

TX1

ECOLIGHT® WITH KEYWAY CONNECTION

0.5 – 810 Nm

PROPERTIES

FEATURES

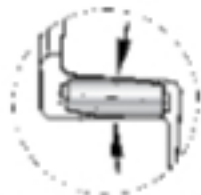
- ▶ very low mass and moment of inertia
- ▶ corrosion proof
- ▶ economically priced

DESIGN

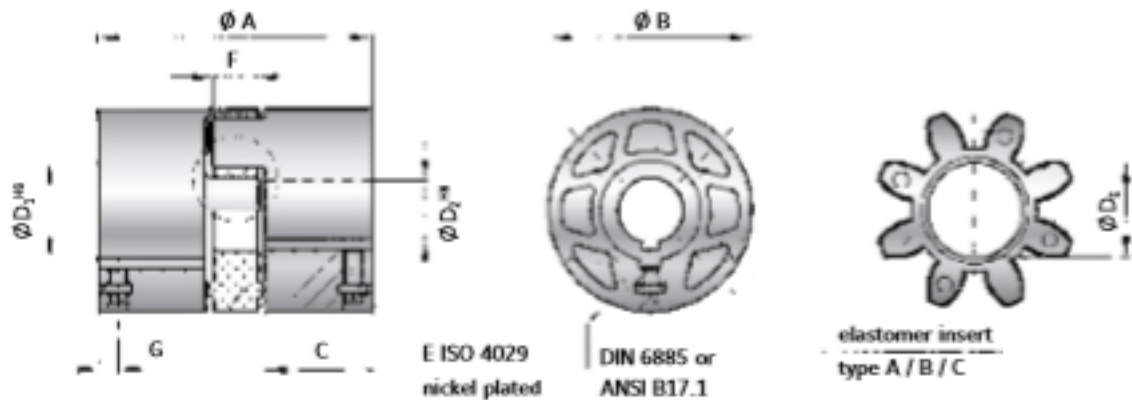
Two highly concentric, precision molded hubs with curved jaws, keyways, and set screws, suitable for use in temperatures ranging from -20 to +100°C.

MATERIAL

- ▶ **Hubs:** extremely rigid, glass fiber reinforced thermoplastic
- ▶ **Elastomer:** wear resistant thermally stable TPU



convex elastomer insert for higher misalignment



MODEL TX1

SIZE	2			10			20			60			150			300			
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	
Elastomer insert																			
Rated torque (Nm)	T_{RM}	2	2.4	0.5	12.5	16	4	17	21	6	60	75	20	160	200	42	325	405	84
Max. torque (Nm)	T_{RMmax}	4	4.8	1	25	32	6	34	42	12	120	150	35	320	400	85	650	810	170
Overall length (mm)	A	20			35			66			78			90			114		
Outside diameter (mm)	B	17			32			42			56			66.5			82		
Mounting length (mm)	C	6.5			12			25			30			35			45		
Inside diameter possible from - to H8 (mm)	D_{in}	5 - 8			6 - 16			10 - 24			16 - 30			19 - 38			20 - 45		
Inside diameter of elastomer (mm)	D_1	6.2			14.2			19.2			27.2			30.2			38.2		
Set screw (ISO 4029) (Nm)	E	M3			M3			M4			M5			M6			M6		
Tightening torque of the clamping screw max. (Nm)		0.8			0.8			1.5			3			6			6		
Width elastomer insert (mm)	F	5			9.5			12			14			15			18		
Distance (mm)	G	3			3.5			4			6			7			7		
Moment of inertia per Hub (kgm^2)	J_1/J_2	1.9			1.4			10			30			70			180		
Approx. weight (g)		5.9			30			80			180			270			510		
Speed (min^{-1})		12,000			10,000			9,000			8,000			7,000			6,000		
Static torsional stiffness (Nm/rad)	C_1	50	115	1.7	260	600	90	1140	2500	520	3290	9750	1400	4970	10600	1130	12400	18000	1280
Dynamic torsional stiffness (Nm/rad)	C_{1dyn}	100	230	35	541	1650	224	2540	4440	876	7940	11900	1350	13400	29300	3590	23700	40400	6090
Lateral (mm)	Max. values	0.08	0.06	0.2	0.2	0.17	0.2	0.2	0.2	0.22	0.22	0.22	0.25	0.25	0.25	0.28	0.28	0.28	0.3
Angular (Degree)		1			1.5			1.5			1.5			1.5			1.5		
Axial (mm)		±1			±1			±1.5			±1.5			±2			±2		

Static torsional stiffness at 50% T_{RM}

Dynamic torsional stiffness at T_{RM}