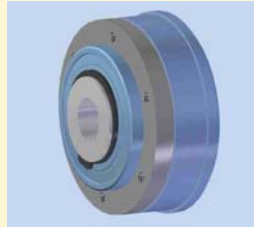


Backlash-free Safety Couplings

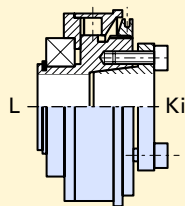
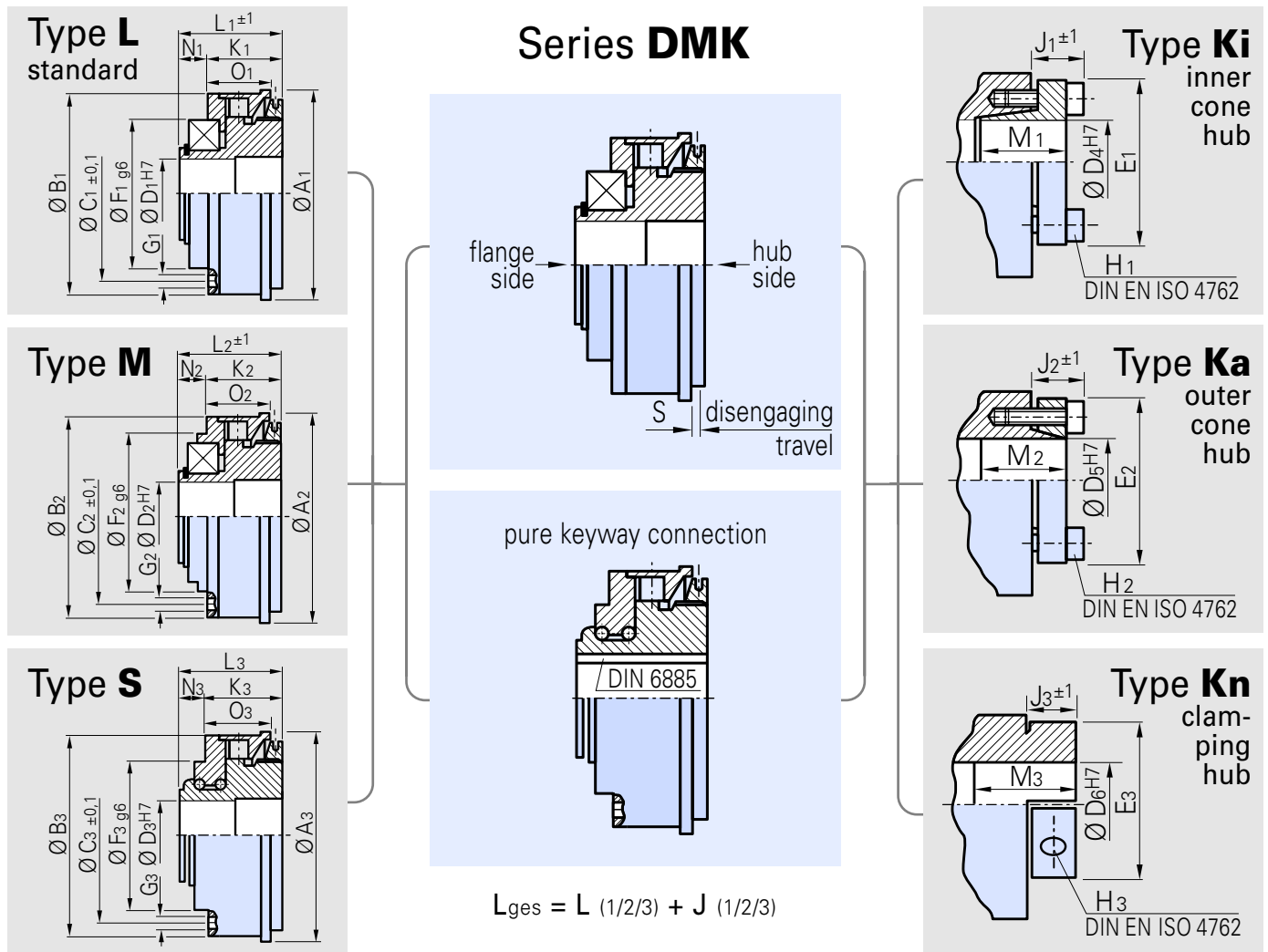
Please order here:

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tel.: 0049 40 679467-0, fax: 0049 40 679467-20



