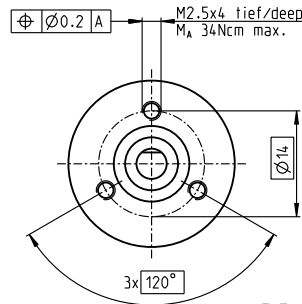
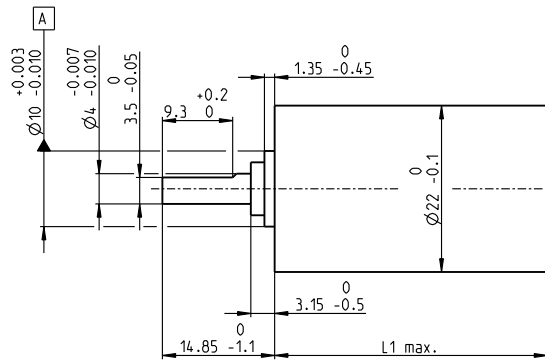


Planetary Gearhead GP 22 A Ø22 mm, 0.5–1.0 Nm

gear



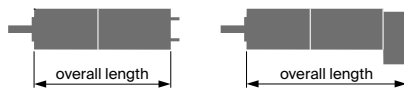
M 1:1

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	134156	134158	134163	134168	134172	110340	134183	134186	134190	134195	134203
Gearhead data															
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	87723/645	50625/256	10556001/28561	59049/100	759375/1024	158340015/114244	285012021/142805	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	2187/50	192375/632	263169/676	1121931/1625	2885625/3328	3947535/2704	7105563/3380	30292137/6125
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					27/6	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	601692051/31293	135005697/54925		
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		2777895/6788	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	4617/62		69255/208	236852/4225		1038825/832	37397/208	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	3	4	4	5	5	5	5	5
5 Max. continuous torque					Nm 0.5	0.5	0.8	0.8	1.0	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	1.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7 Max. efficiency					% 84	70	59	59	49	49	49	42	42	42	42
8 Weight					g 42	55	68	68	81	81	81	94	94	94	94
9 Average backlash no load					° 1.0	1.2	1.6	1.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0
10 Mass inertia					gcm ² 0.5	0.4	0.4	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	43.0	49.8	49.8	49.8	49.8

*for EC 321L, L1 is + 7.1 mm



Modular system															
+ Motor	Page	+ Sensor/Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor/brake) + assembly parts											
A-max 19	175–178			51.6	58.4	65.2	65.2	72.0	72.0	78.8	78.8	78.8	78.8	78.8	78.8
A-max 19, 1.5 W	176	ENX 13 GAMA	498	59.1	65.9	72.7	72.7	79.5	79.5	86.3	86.3	86.3	86.3	86.3	86.3
A-max 19, 1.5 W	176	ENX 19 IMR	503	56.7	63.5	70.3	70.3	77.1	77.1	83.9	83.9	83.9	83.9	83.9	83.9
A-max 19, 1.5 W	176	MR	533	56.7	63.5	70.3	70.3	77.1	77.1	83.9	83.9	83.9	83.9	83.9	83.9
A-max 19, 2.5 W	178			54.2	61.0	67.8	67.8	74.6	74.6	81.4	81.4	81.4	81.4	81.4	81.4
A-max 19, 2.5 W	178	ENX 13 GAMA	498	61.7	68.5	75.3	75.3	82.1	82.1	88.9	88.9	88.9	88.9	88.9	88.9
A-max 19, 2.5 W	178	ENX 19 IMR	503	58.5	65.3	72.1	72.1	78.9	78.9	85.7	85.7	85.7	85.7	85.7	85.7
A-max 19, 2.5 W	178	MR	533	58.5	65.3	72.1	72.1	78.9	78.9	85.7	85.7	85.7	85.7	85.7	85.7
A-max 22	179–182			54.6	61.4	68.2	68.2	75.0	75.0	81.8	81.8	81.8	81.8	81.8	81.8
A-max 22	180–182	ENX 13 GAMA	498	61.7	68.5	75.3	75.3	82.1	82.1	88.9	88.9	88.9	88.9	88.9	88.9
A-max 22	180–182	ENX 22 IMR	503	59.6	66.4	73.2	73.2	80.0	80.0	86.8	86.8	86.8	86.8	86.8	86.8
A-max 22	180–182	MR	533	59.6	66.4	73.2	73.2	80.0	80.0	86.8	86.8	86.8	86.8	86.8	86.8
EC-max 22, 12 W	282			57.4	64.2	71.0	71.0	77.8	77.8	84.6	84.6	84.6	84.6	84.6	84.6
EC-max 22, 12 W	282	16 EASY/XT/Abs.	509–511	67.0	73.8	80.6	80.6	87.4	87.4	94.2	94.2	94.2	94.2	94.2	94.2
EC-max 22, 12 W	282	16 EASY Abs. XT	512	67.5	74.3	81.1	81.1	87.9	87.9	94.7	94.7	94.7	94.7	94.7	94.7
EC-max 22, 12 W	282	AB 20	584	93.0	99.8	106.6	106.6	113.4	113.4	120.2	120.2	120.2	120.2	120.2	120.2
EC-max 22, 25 W	283			73.9	80.7	87.5	87.5	94.3	94.3	101.1	101.1	101.1	101.1	101.1	101.1
EC-max 22, 25 W	283	16 EASY/XT/Abs.	509–511	83.5	90.3	97.1	97.1	103.9	103.9	110.7	110.7	110.7	110.7	110.7	110.7
EC-max 22, 25 W	283	16 EASY Abs. XT	512	84.0	90.8	97.6	97.6	104.4	104.4	111.2	111.2	111.2	111.2	111.2	111.2
EC-max 22, 25 W	283	AB 20	584	109.5	116.3	123.1	123.1	129.9	129.9	136.7	136.7	136.7	136.7	136.7	136.7