ESL

WITH KEYWAY MOUNTING

1 - 150 Nm

ABOUT

MATERIAL

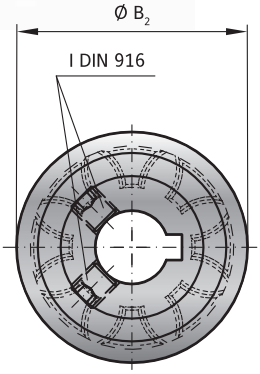
- **Clutch system:** high strength steel, drive balls made from hardened steel
- **Hubs:** high strength aluminum
- **Elastomer insert:** wear resistant, thermally stable TPU

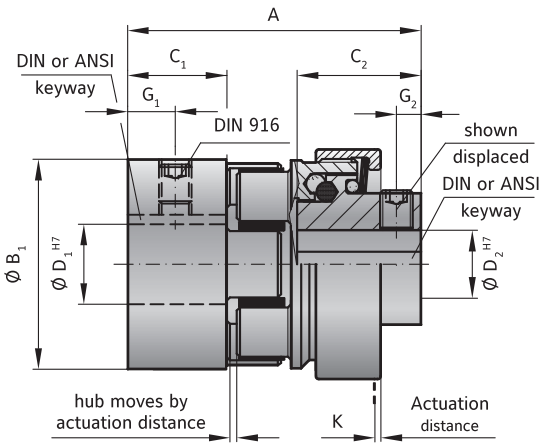
DESIGN

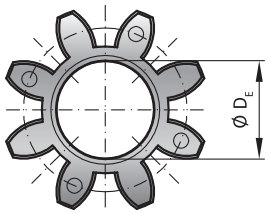
Two hubs, each with keyway, set screw, and concave driving jaws. Backlash free, vibration damping, electrically isolating elastomer insert press fit into the jaw sets. The clutch system is integrated into one of the hubs. All couplings have a multi-position function system due to the spring loaded, interlocking ball system.

DISENGAGEMENT SPEED

Negligible wear at up to 200 rpm. Contact R+W for higher speed applications.







elastomer insert type A / B

MODEL ESL

Size			5		10		20		60		150	
Type (Elastomer insert)			A	B	A	B	A	B	A	B	A	B
Rated torque	(Nm)	T_{Kn}	9	12	12.5	16	17	21	60	75	160	200
Torque setting possible* from - to	(Nm)	T_{Kn}	1-6		1-12		3-19		5-60		20-150	
Overall length	(mm)	A	34		45		64		80		90	
Diameter of the hub	(mm)	B_1	25		32		42		56		66.5	
Diameter of the hub	(mm)	B_2	29		32		46		59		75	
Clamping fit length	(mm)	C_1	12.5		12		25		30		35	
Clamping fit length	(mm)	C_2	11.5		20		22		31		35	
Inside diameter from Ø to Ø H7	(mm)	D_1	6-15		6-18		8-25		12-32		19-38	
Inside diameter from Ø to Ø H7	(mm)	D_2	6-10		6-12		8-19		12-24		19-32	
Inside diameter max. (elastomer)	(mm)	D_E	10.5		14.2		19.2		26.2		29.2	
Distance	(mm)	G_1	5		6		9		11		12	
Distance	(mm)	G_2	2.5		3.5		4		4		4	
Screws DIN 916**		I	depending on bore diameter see below table									
Approx. weight	(kg)		0.05		0.15		0.2		0.5		1	
Moment of inertia	(10^{-3} kgm²)	J_1/J_2	0.01		0.02		0.08		0.15		0.5	
Actuation distance	(mm)	K	0.6		0.6		0.7		1.1		1.4	

* Disengagement torque is permanently set at the factory. For information on shaft misalignment, torsional stiffness, and other details about the elastomer inserts see page 105.

ORDERING EXAMPLE	ESL	10	A	14	12	10	XX
Model	●						Special designation only (e.g. special bore tolerance).
Size		●					
Elastomer insert type			●				
Bore D1 H7 includes standard keyway				●			
Bore D2 H7 includes standard keyway					●		
Disengagement torque Nm (not adjustable)						●	

For custom features place an XX at the end of the part number and describe the special requirements (e.g. ESL / 10 / A / 14 / 12 / 10 / XX; XX=stainless steel)

FIXED DISENGAGEMENT TORQUE

The ESL coupling is unlike other R+W safety couplings in that the disengagement torque is permanently set and tamper proof.

** SET SCREWS					
D1/D2	- Ø 10	Ø 11-12	Ø 13-30	Ø 31-58	Ø 59-80
I	M3	M4	M5	M8	M10

Bores <6mm made without keyway.