DYSTRYBUTOR

TECHNICAL

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Sprzęgła przeciążeniowe wałeczkowe i kulkowe LS oraz LR z czujnikiem rozłączenia

Piazzalunga

LIMITATORI

TORQUE LIMITERS

Piazzalunga

MOTION CONTROL TECHNOLOGIES

LS + LR series ball or roller torque limiter

- Overload control by ball or roller device
- Ideal for use in moist and oily and environments with low friction
- Very rapid response times
- No maintenance needed
- Standard version with re-engagement at equidistant phase or 360°
- Simple precise balanced ring nut adjustment of the torque.

ON REQUEST

- Complete with transmission part (crown, pulley, gear)
- Set up for shrink disc or other locking types
- Spiral springs for applications at low operating torque
- With re-engagement at customised phase (30°, 45°, 60°..)
- Microswitch or proximity switch for automatic stop when overloaded

LS + LR base model with balls or rollers ..... Page 13

LS/F + LR/F with balls or rollers and support flange..... Page 14

LR/L with free rotating balls ..... Page 15

LS/GT + LR/GT with balls or rollers with disc coupling ..... Page 16

LS/GS + LR/GS with balls or rollers and star coupling ..... Page 16

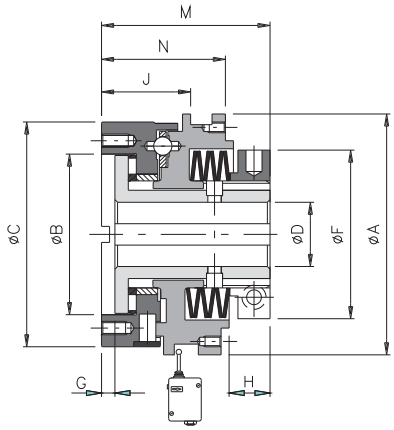
LS/GE + LR/GE with balls or rollers and compact elastic coupling ..... Page 17

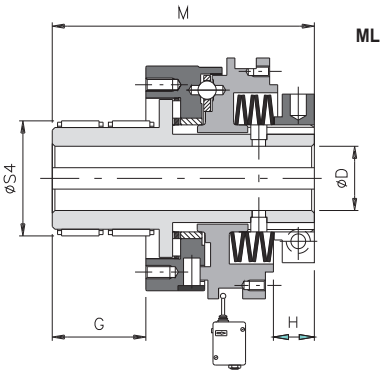
TRANSMITTABLE TORQUES

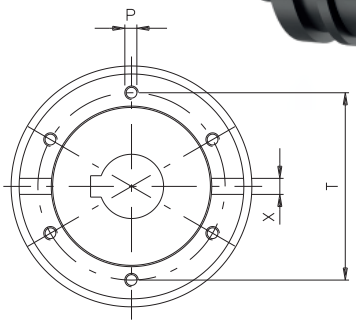
Transmittable torques [Nm] in relation to the configuration of the springs									
ID		A6S1 ()()()	A5M1)()()	A6M1 ()()()	A6M2))(())	A5G1)()()	A6G2))(())	ST	SQ
056	LS	2,5 - 9,5		5,5 - 17,5	15 - 32			0,8 - 10,9	
	LR	10 - 20		14 - 37	30 - 75			1,9 - 25,6	
090	LS	18 - 48	24 - 55			35 - 90	55 - 155	2 - 40	5 - 90
	LR	30 - 60	45 - 100			85 - 180	170 - 350	8 - 75	8 - 145
	LR/F/RF	25 - 55	45 - 95			80 - 155			
110	LS		19 - 72			55 - 160	80 - 290	9 - 50	12 - 100
	LR		60 - 150			142 - 330	275 - 620	12 - 90	25 - 190
	LR/F/RF		90 - 210			100 - 360			
130	LS		50 - 225			70 - 300	130 - 540	12 - 135	24 - 190
	LR		115 - 370			200 - 510	430 - 900	30 - 300	50 - 320
	LR/F/RF		120 - 390			120 - 450			
160	LS					150 - 690	300 - 1280		
	LR					330 - 1040	750 - 1800		
	LR/F/RF					310 - 1060			
194	LS					360 - 1040	460 - 2050		
	LR					540 - 1620	1050 - 2800		
	LR/F/RF					430 - 1460			

