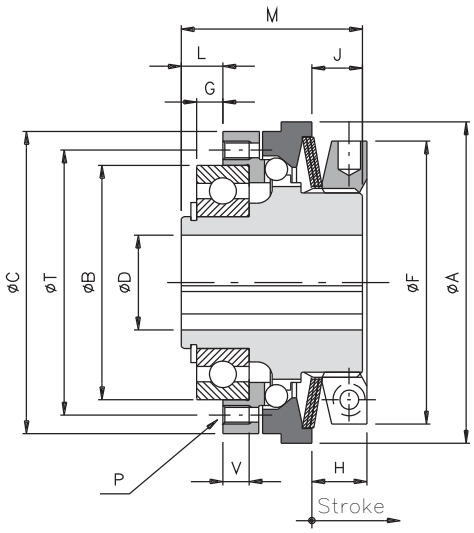
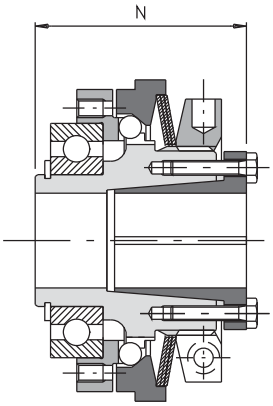
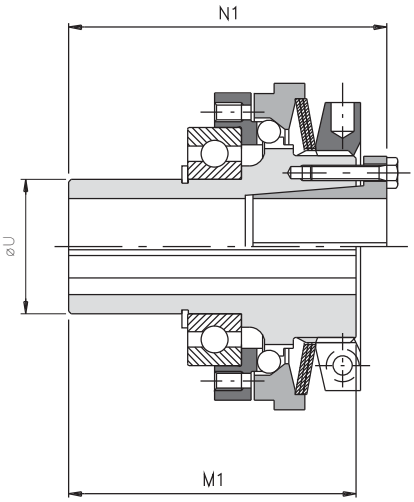
- Angular backlash free with compact dimensions.
- Instantaneous torque transmission reduction when overloading.
- Free of residual torque after disengagement.
- Fastest response times and highest sensitivity.
- Available with extended hub to assemble wide drive components: .../ML.
- Torque range: 0,7 – 720 Nm; max. bore ø50 mm.



.../N



.../ML (long hub version)



DIMENSIONS

Size	Torque [Nm]	A	B h5	C	D H7 Max.	F	G	L	J	P	M	M1	N	N1	T	U h6	V	On request						
																		B h5	C	G	L	P	T	V
00.40	0,6 - 5	44	30	40	12	38	2	4,5	7	6xM3	24	-	28,5	-	35	-	5	-	-	-	-	-	-	-
00.47	2 - 15	50	37	47	17	42	2	5	8,5	6xM3	29	-	34,5	-	42	-	5	-	-	-	-	-	-	-
0.63	5 - 50	70	42	65	20	62	4	7	12	6xM5	40	65	47	72	48	30	7	47	-	5	8	8xM4	56	6
1.80	9 - 100	85	62	80	25	75	7	11	13,5	6xM5	48	80	56	88	70	35	7	-	-	-	-	8xM5	71	-
2.96	20 - 200	100	75	96	35*	82	9	14	16	6xM6	59	100	67	108	89	45	9	-	95	-	-	8xM6	85	-
3.116	35 - 415	115	90	115	42	97	8	14	17	6xM8	64	115	73	124	105	55	12	-	110	10	16	8xM6	100	10
4.138	75 - 720	135	100	138	50	117	6,5	14,5	20,5	6xM10	75	130	86	141	125	65	14	-	130	10	18	8xM8	116	11

