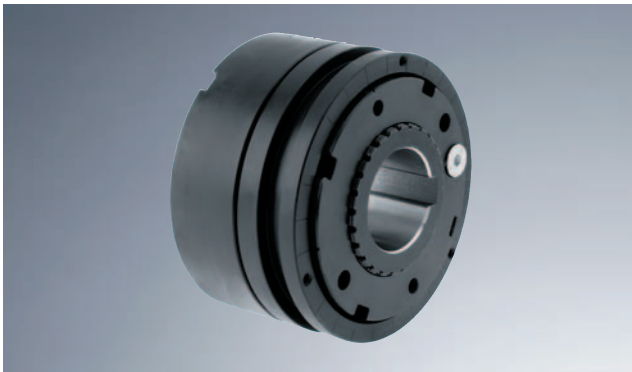
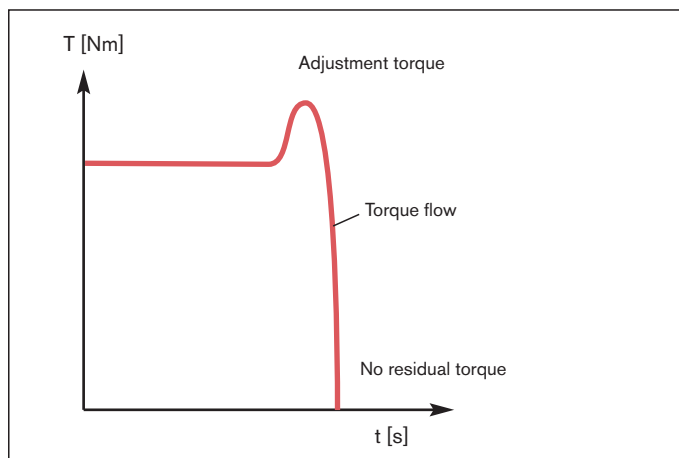


Idle rotation coupling (load-separating)

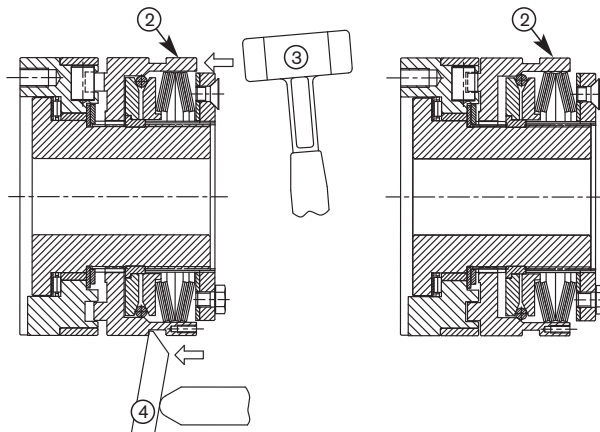


- Free-rotating safety clutch up to 1800 Nm torque
- Max. speed up to 5000 RPM (see table)
- Drive end and driven end are permanently separated
- Manual re-engagement
- Optional overload recognition by limit switch or sensor
- Combination with ROTEX® coupling as shaft-to-shaft connection
- Easy assembly and torque adjustment



Operating principle of the KTR-SI idle-rotation couplings:

- When achieving the torque setting, the coupling rotates.
- Subject to the idle rotation mechanism driving and driven side remain separated.
The resulting flywheel mass may run out in idle state.
- After having removed the overload, the coupling re-engages.
- The re-engagement happens automatically.



Re-engagement Instructions:

Re-engagement of the free-rotating coupling is effected by axial pressure on the shifting ring (2). Dependent on the existing media, accessibility etc., the re-engagement can be effected in different ways:

- by several shocks with a plastic hammer (3) axially on the shifting ring (see on the left)
- with mounting levers (4)
- with a pneumatic or hydraulic engagement device (automated process of engagement)

Torques			
Size	Torque [Nm]		
	Spring layer		
	T1	T2	T3
1	12-25	25-50	50-100
2	25-50	50-100	100-200
3	50-100	100-200	200-450
4	100-200	200-400	400-800
5	170-450	350-900	600-1800

Max. speeds	
Max. speed [min ⁻¹]	
Size	n _{max.}
1	5000
2	4000
3	3500
4	3000
5	2300

