	285	80	247	430	34	26	–	24/20	2LC0301-2BK	430
465	180000	410	140	270	140	230	528	360	240	465	380	336	325	80	267	–	–	–	–	–	2LC0301-3BK	570
505	250000	380	160	300	160	260	568	400	260	505	395	366	365	80	287	–	–	–	–	–	2LC0301-4BK	740
545	320000	350	180	330	180	270	620	440	280	545	460	406	405	80	315	–	–	–	–	–	2LC0301-5BK	1000

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- Mass moment of inertia on request.
- Weights apply to maximum bores.
- Pneumatically or hydraulically actuated switches also available.
- For engaging/disengaging during standstill.
- Part 3 should be mounted on the shaft while the shaft is disconnected and not being driven.
- KSHN Manual lever switch type KSHN to M4218
KSZH Toothed rack type KSZH to M4215

Ordering example

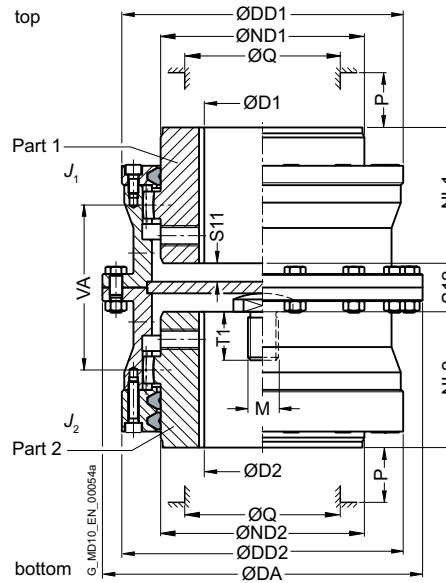
- ZAPEX ZWS coupling, size 146
- Part 1: Bore 40H7mm, keyway to DIN 6885-1 P9 and set screw
- Part 3: Bore 45K7 mm, keyway to DIN 6885-1 P9 and set screw

Article no.: 2LC0300-2BK99-0AA0-Z L0W+M1A+M13

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on flender.com.

↗ For online configuration on flender.com, click on the item no.

TYPE ZWNV



Size	Rated torque	Maximum speed n_{Kmax}	Dimensions in mm												Mass moment of inertia J_1/J_2	➤ Article no. ¹⁾	Weight
	T_{KN}		D1, D2 Keyway DIN 6885-1		DA	ND1/ ND2	NL1/ NL2	DD1/ DD2	S11	S12	VA	Q	P	m			
	Nm	rpm	min.	max.	kgm ²	kg											
128	2500	8300	0	61	157	80	60	128	6.5	26	73	65	45	0.015	2LC0300-1AH	9.1	
146	4300	7300	0	72	177	95	75	146	6	28	88	75	45	0.023	2LC0300-2AH	13	
175	7000	6400	0	85	215	112	90	175	5.5	33	104	85	50	0.055	2LC0300-3AH	22	
198	11600	5500	0	100	237	135	100	198	10	40	119	110	50	0.095	2LC0300-4AH	31	
230	19000	4700	0	120	265	160	110	230	11	32	130	135	50	0.18	2LC0300-5AH	43	
255	27000	4100	0	140	294	185	125	255	14	40	150	160	50	0.28	2LC0300-6AH	56	
290	39000	3700	70	160	330	210	140	290	19	50	170	180	60	0.55	2LC0300-7AH	81	
315	54000	3300	80	175	366	230	160	315	18	50	190	200	60	0.88	2LC0300-8AH	110	
342	69000	3000	90	195	392	255	180	340	29	72	222	225	60	1.3	2LC0301-0AH	140	
375	98000	2700	100	220	430	290	200	375	29	72	242	260	60	2.1	2LC0301-1AH	185	
415	130000	2500	120	240	478	320	220	415	60	136	294	285	80	3.4	2LC0301-2AH	250	
465	180000	2200	140	270	528	360	240	465	80	176	336	325	80	5.6	2LC0301-3AH	340	
505	250000	2000	160	300	568	400	260	505	89	196	366	365	80	8.2	2LC0301-4AH	420	

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- When ordering, state thread size M and thread length T1 of the thrust piece.
- Mass moments of inertia apply to a coupling half with maximum bore diameter.
- Weights apply to the entire coupling with maximum bores.
- Q Diameter required for renewing the sealing rings.
P Length required for renewing the sealing rings.

Ordering example

- ZAPEX ZWNV coupling, size 146,
thread M10 x 20 deep
- Part 1: Bore 40H7mm, keyway to DIN 6885-1 P9
and set screw
- Part 2: Bore 45K7 mm, keyway to DIN 6885-1 P9
and set screw

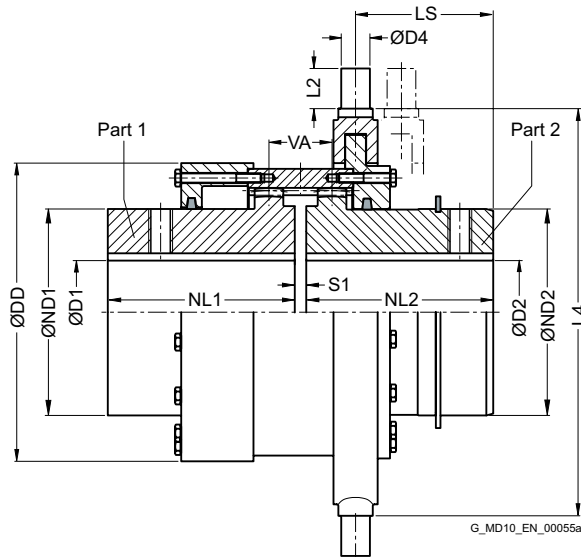
Article no.: 2LC0300-2AH99-0AA0-Z L0W+M1A+M13+Y99
Plain text to Y99: Thread M10 x 20 mm

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on [flender.com](https://www.flender.com).

➤ For online configuration on [flender.com](https://www.flender.com), click on the item no.

TYPE ZWSE

4



Size	Rated torque	Maximum speed	Dimensions in mm																Shift ring		Switch size		Article no. ¹⁾	Weight
	T_{KN}	n_{Kmax}	D1 Keyway DIN 6885-1 min.		D2 Keyway DIN 6885-1 max.		ND1	ND2	NL1	NL2	DD	S1	VA	LS	L4	D4	L2	KSHN	KSZH	m				
	Nm	rpm		max.		max.															kg			
128	2500	730	0	55	0	55	76.5	75	60	60	130	6	30	36.5	180	16	16	16	–	2LC0300-1BM	8.8			
146	4300	630	0	69	0	65	91.5	90	75	75	150	6	33	50	210	20	18	18	–	2LC0300-2BM	13.5			
175	7000	530	0	80	0	75	108	105	90	90	180	8	46	56.5	250	20	30	18	–	2LC0300-3BM	23			
198	11600	470	0	95	0	95	130	130	100	100	204	8	48	64.5	260	22	20	18	–	2LC0300-4BM	32			
230	19000	410	0	115	0	110	155	155	110	110	236	8	50	73	300	25	22	21	–	2LC0300-5BM	44			
255	27000	370	0	135	0	130	180	180	125	125	260	10	55	82	355	25	35	24	–	2LC0300-6BM	63			
290	39000	330	70	155	70	145	210	210	140	140	295	10	38	64.5	355	25	35	24	–	2LC0300-7BM	82			
315	54000	300	80	170	80	165	230	230	160	160	325	10	42	76	355	25	35	24	–	2LC0300-8BM	105			
342	69000	280	90	190	90	175	255	255	180	180	345	12	46	82	430	34	26	–	24	2LC0301-0BM	145			
375	98000	250	100	210	100	200	280	280	200	200	378	12	48	90	430	34	26	–	24	2LC0301-1BM	180			
415	130000	220	120	240	120	225	320	320	220	240	425	12	52	120	580	40	40	–	24	2LC0301-2BM	295			
465	180000	200	140	270	140	250	360	360	240	260	470	16	60	150	580	40	40	–	24	2LC0301-3BM	350			
505	250000	180	160	300	160	270	400	400	260	280	510	16	62	161	–	–	–	–	24	2LC0301-4BM	400			

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- Mass moment of inertia on request.
- Weights apply to maximum bores.
- For engaging/disengaging during standstill.
- Part 2 should be mounted on the shaft while the shaft is disconnected and not being driven.
- Protect sliding surfaces from dirt and corrosion; sprayed with adhesive grease.