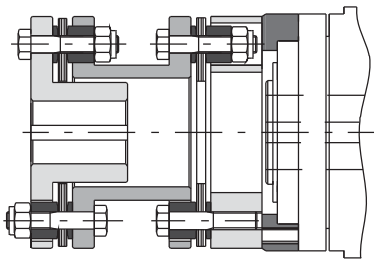
TECHNICAL DETAILS

Size	Stroke [mm]	Locking assembly		Inertia [Kgm²]			Max. speed [Rpm]	Weight [Nm]			
		Screws	tightening torque [Nm]	Flange side	Nut side			keyway		locking assembly	
					keyway	locking assemblies			ML		ML
00.40	0,8	6xM3	1,5	0,000009	0,00002	0,00002	4000	0,2	-	0,2	-
00.47	1	6xM3	1,5	0,000015	0,00004	0,00004	4000	0,4	-	0,4	-
0.63	1,1	6xM4	3	0,00008	0,00027	0,00028	4000	0,9	1,0	0,9	1,0
1.80	1,3	8xM4	3	0,00029	0,00068	0,00071	3000	1,5	1,6	1,6	1,7
2.96	1,5	10xM4	3	0,00068	0,00151	0,00158	2500	2,8	3,0	3,0	3,2
3.116	2	8xM5	5	0,00129	0,00262	0,00282	2000	3,7	4,1	4,1	4,7
4.138	2,2	8xM6	7,5	0,00315	0,00633	0,00682	1200	6,7	7,3	7,3	7,9

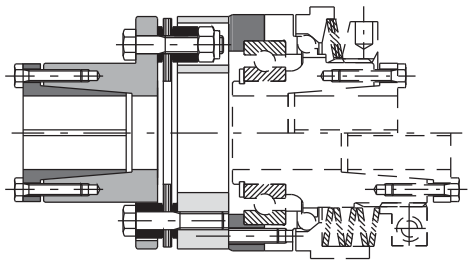
NOTES

- **D H7*:** maximum diameter for finished bore with reduced keyway according to UNI7510.
- **G*:** assembly tolerance +0,1.
- **Technical details:** the weights are relevant to the pilot bore; inertias refer to the maximum diameter for finished bore of the torque limiter (.../N).

OTHER COUPLING TYPES AVAILABLE



DSS/SG model with double flexing torsionally rigid metal disc coupling **GTR/D** when torsional rigidity is required and ability to accommodate radial misalignment.



DSS/SG model with single flexing disc coupling **GTR/S** for applications where torsional rigidity is required.

TORQUE TRANSMISSION

Size	Torque transmission [Nm] relevant to the springs configuration								
	Positive version (P)					Negative version (N)			
	A5S1P)()()	A6S1P ()()()	A7S1P)()()()	A5M1P)()()	A5G1P)()()	A1N)	A2N))	A3N)))	A4N))))
00.40		2 - 10				0,6 - 1,5	1,5 - 3	2,7 - 5	
00.47			6 - 14	12 - 23		2 - 5	4 - 9	7 - 15	
0.63	5 - 20			11 - 40	20 - 75	5 - 14	12 - 28	24 - 50	
1.80	12 - 35				30 - 105	9 - 28	18 - 60	40 - 100	
2.96				35 - 115	50 - 200	20 - 45	42 - 95		85 - 200
3.116	40 - 110 *			70 - 290	110 - 415	35 - 100	75 - 200		195 - 415
4.138	75 - 275 *			140 - 395 *	315 - 750	75 - 190	140 - 345		245 - 720

* Until stocks are finished

ORDER EXAMPLE

TORQUE LIMITER					
Size	Model	.../version	Finished bore	Execution	Torque / spring
2.96	DSS/SG	-	ø30 H7	with keyway	350 Nm

+

COUPLING		
Model	Elastic element	Finished bore
GAS	Normal red element 98 Sh-A	ø38 H7

Model	
GTR	torsionally rigid disc coupling
GAS	jaw elastic coupling
GEC	compact elastic coupling

Execution
with keyway
with locking assembly

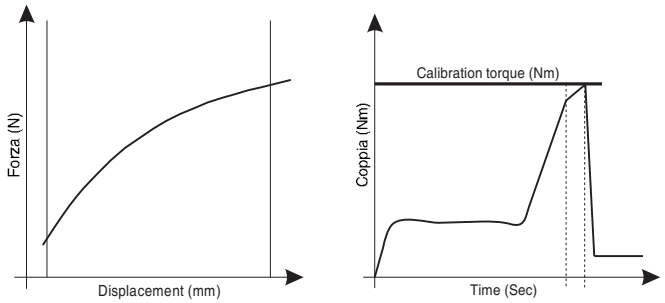
Model available only with finished bore.