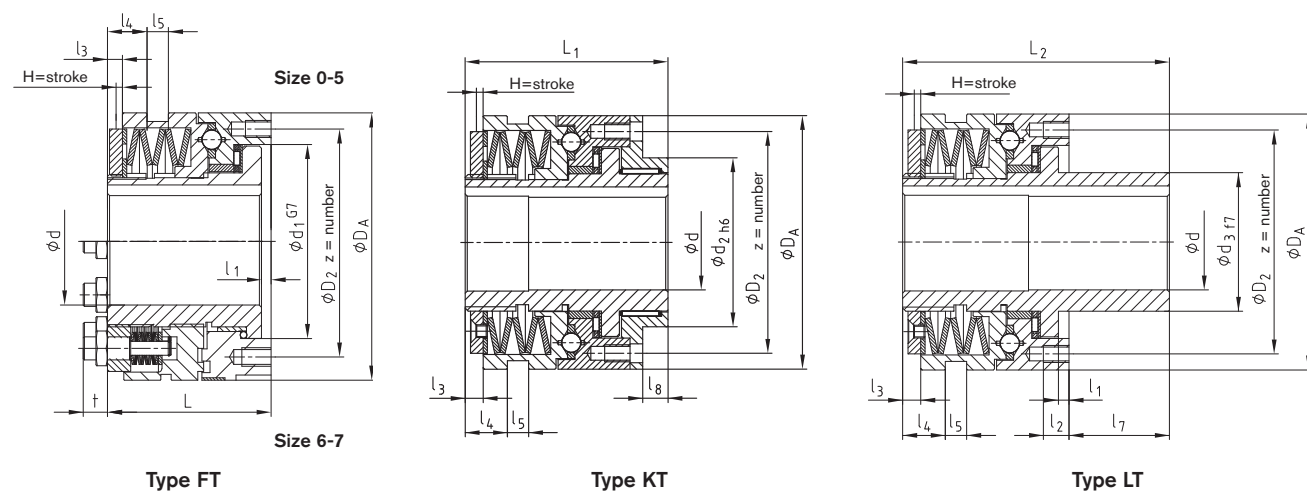
Dimensions like KTR-SI design
DK, SR and SGR
(see following pages)

Order form:	KTR-SI	2	FR	FT	T2	Ø 20	40 Nm
	Coupling type	Size	Design	Design	Disk springs	Bore	Torque set

Type FT, KT and LT



- Standard KTR-SI safety clutch suitable up to 8200 Nm
- Available ready for assembly with the torque set
- For direct mounting of customers' components
- Available as a ratchet, synchronous and fail-safe design
- Torque setting possible while in place
- Finish bore according to ISO fit H7, feather keyway according to DIN 6885 sheet 1 - JS9
- Surface protection by phosphating



Technical Data – Torques, Weights									
Size	Torques [Nm]								Weight with max. bore [kg]
	Disk spring layers design DK				Disk spring layers design SR and SGR				
	T1	T2	T3	T4	T1	T2	T3	T4	
0	2,5-5	5-20	–	20-40	5-10	10-40	–	–	0,41
1	6-12	12-25	25-55	55-100	12-25	25-50	50-100	–	1,30
2	12-25	25-50	50-120	120-200	25-50	50-100	100-200	–	2,27
3	25-50	50-100	100-250	200-450	50-100	100-200	200-450	–	3,88
4	50-100	100-200	200-500	500-1000	100-200	200-400	400-800	800-2000	8,34
5	85-250	230-600	300-1000	600-2000	170-450	350-900	600-1800	1200-3400	13,51
6	180-480	360-960	720-1950	1600-3300	300-750	600-1500	1200-3000	2900-5800	21
7	250-520	500-1050	1000-2100	2000-3600	550-1100	1100-2200	2200-4400	3000-8200	37

Technical Data – Dimensions																						
Size	Dimensions [mm]																					
	Bore d		d ₁	D ₂	D _A	d ₂	d ₃	l ₁	l ₂	l ₃	l ₄	l ₅	l ₇	l ₈	L	L ₁	L ₂	z	H=stroke			
	Pilot bore	max.																	DK	SR	SGR	FR
0	7	20	41,0	48	55	38	28	4,0	6,5	3,0	7,5	9	27,5	8	38,5	51,0	66,0	6xM5	1,4	1,2	0,6	1,6
1	10	25	60,0	70	82	50	38	4,0	8,0	6,0	11,5	9	33,0	10	52,0	70,0	85,0	6xM5	2,3	1,8	0,8	2,3
2	14	35	78,0	89	100	60	52	5,0	10,0	5,0	12,0	9	39,0	12	61,0	78,0	100,0	6xM6	2,4	2,0	1,1	3,0
3	18	45	90,5	105	120	80	65	5,0	12,0	8,5	21,0	10	47,0	12	78,0	96,0	125,0	6xM8	2,7	2,2	1,2	3,5
4	24	55	105,0	125	146	100	78	6,5	15,0	11,0	27,0	9	52,5	16	100,0	124,5	152,5	6xM10 ¹⁾	3,7	2,5	1,2	3,8
5	30	65	120,5	155	176	120	90	6,5	17,0	12,0	33,0	9	57,5	18	113,5	140,0	171,0	6xM12 ¹⁾	4,6	3,0	1,6	4,5
6 ²⁾	40	80	136,0	160	200	130	108	7,0	20,0	14,0	39,0	9	64,0	20	119,0	150,0	183,0	6xM12 ¹⁾	5,0	3,5	2,5	–
7 ²⁾	50	100	168,0	200	240	160	135	8,0	25,0	15,0	46,0	9	72,0	25	141,0	175,0	213,0	6xM16 ¹⁾	5,5	4,0	2,7	–

