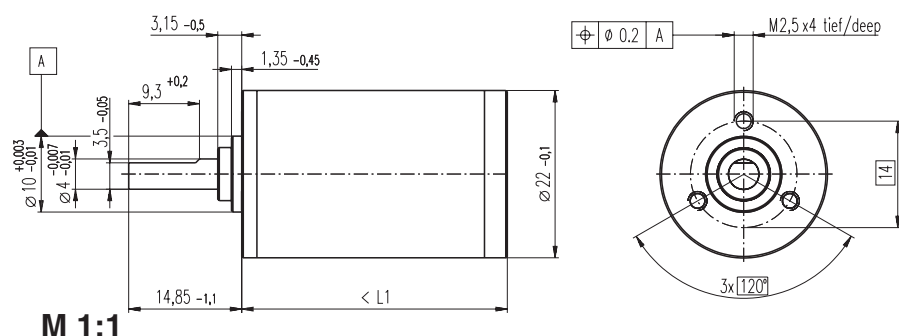


Planetary Gearhead GP 22 C Ø22 mm, 0.5 - 2.0 Nm

Ceramic Version



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. perm. radial load, 10 mm from flange	70 N
Max. permissible axial load	100 N
Max. permissible force for press fits	100 N
Recommended input speed	< 8000 rpm
Recommended temperature range	-15 ... +80°C

*Sleeve bearings on request

- 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	265012027/142805	1594323/500
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
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
Order Number	143977	143983	143989	143993	143999	144008	144014	144020	144026	144032	144038
1 Reduction	20 : 1	76 : 1	157 : 1	285 : 1	455 : 1	1068 : 1	1621 : 1	2458 : 1	3936 : 1	5904 : 1	9440 : 1
2 Reduction absolute	81/4	1215/16	19683/125	18225/64	5000211/10985	273375/256	601692057/371293	135005697/54925	10965375/10816	98415/64	177147/80
Order Number	143978	143984	143990	143996	144002	144009	144015	144021	144027	144033	144039
1 Reduction	24 : 1	84 : 1	316 : 1	479 : 1	1185 : 1	1707 : 1	2589 : 1	3936 : 1	5904 : 1	9440 : 1	14348907/3125
2 Reduction absolute	1539/65	185193/2197	2777895/8788	124659/260	41668425/35152	15000633/8788	3365793/1300	7105563/3380	30292137/8125	1594323/500	1594323/500
Order Number	143979	143985	143991	143997	144003	144010	144016	144022	144028	144034	144040
1 Reduction	29 : 1	89 : 1	333 : 1	561 : 1	1249 : 1	1798 : 1	3027 : 1	4592 : 1	6936 : 1	10368 : 1	1594323/500
2 Reduction absolute	729/25	4617/52	69255/208	2368521/4225	1038825/832	373977/208	63950067/21125	1594323/500	1594323/500	1594323/500	1594323/500
3 Number of stages	1	2	3	3	4	4	4	5	5	5	5
4 Max. continuous torque at gear output	Nm	0.5	0.6	1.3	1.3	1.8	1.8	1.8	2.0	2.0	2.0
5 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
6 Sense of rotation, drive to output		=	=	=	=	=	=	=	=	=	=
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	°	0.5	0.6	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0
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 A-max 19, A-max 22, RE-max 21 and RE-max 24 is L1 - 2.8 mm



Combination:

+ Motor	Page	+ Tacho / Encoder / Brake	Page	Overall length [mm] = Motor length + gearhead length + (tacho / encoder / brakes) + assembly parts							
A-max 19	105/106			51.6	58.4	65.2	65.2	72.0	72.0	72.0	78.8
A-max 19	105	Digital Magnetic Encoder 13	223	59.1	65.9	72.7	72.7	79.5	79.5	79.5	86.3
A-max 19	106	MR Encoder	210/211	56.7	63.5	70.3	70.3	77.1	77.1	77.1	83.9
A-max 19	106	Digital Encoder 22	215	66.0	72.8	79.6	79.6	86.4	86.4	86.4	93.2
A-max 19	107/108			54.2	61.0	67.8	67.8	74.6	74.6	74.6	81.4
A-max 19	107	Digital Magnetic Encoder 13	223	60.9	67.7	74.5	74.5	81.3	81.3	81.3	88.1
A-max 19	108	MR Encoder	210/211	58.5	65.3	72.1	72.1	78.9	78.9	78.9	85.7
A-max 19	108	Digital Encoder 22	215	68.6	75.4	82.2	82.2	89.0	89.0	89.0	95.8
A-max 22	109-112			54.6	61.4	68.2	68.2	75.0	75.0	75.0	81.8
A-max 22	109/111	Digital Magnetic Encoder 13	223	61.7	68.5	75.3	75.3	82.1	82.1	82.1	88.9
A-max 22	110/112	MR Encoder	210/211	59.6	66.4	73.2	73.2	80.0	80.0	80.0	86.8
A-max 22	110/112	Digital Encoder 22	215	69.0	75.8	82.6	82.6	89.4	89.4	89.4	96.2
RE-max 21	135/136			51.6	58.4	65.2	65.2	72.0	72.0	72.0	78.8
RE-max 21	136	MR Encoder	210/211	56.7	63.5	70.3	70.3	77.1	77.1	77.1	83.9
RE-max 21	137/138			54.2	61.0	67.8	67.8	74.6	74.6	74.6	81.4
RE-max 21	138	MR Encoder	210/211	58.5	65.3	72.1	72.1	78.9	78.9	78.9	85.7
RE-max 24	139-142			54.6	61.4	68.2	68.2	75.0	75.0	75.0	81.8
RE-max 24	140/142	MR Encoder	210/211	59.6	66.4	73.2	73.2	80.0	80.0	80.0	86.8
EC 16, 40 W	151			81.7	88.5	95.3	95.3	102.1	102.1	102.1	108.9
EC 22, 20 W	152			70.0	76.8	83.6	83.6	90.4	90.4	90.4	97.2
EC 22, 10 W	153			75.0	81.8	88.6	88.6	95.4	95.4	95.4	102.2
EC 22, 50 W	154			88.2	95.0	101.8	101.8	108.6	108.6	108.6	115.4
EC 22, 20 W	155			93.2	100.0	106.8	106.8	113.6	113.6	113.6	120.4