

EK1

WITH KEYWAY MOUNTING

0.5 - 2,150 Nm



ABOUT

FEATURES

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

MATERIAL

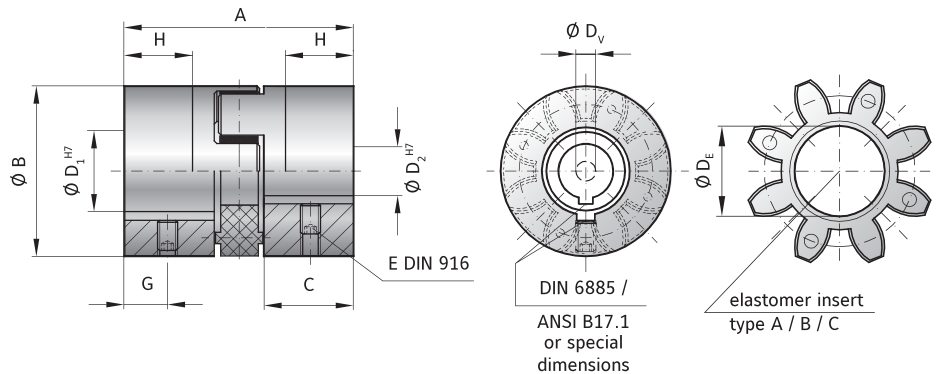
- ▶ **Hubs:** up to size 450 high strength aluminum; size 800 steel
- ▶ **Elastomer:** wear resistant thermally stable TPU

DESIGN

Two concentrically machined hubs with curved jaws, keyways, and set screws. Elastomer is press fit for zero backlash; standard versions are electrically isolating.

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			34			35			66			78			90			114			126			162					
Outside diameter (mm)	B/B ₁			25			32			42			56			66.5			82			102			136.5					
Mounting length (mm)	C			12			12			25			30			35			45			50			65					
Inside diameter (pilot bored) (mm)	D _v			4			6			7			9			14			18			22			29					
Inside diameter range H7 (mm)	D _{1/2}			6 - 15			6 - 18			8 - 25			12 - 32			19 - 38			20 - 45			28 - 60			32 - 80					
Inside diameter of elastomer (mm)	D _e			10.2			14.2			19.2			26.2			29.2			36.2			46.2			60.5					
Set screws (DIN 916)	E																													
Distance (mm)	G																													
Possible shortening length (mm)	H																													
Moment of inertia per hub (10 ⁻³ kgm ²) J_1/J_2	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 ⁻¹)	15,000, 15,000, 13,000, 12,500, 11,000, 10,000, 9,000, 8,000, 4,000																													
Speed balanced (10 ³ min ⁻¹)	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 pages 66 + 67.

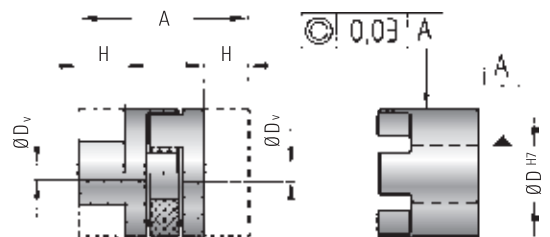
** set screw size

D ₁ /D ₂	E
- Ø 10	M3
Ø 10.1 - 12	M4
Ø 12.1 - 30	M5
Ø 30.1 - 58	M8
Ø 58.1 - 95	M10
Ø 95.1 - 130	M12
Ø 130.1 - 170	M16

NOTES ON MACHINING FEATURES INTO PILOT BORED (DV) COUPLING

Pilot bored coupling hubs (bore = DV) are available to be custom machined by the customer. They come with a small diameter bore and no set screw.

For precision applications a concentricity tolerance of 0.03 is recommended for smooth running. The hub can be shortened by a length value of up to dimension H.



Bores <6mm made without keyway.