Ordering example

- ZAPEX ZWSE coupling, size 146
- Part 1: Bore 40H7mm, keyway to DIN 6885-1 P9 and set screw,
- Part 2: Bore 45K7 mm, keyway to DIN 6885-1 P9 and set screw.

Article no.: 2LC0300-2BM99-0AA0-Z L0W+M1A+M13

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on flender.com.

↗ For online configuration on flender.com, click on the item no.

CUSTOMIZED HUB DESIGN

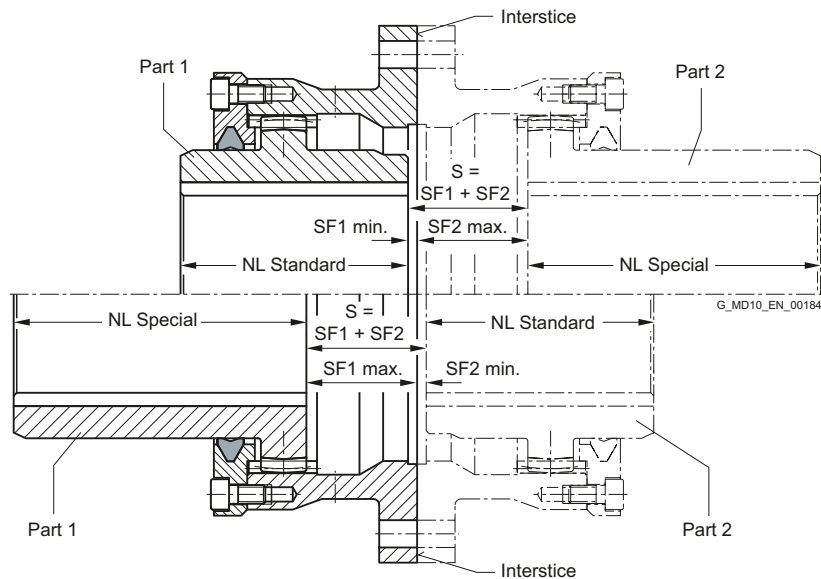
ZAPEX couplings can be provided with customized S-dimensions and hub lengths.

The entire dimension S results from the sum of the individual measurements SF1 and SF2. SF1 and SF2 are the measurements from the interstice of the coupling ring flange up to the beginning of the respective hub. As standard SF1 and SF2 are identical to each other and the entire S-dimension arises in accordance with them.

SF1 and SF2 can be chosen different on customer request, however the minimal and maximum values of the following table have to be observed. Within these limits the measurements SF1 and SF2 may be chosen freely.

The distance VA of the coupling teeth, the permitted bore diameter and the hub diameter remain unchanged.

By stating the hub S-dimension and both hub lengths the coupling is completely described.



Geometric data			
Size	Standard hub length NL mm	Minimal dimension SF1 or SF2 mm	Maximum dimension SF1 or SF2 mm
112	50	3	23
128	60	3	30.5
146	75	3	36.5
175	90	4	43
198	100	4	49.5
230	110	4	54
255	125	5	62.5
290	140	5	71
315	160	5	79
342	180	6	94
375	200	6	103
415	220	6	127
465	240	8	146
505	260	8	160

The minimal hub lengths are not to fall below the standard hub lengths. If there's no other possibility, for hub lengths smaller than standard hub lengths the order codes "Y50" for part 1 and "Y51" for part 2 must be stated in plain text.

Article number

The Article number of the respective ZAPEX coupling type must be supplemented with "-Z" and order codes for non standard SF-dimensions (order code "Y38" for part 1 and "Y39" for part 2). For no standard hub lengths the order codes "Y40" to "Y49" must be specified (see table Page 4/22).

Ordering example

- ZAPEX coupling ZWN 175, variant A
- Hub left: Bore D1 = 70H7 mm, keyway to DIN 6885-1 P9 and set screw; NL1 = 160 mm; SF1 = 10 mm
- Hub right: Bore D2 = 75H7 mm, keyway to DIN 6885-1 P9 and set screw; NL2 = 100 mm; SF2 = 25 mm

Article no.: 2LC0300-3AA99-0AA0-Z L1G M1H Y38 Y39 Y41 Y46

Plain text to Y38: SF1 = 10 mm

Plain text to Y39: SF2 = 25 mm

Plain text to Y46: NL1 = 160 mm

Plain text to Y41: NL2 = 100 mm

CUSTOMIZED HUB DESIGN

Order code for hub prolongations (Y4). (Std-NL = Standard hub length)

4

Part 1		
Selected (special) hub length		Order code (specification of hub length in plain text)
min.	max.	
>Std-NL	$\leq 1.25 \cdot \text{Std-NL}$	Y40
>1.25 · Std-NL	$\leq 1.5 \cdot \text{Std-NL}$	Y42
>1.5 · Std-NL	$\leq 1.75 \cdot \text{Std-NL}$	Y44
>1.75 · Std-NL	$\leq 2 \cdot \text{Std-NL}$	Y46
>2 · Std-NL		Y48

Part 2		
Selected (special) hub length		Order code (specification of hub length in plain text)
min.	max.	
>Std-NL	$\leq 1.25 \cdot \text{Std-NL}$	Y41
>1.25 · Std-NL	$\leq 1.5 \cdot \text{Std-NL}$	Y43
>1.5 · Std-NL	$\leq 1.75 \cdot \text{Std-NL}$	Y45
>1.75 · Std-NL	$\leq 2 \cdot \text{Std-NL}$	Y47
>2 · Std-NL		Y49

SPARE AND WEAR PARTS

DUO sealing rings

The DUO sealing rings are wear parts and must be replaced in accordance with the operating instructions.

Size	Hub diameter ND1/ND2 mm	Article No.
112	65	2LC0300-0XG00-0AA0
128	80	2LC0300-1XG00-0AA0
146	95	2LC0300-2XG00-0AA0
175	112	2LC0300-3XG00-0AA0
198	135	2LC0300-4XG00-0AA0
230	160	2LC0300-5XG00-0AA0
255	185	2LC0300-6XG00-0AA0
290	210	2LC0300-7XG00-0AA0
315	230	2LC0300-8XG00-0AA0
342	255	2LC0301-0XG00-0AA0
375	290	2LC0301-1XG00-0AA0
415	320	2LC0301-2XG00-0AA0
465	360	2LC0301-3XG00-0AA0
505	400	2LC0301-4XG00-0AA0
545	440	2LC0301-5XG00-0AA0
585	480	2LC0301-6XG00-0AA0
640	480	2LC0301-7XG10-0AA0
	520	2LC0301-7XG20-0AA0
690	520	2LC0301-8XG10-0AA0
	560	2LC0301-8XG20-0AA0
730	560	2LC0302-0XG10-0AA0
	600	2LC0302-0XG20-0AA0
780	600	2LC0302-1XG10-0AA0
	650	2LC0302-1XG20-0AA0
852	650	2LC0302-2XG10-0AA0
	710	2LC0302-2XG20-0AA0
910	710	2LC0302-3XG10-0AA0
	750	2LC0302-3XG20-0AA0

Size	Hub diameter ND1/ND2 mm	Article No.
1020	750	2LC0302-4XG10-0AA0
	800	2LC0302-4XG20-0AA0
1080	800	2LC0302-5XG10-0AA0
	860	2LC0302-5XG20-0AA0
1150	860	2LC0302-6XG10-0AA0
	930	2LC0302-6XG20-0AA0
1160	860	2LC0302-7XG10-0AA0
	930	2LC0302-7XG20-0AA0
	990	2LC0302-7XG30-0AA0
1240	930	2LC0302-8XG10-0AA0
	990	2LC0302-8XG20-0AA0
	1055	2LC0302-8XG30-0AA0
1310	930	2LC0303-0XG10-0AA0
	990	2LC0303-0XG20-0AA0
	1055	2LC0303-0XG30-0AA0
	1120	2LC0303-0XG40-0AA0
1380	990	2LC0303-1XG10-0AA0
	1055	2LC0303-1XG20-0AA0
	1120	2LC0303-1XG30-0AA0
	1170	2LC0303-1XG40-0AA0
1440	1055	2LC0303-2XG10-0AA0
	1120	2LC0303-2XG20-0AA0
	1170	2LC0303-2XG30-0AA0
	1240	2LC0303-2XG40-0AA0
1540	1120	2LC0303-3XG10-0AA0
	1170	2LC0303-3XG20-0AA0
	1240	2LC0303-3XG30-0AA0
	1310	2LC0303-3XG40-0AA0

High-performance grease

Container	Content g	Article No.
Cartridge	300	FFA:000000501027

Sealing compound

Container	Content ml	Article No.
Tube	60	FFA:000001443780

TORSIONALLY RIGID GEAR COUPLINGS

ZAPEX ZN SERIES



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ZAPEX ZN

FLENDER

GENERAL



Coupling suitable for use in potentially explosive atmospheres.

