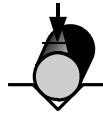
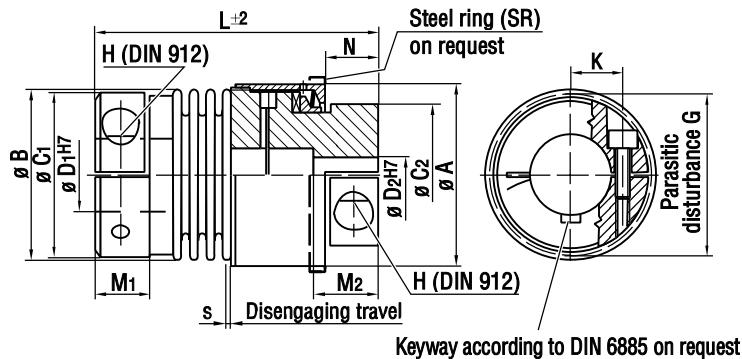


# Backlash-free safety couplings



## Series DBK/DK with clamping hubs



### Order data

DBK/DK 80	-	113	-	32 <sup>II</sup>	-	35 <sup>II</sup>	-	60 Nm	-	C	-	b	-	SR
Type														
Length														
Bore diameter D1														
Bore diameter D2														
Disengaging torque														
C = Synchronizing engagement 1)														
Adjustment range a or b														
Steel ring (see page 24)														

1) Continuous engagement version is possible.  
Stainless steel version is possible.

### Technical data – series DBK/DK

TYPE	7	10	30	60	80	150	200	300	500	
Disengaging torque adjustable	T <sub>KN</sub> Version a	0.4–2	3–7	5–15	12–35	15–40	50–130	30–90	60–200	80–250
	T <sub>KN</sub> Version b	3–7	5–10	10–30	20–60	30–80	65–150	60–200	100–300	200–500
Moment of inertia (10 <sup>3</sup> Kgm <sup>2</sup> )	J Hub side	0.035	0.035	0.16	0.4	0.95	1.5	1.65	3.25	3.78
	J Metal bellows side	0.035	0.035	0.16	0.4	0.95	1.5	1.65	3.25	3.78
Weight (appr. kg)	m	0.25	0.25	0.7	1.4	2.3	2.4	3.0	5.3	6.2
Tightening torque of retaining screws (Nm)	M <sub>A</sub>	3	3	15/12	40/30	60/55/50	80/70/50	100/80	110/90	145
Max. permissible misalignment										
- radial (mm)	ΔK <sub>r</sub>	0.15	0.15	0.1/0.2	0.1/0.2	0.2/0.2	0.2/0.2	0.2/0.2	0.2/0.2	0.2/0.2
- axial (mm)	ΔK <sub>a</sub>	0.4	0.4	0.4/0.5	0.4/0.5	0.4/0.5	0.4/0.5	0.4/0.5	0.4/0.5	0.5/1.0
- angular (degrees)	ΔK <sub>w</sub>	1.2	1.2	1.0/1.5	1.0/1.5	1.0/1.5	1.0/1.5	1.0/1.5	1.0/1.5	1.0/1.5
Dynamic torsional stiffness (10 <sup>3</sup> Nm/rad)	C <sub>Tr</sub> dyn	5.4	8.0	36/26	73/49	126/74	151/101	173/116	499/280	680/310
Radial spring stiffness (N/mm)	C <sub>r</sub>	90	154	718/222	1125/333	1218/403	2030/601	1531/450	6328/1470	8800/972
Axial spring stiffness (N/mm)	C <sub>a</sub>	14	28	48/27	91/53	84/53	147/86	147/85	284/153	105/86
Max. rotational speed (rpm)	n <sub>max</sub>	11690	11690	9540	8180	6220	6220	5720	5200	4470
Disengaging travel (mm)	s	0.7	0.7	1.2	1.2	1.2	1.2	1.2	1.2	1.2

### Dimensions (mm) – series DBK/DK

TYPE	7	10	30	60	80	150	200	300	500	
Ø A	49	49	60	70	92	92	100	110	128	
Ø B	40	40	56	66	82	82	90	110	122	
Ø C <sub>1</sub>	40	40	47/56	57/66	68/80/84	68/80/84	80/90	91/96	110	
Ø C <sub>2</sub>	40	40	44	55	77	77	80	89	92	
Ø D <sub>1</sub> Min. Max.	6–19	6–25	10/20 20/25	14/23 23/35	20/28/35 28/35/40	20/28/35 28/35/40	25/32 32/42	32/40 40/50	40–60	
Ø D <sub>2</sub> min. – max.	6–19	6–19	10–23	14–25	20–35	20–38	25–35	32–50	35–50	
H	M4	M4	M6	M8	M10	M10	M12	M12	M12	
L	2)	66/77	66/77	85/93	105/116	113/124	113/124	124/137	140/151	158/169
M <sub>1</sub>		16	16	24	29	31	31	38	37	41
M <sub>2</sub>		17	17	24	29	34	34	34	39	40
N		10	10	15	18	20	20	20	23	26
K		15.5	15.5	16/20	20/23	24/27/28	24/27/28	26/31	32/35	40
G	Parasitic disturbance	41.5	41.5	56	68	84	84	93	102	111

- Temperature range: -30 °C to +100 °C

- Higher temperatures on request

2) Two metal bellows versions with different dynamic torsional stiffnesses are available.  
The length L therefore varies.