Series **DMK**:
Safety
Coupling
with flange



Ordering data example

DMK/L - 150 - Ki/32^{H7} - 80Nm/b - C

flange

size

inner conical hub / bore size (mm)

disengaging torque / torque adjustment range

C = single position re-engagement (360°) standard;
(D = multi position re-engagement)

Technical Data Series DMK/L, DMK/M, DMK/S

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tel.: 0049 40 679467-0, fax: 0049 40 679467-20

Size		30	60	150	200	300	500	800	1200
Disengaging torque (Nm)	T _{KN} version a	5-20	12-35	25-75	50-120	30-140	140-350	260-600	400-900
Torque adjustment range	T _{KN} version b	15-35	20-70	65-150	80-200	100-300	250-500	500-1000	800-1400
Moment of inertia (10 ³ Kg·m ²)	J hub side	0,2	0,4	1,1	1,8	2,6	6,94	22,7	22,7
	J flange side	0,1	0,2	0,6	0,9	1,1	1,3	5,1	5,1
Weight (appr. kg)	m	0,45	0,8	1,4	1,7	25	3,8	11	11
Tightening torque of retaining screws (Nm)	MA H ₁	5	8,5	14	14	18	26	45	80
	MA H ₂	5	8,5	14	14	18	26	45	80
	MA H ₃	15	40	60/55	100/80	110/90	145		
Max. rotational speed (rpm)	n _{max}	9240	8185	6230	5620	5610	4585	3470	3470
Disengaging travel (mm)	S	1,2	1,2	2	2	2	2	2	2

Size		30	60	150	200	300	500	800	1200	
Flange L dimensions (mm)	Ø A1	65	75	95	105	115	129	169	169	
	Ø B1	62	72	92	102	110	125	165	165	
	Ø C1	46	55	78	86	90	110	125	125	
	Ø D1	min.-max	12-20	15-25	20-35	20-40	30-46	35-50	40-60	40-60
	Ø F1		37	42	68	75	80	95	110	110
	G1	6 x thread/depth (mm)	M5/6	M6/6	M6/9	M6/10	M8/12	M8/12	M12/15	M12/15
	K1		29	30	33	35	40	42	62	62
	L1		36	37	46	49	54	52	77	77
	L _{ges.}	= L1 + (J1) or (J2) or (J3)								
	N1		7	7	13	14	14	10	15	15
	O1		23	24	27	30	31	34	48	48
Flange M dimensions (mm)	Ø A2	65	75	95	105		129			
	Ø B2	62	77	92	102		125			
	Ø C2	53	69	80	90		112			
	Ø D2	min.-max	9-20	12-25	15-35	20-40		35-50		
	Ø F2		47	62	68	80		100		
	G2	6 x thread/depth (mm)	M4/7	M5/8	M6/8	M6/10		M8/12		
	K2		29	32	36	39		42		
	L2		36	37	46	49		52		
	L _{ges.}	= L2 + (J1) or (J2) or (J3)								
	N2		7	5	10	14		10		
	O2		23	24	27	34		34		
Flange S dimensions (mm)	Ø A3	65	75	95	105	115	129	169		
	Ø B3	62	72	92	102	110	125	165		
	Ø C3	54	63	78	85	98	110	120		
	Ø D3	min.-max	12-20	15-25	20-35	20-40	30-46	35-50	40-60	
	Ø F3		47	55	68	75	82	90	100	
	G3	6 x thread/depth (mm)	M5/6	M5/8	M6/9	M6/10	M8/10	M8/12	M10/15	
	K3		30	32	33	37	40	46	61	
	L3		41	43	45	50	55	67	82	
	L _{ges.}	= L3 + (J1) or (J2) or (J3)								
	N3		11	11	12	12	15	21	21	
	O3		23	26	27	32	32	38	48	
Hub Ki inner cone dimensions (mm)	Ø D4	12-20	15-25	20-35	25-40	30-45	35-50	40-60	40-60	
	H1	6 x DIN EN ISO 4762	M4	M6	M6	M6	M8	M12	M12	
	J1		12	16	17	17	21	32	32	
	M1		20	25	30	30	35	38	60	
	E1		41	54	62	68	76	85	120	
Hub Ka outer cone dimensions (mm)	Ø D5	12-20	15-25	20-35	25-40	30-45	35-50	40-70	40-70	
	H2	6 x DIN EN ISO 4762	M4	M6	M6	M6	M8	M12	M12	
	J2		22	28	30	26	35	36	55	
	M2		30	38	45	40	50	53	80	
	E2		45	55	51	79	79	90	139	
Hub Kn clamping hub dimensions (mm)	Ø D6	12-20	15-25	20-35	25-40	30-45	35-50			
	H3	1 x DIN EN ISO 4762	M6	M8	M10	M12	M12			
	J3		19	24	26	30	30	34		
	M3		30	40	45	50	50	59		
	E3		47	66	68/76	80/90	91/96	110		

