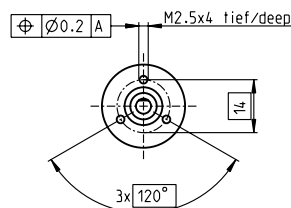
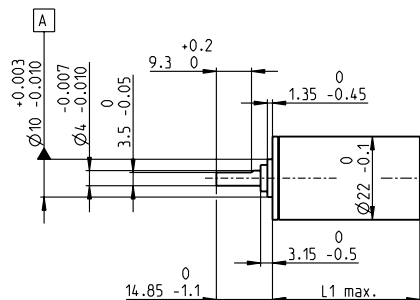


Planetary Gearhead GP 22 A Ø22 mm, 0.5–1.0 Nm



M 1:2

Technical Data

Planetary Gearhead	straight teeth
Output shaft	stainless steel, hardened
Bearing at output	ball bearing
Option	sleeve bearing
Radial play, 10 mm from flange	max. 0.2 mm
Axial play	max. 0.2 mm
Max. axial load (dynamic)	100 N
Max. force for press fits	100 N
Direction of rotation, drive to output	=
Max. continuous input speed	6000 rpm
Recommended temperature range	-40...+100°C
Number of stages	1 2 3 4 5
Max. radial load, 10 mm from flange	30 N 50 N 55 N 55 N 55 N

- Stock program
- Standard program
- Special program (on request)

Part Numbers

Gearhead Data	134156	134158	134163	134168	134172	110340	134183	134186	134190	134195	134203
1 Reduction	3.8:1	14:1	53:1	104:1	198:1	370:1	590:1	742:1	1386:1	1996:1	3189:1
2 Absolute reduction	15/4	225/16	3375/64	87723/845	50625/256	10556001/28561	59049/100	759375/1024	158340015/14244	285012027/142805	1594323/500
3 Max. motor shaft diameter	mm 4	4	4	3.2	4	3.2	4	4	3.2	3.2	4
Part Numbers	110337	134159	134164	134169	134173	134178	134184	134187	134193	134198	134204
1 Reduction	4.4:1	16:1	62:1	109:1	231:1	389:1	690:1	867:1	1460:1	2102:1	3728:1
2 Absolute reduction	57/13	855/52	12825/208	2187/20	192375/832	263169/676	1121931/1625	2885625/3328	3947535/2704	7105563/3380	30292137/8125
3 Max. motor shaft diameter	mm 3.2	3.2	3.2	4	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Part Numbers	134157	110338	134165	134170	134174	134180	134185	134188	134196	134200	134205
1 Reduction	5.4:1	19:1	72:1	128:1	270:1	410:1	850:1	1014:1	1538:1	2214:1	4592:1
2 Absolute reduction	27/5	3249/169	48735/676	41553/325	731025/2704	6561/16	531441/625	10965375/10816	98415/64	177147/80	14348907/3125
3 Max. motor shaft diameter	mm 2.5	3.2	3.2	3.2	3.2	4	2.5	3.2	4	4	2.5
Part Numbers	134160	134166	134171	134176	134179		134191	110341	134199		
1 Reduction	20:1	76:1	157:1	285:1	455:1		1068:1	1621:1	2458:1		
2 Absolute reduction	81/4	1215/16	19683/125	18225/64	5000211/10985		273375/256	601692057/371293	135006997/54925		
3 Max. motor shaft diameter	mm 4	4	2.5	4	3.2		4	3.2	3.2		
Part Numbers	134161	110339		134175	134181		134189	134194	134201		
1 Reduction	24:1	84:1		316:1	479:1		1185:1	1707:1	2589:1		
2 Absolute reduction	1539/65	185193/2197		2777895/8788	124659/260		41668425/35152	15000633/8788	3365793/300		
3 Max. motor shaft diameter	mm 3.2	3.2		3.2	3.2		3.2	3.2	3.2		
Part Numbers	134162	134167		134177	134182		134192	134197	134202		
1 Reduction	29:1	89:1		333:1	561:1		1249:1	1798:1	3027:1		
2 Absolute reduction	729/25	4617/52		69255/208	2368521/4225		1038825/832	373977/208	63950067/21125		
3 Max. motor shaft diameter	mm 2.5	3.2		3.2	3.2		3.2	3.2	3.2		
4 Number of stages	1	2	3	4	4		5	5	5	5	
5 Max. continuous torque	Nm 0.5	0.5	0.8	1.0	1.0		1.0	1.0	1.0	1.0	
6 Max. intermittent torque at gear output	Nm 0.8	0.8	1.2	1.6	1.6		1.6	1.6	1.6	1.6	
7 Max. efficiency	% 84	70	59	49	49		49	42	42	42	
8 Weight	g 42	55	68	81	81		81	94	94	94	
9 Average backlash no load	° 1.0	1.2	1.6	2.0	2.0		2.0	2.0	2.0	2.0	
10 Mass inertia	gcm² 0.5	0.4	0.4	0.4	0.4		0.4	0.4	0.4	0.4	
11 Gearhead length L1*	mm 22.6	29.4	36.2	36.2	43.0		43.0	49.8	49.8	49.8	