.../version	
-	base version "6 holes"
.../P	positive version
.../N	negative version
.../ML	with long hub

Model	
DSS/SG	Backlash free ball torque limiter
DSS/F/SG	Backlash free ball phase torque limiter

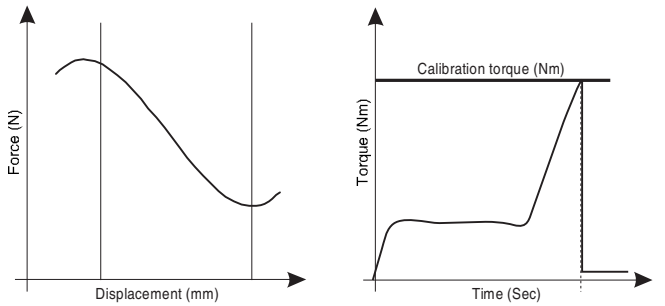
BACKLASH FREE TORQUE LIMITER “DSS/SG”: additional information

VERSIONS



… / P
Positive version (progressive spring)

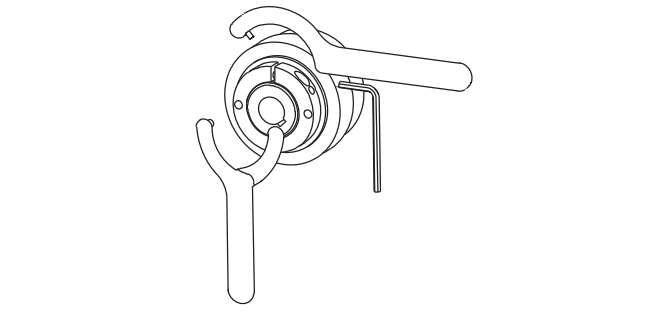
This allows for a simpler and more linear calibration. Moreover, during disengagement it creates an increase in the torque, caused by the compression of springs, which, on presence of a non-homogenous (but normal) transmission, can be useful to avoid frequent disengagements and machine stops.



… / N
Negative version (regressive spring)

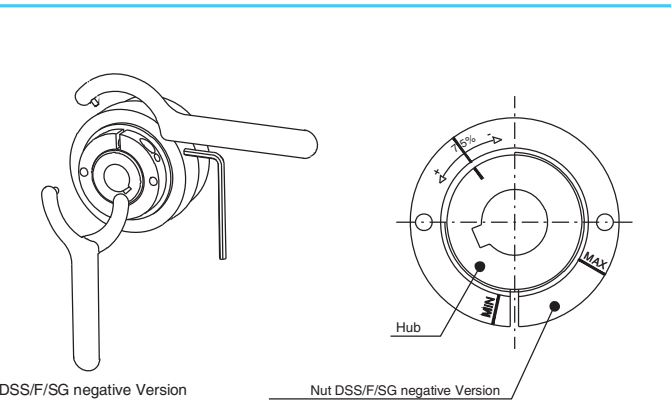
It generates an immediate torque reduction, as soon as there is a minor overload, with consequent disengagement of the limiter and immediate stop of the drive. This characteristic is very useful on sensitive applications where even a slight increase of the loads can cause damage to the machine or to the machine product.

TORQUE REGULATION


DSS/F/SG positive Version

… / P
Positive version (progressive spring)

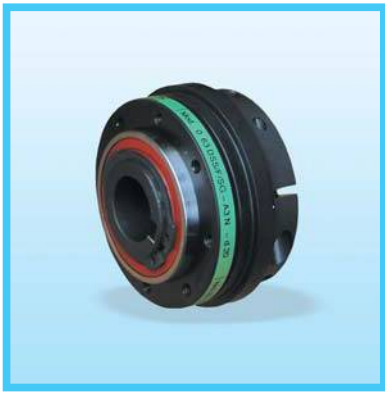
As with the majority of ComInTec TORQUE LIMITERS, by turning the adjuster nut clockwise the disengagement torque increases. On the contrary turning it counter-clockwise, you obtain a reduction of the torque.