ID		A12S1 ()()()()()	A14S1 ()()()()()	A15G1)()()()()()	A16G1 ()()()()()()				
240	LR	1600 - 3800		2000 - 8000					
280	LR		2000 - 5600		2500 - 12000				

LS + LR series torque limiter with balls or rollers



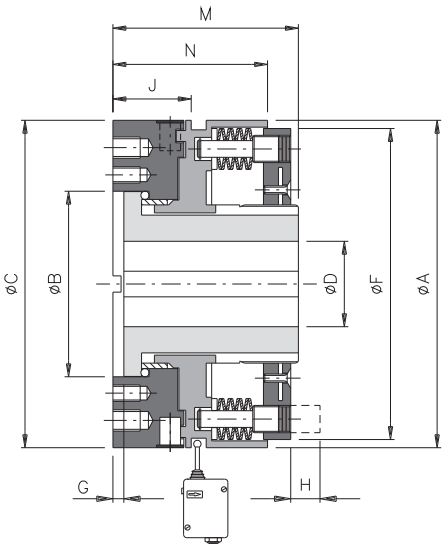


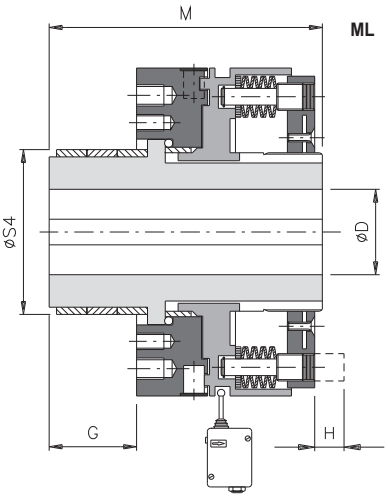


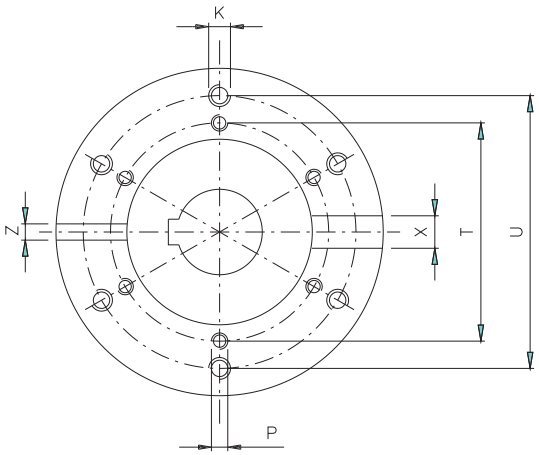
TECHNICAL DATA

ID	Mod.	MT [Nm]	A	B H7	C	D H7 Std	D H7 Max	D H7 /ML	F	G	G /ML	J	M	M /ML	N	P	S4 h7 Bushing	S4 h7 Bearing	T	X	Rpm max	Kg	Kg /ML
056	LS LR	2,5 - 32 10 - 75	56	41	56	-	20	20*	42	3,8	27,5	21 20	46	73,5	32 31,5	M5	32	33	48	6x3	4500 1500	0,6	0,7
090	LS LR	18 - 155 30 - 350	90	60	84	-	28	28*	63	5	35	33,5 27,5	63	98	47 45	M5	45	43	70	6x3	3000 1000	1,9	2,4
110	LS LR	19 - 290 60 - 620	110	78	104	-	40	38	82	6	38	39 36,5	76	114	54 52	M6	60	55	89	8x3,5	2500 800	3,6	4,4
130	LS LR	40 - 540 75 - 900	130	90,5	124	20	50	50*	104	6	47	47 45	88	135	65 64	M8	72	70	105	10x4	2000 700	6,0	7,3
160	LS LR	70 - 1280 160 - 1800	160	105	148	25	58	58*	128	8	53	58,5 54,5	107	160	76,5	M10	85	83	125	12x4	1600 550	10,7	13,2
194	LS LR	125 - 2050 275 - 2800	194	120,5	176	28	68	68*	157	6,5	57,5	65 64,5	124,5	182	88 88,5	M12	98	98	155	14x14,6	1300 400	18,2	21,6

