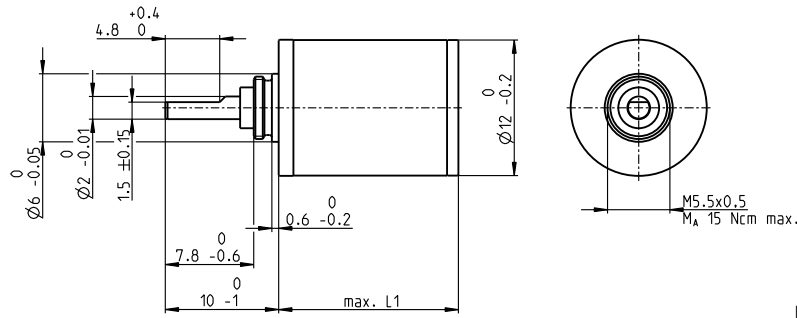


Spur Gearhead GS 12 A Ø12 mm, 0.01–0.03 Nm

gear



M 3:2

Technical data

Spur Gearhead	straight teeth
Output shaft	stainless steel, hardened
Bearing at output	sleeve bearing
Radial play, 6.5 mm from flange	max. 0.05 mm
Axial play	0.02–0.12 mm
Max. axial load (dynamic)	2 N
Max. force for press fits	30 N
Max. continuous input speed	8000 rpm
Recommended temperature range	–15...+100°C
Extended range as option	–40...+100°C
Max. radial load, 6.5 mm from flange	2 N

		Part numbers						
		310301	313872	313990	313991	310311	313993	310316
Gearhead data								
1	Reduction	6.4:1	13:1	58:1	141:1	371:1	485:1	3101:1
2	Absolute reduction	403/63	21866/1694	724594/12474	20138716/142884	26782109/72171	624300196/1285956	11537547853/3720087
3	Max. motor shaft diameter	mm	1.2	1.0	1.0	1.2	1.0	1.2
Part numbers		310302	310304	310307	313992		310313	310317
1	Reduction	9.1:1	22:1	76:1	200:1		900:1	4402:1
2	Absolute reduction	899/99	12493/567	387283/6103	22462414/112266		372178963/413343	25737606749/5845851
3	Max. motor shaft diameter	mm	1.0	1.2	1.2	1.0	1.2	1.0
Part numbers			310305	310308	310310		310314	
1	Reduction		31:1	108:1	261:1		1278:1	
2	Absolute reduction		27869/891	863939/61019	12005773/45927		830245379/649539	
3	Max. motor shaft diameter	mm		1.0	1.2		1.0	
4	Number of stages		2	3	4	5	5	6
5	Max. continuous torque	Nm	0.010	0.015	0.020	0.025	0.025	0.030
6	Max. intermittent torque at gear output	Nm	0.030	0.035	0.040	0.045	0.045	0.050
12	Direction of rotation, drive to output		=	≠	=	≠	≠	=
7	Max. efficiency	%	81	73	66	59	59	53
8	Weight	g	6.5	7.4	8.3	9.2	9.2	10.1
9	Average backlash no load	°	1	1	1.2	1.2	1.2	1.5
10	Mass inertia	gcm ²	0.002	0.002	0.002	0.002	0.002	0.002
11	Gearhead length L1	mm	10	12	14	16	16	18



Modular system									
+ Motor	Page	+ Sensor/Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor/brake) + assembly parts					
A-max 12	169/170			31.3	33.3	35.3	37.3	37.3	41.3
A-max 12, 0.5 W	170	MR	532	35.4	37.4	39.4	41.4	41.4	45.4