… / N
Negative version (regressive spring)

Adjustment of the Negative version is opposite to all other units in our range. Unlike the traditional units, by rotating the adjuster nut clockwise the disengagement torque will reduce, and therefore to increase the torque the nut must be rotated anti-clockwise. To assist the operator in setting, there are clear markings on the nut showing 75% of the max torque and +/- Min/Max directions indicated.
Unless otherwise requested, these models are supplied pre-calibrated at 75% of the maximum torque value of the spring's chosen configuration.

BACKLASH FREE TORQUE LIMITER “DSS/SG”: Introduction



- Exact torque regulation through a balanced radial nut.
- Innovative calibration system by quote “H“ for an immediate calibration of the device.
- Re-engagement in equidistant phase or 360°.
- Maintenance free.
- Possibility to add a microswitch / proximity to stop the motor drive.
- Model available only with finished bore.
- Drive component assembled and directly supported by a ball bearing.

ON REQUEST

- Complete with transmission component worked and assembled (plate wheel, pulley, gear,...)
- Available in stainless steel for food and pharmaceutical environments.
- Possibility to have a connection flange to the most common intermittent drive units.
- Feasibility in personalized phase at 30°, 45°, 60°, 90°, ...

	.../P: base model for a high sensitivity in calibration.	from 1,5 to 750 Nm max. bore ø50 mm	Page 26
	.../N: immediate disengagement when exceeding the calibration torque; low residual torque after the disengagement.	from 0,7 to 720 Nm max. bore ø50 mm	Page 27
	... + GAS/CCE: connection by elastic coupling to accept high misalignments.	from 0,7 to 750 Nm max. bore ø62 mm	Page 28
	... + GAS/SG: connection by elastic coupling and single split clamp hub for a quick installation.	from 0,7 to 561 Nm max. bore ø60 mm	Page 29
	... + GSF: Connection by bellows coupling for application with reduced inertia.	from 0,7 to 300 Nm max. bore ø45 mm	Page 30
	DSS/SG/PR-V: Connection between motor and gearboxes with sensor and B5 flange.	from 2 to 415 Nm max. bore ø48 mm	Page 31

NEWS: DSS/SG in STAINLESS STEEL

- Model without any backlash.
- Same dimensions as the standard model, both in negative and positive versions.
- Made in stainless steel at high resistance by suitable heat treatments.
- High resistance to corrosion.
- Suitable to food and/or pharmaceutical environments.

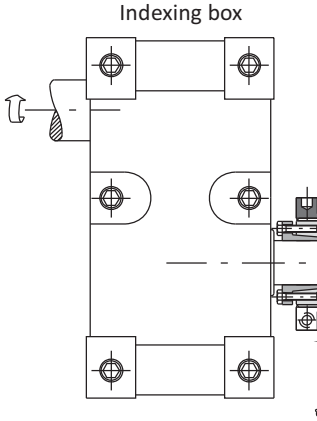
APPLICATIONS

- Packaging automatic machines.
- Print machines.
- CNC tool machines.
- Index tables, filling machines, guiders.
- Servomotors, slide guides.

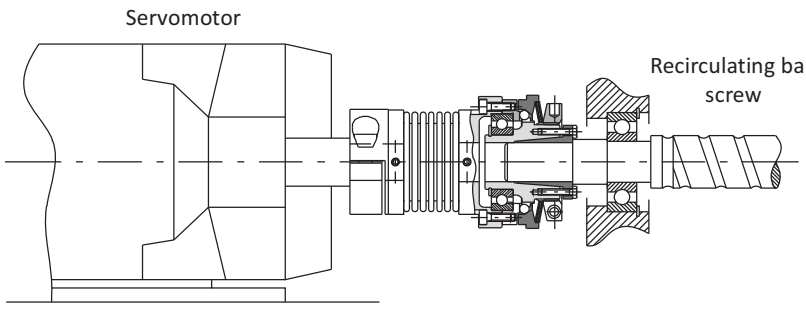
ADVANTAGES AND BENEFITS

- To protect the product against faulty positioning on the rotating table.
- To protect the indexing against overloading along the transmission.
- To protect the drive from product jam.
- To protect the operating units of machine tools against impacts.
- To protect slides or servomotors against impact or limit stops.