data not binding







TECHNICAL DATA

ID	Mod.	MT [Nm]	A	B H7	C	D H7 Std	D H7 Max	F	G	G /ML	J	K	M	M /ML	N	P	S4 h7 Bushing	T	U	Z	X	Rpm max	Kg	Kg /ML
240	LR	1600 - 8000	240	136	240	50	90	227	8	64	54,5	M16	141	205	113,5	M12	118	160	200	16x5,1	18x5,1	300	30,6	38,5
280	LR	2000 - 12000	280	198	280	50	120	262,5	8	82	82	-	200	282	159	M20	168	230	-	-	20x6,1	200	79,0	91,8

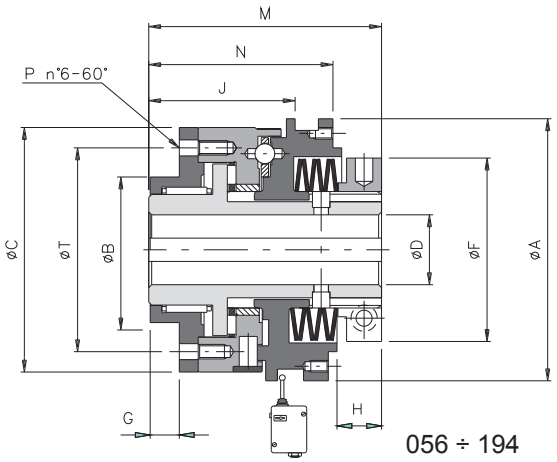
● On request

data not binding

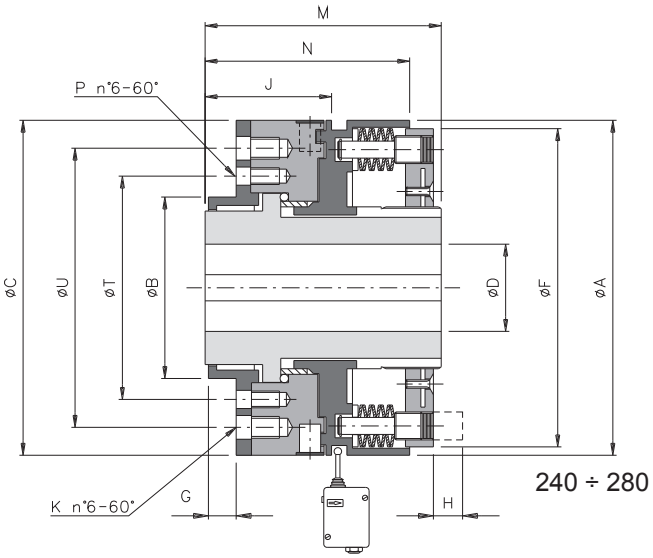
NOTES

Technical characteristics: the weights refer to torque limiters (LS or LR) pilot bore.

LS/F + LR/F series model with support flange



056 ÷ 194



240 ÷ 280

TECHNICAL DATA

ID	Mod.	MT *[Nm]*	A	B h7	C	D H7		F	G	J	K	M	N	P	T	U	Rpm max	Kg
						Std	Max											
056	LS LR	2,5 - 32 10 - 75	56	38	56	-	20*	42	7,5	34,5 33	-	59	45 44	M5	48	-	4500 1500	0,7
090	LS LR	18 - 155 30 - 350	90	50	84	-	28*	63	9,5	50,5 44,5	-	80	64 62	M5	70	-	3000 1000	2,4
110	LS LR	19 - 290 60 - 620	110	60	104	-	38	82	11,5	56 53,5	-	93	71 69	M6	89	-	2500 800	4,4
130	LS LR	40 - 540 75 - 900	130	80	124	20	50*	104	11,5	65 63	-	106	83 82	M8	105	-	2000 700	7,1
160	LS LR	70 - 1280 160 - 1800	160	100	148	25	58*	128	15,5	83,5 79,5	-	132	101,5	M10	125	-	1600 550	13,0
194	LS LR	125 - 2050 275 - 2800	194	120	176	28	68*	157	17,5	92,5 93	-	152	115,5 116	M12	155	-	1300 400	21,6
240	LR	1600 - 8000	240	130	240	50	90	227	18	83,5	M16	170	142,5	M12	160	200	300	37,5
280	LR	2000 - 12000	280	190	280	50	120	262,5	30	130	-	248	207	M20	230	-	200	90,5

