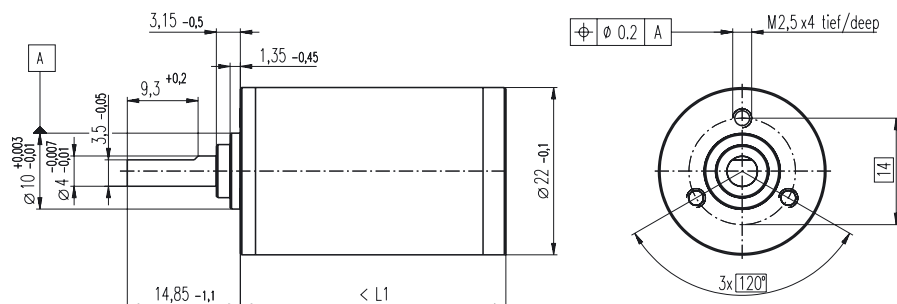


Planetary Gearhead GP 22 C $\varnothing 22$ mm, 0.5 - 2.0 Nm

Ceramic Version



M 1:1

Technical Data

Planetary Gearhead	straight teeth
Output shaft	stainless steel, hardened
Bearing at output	ball bearing
Radial play, 10 mm from flange	max. 0.2 mm
Axial play	max. 0.2 mm
Max. radial load, 10 mm from flange	70 N
Max. permissible axial load	100 N
Max. permissible force for press fits	100 N
Sense of rotation, drive to output	=
Recommended input speed	< 8000 rpm
Recommended temperature range	-20 ... +100°C
Extended range as option	-35 ... +100°C

- ☒ Stock program
☐ Standard program
☐ Special program (on request!)

Order Number

Gearhead Data	143971	143974	143980	143986	143990	143996	144002	144004	144011	144017	144023
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 Reduction absolute	15/4	225/16	3375/64	87723/845	50625/256	10556001/28561	59049/100	759375/1024	158340015/114244	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
Order Number	143972	143975	143981	143987	143991	143997	144003	144006	144012	144018	144024
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 Reduction absolute	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
Order Number	143973	143976	143982	143988	143992	143998	144005	144007	144013	144019	144025
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 Reduction absolute	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
Order Number		143977	143983	143989	143993	143999		144008	144014	144020	
1 Reduction		20 : 1	76 : 1	157 : 1	285 : 1	455 : 1		1068 : 1	1621 : 1	2458 : 1	
2 Reduction absolute		81/4	1215/16	19683/125	18225/64	5000211/10985		273375/256	601692057/371293	135006697/54925	
3 Max. motor shaft diameter	mm	4	4	2.5	4	3.2		4	3.2	3.2	
Order Number		143978	143984		143994	144000		144009	144015	144021	
1 Reduction		24 : 1	84 : 1		316 : 1	479 : 1		1185 : 1	1707 : 1	2589 : 1	
2 Reduction absolute		1539/65	185193/2197		2777895/8788	124659/260		41668425/35152	15000633/8788	3365793/1300	
3 Max. motor shaft diameter	mm	3.2	3.2		3.2	3.2		3.2	3.2	3.2	
Order Number		143979	143985		143995	144001		144010	144016	144022	
1 Reduction		29 : 1	89 : 1		333 : 1	561 : 1		1249 : 1	1798 : 1	3027 : 1	
2 Reduction absolute		729/25	4617/52		69255/208	2368521/4225		1038825/832	373977/208	6395067/21125	
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	4	5	5	5
5 Max. continuous torque	Nm	0.5	0.6	1.2	1.2	1.8	1.8	1.8	2.0	2.0	2.0
6 Intermittently permissible torque at gear output	Nm	0.8	0.9	1.9	1.9	2.7	2.7	2.7	3.0	3.0	3.0
7 Max. efficiency	%	84	70	59	59	49	49	49	42	42	42
8 Weight	g	42	55	68	68	81	81	81	94	94	94
9 Average backlash no load	°	1.0	1.2	1.6	1.2	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
11 Gearhead length L1*	mm	25.4	32.2	39.0	39.0	45.8	45.8	45.8	52.6	52.6	52.6

*for calculating the overall length L1 - 2.8 mm



Combination

+ Motor	Page	+ Tacho / Encoder / Brake	Page	Overall length [mm] = Motor length + gearhead length + (tacho / encoder / brake) + assembly parts							
A-max 19	105/106			51.6	58.4	65.2	65.2	72.0	72.0	78.8	78.8
A-max 19	106	MR	235/236	56.7	63.5	70.3	70.3	77.1	77.1	83.9	83.9
A-max 19	106	Enc 22	241	66.0	72.8	79.6	79.6	86.4	86.4	93.2	93.2
A-max 19	106	MEnc 13	251	59.1	65.9	72.7	72.7	79.5	79.5	86.3	86.3
A-max 19	107/108			54.2	61.0	67.8	67.8	74.6	74.6	81.4	81.4
A-max 19	108	MR	235/236	58.5	65.3	72.1	72.1	78.9	78.9	85.7	85.7
A-max 19	108	Enc 22	241	68.6	75.4	82.2	82.2	89.0	89.0	95.8	95.8
A-max 19	108	MEnc 13	251	61.7	68.5	75.3	75.3	82.1	82.1	88.9	88.9
A-max 22	109-112			54.6	61.4	68.2	68.2	75.0	75.0	81.8	81.8
A-max 22	110/112	MR	235/236	59.6	66.4	73.2	73.2	80.0	80.0	86.8	86.8
A-max 22	110/112	Enc 22	241	69.0	75.8	82.6	82.6	89.4	89.4	96.2	96.2
A-max 22	110/112	MEnc 13	251	61.7	68.5	75.3	75.3	82.1	82.1	88.9	88.9
RE-max 21	135/136			51.6	58.4	65.2	65.2	72.0	72.0	78.8	78.8
RE-max 21	136	MR	235/236	56.7	63.5	70.3	70.3	77.1	77.1	83.9	83.9
RE-max 21	137/138			54.2	61.0	67.8	67.8	74.6	74.6	81.4	81.4
RE-max 21	138	MR	235/236	58.5	65.3	72.1	72.1	78.9	78.9	85.7	85.7
RE-max 24	139-142			54.6	61.4	68.2	68.2	75.0	75.0	81.8	81.8
RE-max 24	140/142	MR	235/236	59.6	66.4	73.2	73.2	80.0	80.0	86.8	86.8