*for EC 32fl. L1 is + 7.1 mm

maxon Modular System

+ Motor	Page	+ Sensor/Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor/brake) + assembly parts							
A-max 19	143/144			51.6	58.4	65.2	65.2	72.0	72.0	78.8	78.8
A-max 19, 1.5 W	144	MR	400/402	56.7	63.5	70.3	70.3	77.1	77.1	83.9	83.9
A-max 19, 1.5 W	144	Enc 22	411	66.0	72.8	79.6	79.6	86.4	86.4	93.2	93.2
A-max 19, 1.5 W	144	MEnc 13	393	59.1	65.9	72.7	72.7	79.5	79.5	86.3	86.3
A-max 19, 2.5 W	145/146			54.2	61.0	67.8	67.8	74.6	74.6	81.4	81.4
A-max 19, 2.5 W	146	MR	400/402	58.5	65.3	72.1	72.1	78.9	78.9	85.7	85.7
A-max 19, 2.5 W	146	Enc 22	411	68.6	75.4	82.2	82.2	89.0	89.0	95.8	95.8
A-max 19, 2.5 W	146	MEnc 13	393	61.7	68.5	75.3	75.3	82.1	82.1	88.9	88.9
A-max 22	147-150			54.6	61.4	68.2	68.2	75.0	75.0	81.8	81.8
A-max 22	148/150	MR	400/402	59.6	66.4	73.2	73.2	80.0	80.0	86.8	86.8
A-max 22	148/150	Enc 22	411	69.0	75.8	82.6	82.6	89.4	89.4	96.2	96.2
A-max 22	148/150	MEnc 13	393	61.7	68.5	75.3	75.3	82.1	82.1	88.9	88.9
RE-max 21	169/170			51.6	58.4	65.2	65.2	72.0	72.0	78.8	78.8
RE-max 21, 3.5 W	170	MR	401/403	56.7	63.5	70.3	70.3	77.1	77.1	83.9	83.9
RE-max 21, 6 W	171/172			54.2	61.0	67.8	67.8	74.6	74.6	81.4	81.4
RE-max 21, 6 W	172	MR	401/403	58.5	65.3	72.1	72.1	78.9	78.9	85.7	85.7
EC 16, 30 W	212			65.5	72.3	79.1	79.1	85.9	85.9	92.7	92.7
EC 16, 30 W	212	MR	403	76.2	83	89.8	89.8	96.6	96.6	103.4	103.4
EC 16, 60 W	213			81.5	88.3	95.1	95.1	101.9	101.9	108.7	108.7
EC 16, 60 W	213	MR	403	92.2	99.0	105.8	105.8	112.6	112.6	119.4	119.4
EC 20 flat, 3 W, A	257			33.1	39.9	46.7	46.7	53.5	53.5	60.3	60.3
EC 20 flat, 3 W, B	257			32.5	39.3	46.1	46.1	52.9	52.9	59.7	59.7
EC 20 flat, 5 W	258			36.7	43.5	50.3	50.3	57.1	57.1	63.9	63.9
EC 20 flat, IE, IP 00	259			39.7	46.5	53.3	53.3	60.1	60.1	66.9	66.9
EC 20 flat, IE, IP 40	259			40.8	47.6	54.4	54.4	61.2	61.2	68.0	68.0
EC 20 flat, IE, IP 00	260			43.7	50.5	57.3	57.3	64.1	64.1	70.9	70.9
EC 20 flat, IE, IP 40	260			44.8	51.6	58.4	58.4	65.2	65.2	72.0	72.0
EC 32 flat, 6 W	261			39.8	46.6	53.4	53.4	60.2	60.2	67.0	67.0