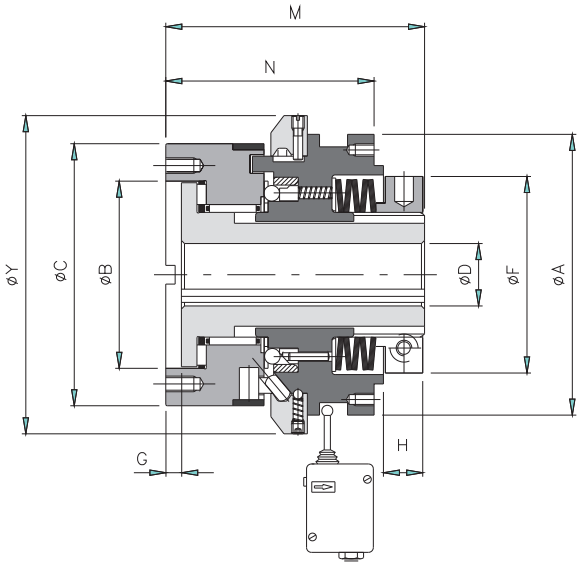
*** With deep keyway in accordance with UNI7510**

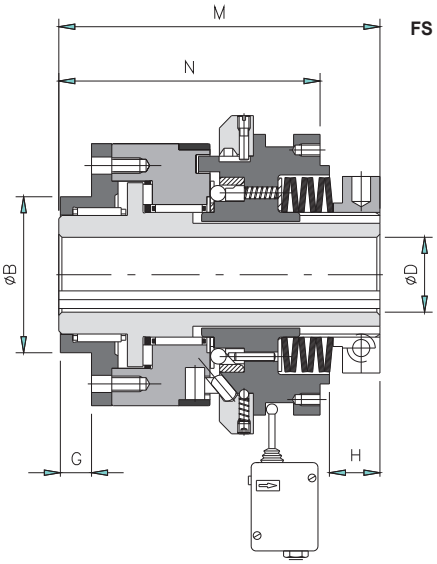
data not binding

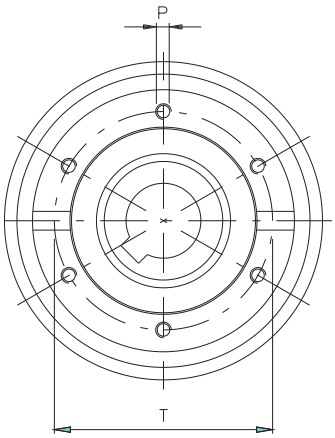
NOTES

Technical characteristics: the weights refer to the torque limiter (LS/F) pilot bore.

LR/L series roller type torque limiter phase with free rotation







TECHNICAL DATA

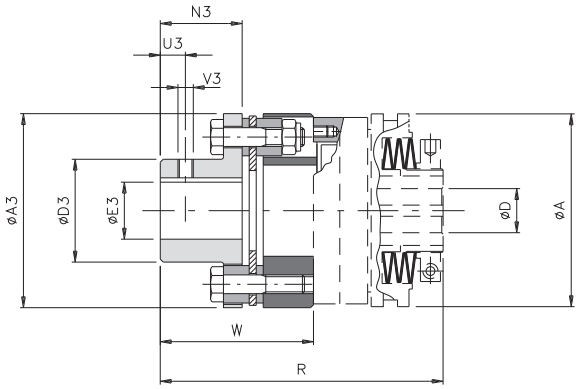
ID	MT *[Nm]*	A	B (H7 - h7)		C	D H7			F	G		M		N		P	T	Y	Rpm max	Kg	
						Std	Max														
				/ FS				/ FS			/ FS		/ FS		/ FS						/ FS
090	25 - 155	90	60	50	84	-	28	28*	63	5	9,5	86	103	67	84	M5	70	102	1500	3	3,5
110	90 - 360	110	78	60	104	-	40	38	82	4	11,5	93	112	68,5	87,5	M6	89	128	1100	4,7	5,5
130	80 - 450	130	90,5	80	124	20	50	50*	104	4	11,5	108	126	83	101	M8	105	146	900	7,8	9,3
160	125 - 1060	160	105	100	148	25	58	58*	128	8	15,5	138	163	108	133	M10	125	176	700	14,5	17,2
● **194**	160 - 1460	194	120,5	120	176	28	68	68*	157	6,5	17,5	154	181	113	140,5	M12	155	205	550	22,9	26,3

