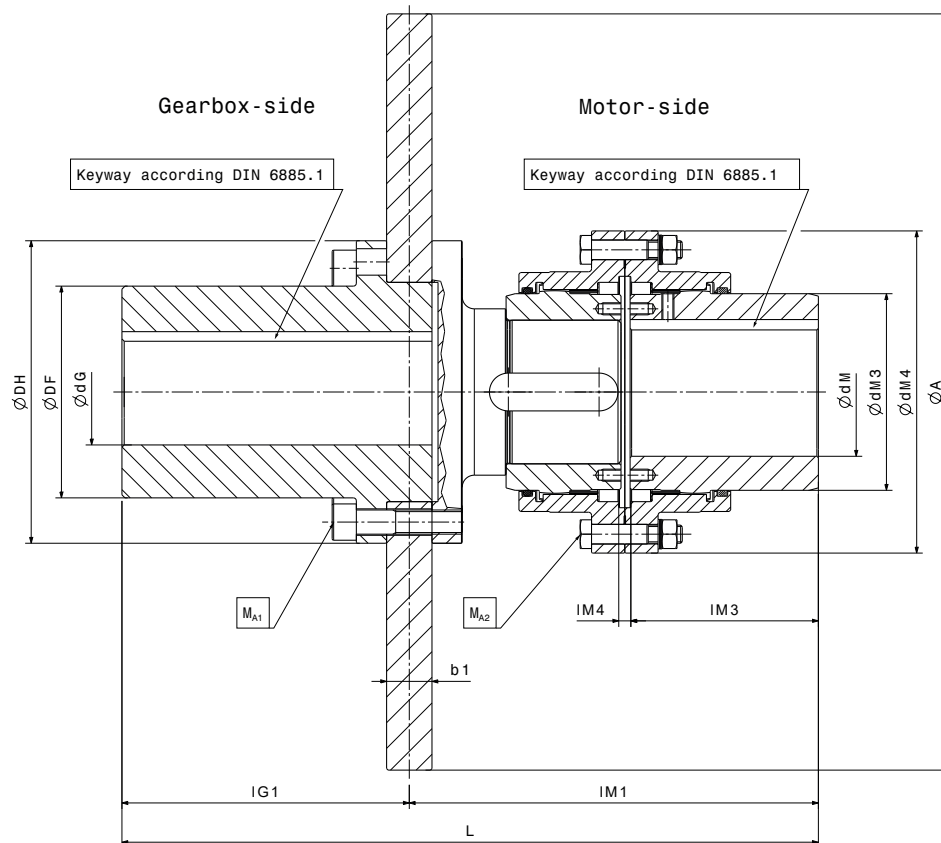


# GEAR COUPLING ZKES

M 1501 388 E-EN-2021-03



## INFORMATION

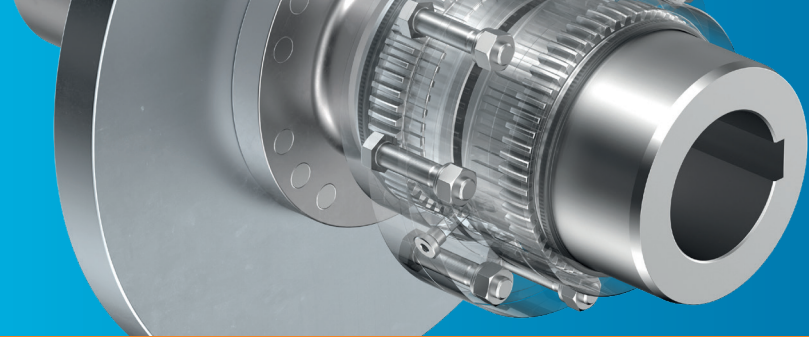
- The coupling combination is designed for the drive with electric motors, medium impacts, irregular load such as conveyors, lifting systems, pumps, blowers etc.
- Finish bores according to ISO tolerance H7 (DIN 7161 page 2). Other tolerances by arrangement.
- Keyway according to DIN 6885 page 1. Keyway width tolerance P9.
- Axial securing of the coupling hub with threaded pin above keyway is possible on request.
- Balancing of the coupling components is possible on request.  
Necessary order data: balance quality, operating speed, keyway arrangement.
- It is recommended to check the tightening torque of  $M_{A1}$  and  $M_{A2}$  regularly.
- Wearing parts: brake disc.  
Grease filling should be checked according to operating instructions, refill if necessary.
- Observe permitted shaft displacement, coupling alignment according to operating instructions.

## COUPLING COMBINATION ZKES WITH BRAKE DISC OFFERS FOLLOWING ADVANTAGES

- Brake disc change possible without axial displacement of the motor.
- Compact design, high torque, simple assembly.
- Low-wear interlocking and small tooth clearance.
- High temperature resistance.