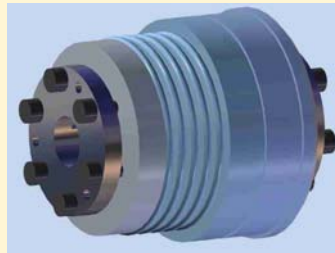
Couplings for torque ranges different from above also available!

Backlash-free Safety Couplings

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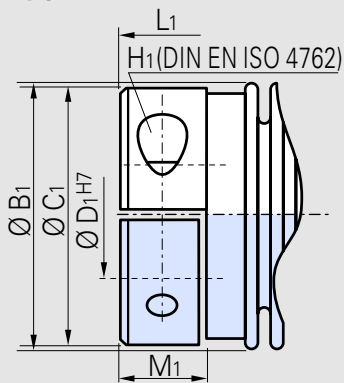
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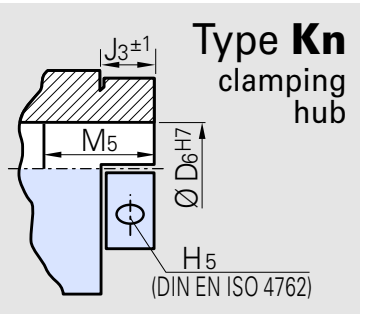
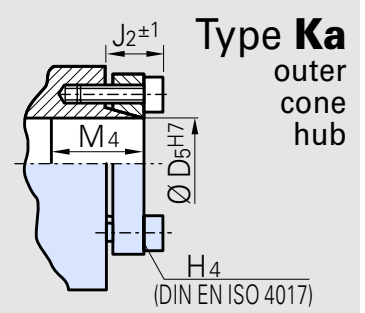
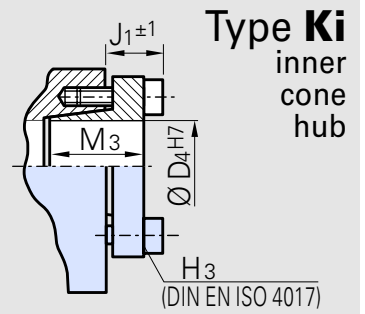
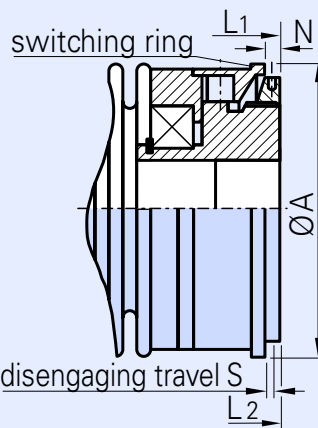
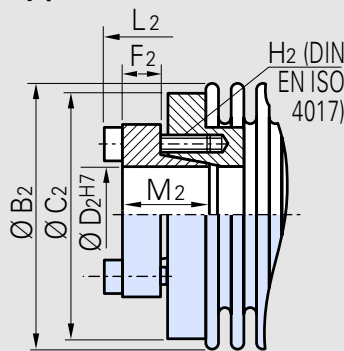
Series **DMK/B**:
Safety Coupling
with metal bellow
as torsion-proof
misalignment com-
pensating element

Series DMK/B

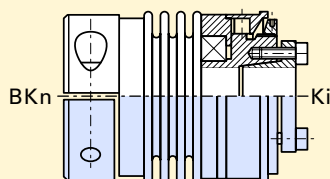
Type BK_n



Type BK_i



$$L_{ges} = L (1/2) + J (1/2/3)$$



Ordering
data
example

DMK/B - 60/4 - BK_n/25^{H7} - Ki/20^{H7} - 50Nm/b - C

type
size / bellow¹⁾
hub on bellow side / Ø
hub on safety element side / Ø
disengaging torque / torque adjustment range
C = single position re-engagement (360°) standard; (D = multi position re-engagement)