● **On request** *** With deep keyway in accordance with UNI7510**

data not binding

Technical characteristics: the weights refer to the torque limiter (LR/L) pilot bore.

LS/GT + LR/GT series model with torsionally rigid disc coupling

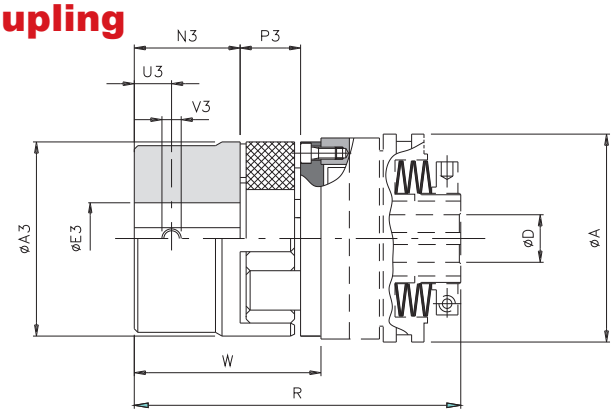


TECHNICAL DATA

ID	MT [Nm]		A3	D3	E3 H7 max	N3	U3	V3	A	D H7		R	W	Misalignments			Stiffness [Nm/rad·10³]	Rpm Max		Kg
	Nom	Max								Std	Max			Angular α [°]	Axial X [mm]	Radial K [mm]		LS	LR	
056	60	120	78	45	32	29	10	M5	56	-	20	105	59	1°	1,40	0	80	4500	1500	1,4
090	150	300	92	53	38	42	10	M5	90	-	28	137	74	0° 45'	0,95	0	156	3000	1000	2,1
110	300	600	112	65	45	46	15	M8	110	-	40	161	85	0° 45'	1,25	0	415	2500	800	3,9
130	700	1400	136	75	52	56	15	M8	130	20	50	186	98	0° 45'	1,45	0	970	2000	700	5,8
160	1100	2200	162	92	65	66	20	M8	160	25	58	223	116,5	0° 45'	1,65	0	1846	1600	550	10,8
194	2600	5200	206	130	90	92	20	M10	194	28	68	270	145,5	0° 45'	2,25	0	3511	1300	400	21,9

data not binding

LS/GS + LR/GS series model with elastic star coupling



TECHNICAL DATA

ID	MT [Nm]		A3	E3 H7 max	N3	P3	U3	V3	A	D H7		R	W	Misalignments			Rpm Max		Kg
	Nom	Max								Std	Max			Angular α [°]	Axial X [mm]	Radial K [mm]	LS	LR	
056	60	120	55	35	30	18	10	M5	56	-	20	103	57	1° 18'	1	0,22	4500	1500	0,8
090	325	650	80	48	45	24	15	M8	90	-	28	141	78	1° 18'	1,4	0,28	3000	1000	3,7
110	525	1050	105	62	56	28	20	M8	110	-	40	171	95	1° 18'	1,7	0,36	2500	800	5,2
130	685	1370	120	74	65	30	20	M10	130	20	50	198	110	1° 18'	1,8	0,38	2000	700	9,1
160	1465	2930	160	95	85	40	25	M10	160	25	58	249	142	1° 18'	2,5	0,48	1600	550	17,9
194	3600	7200	200	110	100	45	30	M12	194	28	68	288,5	164	1° 18'	2,8	0,50	1300	400	29,5
● **240**	3300	6600	225	115	110	50	30	M12	240	50	90	326	185	1° 18'	3,0	0,52	-	300	-
● **280**	4800	9600	255	125	120	55	33	M16	280	50	120	412	212	1° 18'	3,2	0,55	-	200	-