1) Type T4 SR and SRG: tightening torques according to 12.9

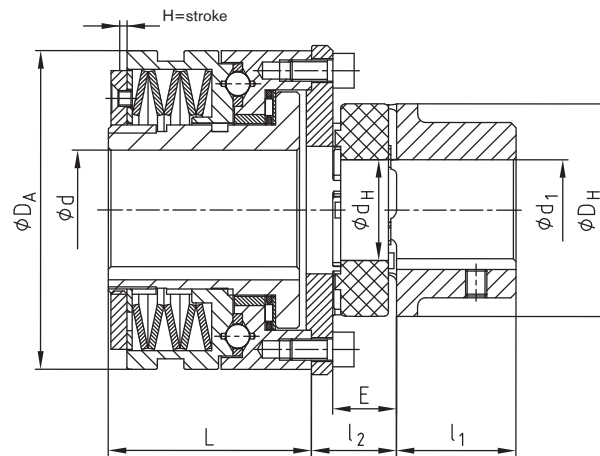
2) Size 6: dimension t= 15 mm, Size 7: dimension t= 21 mm

Order form:	KTR-SI	2	DK	FT	T2	Ø 20	40 Nm
	Coupling type	Size	Design	Design	Disk springs	Bore	Torque set

With torsionally flexible ROTEX®



- KTR-SI safety clutch as a shaft-to-shaft connection
- Axial plug-in
- Able to compensate for misalignment
- Available as a ratchet, synchronous and fail-safe design
- Torque setting possible while in place
- Various kinds of elastomer hardness available
- Finish bore according to ISO fit H7, feather keyway according to DIN 6885 sheet 1 - JS9



Technical Data – Torques

Technical Data – Torques											
Design DK						Design SR and SGR					
KTR-SI Size	ROTEX® Size	Torques [Nm]				KTR-SI Size	ROTEX® Size	Torques [Nm]			
		KTR-SI disk spring layer						KTR-SI disk spring layer			
		T1	T2	T3	T4			T1	T2	T3	T4
0	19	2,5-5	5-20	–	20-40	0	28	5-10	10-40	–	–
1	24	6-12	12-25	25-55	55-100	1	38	12-25	25-50	50-100	–
2	28	12-25	25-50	50-120	120-200	2	48	25-50	50-100	100-200	–
3	38	25-50	50-100	100-250	200-450	3	55	50-100	100-200	200-450	–
4	48	50-100	100-200	200-500	500-1000	4	75	100-200	200-400	400-800	800-2000
5	55	85-250	230-600	300-1000	600-2000	5	90	170-450	350-900	600-1800	1200-3400
6	100	180-480	360-960	720-1950	1600-3300	6	100	300-750	600-1500	1200-3000	2900-5800
7	110	250-520	500-1050	1000-2100	2000-3600	7	110	550-1100	1100-2200	2200-4400	3000-8200

Technical Data – Dimensions

KTR-SI Size	ROTEX® Size	Dimensions [mm]									H=stroke [mm]	
		Max. Bore		D_A	D_H	d_H	E	l_1	l_2	L	Design	
		d	d_1								DK	SR
0	19	20	24	55	40	18	16	25	22	38,5	1,4	1,2
	28		38		65	30	20	35	28,5			
1	24	25	28	82	55	27	18	30	24	52	2,3	1,8
	38		45		80	38	24	45	32,5			
2	28	35	38	100	65	30	20	35	28	61	2,4	2,0
	48		60		105	51	28	56	38			
3	38	45	45	120	80	38	24	45	32	78	2,7	2,2
	55		70		120	60	30	65	43			
4	48	55	60	146	105	51	28	56	38	100	3,7	2,5
	75		95		160	80	40	85	56,5			
5	55	65	70	176	120	60	30	65	44	113,5	4,6	3,0
	90		110		200	100	45	100	62			
6	100	80	115	200	225	113	50	110	72	119	5,0	3,5
	110		125		255	127	55	120	78			

Order form:

KTR-SI 2	28	DK	T2	Ø 25	Ø 20	40 Nm
Coupling type	ROTEX® Size	Design	Disk springs	ROTEX® Bore	KTR-SI Bore	Torque set