¹⁾ two metal bellow sizes available: 4 = short bellow, 6 = long bellow

Technical Data Series DMK/B

Please order here:

as antriebstechnik + spannsysteme

tel.: 0049 40 679467-0, fax: 0049 40 679467-20

Size			30	60	150	200	300	500	800	1200
Disengaging torque (Nm)	TKN version a		5-20	12-35	25-75	50-120	30-140	140-350	260-600	400-900
torque adjustment range	TKN version b		15-35	20-70	65-150	80-200	100-300	250-500	500-1000	800-1400
Moment of inertia BKn	(10 ⁻³ Kg·m ²)	J hub side	0,16	0,4	1,5	1,65	3,25	3,8	-	-
		J metal bellow side	0,16	0,4	1,5	1,65	3,25	3,8	-	-
Moment of inertia BKi	(10 ⁻³ Kg·m ²)	J hub side	0,21	0,53	1,3	2,1	4,3	11,3	36	36
		J metal bellow side	0,11	0,27	0,7	1,1	2,2	5,7	18	18
Weight BKn	(appr. kg)	m	0,7	1,4	2,4	3	5,3	6,2	-	-
Weight BKi	(appr. kg)	m	0,7	1,5	2,5	3,2	5,5	7,1	19	20
Tightening torque of retaining screw H1 (Nm)	Ma		15/12	40/30	80/70/50	100/80	110/90	145	-	-
Tightening torque of retaining screw H2 (Nm)	Ma		5	8,5	14	14	18	26	45	80
Tightening torque of retaining screw H3 (Nm)	Ma		5	8,5	14	14	18	26	45	80
Tightening torque of retaining screw H4 (Nm)	Ma		5	8,5	14	14	18	26	45	80
Tightening torque of clamp screw H5 (Nm)	Ma		15	40	60/55	100/80	110/90	145	-	-
Dynamic torsional stiffness (10 ³ Nm/rad)	C _{Tdyn}	4/6 ¹⁾	36/26	73/49	151/101	173/116	499/280	680/310	758	1266
Radial spring stiffness (N/mm)	C _r	4/6 ¹⁾	718/222	1125/333	2030/601	1531/450	6328/1470	8800/972	512	706
Axial spring stiffness (N/mm)	C _a	4/6 ¹⁾	48/27	91/53	147/86	147/85	284/153	105/86	186	278
Max. rotation speed (rpm)	n _{max}		9240	8183	6830	5620	5210	4585	3470	3470
Disengaging travel (mm)	S		1,2	1,2	2	2	2	2	2	2

Max. allowable misalignment: see page 15

	Size		30	60	150	200	300	500	800	1200
BKn clamping hub dimensions (mm)	Ø A		65	75	95	105	115	129		
	Ø B1		56	66	82	90	110	122		
	Ø C1		47/65	57/66	68/80/84	80/90	91/96	110		
	Ø D1 ^{H7}	min.	10/20	14/23	20/28/35	25/32	32/40			
		max.	20/25	23/35	26/35/40	32/42	40/45	40/55		
	H1	DIN EN ISO 4762	M6	M8	M10	M12	M12	M12		
	L1 ²⁾		70/78	82/90	102/114	113/121	110/118	121/129		
	L _{ges.} = L1 + (J1) or (J2) or (J3)									
	N		6	6	7	5	9	8		
	M1		24	29	31	38	37	41		
BKi inner cone hub dimensions (mm)	Ø A		65	75	95	105	115	129	169	169
	Ø B2		56	66	82	90	110	122	157	157
	Ø C2		52	63	80	85	110	122	142	142
	Ø D2	min. - max.	12-20	15-25	20-35	20-40	30-50	35-55	40-70	40-70
	F2		8	9	11	11	13	13	20	20
	H2	DIN EN ISO 4017	M4	M6	M6	M6	M8	M8	M12	M12
	L2 ²⁾		64/72	74/82	101/109	103/111	104/112	124/132	188	188
	L _{ges.} = L2 + (J1) or (J2) or (J3)									
N		6	6	7	5	9	8	14	14	
M2		18	26	30	33	33	40	50	50	
Hub Ki inner cone dimensions (mm)	Ø D4		12-20	15-25	20-35	25-40	30-45	35-50	40-70	40-70
	H3	6 x DIN EN ISO 4017	M4	M6	M6	M6	M6	M8	M12	M12
	J1		11	14	15	15	19	19	32	32
	M3		20	25	30	30	35	38	60	60
Hub Ka outer cone dimensions (mm)	Ø D5		12-20	15-25	20-35	25-40	30-45	35-50	40-70	40-70
	H4	6 x DIN EN ISO 4017	M4	M6	M6	M6	M6	M8	M12	M12
	J2		21	26	28	24	33	34	51	51
	M4		30	38	40	40	50	53	80	80
Hub Kn clamping hub dimensions (mm)	Ø D6		12-20	15-25	20-35	25-40	30-45	35-50		
	H5	1 x DIN EN ISO 4762	M6	M8	M10	M12	M12	M12		
	J3		19	24	26	30	30	34		
	M5		30	40	42	50	50	59		