Complies with the current ATEX Directive for:

CE II 2G Ex h IIC T6 ... T5 Gb X

II 2D Ex h IIC T85 °C ... 100 °C Db X

I M2 Ex h Mb X

Materials

- Hubs and flanged sleeves: Steel
- O ring: Perbunan
- Lubricant: Grease filling

Benefits

ZAPEX gear couplings link machine shafts and compensate for shaft misalignment with weak restorative forces. High transmissible torque combined with compactness and light weight are characteristic of ZAPEX couplings. ZAPEX coupling types are constructed on a modular principle, so application-related solutions can be delivered quickly.

This coupling requires very little maintenance. Regular grease changes at the prescribed intervals prolong the service life of the coupling.

Application

ZAPEX couplings are especially suited for operation in harsh operating conditions, such as drives in the iron smelting or cement industry.

ZAPEX couplings are suitable for reverse operation and horizontal mounting positions and, in the case of type ZNNV, for vertical mounting positions.

GENERAL

Design and configurations

A ZAPEX coupling comprises two hub sections with external teeth which are mounted on the machine shafts. The external teeth engage with a flanged sleeve with corresponding internal teeth. The flanged sleeves are connected via two flanges with close-fitting bolts. The teeth are lubricated with grease. On the ZAPEX type ZN, O-rings are used to seal the tooth space. The O-rings prevent the lubricant from escaping and dirt from entering the tooth space. The parallel keyways must be sealed during assembly to prevent lubricant from escaping. Customized hub designs are described after the types.

Type	Description
ZNN	Standard type
ZNZS	with adapter
ZNW	with intermediate shaft
ZNBG	with straight brake disk
ZNNA	With axial backlash limiter
ZNZA	With adapter and axial backlash limiter
ZNNV	Vertical type
ZNN	For axial displacement

Further application-specific coupling types are available; dimension sheets for and information on these are available on request.

Function

The torque is transmitted through the coupling teeth. The teeth are crowned, so angular displacement per tooth plane is possible. Radial displacement can be compensated for via the space VA between the tooth planes. The internal teeth of the flanged sleeves are significantly wider than the external teeth of the hub parts, permitting a relatively high axial misalignment.

A small angular misalignment on the coupling teeth results in an advantageous distribution of the lubricant film in contact with the teeth and a very low wear rate. This favorable condition can be deliberately set by aligning the drive with the machine shafts with a slight radial misalignment.

Technical specifications

Power ratings						
Size	Rated torque T_{KN} Nm	Maximum torque T_{Kmax} Nm	Overload torque T_{KOL} Nm	Fatigue torque T_{KW} Nm	Torsional stiffness ZN C_{Tdyn} kNm/rad	Permitted axial shaft misalignment ΔK_a mm
83	1020	2040	4080	408	500	1
107	2210	4420	8840	884	1400	1
130	4020	8040	16080	1600	2500	1
156	6600	13200	26400	2640	5800	1
181	11000	22000	44000	4400	9200	1
211	19200	38400	76800	7680	16600	1
250	30680	61360	122720	12270	27300	1
274	43550	87100	174200	17400	41500	1.5
307	61750	123500	247000	24700	61000	1.5
333	87100	174200	348400	34800	79000	1.5
364	117000	234000	468000	46800	99000	1.5
424	162500	325000	650000	64800	156000	1.5

The specified torsional stiffness "ZN" applies to coupling types ZNN, ZNNA, ZNNV and ZNN for axial displacement. Torsional stiffness of types ZNZS, ZNW, ZNBG and ZNZA on request.

The axial misalignment ΔK_a must be understood as the maximum permitted enlargement of the hub distance S of the coupling.

The axial misalignment ΔK_a does not apply to the types ZNNA, ZNNV, ZNBG and ZNZA.

Angular misalignment ΔK_w

Types ZNN, ZNZS, ZNW, ZNNV, ZNN for axial displacement: $\Delta K_w = 0.5^\circ$

Types ZNBG, ZNNA, ZNZA: $\Delta K_w = 0.2^\circ$

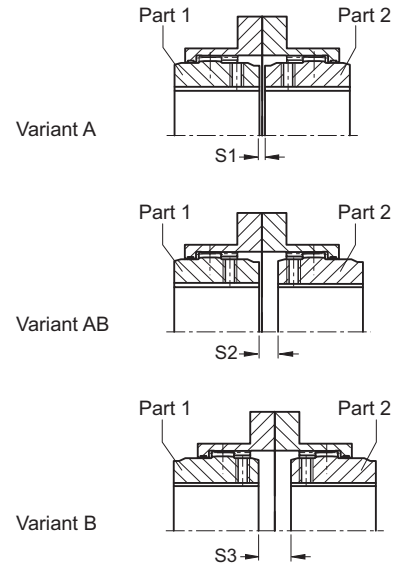
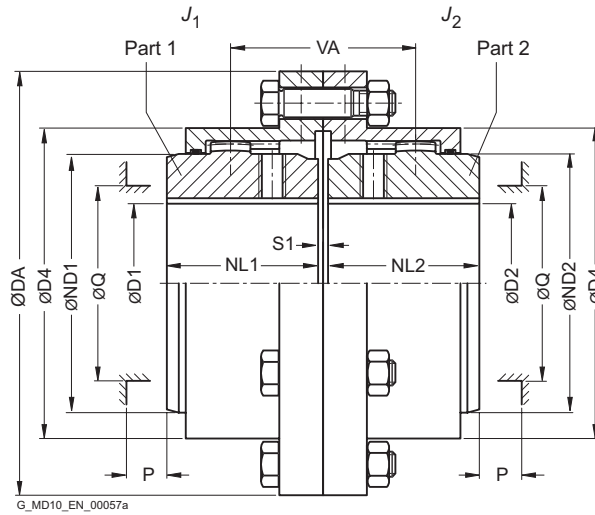
Radial misalignment ΔK_r

Types ZNN, ZNZS, ZNW, ZNNV, ZNN for axial displacement: $\Delta K_r \leq VA \cdot \tan 0.5^\circ$

Types ZNBG, ZNNA, ZNZA: $\Delta K_r \leq VA \cdot \tan 0.2^\circ$

For the tooth distance VA, see the relevant table for the subassembly.