## DETERMINATION OF THE COUPLING SIZES

- Determine system torque and motor rated torque.
- Determine breaking torque and brake disc diameter.
- Coupling rated torque TKN must be higher than system torque and motor rated torque.
- Available breaking torque must be smaller than TKNmax.
- Examine if shaft diameter matches into hub connection.
- Check torque transmission of shaft connection and hub connection.
- Check max. permitted speed and max. permitted displacement.
- Check if flange diameter  $dM4$  of selected coupling is suitable for the provided disc brake.



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Coupling Type		ZKES 02	ZKES 04	ZKES 06	ZKES 08	ZKES 10	ZKES 13	ZKES 15	ZKES 17	ZKES 19	
$T_{KN}^{**}$	Nm	500	1000	1850	3150	5000	8000	13000	18000	24000	
$T_{KNmax}^{**}$	Nm	1000	1800	3150	5300	8500	10500	21500	24000	40000	
$n_{max}$	1/min	3500	3000	2500	2500	2300	2300	2000	1800	1400	
L	mm	260	300	387,5	460,5	482,5	507,5	552,5	644	708	
$\varnothing dG$	max. boring	mm	50	65	75	100	100	110	145	165	190
$\varnothing DF$		mm	72	92	108	140	140	158	206	235	270
$\varnothing DH$		mm	110	135	160	200	200	225	290	320	370
IG1		mm	88	108	150	190	190	190	195	235	235
$M_{A1}$ at $\mu=0,14$	Nm	35	69	120	295	295	295	580	580	1000	
$\varnothing dM$	max. boring	mm	48	60	75	95	105	125	150	165	180
	max. boring at dyn. balancing	mm	42	54	70	85	95	115	140	155	170
$\varnothing dM2$	mm	67	86	108	130	151	179	213	232	261	
$\varnothing dM3$	mm	86	108	129,5	159	184	220	255	282	312	
$\varnothing dM4$	mm	117	152	178	213	240	280	318	347	390	
IM1	mm	172	192	237,5	270,5	292,5	317,5	357,5	409	473	
IM3	mm	80	85	106	124,5	133,5	141	164	186	225	
IM4	mm	5	5	6	6	6	6	6	8	8	
$M_{A2}$ at $\mu=0,14$	mm	12	25	45	80	80	125	125	125	190	
<b><math>\varnothing A \times b1</math> brake disc</b>		* design, weight m, moment of inertia J									
$\varnothing 200 \times 20$	kg	11,5									
	kgm <sup>2</sup>	0,034									
$\varnothing 250 \times 20$	kg	14,3	20,2								
	kgm <sup>2</sup>	0,070	0,091								
$\varnothing 315 \times 20$	kg	18,7	24,8								
	kgm <sup>2</sup>	0,159	0,181								
$\varnothing 355 \times 20$	kg		28,2								
	kgm <sup>2</sup>		0,271								
$\varnothing 355 \times 30$	kg			52,0							
	kgm <sup>2</sup>			0,437							
$\varnothing 400 \times 30$	kg			58,2	79,8						
	kgm <sup>2</sup>			0,658	0,775						
$\varnothing 450 \times 30$	kg			65,9	87,4	104,4					
	kgm <sup>2</sup>			1,007	1,119	1,232					
$\varnothing 500 \times 30$	kg			74,6	96,2	113,2	152,3				
	kgm <sup>2</sup>			1,497	1,611	1,723	2,090				
$\varnothing 560 \times 30$	kg			86,3	107,8	125,0	164,0	223,3			
	kgm <sup>2</sup>			2,316	2,424	2,545	2,910	3,686			
$\varnothing 630 \times 30$	kg				123,0	140,1	179,4	238,7	295,3		
	kgm <sup>2</sup>				3,774	3,887	4,269	5,040	5,875		
$\varnothing 710 \times 30$	kg				142,9	159,9	199,3	258,6	315,1	415,1	
	kgm <sup>2</sup>				5,988	6,100	6,495	7,261	8,076	10,067	
$\varnothing 800 \times 30$	kg							283,7	340,1	440,2	
	kgm <sup>2</sup>							10,830	11,628	13,621	

Special version an other disc diameter on request. All dimensions in mm.

\* Weight and moment of inertia in reference to max. boring  $\varnothing dG$  and  $\varnothing dM$

Design modifications reserved

\*\*At the given coupling torques TKN and TKNmax the gearing of the coupling includes a safety of  $\geq 1,7!$

Alterations reserved – SIBRE Siegerland-Bremsen GmbH – Auf der Stücke 1-5 – D-35708 Haiger, Germany

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