²⁾ Two metal bellow dimensions featuring different degrees of torsional stiffness are available: 4= short bellow, 6 = long bellow. Consequently, length dimensions L1 and L2 vary

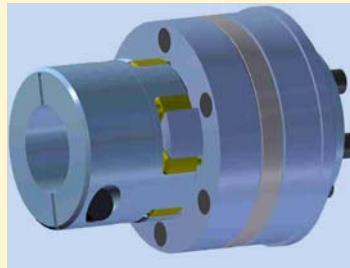
Couplings for torque ranges different from above also available!

Backlash-free Safety Couplings

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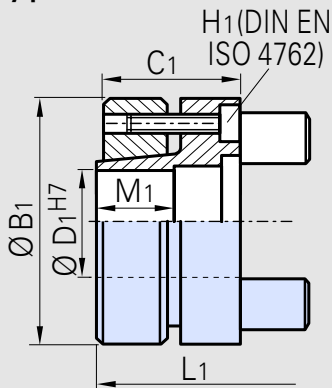
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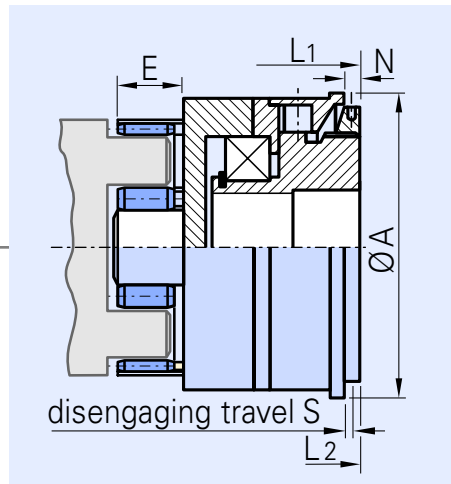
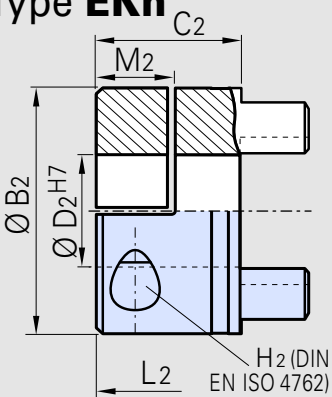
Series **DMK/E**:
Safety Coupling
with elastomer spider
as torsionally elastic
misalignment compensating element

Series **DMK/E**

Type **EKa**

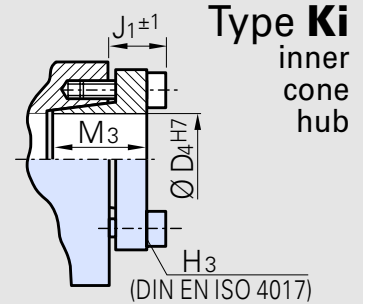


Type **EKn**

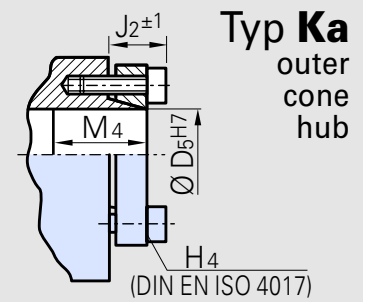


$$L_{ges} = L (1/2) + J (1/2/3)$$

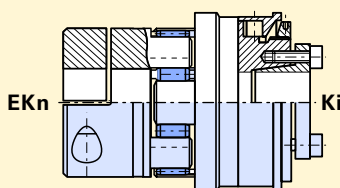
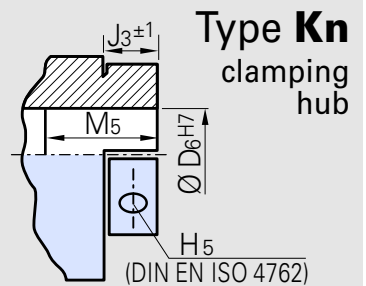
Type **Ki** inner cone hub