TYPE ZNN



Size	Rated torque T_{KN}	Maximum speed n_{Kmax}	Dimensions in mm													Mass moment of inertia J_1/J_2	↗ Article no. ¹⁾			Weight m
			D1, D2 Keyway DIN 6885-1		DA	ND1/ ND2	NL1/ NL2	D4	S1	S2	S3	VA	Q	P	Type		A	B	AB	
	Nm	rpm	min.	max.				min.	max.						kgm²				kg	
83	1020	8500	0	50	117	67	43	83	3	12	21	55	52	31	0.003	2LC0330-0AA	2LC0330-0AB	2LC0330-0AC	3.2	
107	2210	7700	0	65	152	87	50	107	3	9	15	59	68	34	0.009	2LC0330-1AA	2LC0330-1AB	2LC0330-1AC	6.5	
130	4020	6900	0	82	178	108	62	129.5	3	17	31	79	85	42	0.02	2LC0330-2AA	2LC0330-2AB	2LC0330-2AC	9.8	
156	6600	6200	0	100	213	130	76	156	5	17	29	93	110	47	0.05	2LC0330-3AA	2LC0330-3AB	2LC0330-3AC	17.5	
181	11000	5800	0	116	240	153	90	181	5	19	33	109	130	58	0.09	2LC0330-4AA	2LC0330-4AB	2LC0330-4AC	25.5	
211	19200	5100	0	137	280	180	105	211	6	23	40	128	150	67	0.21	2LC0330-5AA	2LC0330-5AB	2LC0330-5AC	43	
250	30680	4500	0	164	318	214	120	249.5	6	24	42	144	175	72	0.39	2LC0330-6AA	2LC0330-6AB	2LC0330-6AC	60	
274	43550	4000	80	178	347	233	135	274	8	29	50	164	190	81	0.59	2LC0330-7AA	2LC0330-7AB	2LC0330-7AC	82	
307	61750	3750	90	198	390	260	150	307	8	32	56	182	220	91	1.1	2LC0330-8AA	2LC0330-8AB	2LC0330-8AC	115	
333	87100	3550	100	216	425.5	283	175	332.5	8	39	70	214	250	104	1.8	2LC0331-0AA	2LC0331-0AB	2LC0331-0AC	155	
364	117000	3400	120	242	457	312	190	364	8	46	84	236	265	126	2.3	2LC0331-1AA	2LC0331-1AB	2LC0331-1AC	180	
424	162500	3200	150	288	527	371	220	423.5	10	43	76	263	300	140	4.9	2LC0331-2AA	2LC0331-2AB	2LC0331-2AC	275	

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- Mass moments of inertia apply to a coupling half with maximum bore diameter.
- Weights apply to the entire coupling with maximum bores.
- Q Diameter required for renewing the sealing rings.
P Length required for renewing the sealing rings, aligning the coupling parts and tightening the set screw.

Ordering example

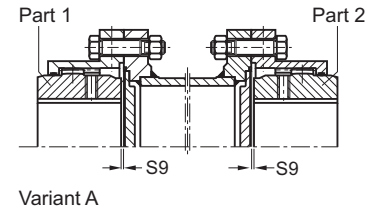
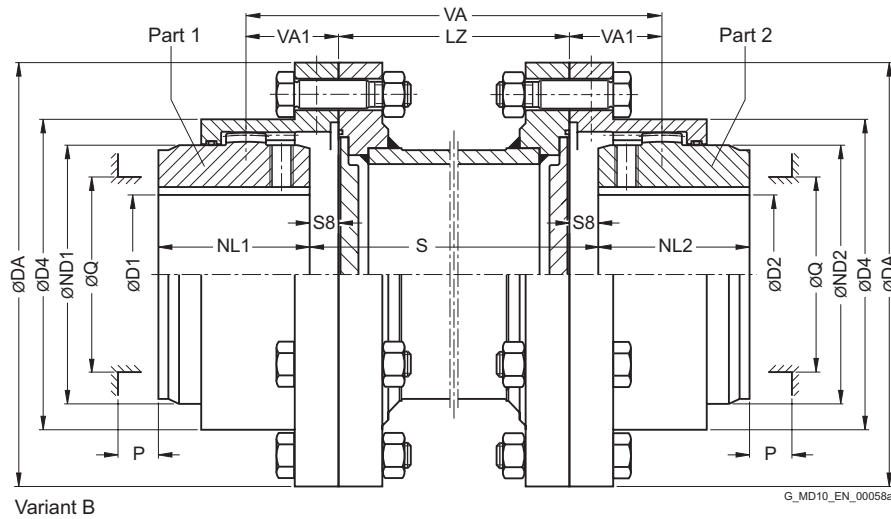
- ZAPEX ZNN coupling, size 107, variant A
- Part 1: Bore 40H7mm, keyway to DIN 6885-1 P9 and set screw
- Part 2: Bore 45K7 mm, keyway to DIN 6885-1 P9 and set screw

Article no.: 2LC0330-1AA99-0AA0-Z L0W+M1A+M13

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on flender.com.

↗ For online configuration on flender.com, click on the item no.

TYPE ZNZS



Size	Rated torque T_{KN} Nm	Dimensions in mm												Article no. ¹⁾		Weight each 100 mm pipe	
		D1, D2 Keyway DIN 6885-1		DA	ND1/ND2	NL1/NL2	D4	S8	S9	VA1	Q	P	LZ	Type		m	m
		min.	max.											A	B	kg	kg
83	1020	0	50	117	67	43	83	10.5	1.5	27.5	52	31	75	2LC0330-0AD	2LC0330-0AE	0.9	5.5
107	2210	0	65	152	87	50	107	7.5	1.5	29.5	68	34	85	2LC0330-1AD	2LC0330-1AE	0.8	12
130	4020	0	82	178	108	62	129.5	15.5	1.5	39.5	85	42	95	2LC0330-2AD	2LC0330-2AE	1.2	16
156	6600	0	100	213	130	76	156	14.5	2.5	46.5	110	47	110	2LC0330-3AD	2LC0330-3AE	2.3	28
181	11000	0	116	240	153	90	181	16.5	2.5	54.5	130	58	110	2LC0330-4AD	2LC0330-4AE	3.5	40
211	19200	0	137	280	180	105	211	20	3	64	150	67	125	2LC0330-5AD	2LC0330-5AE	4.5	64
250	30680	0	164	318	214	120	249.5	21	3	72	175	72	125	2LC0330-6AD	2LC0330-6AE	6.3	91
274	43550	80	178	347	233	135	274	25	4	82	190	81	125	2LC0330-7AD	2LC0330-7AE	7.2	115
307	61750	90	198	390	260	150	307	28	4	91	220	91	145	2LC0330-8AD	2LC0330-8AE	9.1	175
333	87100	100	216	425.5	283	175	332.5	35	4	107	250	104	145	2LC0331-0AD	2LC0331-0AE	12	220
364	117000	120	242	457	312	190	364	42	4	118	265	126	145	2LC0331-1AD	2LC0331-1AE	15	245
424	162500	150	288	527	371	220	423.5	38	5	131.5	300	140	145	2LC0331-2AD	2LC0331-2AE	16	360

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- $VA = 2 \cdot VA1 + LZ$
- Mass moment of inertia on request.
- Weights apply to the entire coupling with maximum bores and an adapter length of LZ min.
- Maximum speed, limited by weight and critical adapter speed, on request.
- Q Diameter required for renewing the sealing rings.
P Length required for renewing the sealing rings, aligning the coupling parts and tightening the set screw.

Ordering example

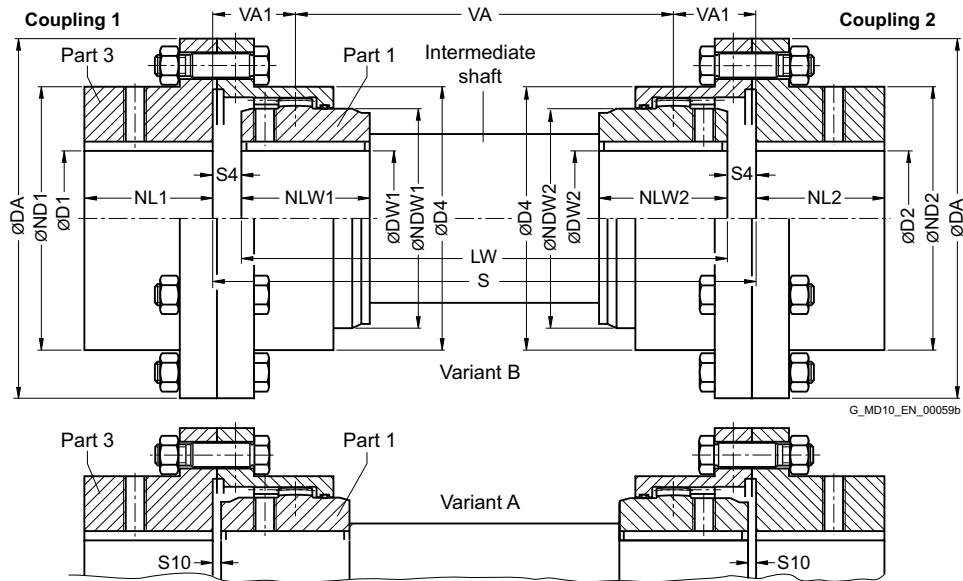
- ZAPEX ZNZS coupling, size 107, variant B, adapter for S = 250 mm
- Part 1: Bore 40H7mm, keyway to DIN 6885-1 P9 and set screw
- Part 2: Bore 45K7 mm, keyway to DIN 6885-1 P9 and set screw

Article no.: 2LC0330-1AE99-0AZ0-Z L0W+M1A+Q0Y+M13
Plain text to Q0Y: 250 mm (dimension S)

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on [flender.com](https://www.flender.com).

