



### ABOUT

#### FEATURES

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

#### MATERIAL

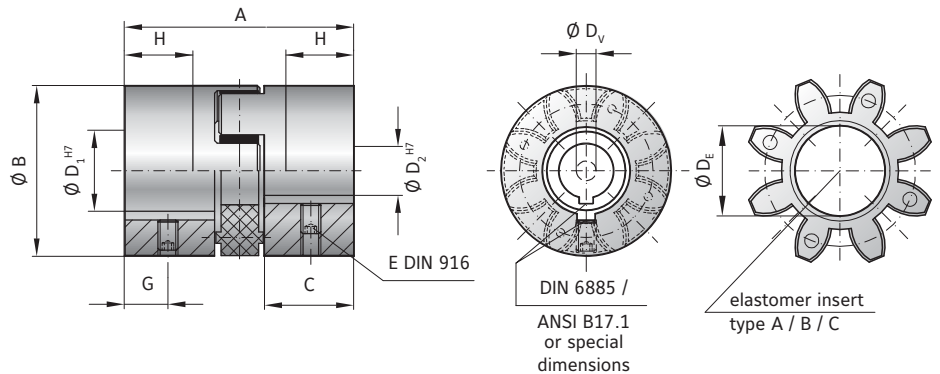
- ▶ **Hubs:** up to size 450 high strength aluminum; size 800 steel
- ▶ **Elastomer:** wear resistant thermally stable TPU

#### 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 <sub>1</sub>			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 <sub>v</sub>			4			6			7			9			14			18			22			29					
Inside diameter range H7 (mm)	D <sub>1/2</sub>			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>			10.2			14.2			19.2			26.2			29.2			36.2			46.2			60.5					
Set screws (DIN 916)	E																													
Distance (mm)	G			5			6			9			11			12			15			17			30					
Possible shortening length (mm)	H			6			6			19			22			26			32			37			43					
Moment of inertia per hub (10 <sup>-3</sup> kgm <sup>2</sup> ) $J_1/J_2$	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 <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 pages 66 + 67.

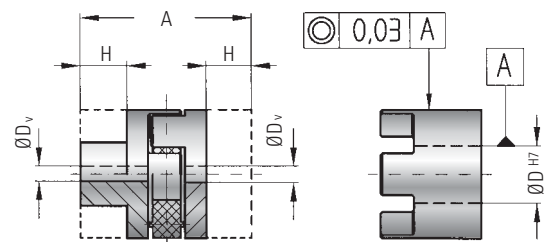
#### \*\* set screw size

D <sub>1</sub> /D <sub>2</sub>	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.

# EK1

## WITH KEYWAY MOUNTING

1,950 - 25,000 Nm

### ABOUT

#### FEATURES

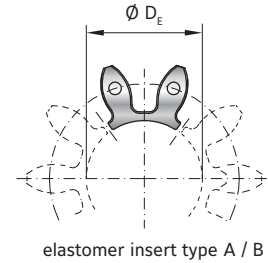
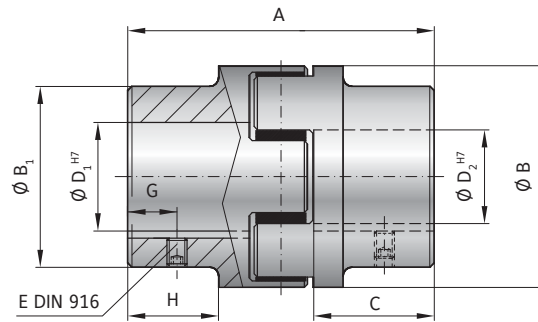
- ▶ press fit design
- ▶ readily modified for custom dimensions
- ▶ low backlash (keyway)

#### MATERIAL

- ▶ **Hubs:** GGG40
- ▶ **Elastomer:** wear resistant thermally stable TPU

#### DESIGN

Two concentrically machined hubs with curved jaws, keyways, and set screws. 5x elastomer segments press fit for zero backlash; standard versions are electrically isolating.



## MODEL EK1

SIZE		2500		4500		9500	
Type (Elastomer insert)		A	B	A	B	A	B
Rated torque (Nm)	$T_{KN}$	1950	2450	5000	6200	10000	12500
Max. torque (Nm)	$T_{Kmax}$	3900	4900	10000	12400	20000	25000
Overall length (mm)	A	213		272		341	
Outside diameter (mm)	B/B <sub>1</sub>	160 / 154		225 / 190		290 / 240	
Mounting length (mm)	C	88		113		142	
Inside diameter (pilot bored) (mm)	D <sub>v</sub>	30		40		50	
Inside diameter range H7 (mm)	D <sub>1/2</sub>	30 - 95		40 - 130		50 - 170	
Inside diameter of elastomer (mm)	D <sub>E</sub>	80		111		145	
Set screws (DIN 916)	E	see table (depending on bore Ø)**					
Distance (mm)	G	25		30		40	
Possible shortening length (mm)	H	69		89		110	
Moment of inertia per hub (10 <sup>-3</sup> kgm <sup>2</sup> )	J <sub>1</sub> /J <sub>2</sub>	40		147		480	
Approx. weight (kg)		12.5		25		53	
Speed standard (min <sup>-1</sup> )		3,500		3,000		2,000	
Speed balanced (10 <sup>3</sup> min <sup>-1</sup> )		10	10	8	8	6.5	6.5

For information on shaft misalignment, torsional stiffness, and other details about the elastomer inserts see pages 66 + 67.

ORDERING EXAMPLE	EK1	2500	A	50.8	80	XX
Model	●					Special designation only (e.g. special bore tolerance).
Size		●				
Elastomer insert type			●			
Bore D1 H7				●		
Bore D2 H7					●	
For custom features place an XX at the end of the part number and describe the special requirements (e.g. EK1 / 2500 / A / 50.8 / 80 / XX; XX=stainless steel)						