ES2

Press fit elastomer with clamping hub

1 – 1,800 Nm

Features
- Easy to mount
- Vibration damping
- Compensation for shaft misalignment
- Adjustable torque settings

Material
- **Torque limiter element:** hardened steel
- **Hub D1:** up to size 450 high strength aluminum, size 800 and up steel
- **Hub D2:** up to size 60 high strength aluminum, size 150 and up steel
- **Elastomer insert:** wear resistant thermally stable TPU

Information for elastomer inserts See page 64

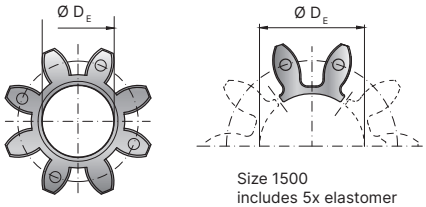
Design
Two clamping hubs with one clamping screw in each and concave driving jaws. Backlash free, vibration damping, electrically isolating elastomer insert press fit into the jaw sets. Torque limiter system: spring loaded ball-detent principle.

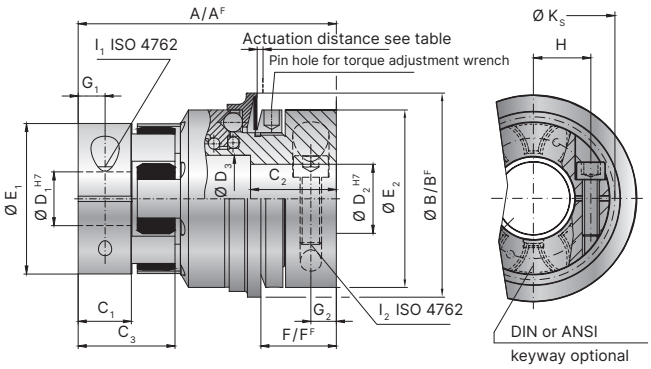
Available function systems
- W = Single position / automatic re-engagement (standard)
- D = Multi position / automatic re-engagement
- G = Load holding / load blocking
- F = Full disengagement / manual re-engagement

Model ES2

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
Max. torque	(Nm)	T_{Kmax}	18	24	25	32	34	42	120	150	320	400
Adjustment range possible from -to	(Nm)	T_{KN}	1-3 or 3-6		2 - 6 or 4 - 12		10 - 25 or 20 - 40		10 - 30 or 25 - 80		20 - 70 45 - 150 80 - 180	
Adjustment range (”F” Version) possible from -to	(Nm)	T_{KN}^{F}	2.5 - 4.5		2 - 5 or 5 - 10		8 - 20 or16 - 30		20 - 40 or 30 - 60		20 - 60 40 - 80 80 - 150	
Overall length	(mm)	A	50		60		86		96		106	
Overall length (”F” Version)	(mm)	A_F	50		60		86		96		108	
Actuation ring Ø	(mm)	B	35		45		65		73		92	
Actuation ring Ø, (”F” Version)	(mm)	B_F	42		51.5		70		83		98	
Clamping fit length	(mm)	C_1	8		10.3		17		20		21	
Fit length	(mm)	C_2	14		16		27		31		35	
Length of hub	(mm)	C_3	16.7		20.7		31		36		39	
Inner diameter from Ø to Ø H7	(mm)	D_1	4 - 12.7*		5 - 16*		8 - 25		12 - 32		19 - 36	
Inner diameter from Ø to Ø H7	(mm)	D_2	6 - 14*		6 - 16*		12 - 30		15 - 32		19 - 42	
Diameter Ø	(mm)	D_3	14.1		20.1		24.1		32.1		36.1	
Inside diameter (Elastomer insert)	(mm)	D_E	10.2		14.2		19.2		26.2		29.2	
Diameter of the hub	(mm)	E_1	25		32		42		56		66.5	
Diameter of the hub	(mm)	E_2	19		40		55		66		81	
Distance	(mm)	F	15		17		24		28		31	
Distance, (”F” Version)	(mm)	F_F	14		16		22		29		30	
Distance	(mm)	G_1	4		5		8.5		10		11	
Distance	(mm)	G_2	5		5		7.5		9.5		11	
Distance between centers	(mm)	H_1	8		10.5		15		21		24	
ISO 4762 clamping screw		I_1	M3		M4		M5		M6		M8	
Tightening torque	(Nm)		2		4.5		8		15		35	
Distance between centers D2 side	(mm)	H_2	10		15		19		23		27	
Screws (ISO 4762)		I_2	M4		M4		M6		M8		M10	
Tightening torque	(Nm)		4		4.5		15		40		70	
Diameter with screwhead	(mm)	K_S	25		32		44.5		57		68	
Approx. weight	(kg)		0.2		0.3		0.6		1.0		2.4	
Moment of inertia	(10^{-3} kgm²)	J_{ges}	0.02		0.06		0.25		0.7		2.3	
Actuation distance	(mm)		0.8		1.2		1.5		1.7		1.9	