➤ For online configuration on [flender.com](https://www.flender.com), click on the item no.

TYPE ZNW



Size	Rated torque T_{KN}	Dimensions in mm												↗ Article no. ¹⁾		Weight
		D1, D2 Keyway DIN 6885-1		DA	ND1/ ND2	NL1/NL2/ NLW1/LW2	DW1, DW2 Keyway DIN 6885-1		NDW1/ NDW2	D4	S4	S10	VA1	Type	m	
	Nm	min.	max.				min.	max.						A	B	kg
83	1020	0	61	117	83	43	0	50	67	83	12	3	29	2LC0330-0AV	2LC0330-0AW	3.1
107	2210	0	79	152	107	50	0	65	87	107	9	3	31	2LC0330-1AV	2LC0330-1AW	6.2
130	4020	0	96	178	129.5	62	0	82	108	129.5	17	3	41	2LC0330-2AV	2LC0330-2AW	9.5
156	6600	0	116	213	156	76	0	100	130	156	17	5	49	2LC0330-3AV	2LC0330-3AW	17
181	11000	0	134	240	181	90	0	116	153	181	19	5	57	2LC0330-4AV	2LC0330-4AW	24.5
211	19200	0	156	280	211	105	0	137	180	211	23	6	67	2LC0330-5AV	2LC0330-5AW	41
250	30680	0	184	318	249.5	120	0	164	214	249.5	24	6	75	2LC0330-6AV	2LC0330-6AW	58
274	43550	80	202	347	274	135	80	178	233	274	29	8	86	2LC0330-7AV	2LC0330-7AW	76
307	61750	90	228	390	307	150	90	198	260	307	32	8	95	2LC0330-8AV	2LC0330-8AW	110
333	87100	100	247	425.5	332.5	175	100	216	283	332.5	39	8	111	2LC0331-0AV	2LC0331-0AW	150
364	117000	120	270	457	364	190	120	242	312	364	46	8	122	2LC0331-1AV	2LC0331-1AW	170
424	162500	150	313	527	423.5	220	150	288	371	423.5	43	10	136.5	2LC0331-2AV	2LC0331-2AW	270

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on flender.com.

➤ For online configuration on flender.com, click on the item no.

Notes

- $VA = S - 2 \cdot VA1$
- Mass moment of inertia on request.
- Weights apply to either coupling 1 or 2 with maximum bores, without intermediate shaft.
- Maximum speed, limited by weight and critical speed of intermediate shaft, on request.

Ordering example

- Coupling 1:
ZAPEX ZNW coupling, size 107, variant B,
Part 3: Bore 45K7 mm, keyway to DIN 6885-1 P9
and set screw, Part 1: Bore 45H7 mm,
keyway to DIN 6885-1 P9 and set screw.

Article no.: 2LC0330-1AW99-0AA0-Z L1A+L13+M1A

- Intermediate shaft:
Intermediate shaft to ZAPEX ZNW coupling, size 107,
length LW = 570 mm, shaft journal Ø45p6 x 50 long;
keyway DIN 6885-1.

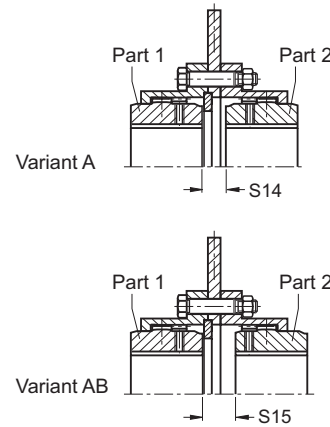
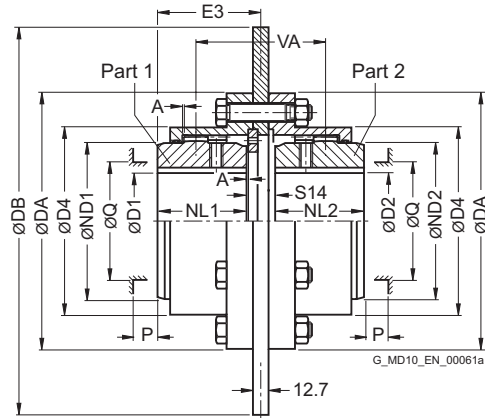
Article no.: 2LC9310-0XH00-0AA0-Z Y99

Plain text to Y99: DW1 = 45p6 mm, NLW1 = 50 mm,
DW2 = 45p6 mm, NLW2 = 50 mm, LW = 570 mm

- Coupling 2:
ZAPEX ZNW coupling, size 107, variant B,
Part 1: Bore 45H7 mm, keyway to DIN 6885-1 P9
and set screw, Part 3: Bore 45K7 mm,
keyway to DIN 6885-1 P9 and set screw.

Article no.: 2LC0330-0AW99-0AA0-Z L1A+M1A+L13

TYPE ZNBG



Size	Rated torque	Maximum speed	Dimensions in mm													Brake disk		➤ Article no. ¹⁾		Weight
	T_{KN}	n_{Kmax}	D1, D2 Keyway DIN 6885-1		DA	ND1/ND2	NL1/NL2	D4	S14	S15	A	VA	Q	P	DB	E3	Type	m		
	Nm	rpm	min.	max.													A	AB	kg	
83	1020	3800	0	50	117	67	43	83	17	26	0.5	69	52	31	300	52	2LC0330-0AQ	2LC0330-0AR	10	
107	2210	3200	0	65	152	87	50	107	20.5	26.5	0.5	76.5	68	34	356	61	2LC0330-1AQ	2LC0330-1AR	16	
130	4020	3200	0	82	178	108	62	129.5	20.5	34.5	0.5	96.5	85	42	356	73	2LC0330-2AQ	2LC0330-2AR	16.5	
		2800							17.5	31.5		93.5			406	71.5	2LC0330-2AQ	2LC0330-2AR	19.5	
156	6600	2800	0	100	213	130	76	156	20	32	0.5	108	110	47	406	87	2LC0330-3AQ	2LC0330-3AR	29	
		2500							23	35		111			457	88.5	2LC0330-3AQ	2LC0330-3AR	33	
181	11000	2800	0	116	240	153	90	181	20	34	0.5	124	130	58	406	101	2LC0330-4AQ	2LC0330-4AR	38	
		2500							23	37		127			457	102.5	2LC0330-4AQ	2LC0330-4AR	42	
		2200							23	37		127			514	102.5	2LC0330-4AQ	2LC0330-4AR	46	
211	19200	2500	0	137	280	180	105	211	24.5	41.5	0.5	146.5	150	67	457	118.5	2LC0330-5AQ	2LC0330-5AR	58	
		2200							24.5	41.5		146.5			514	118.5	2LC0330-5AQ	2LC0330-5AR	63	
		1850							24.5	41.5		146.5			610	118.5	2LC0330-5AQ	2LC0330-5AR	71	
250	30680	2200	0	164	318	214	120	249.5	24	42	1	162	175	72	514	133	2LC0330-6AQ	2LC0330-6AR	77	
		1850							24	42		162			610	133	2LC0330-6AQ	2LC0330-6AR	87	
		1600							27	45		165			711	134.5	2LC0330-6AQ	2LC0330-6AR	97	

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on [flender.com](https://www.flender.com).

↗ For online configuration on [flender.com](https://www.flender.com), click on the item no.