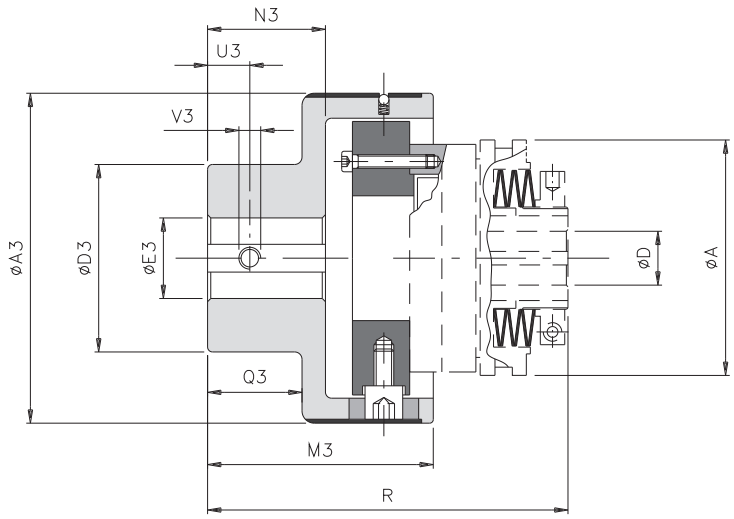
● **On request**

data not binding

NOTES

Technical characteristics: the data given refers only to the application (LR/GT - LR/GS), for the data of the torque limiter see page 15.
Technical characteristics: the weights refer only to the application (LR/GT - LR/GS) pilot bore.

LS/GE + LR/GE series model with compact elastic coupling



DIMENSION TABLE

ID	MT *[Nm]*		A3	D3	E3 H7		M3	N3	Q3	U3	V3	A	D H7		R
	Nom	Max			Std	Max							Std	Max	
056	70	110	78	50	10	28	63,5	32	28	8	M4	56	-	20	100,5
090	280	420	108	70	12	38	89	49	44	12	M6	90	-	28	142
110	570	860	130	80	15	45	111	65	59	15	M8	110	-	40	177
130	980	1500	161	100	15	60	140	85	77	15	M8	130	20	50	215
160	2340	3600	206	120	20	70	168	105	97	20	M10	160	25	58	261
194	3880	5800	239	135	30	80	201	130	120	20	M10	194	28	68	309,5
● **240**	15000	20000	315	215	40	150	260	165	150	25	M12	240	50	90	381
● **280**	30000	35000	364	240	40	180	310	205	185	25	M12	280	50	120	485

TECHNICAL DATA

ID	Misalignments						Torsional	Rpm max		Kg
	Angular α *[°]*		Axial X *[mm]*		Radial K *[mm]*		γ *[°]*	LS	LR	
	continuous	intermittent	continuous	intermittent	continuous	intermittent				
056	1°	1° 30'	± 0,7	± 1,5	0,5	0,7	2°	4500	1500	1,2
090	0° 48'	1°	± 0,7	± 1,5	0,5	0,7	2°	3000	1000	3,5
110	0° 36'	0° 48'	± 0,7	± 1,5	0,6	0,7	1° 45'	2500	800	6,2
130	0° 30'	0° 42'	± 0,8	± 1,6	0,6	0,8	1° 15'	2000	700	11,5
160	0° 24'	0° 30'	± 0,8	± 1,6	0,6	0,8	1°	1600	550	20,8
194	0° 24'	0° 30'	± 0,8	± 1,6	0,6	0,8	1°	1300	400	32,0
● **240**	0° 24'	0° 30'	± 0,8	± 1,6	0,6	0,8	1°	-	300	91,3
● **280**	0° 24'	0° 30'	± 0,8	± 1,6	0,6	0,8	1°	-	200	173,9

● **On request** *data not binding*

NOTES

Technical characteristics: the data given refers only to the application (GEC), for the data of the torque limiter see page 15.
Technical characteristics: the weights refer only to the application (GEC) pilot bore.