A^F, B^F, L^F = Full disengagement / manual re-engagement version (F) * keyway with max. bore only in clamping hub possible.





Position of the PFN indicated / symbolic representation only.
Exact position of the PFN available upon request.

Model ES2

Size			300		450		800		1,500	
Type (Elastomer insert)			A	B	A	B	A	B	A	B
Rated torque	(Nm)	T_{KN}	325	405	530	660	950	1,100	1,950	2,450
Max. torque	(Nm)	T_{Kmax}	650	810	1,060	1,350	1,900	2,150	3,900	4,900
Adjustment range possible from -to	(Nm)	T_{KN}	100 - 200 150 - 240 200 - 320		80 - 200 200 - 350 300 - 500		400 - 650 500 - 800 600 - 900		600 - 850 700 - 1,200 1,000 - 1,800	
Adjustment range (“F” Version) possible from -to	(Nm)	T_{KN}^{F}	120 - 180 or 180 - 300		60 - 150 100 - 300 250 - 500		200 - 400 or 450 - 800		1,000 - 1,250 or 1,250 - 1,500	
Overall length	(mm)	A	140		164		179		245	
Overall length (“F” Version)	(mm)	A_F	143		168		190		257	
Actuation ring Ø	(mm)	B	120		135		152		174	
Actuation ring Ø, (“F” Version)	(mm)	B_F	132		155		177		187	
Clamping fit length	(mm)	C_1	31		34		46		88	
Fit length	(mm)	C_2	42		51		45		67	
Length of hub	(mm)	C_3	52		57		74		120	
Inner diameter from Ø to Ø H7	(mm)	D_1	20 - 45		28 - 60		35 - 80		35 - 90	
Inner diameter from Ø to Ø H7	(mm)	D_2	30 - 60		35 - 60		40 - 75		50 - 80	
Diameter Ø	(mm)	D_3	58.1		60.1		60.1		68.1	
Inside diameter (Elastomer insert)	(mm)	D_E	36.2		46.2		60.5		79	
Diameter of the hub	(mm)	E_1	82		102		136.5		160	
Diameter of the hub	(mm)	E_2	110		123		132		157	
Distance	(mm)	F	35		45		50		63	
Distance, (“F” Version)	(mm)	F_F	35		43		54		61	
Distance	(mm)	G_1	15		17.5		23		36	
Distance	(mm)	G_2	13		17		18		22.5	
Distance between centers	(mm)	H_1	29		38		50.5		2× 57	
ISO 4762 clamping screw		I_1	M10		M12		M16		4x M16*	
Tightening torque	(Nm)		70		120		290		300	
Distance between centers D2 side	(mm)	H_2	39		41		48		2× 55	
Screws (ISO 4762)		I_2	M12		M16		2x M16		2x M20	
Tightening torque	(Nm)		130		200		250		470	
Diameter with screwhead	(mm)	K_S	85		105		139		155	
Approx. weight	(kg)		5.8		9.3		14.3		26	
Moment of inertia	(10^{-3} kgm²)	J_{ges}	11		22		33.5		185	
Actuation distance	(mm)		2.2		2.2		2.2		3.0	

A^F, B^F, L^F = Full disengagement / manual re-engagement version (F) * keyway with max. bore only in clamping hub possible.

Ordering example	ES2	60	D	22	25	50	25-80	XX
Model	●							Special designation only (e.g. special bore / keyway dimensions).
Size		●						
Function system			●					
Bore D1 H7				●				
Bore D2 H7					●			
Disengagement torque Nm						●		
Torque adjustment range Nm							●	

For custom features place an XX at the end of the part number and describe the special requirements
(e.g. ES2 / 60 / D / 22 / 25 / 50 / 25-80 / XX; XX=special 30 deg re-engagement angle)