Size	Rated torque	Maximum speed	Dimensions in mm												Brake disk		↗ Article no. ¹⁾		Weight
	T_{KN}	n_{Kmax}	D1, D2 Keyway DIN 6885-1		DA	ND1/ND2	NL1/NL2	D4	S14	S15	A	VA	Q	P	DB	E3	Type	m	
	Nm	rpm	min.	max.													A AB	kg	
274	43550	2200	80	178	347	233	135	274	26.5	47.5	1	182.5	190	81	514	149.5	2LC0330-7AQ	2LC0330-7AR	97
		1850							26.5	47.5		182.5			610	149.5	2LC0330-7AQ	2LC0330-7AR	105
		1600							29.5	50.5		185.5			711	151	2LC0330-7AQ	2LC0330-7AR	115
		1400							35.5	56.5		191.5			812	154	2LC0330-7AQ	2LC0330-7AR	130
307	61750	1850	90	198	390	260	150	307	27	51	1	201	220	91	610	165	2LC0330-8AQ	2LC0330-8AR	140
		1600							30	54		204			711	166.5	2LC0330-8AQ	2LC0330-8AR	155
		1400							36	60		210			812	169.5	2LC0330-8AQ	2LC0330-8AR	170
		1600							30	61		236			711	191.5	2LC0331-0AQ	2LC0331-0AR	190
333	87100	1400	100	216	425.5	283	175	332.5	36	67	1	242	250	104	812	194.5	2LC0331-0AQ	2LC0331-0AR	205
		1400							36	67		242			812	194.5	2LC0331-0AQ	2LC0331-0AR	205
364	117000	1400	120	242	457	312	190	364	36	74	1	264	265	126	812	209.5	2LC0331-1AQ	2LC0331-1AR	235

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- Mass moment of inertia on request.
- Weights apply to maximum bores.
- Variant limited in displacement and axial movement. Max. displacement 0.2°.
- Q Diameter required for renewing the sealing rings.
P Length required for renewing the sealing rings, aligning the coupling parts and tightening the set screw.

Ordering example

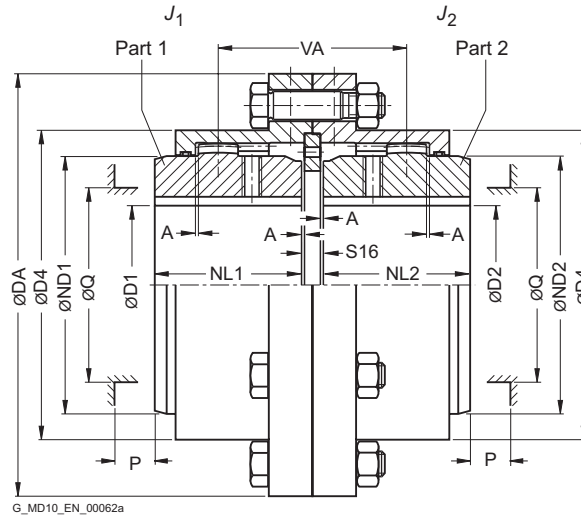
- ZAPEX ZNBG coupling, size 107, variant A, brake disk diameter DB = 356 mm
- Part 1: Bore 40H7mm, keyway to DIN 6885-1 P9 and set screw
- Part 2: Bore 45K7 mm, keyway to DIN 6885-1 P9 and set screw

Article no.: 2LC0330-1AQ99-0AA0-Z L0W+M1A+M13

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on flender.com.

➤ For online configuration on flender.com, click on the item no.

TYPE ZNNA



Size	Rated torque	Maximum speed	Dimensions in mm											Mass moment of inertia	Article no. ¹⁾	Weight
	T_{KN}	n_{Kmax}	D1, D2 Keyway DIN 6885-1		DA	ND1/ND2	NL1/NL2	D4	S16	A	VA	Q	P	J_1/J_2		m
	Nm	rpm	min.	max.										kgm ²		kg
83	1020	8500	0	50	117	67	43	83	5	0.5	57	52	31	0.003	2LC0330-0AF	3.3
107	2210	7700	0	65	152	87	50	107	6	0.5	62	68	34	0.01	2LC0330-1AF	6.7
130	4020	6900	0	82	178	108	62	129.5	6	0.5	82	85	42	0.021	2LC0330-2AF	10.5
156	6600	6200	0	100	213	130	76	156	9	0.5	97	110	47	0.05	2LC0330-3AF	18
181	11000	5800	0	116	240	153	90	181	9	0.5	113	130	58	0.095	2LC0330-4AF	26.5
211	19200	5100	0	137	280	180	105	211	11	0.5	133	150	67	0.22	2LC0330-5AF	44
250	30680	4500	0	164	318	214	120	249.5	10	1	148	175	72	0.4	2LC0330-6AF	62
274	43550	4000	80	178	347	233	135	274	13	1	169	190	81	0.64	2LC0330-7AF	82
307	61750	3750	90	198	390	260	150	307	14	1	188	220	91	1.1	2LC0330-8AF	115
333	87100	3550	100	216	425.5	283	175	332.5	14	1	220	250	104	1.8	2LC0331-0AF	155
364	117000	3400	120	242	457	312	190	364	14	1	242	265	126	2.4	2LC0331-1AF	185
424	162500	3200	150	288	527	371	220	423.5	18	1	271	300	140	4.9	2LC0331-2AF	285

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- Mass moments of inertia apply to a coupling half with maximum bore diameter.
- Weights apply to the entire coupling with maximum bores.
- Variant limited in displacement and axial movement. Max. displacement 0.2°.
- Q Diameter required for renewing the sealing rings.
P Length required for renewing the sealing rings, aligning the coupling parts and tightening the set screw.

Ordering example

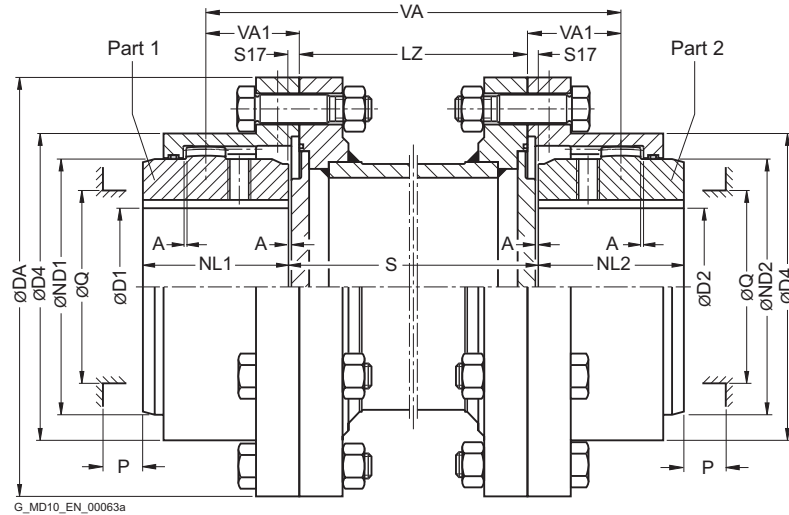
- ZAPEX ZNNA coupling, size 107
- Part 1: Bore 40H7mm, keyway to DIN 6885-1 P9 and set screw
- Part 2: Bore 45K7 mm, keyway to DIN 6885-1 P9 and set screw

Article no.: 2LC0330-1AF99-0AA0-Z L0W+M1A+M13

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on flender.com.

↗ For online configuration on flender.com, click on the item no.