Typ **Ka** outer cone hub



Type **Kn** clamping hub



Ordering
data
example

DMK/E - 30 - EKn/25^{H7} - Ki/20^{H7} - 60Nm/b - C

type
size
hub on elastomer side / bore size
inner conical hub on safety element side / bore size
disengaging torque / torque adjustment range
C = single position re-engagement (360°) standard;
(D = multi position re-engagement)

Technical Data Series DMK/E

Please order here:

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Größe		30	60	150	300	500
Disengaging torque (Nm)	TKN version a	5-20	12-35	25-75	30-140	140-350
torque adjustment range	TKN version b	15-35	20-70	65-150	100-300	250-500
Moment of inertia (10 ⁻³ Kgm ²)	J hub side	0,1	0,32	0,8	3	5
	J elastomer spider side	0,036	0,15	0,33	1,04	3,1
Weight (appr. Kg)	m	0,5	1,4	28	4,6	7,5
Tightening torque of retaining screw H1 (Nm)	Ma	3	6	6	10	35
Tightening torque of clamping screw H2 (Nm)	Ma	15	40	60/55	110/80	145
Tightening torque of retaining screw H3 (Nm)	Ma	5	8,5	14	18	26
Tightening torque of retaining screw H4 (Nm)	Ma	5	8,5	14	18	26
Tightening torque of clamping screw H5 (Nm)	Ma	15	40	60/55	110/80	145
Max. rotational speed (rpm)	n _{max}	8950	7000	6000	5000	3600
Disengaging travel (mm)	S	1,2	1,2	2	2	2
Standard shore hardness of spider		98 SH A (red) - (spider with different shore hardness available!)				
Max. allowable misalignment: see page 15						

	Größe	30	60	150	300	500	
EKa outer cone hub dimensions (mm)	Ø A	65	75	95	115	129	
	Ø B1	40	55	65	80	95	
	C1	25	30	35	45	50	
	D1H7	min. - max.	10-20	11-25	15-36	20-41	27-50
	E		16	18	20	24	26
	H1	DIN EN ISO 4762	M4	M6	M6	M6	M8
	L1		81	94	106	132	140
	L _{ges.} = L1 + (J1) or (J2) or (J3)						
	M1		14	16	21	28	28
	N		6	6	7	9	8
	EKn clamping hub dimensions (mm)	A	65	75	95	115	129
Ø B2		40	55	65	80	105	
C2		25	30	35	45	56	
D2H7		min. - max.	10-20	20-28	24-35	32-44	40-60
E			16	18	20	24	26
H2		DIN EN ISO 4762	M6	M8	M10	M12	M12
L2			81	94	106	132	146
L _{ges.} = L2 + (J1) or (J2) or (J3)							
M2			24	29	31	37	41
N			6	6	7	9	8
Hub Ki inner cone dimensions (mm)		Ø D4	12-20	15-25	20-35	30-45	35-50
	H3	6 x DIN EN ISO 4017	M4	M6	M6	M8	
	J1		11	14	15	19	19
	M3		20	25	30	35	38
Hub Ka outer cone dimensions (mm)	Ø D5	12-20	15-25	20-35	30-45	35-50	
	H4	6 x DIN EN ISO 4017	M4	M6	M6	M6	M8
	J2		21	26	28	33	34
	M4		30	38	40	50	53
Hub Kn clamping hub dimensions (mm)	Ø D6	12-20	15-25	20-35	30-45	35-50	
	H5		M6	M8	M10	M12	M12
	J3		19	24	26	30	34
	M5		30	40	42	50	59

Bore size range D1/D2 and applicable transmissible torque values (Nm)	Typ	Ø10	Ø11	Ø13	Ø14	Ø15	Ø17	Ø19	Ø20	Ø24	Ø25	Ø27	Ø30	Ø32	Ø36	Ø38	Ø41	Ø42	Ø44	Ø48	Ø50	Ø55	Ø60	
30	17	17	17	17	17	17	17	17	17															
60		22	37	46	56	60	60	60	60	60	60													
150					56	68	114	134	160	160	160	160	160	160										
300								134	230	261	325	325	325	325	325	325	325							
500											329	450	450	450	450	450	435	450	450	450	450	500	500	

Couplings for torque ranges different from above also available!