ASSEMBLY EXAMPLES



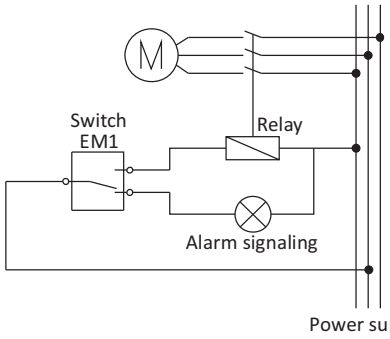
Assembly out of the indexing box

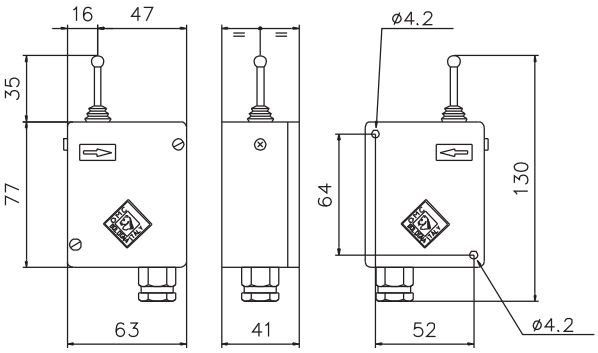


Assembly with bellows coupling between servomotor and recirculating ball screw

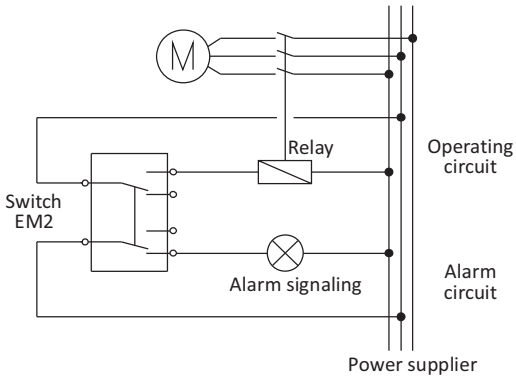
ELECTROMECHANICAL SWITCH "EM1"

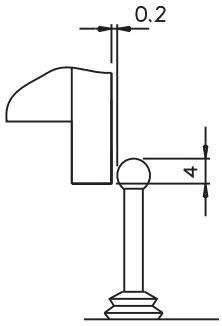
- Die-cast aluminium box with rotection level **IP57** DIN 40050.
- Adjustment of the lever end position possible.
- Operation temperature range from -10°C to +85°C.
- Three different options of voltage input: 15A-250VCA; 5A-24VCC; 0,2A-250VCC.
- 1 or 2 contacts available.
- Initial stroke 0,5 mm, Extra stroke: 4 ÷ 8 mm depending on setting (possible in a range of 6 mm).





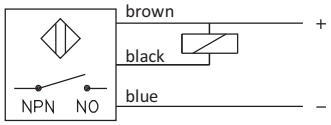
Weight: 350g

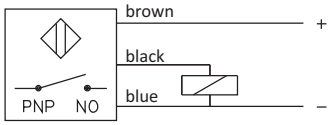


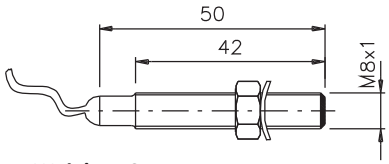


PROXIMITY SENSOR "PRX"

- Standard version: Brass cover with protection level IP67 DIN 40050.
- Electric contact: 5 ÷ 24 VdC.
- Frequency: 2000 Hz.
- Output: NPN (N.O.-N.C.) – PNP (N.O.-N.C.).
- Operating distance: max 1 mm.
- Cable length: 2 m (3x0,2).







Weight: 50g