TYPE ZNZA



G_MD10_EN_00063a

Size	Rated torque	Dimensions in mm												LZ	↗ Article no. ¹⁾	Weight each 100 mm pipe	
		D1, D2 Keyway DIN 6885-1		DA	ND1/ND2	NL1/NL2	D4	S17	A	VA1	Q	P	m			m	
	min.	max.	kg											kg			
83	1020	0	50	117	67	43	83	2.5	0.5	28.5	52	31	75	2LC0330-0AG	0.9	5.5	
107	2210	0	65	152	87	50	107	3	0.5	31	68	34	85	2LC0330-1AG	0.8	12	
130	4020	0	82	178	108	62	129.5	3	0.5	41	85	42	95	2LC0330-2AG	1.2	16	
156	6600	0	100	213	130	76	156	4.5	0.5	48.5	110	47	110	2LC0330-3AG	2.3	28	
181	11000	0	116	240	153	90	181	4.5	0.5	56.5	130	58	110	2LC0330-4AG	3.5	40	
211	19200	0	137	280	180	105	211	5.5	0.5	66.5	150	67	125	2LC0330-5AG	4.5	64	
250	30680	0	164	318	214	120	249.5	5	1	74	175	72	125	2LC0330-6AG	6.3	91	
274	43550	80	178	347	233	135	274	6.5	1	84.5	190	81	125	2LC0330-7AG	7.2	115	
307	61750	90	198	390	260	150	307	7	1	94	220	91	145	2LC0330-8AG	9.1	175	
333	87100	100	216	425.5	283	175	332.5	7	1	110	250	104	145	2LC0331-0AG	12	220	
364	117000	120	242	457	312	190	364	7	1	121	265	126	145	2LC0331-1AG	15	245	
424	162500	150	288	527	371	220	423.5	9	1	135.5	300	140	145	2LC0331-2AG	16	360	

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- $VA = 2 \cdot VA1 + LZ$
- Mass moment of inertia on request.
- Weights apply to the entire coupling with maximum bores and an adapter length of LZ min.
- Maximum speed, limited by weight and critical adapter speed, on request.
- Q Diameter required for renewing the sealing rings.
P Length required for renewing the sealing rings, aligning the coupling parts and tightening the set screw.

Ordering example

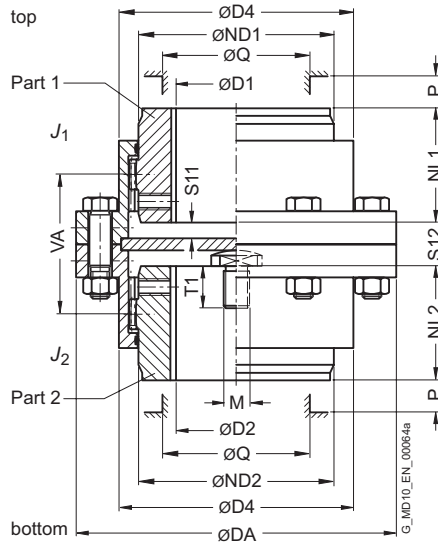
- ZAPEX ZNZA coupling, size 107, adapter for S = 250 mm
- Part 1: Bore 40H7mm, keyway to DIN 6885-1 P9 and set screw
- Part 2: Bore 45K7 mm, keyway to DIN 6885-1 P9 and set screw

Article no.: 2LC0330-1AG99-0AZ0-Z L0W+M1A+Q0Y+M13
Plain text to Q0Y: 250 mm (dimension S)

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on [flender.com](https://www.flender.com).

➤ For online configuration on [flender.com](https://www.flender.com), click on the item no.

TYPE ZNNV



Size	Rated torque	Maximum speed	Dimensions in mm											Mass moment of inertia J_1/J_2	↗ Article no. ¹⁾	Weight
	T_{KN}		n_{Kmax}	D1, D2 Keyway DIN 6885-1		DA	ND1/ ND2	NL1/ NL2	D4	S11	S12	VA1	Q			
	Nm	rpm	min.	max.											kgm ²	kg
83	1020	8500	0	50	117	67	43	83	8	21	55	52	31	0.003	2LC0330-0AH	3.5
107	2210	7700	0	65	152	87	50	107	4.5	15	59	68	34	0.009	2LC0330-1AH	6.6
130	4020	6900	0	82	178	108	62	129.5	12.5	31	79	85	42	0.023	2LC0330-2AH	10.5
156	6600	6200	0	100	213	130	76	156	10.5	29	93	110	47	0.055	2LC0330-3AH	17
181	11000	5800	0	116	240	153	90	181	12.5	33	109	130	58	0.1	2LC0330-4AH	25.5
211	19200	5100	0	137	280	180	105	211	15	40	128	150	67	0.22	2LC0330-5AH	40
250	30680	4500	0	164	318	214	120	249.5	17	42	144	175	72	0.37	2LC0330-6AH	54
274	43550	4000	80	178	347	233	135	274	19.5	50	164	190	81	0.64	2LC0330-7AH	87
307	61750	3750	90	198	390	260	150	307	22	56	182	220	91	1.2	2LC0330-8AH	130
333	87100	3550	100	216	425.5	283	175	332.5	29	70	214	250	104	1.8	2LC0331-0AH	160
364	117000	3400	120	242	457	312	190	364	36	84	236	265	126	2.6	2LC0331-1AH	190
424	162500	3200	150	288	527	371	220	423.5	30	76	263	300	140	5.4	2LC0331-2AH	270

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- Mass moments of inertia apply to a coupling half with maximum bore diameter.
- Weights apply to the entire coupling with maximum bores.
- When ordering, state thread size M and thread length T1 of the thrust piece.
- Q Diameter required for renewing the sealing rings.
P Length required for renewing the sealing rings, aligning the coupling parts and tightening the set screw.

Ordering example

- ZAPEX ZNNV coupling, size 107
- Part 1: Bore 40H7mm, keyway to DIN 6885-1 P9 and set screw
- Part 2: Bore 45K7 mm, keyway to DIN 6885-1 P9 and set screw, thread M10 x 20 deep.

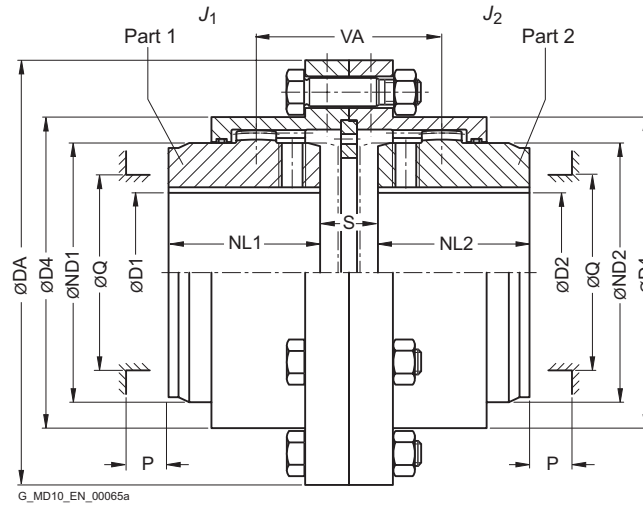
Article no.: 2LC0330-1AH99-0AA0-Z L0W+M1A+M13+Y99

Plain text to Y99: Thread M10 x 20

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on flender.com.

↗ For online configuration on flender.com, click on the item no.

TYPE ZNN FOR AXIAL DISPLACEMENT



Size	Rated torque	Maximum speed	Dimensions in mm												Mass moment of inertia J_1/J_2	↗ Article no. ¹⁾	Weight
	T_{KN}		n_{Kmax}	D1, D2 Keyway DIN 6885-1	DA	ND1/ ND2	NL1/ NL2	D4	S		VA	Q	P				
	Nm								min.	max.				min.			
83	1020	8500	0	50	117	67	43	83	6	21	55	52	31	0.003	2LC0330-0AY	3.3	
107	2210	7700	0	65	152	87	50	107	7	15	59	68	34	0.01	2LC0330-1AY	6.7	
130	4020	6900	0	82	178	108	62	129.5	16	31	79	85	42	0.021	2LC0330-2AY	10.5	
156	6600	6200	0	100	213	130	76	156	11	29	93	110	47	0.05	2LC0330-3AY	18	
181	11000	5800	0	116	240	153	90	181	11	33	109	130	58	0.095	2LC0330-4AY	26.5	
211	19200	5100	0	137	280	180	105	211	14	40	128	150	67	0.22	2LC0330-5AY	44	
250	30680	4500	0	164	318	214	120	249.5	12	42	144	175	72	0.4	2LC0330-6AY	62	
274	43550	4000	80	178	347	233	135	274	16	50	164	190	81	0.64	2LC0330-7AY	82	
307	61750	3750	90	198	390	260	150	307	17	56	182	220	91	1.1	2LC0330-8AY	115	
333	87100	3550	100	216	425.5	283	175	332.5	17	70	214	250	104	1.8	2LC0331-0AY	155	
364	117000	3400	120	242	457	312	190	364	17	84	236	265	126	2.4	2LC0331-1AY	185	
424	162500	3200	150	288	527	371	220	423.5	23	76	263	300	140	4.9	2LC0331-2AY	285	

Configurable variants ¹⁾

- ØD1 Without finished bore
With finished bore
- ØD2 Without finished bore
With finished bore

Notes

- VA Valid at S max.
- Mass moments of inertia apply to a coupling half with maximum bore diameter.
- Weights apply to the entire coupling with maximum bores.
- Q Diameter required for renewing the sealing rings.
P Length required for renewing the sealing rings, aligning the coupling parts and tightening the set screw.

