

# EK1

## WITH KEYWAY CONNECTION

0.5 - 2,150 Nm



### PROPERTIES

#### FEATURES

- ▶ press fit design
- ▶ readily modified for custom dimensions
- ▶ low backlash (keyway)

#### MATERIAL

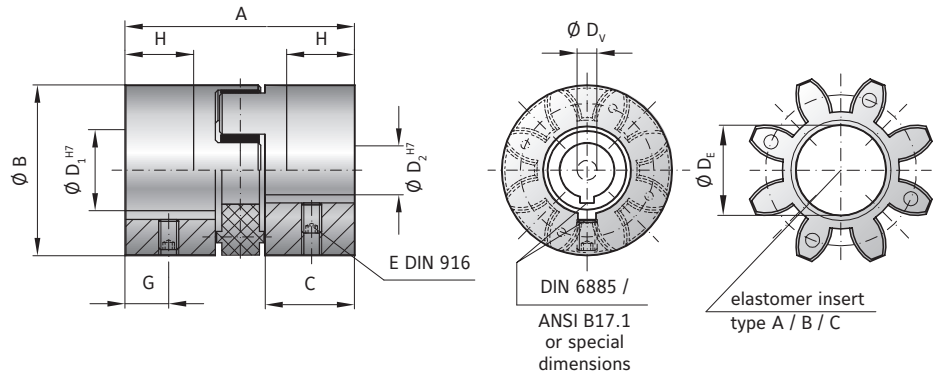
- ▶ **Hubs:** up to size 450 high strength aluminum; size 800 steel
- ▶ **Elastomer:** wear resistant thermally stable TPU

#### DESIGN

Two concentrically machined hubs with curved jaws, keyways, and set screws.

#### Optional:

Conical bores for Fanuc motors and other tapered shafts available.



## MODEL EK1

SIZE	2			5			10			20			60			150			300			450			800					
Type (Elastomer insert)	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Rated torque (Nm) $T_{KN}$	2	2.4	0.5	9	12	2	12.5	16	4	17	21	6	60	75	20	160	200	42	325	405	84	530	660	95	950	1100	240			
Max. torque (Nm) $T_{Kmax}$	4	4.8	1	18	24	4	25	32	6	34	42	12	120	150	35	320	400	85	650	810	170	1060	1350	190	1900	2150	400			
Overall length (mm) A	20			34			35			66			78			90			114			126			162					
Outside diameter (mm) B/B <sub>1</sub>	15			25			32			42			56			66.5			82			102			136.5					
Mounting length (mm) C	6.5			12			12			25			30			35			45			50			65					
Inside diameter (pilot bored) (mm) D <sub>v</sub>	3			4			6			7			9			14			16			22			29					
Inside diameter range H7 (mm) D <sub>1/2</sub>	3 - 9			6 - 15			6 - 18			8 - 25			12 - 32			19 - 38			20 - 45			28 - 60			32 - 80					
Inside diameter of elastomer (mm) D <sub>e</sub>	6.2			10.2			14.2			19.2			26.2			29.2			36.2			46.2			60.5					
Set screws (DIN 916) E	see table (depending on bore Ø)**																													
Distance (mm) G	3			5			6			9			11			12			15			17			30					
Possible shortening length (mm) H	4			6			6			19			22			26			32			37			43					
Moment of inertia per hub (10 <sup>-3</sup> kgm <sup>2</sup> ) J <sub>1</sub> /J <sub>2</sub>	0.0001			0.001			0.003			0.02			0.06			0.1			0.4			1.1			12					
Approx. weight (kg)	0.008			0.03			0.08			0.15			0.35			0.6			1.1			1.7			11					
Speed standard (min <sup>-1</sup> )	15,000			15,000			13,000			12,500			11,000			10,000			9,000			8,000			4,000					
Speed balanced (10 <sup>3</sup> min <sup>-1</sup> )	60	67	45	57	65	43	53	63	40	45	60	35	31	31	25	22	26	18	22	26	16	16	17	12	13	13	8			

For information on shaft misalignment, torsional stiffness, and other details about the elastomer inserts see handbook precision couplings pages 72 + 73.

** set screw size							
D <sub>1</sub> /D <sub>2</sub>	- Ø 10	Ø 10.1 - 12	Ø 12.1 - 30	Ø 30.1 - 60	Ø 60.1 - 95	Ø 95.1 - 130	Ø 130.1 - 170
E	M3	M4	M5	M8	M10	M12	M16