

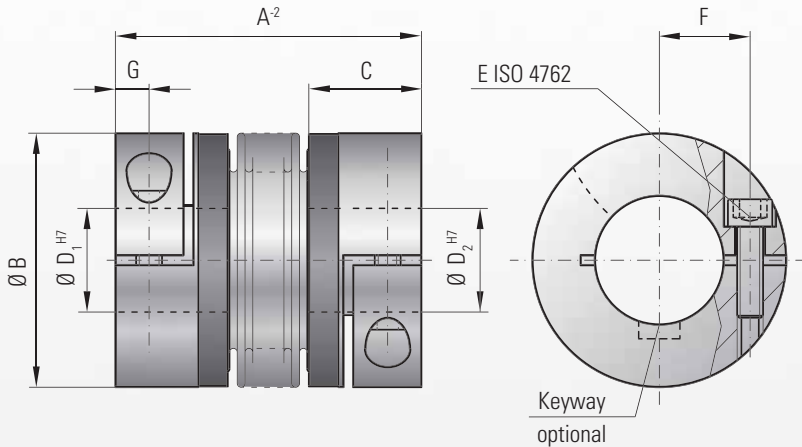


MODEL BK2

BACKLASH-FREE, TORSIONALLY STIFF METAL BELLOWS COUPLINGS



with clamping hubs



Ordering example

BK2 / 80 / 94 / 20 / 22 / XX

Model
Series / Nm
Overall length mm
Bore Ø D1 H7
Bore Ø D2 H7
Non standard e.g. anodized

Features:

- easy to mount
- multiple lengths available
- low moment of inertia

Material:

Bellows made from highly flexible, high grade stainless steel; see below for hub material

Design:

With a single ISO 4762 radial clamping screw per hub. Series 800 and up with two clamping screws 180 degrees opposed

Absolutely backlash free due to frictional clamp connection

Temperature range:

-30 to +100° C (-22 to +212° F)

Speeds:

Up to 10,000 rpm; in excess of 10,000 rpm with finely balanced version (up to G = 2.5)

Service life:

Maintenance free with infinite life when operated within the technical specifications

Brief overloads:

Acceptable up to 1.5x the rated torque

Fit tolerance:

Overall clearance between hub and shaft 0.01-0.05 mm

Non standard applications:

Custom designs with various tolerances, keyways, materials, dimensions, etc. available upon request

Model BK 2		Series																			
		15		30		60		80		150		200		300		500		800		1500	
Rated torque (Nm)	T _{KN}	15		30		60		80		150		200		300		500		800		1500	
Overall length (mm)	A ²	59	66	69	77	83	93	94	106	95	107	105	117	111	125	133	146	140	166		
Outside diameter (mm)	B	49		55		66		81		81		90		110		124		134		157	
Fit length (mm)	C	22		27		31		36		36		41		43		51		45		55	
Inside diameter possible from Ø to Ø H7 (mm)	D _{1/2}	8-28		10-30		12-35		14-42		19-42		22-45		24-60		35-60		40-75		50-80	
Fastening screw ISO 4762	E	M5		M6		M8		M10		M10		M12		M12		M16		2xM16		2xM20	
Tightening torque of the fastening screw (Nm)	E	8		15		40		50		70		120		130		200		250		470	
Distance between centerlines (mm)	F	17		19		23		27		27		31		39		41		2x48		2x55	
Distance (mm)	G	6.5		7.5		9.5		11		11		12.5		13		16.5		18		22.5	
Moment of inertia (10 ³ kgm ²)	J _{total}	0.06	0.07	0.12	0.13	0.32	0.35	0.8	0.85	1.9	2	3.2	3.4	7.6	7.9	14.3	14.6	16.2	43		
Hub material		Al optional steel		Al optional steel		Al optional steel		Al optional steel		steel optional Al		steel optional Al		steel optional Al		steel optional Al		steel		steel	
Approximate weight (kg)		0.16		0.26		0.48		0.8		1.85		2.65		4		6.3		5.7		11.5	
Torsional stiffness (10 ³ Nm/rad)	C _T	20	15	39	28	76	55	129	85	175	110	191	140	450	350	510	500	780	1304		
Axial ± (mm)	Max. values	1	2	1	2	1.5	2	2	3	2	3	2	3	2.5	3.5	2.5	3.5	3.5	3.5		
Lateral ± (mm)		0.15	0.2	0.2	0.25	0.2	0.25	0.2	0.25	0.2	0.25	0.25	0.3	0.25	0.3	0.3	0.35	0.35	0.35		
Angular ± (degree)		1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1.5	1.5		
Axial spring stiffness (N/mm)	C _a	25	15	50	30	72	48	48	32	82	52	90	60	105	71	70	48	100	320		
Lateral spring stiffness (N/mm)	C _r	475	137	900	270	1200	420	920	290	1550	435	2040	610	3750	1050	2500	840	2000	3600		

* 1 Nm = 8.85 in lbs