Ordering example

- ZAPEX ZNN coupling for axial displacement, size 107, S min. = 7 mm, S max. = 15 mm
- Part 1: Bore 40H7mm, keyway to DIN 6885-1 P9 and set screw
- Part 2: Bore 45K7 mm, keyway to DIN 6885-1 P9 and set screw

Article no.: 2LC0330-0AY99-0AA0-Z L0W+M1A+M13

¹⁾ To identify complete item numbers specifying the available finish boring options and – if necessary – further order options, please use our configurators on [flender.com](https://www.flender.com).

↗ For online configuration on [flender.com](https://www.flender.com), click on the item no.

CUSTOMIZED HUB DESIGN

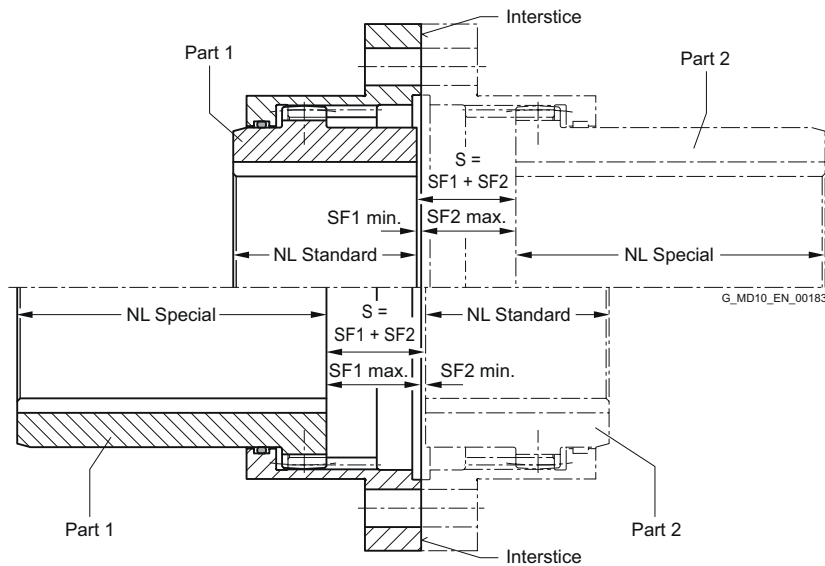
ZAPEX couplings can be provided with customized S-dimensions and hub lengths.

The entire dimension S results from the sum of the individual measurements SF1 and SF2. SF1 and SF2 are the measurements from the interstice of the coupling ring flange up to the beginning of the respective hub. As standard SF1 and SF2 are identical to each other and the entire S-dimension arises in accordance with them.

SF1 and SF2 can be chosen different on customer request, however the minimal and maximum values of the following table have to be observed. Within these limits the measurements SF1 and SF2 may be chosen freely.

The distance VA of the coupling teeth, the permitted bore diameter and the hub diameter remain unchanged.

By stating the hub S-dimension and both hub lengths the coupling is completely described.



Geometric data			
Size	Standard hub length NL mm	Minimal dimension SF1 or SF2 mm	Maximum dimension SF1 or SF2 mm
83	43	1.5	22
107	50	1.5	23.5
130	62	1.5	32
156	76	2.5	36.5
181	90	2.5	43.5
211	105	3	51
250	120	3	59
274	135	4	64.5
307	150	4	72
333	175	4	85
364	190	4	92
424	220	5	100

The minimal hub lengths are not to fall below the standard hub lengths. If there's no other possibility, for hub lengths smaller than standard hub lengths the order codes "Y50" for part 1 and "Y51" for part 2 must be stated in plain text.

Article number

The Article number of the respective ZAPEX coupling type must be supplemented with "-Z" and order codes for non standard SF-dimensions (order code "Y38" for part 1 and "Y39" for part 2). For no standard hub lengths the order codes "Y40" to "Y49" must be specified (see Page 5/17).

Ordering example

- ZAPEX coupling ZNN 130, variant A
- Hub left: Bore D1 = 70H7 mm, keyway to DIN 6885-1 P9 and set screw; NL1 = 110 mm; SF1 = 10 mm
- Hub right: Bore D2 = 75H7 mm, keyway to DIN 6885-1 P9 and set screw; NL2 = 75 mm; SF2 = 25 mm

Article no.: 2LC0330-2AA99-0AA0-Z L1G M1H Y38 Y39 Y41 Y46

Plain text to Y38: SF1 = 10 mm

Plain text to Y39: SF2 = 25 mm

Plain text to Y46: NL1 = 110 mm

Plain text to Y41: NL2 = 75 mm

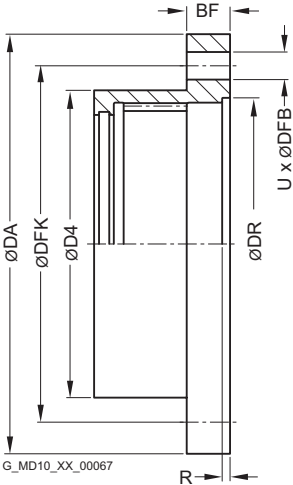
Order code for hub prolongations Y4. (Std-NL = Standard hub length)

Part 1		
Selected (special) hub length min.	max.	Order code (specification of hub length in plain text)
>Std-NL	$\leq 1.25 \cdot \text{Std-NL}$	Y40
>1.25 · Std-NL	$\leq 1.5 \cdot \text{Std-NL}$	Y42
>1.5 · Std-NL	$\leq 1.75 \cdot \text{Std-NL}$	Y44
>1.75 · Std-NL	$\leq 2 \cdot \text{Std-NL}$	Y46
>2 · Std-NL		Y48

Part 2		
Selected (special) hub length min.	max.	Order code (specification of hub length in plain text)
>Std-NL	$\leq 1.25 \cdot \text{Std-NL}$	Y41
>1.25 · Std-NL	$\leq 1.5 \cdot \text{Std-NL}$	Y43
>1.5 · Std-NL	$\leq 1.75 \cdot \text{Std-NL}$	Y45
>1.75 · Std-NL	$\leq 2 \cdot \text{Std-NL}$	Y47
>2 · Std-NL		Y49

TYPE ZN – FLANGE CONNECTION DIMENSIONS

5



Size	Dimensions in mm		D4	DFK	DFB	U Number	DR	R
	DA	BF						
83	117	14	83	100	9	6	82	2.5
107	152	19	107	131	11	6	105	3
130	178	19	129.5	157	11	8	130	3
156	213	22	156	188	13	6	153	4
181	240	22	181	213	13	10	178	4
211	280	28.5	211	249	17	8	205	5
250	318	28.5	249.5	287	17	10	243	4
274	347	28.5	274	315	17	12	265	5.5
307	390	38	307	352	21	12	302	6
333	425.5	38	332.5	385	21	14	320	6
364	457	26	364	416	21	16	353	6
424	527	28.5	423.5	482	25	16	412	8

SPARE AND WEAR PARTS

Sealing rings

The sealing rings are wear parts and must be replaced in accordance with the operating instructions.

Size	Hub diameter ND1/ND2 mm	Article No.
83	67	2LC0330-0XE00-0AA0
107	87	2LC0330-1XE00-0AA0
130	108	2LC0330-2XE00-0AA0
156	130	2LC0330-3XE00-0AA0
181	153	2LC0330-4XE00-0AA0
211	180	2LC0330-5XE00-0AA0
250	214	2LC0330-6XE00-0AA0
274	233	2LC0330-7XE00-0AA0
307	260	2LC0330-8XE00-0AA0
333	283	2LC0331-0XE00-0AA0
364	312	2LC0331-1XE00-0AA0
424	371	2LC0331-2XE00-0AA0

5

High-performance grease

Container	Content g	Article No.
Cartridge	300	FFA:000000501027

Sealing compound

Container	Content ml	Article No.
Tube	60	FFA:000001443780

