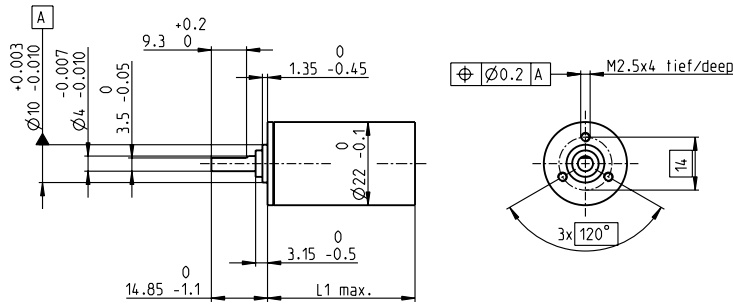


Planetary Gearhead GP 22 C $\varnothing 22$ mm, 0.5 - 2.0 Nm



M 1:2

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	-40 ... +100°C

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

Gearhead Data	Order Number										
	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	$\frac{15}{4}$	$\frac{225}{16}$	$\frac{3375}{64}$	$\frac{87723}{845}$	$\frac{50625}{256}$	$\frac{1055601}{28561}$	$\frac{59049}{100}$	$\frac{759375}{1024}$	$\frac{158340015}{114244}$	$\frac{285012027}{142805}$	$\frac{1594323}{500}$
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	$\frac{57}{13}$	$\frac{855}{52}$	$\frac{12825}{208}$	$\frac{2187}{20}$	$\frac{192375}{832}$	$\frac{263169}{676}$	$\frac{1121931}{1625}$	$\frac{2885625}{3328}$	$\frac{3947535}{2704}$	$\frac{7105563}{3380}$	$\frac{30292137}{8125}$
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	$\frac{27}{5}$	$\frac{3249}{169}$	$\frac{48735}{676}$	$\frac{41553}{325}$	$\frac{731025}{2704}$	$\frac{6561}{16}$	$\frac{531441}{625}$	$\frac{10965375}{10816}$	$\frac{98415}{64}$	$\frac{177147}{80}$	$\frac{14348907}{3125}$
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		$\frac{81}{4}$	$\frac{1215}{16}$	$\frac{19683}{125}$	$\frac{18225}{64}$	$\frac{5000211}{10985}$		$\frac{273375}{256}$	$\frac{60162057}{371293}$	$\frac{135005697}{54825}$	
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		$\frac{1539}{65}$	$\frac{185193}{2197}$		$\frac{2777895}{6788}$	$\frac{124659}{260}$		$\frac{41668425}{35152}$	$\frac{15000633}{6788}$	$\frac{3365793}{1300}$	
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		$\frac{729}{25}$	$\frac{4617}{52}$		$\frac{69255}{208}$	$\frac{2368521}{4225}$		$\frac{1038825}{332}$	$\frac{373977}{208}$	$\frac{63950067}{21125}$	
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	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	1.6	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

*L1 is - 2.8 mm for calculating the overall length



maxon Modular System													
+ Motor	Page	+ Sensor/Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor / brake) + assembly parts									
A-max 19	93/94			51.6	58.4	65.2	65.2	72.0	72.0	78.8	78.8	78.8	78.8
A-max 19, 1.5 W	94	MR	258/260	56.7	63.5	70.3	70.3	77.1	77.1	77.1	83.9	83.9	83.9
A-max 19, 1.5 W	94	Enc 22	265	66.0	72.8	79.6	79.6	86.4	86.4	86.4	93.2	93.2	93.2
A-max 19, 1.5 W	94	MEnc 13	274	59.1	65.9	72.7	72.7	79.5	79.5	79.5	86.3	86.3	86.3
A-max 19, 2.5 W	95/96			54.2	61.0	67.8	67.8	74.6	74.6	74.6	81.4	81.4	81.4
A-max 19, 2.5 W	96	MR	258/260	58.5	65.3	72.1	72.1	78.9	78.9	78.9	85.7	85.7	85.7
A-max 19, 2.5 W	96	Enc 22	265	68.6	75.4	82.2	82.2	89.0	89.0	89.0	95.8	95.8	95.8
A-max 19, 2.5 W	96	MEnc 13	274	61.7	68.5	75.3	75.3	82.1	82.1	82.1	88.9	88.9	88.9
A-max 22	97-100			54.6	61.4	68.2	68.2	75.0	75.0	75.0	81.8	81.8	81.8
A-max 22	98/100	MR	258/260	59.6	66.4	73.2	73.2	80.0	80.0	80.0	86.8	86.8	86.8
A-max 22	98/100	Enc 22	265	69.0	75.8	82.6	82.6	89.4	89.4	89.4	96.2	96.2	96.2
A-max 22	98/100	MEnc 13	274	61.7	68.5	75.3	75.3	82.1	82.1	82.1	88.9	88.9	88.9
RE-max 21	123/124			51.6	58.4	65.2	65.2	72.0	72.0	72.0	78.8	78.8	78.8
RE-max 21, 3.5 W	124	MR	258/261	56.7	63.5	70.3	70.3	77.1	77.1	77.1	83.9	83.9	83.9
RE-max 21	125/126			54.2	61.0	67.8	67.8	74.6	74.6	74.6	81.4	81.4	81.4
RE-max 21, 6 W	126	MR	258/261	58.5	65.3	72.1	72.1	78.9	78.9	78.9	85.7	85.7	85.7
RE-max 24	127-130			54.6	61.4	68.2	68.2	75.0	75.0	75.0	81.8	81.8	81.8
RE-max 24	128/130	MR	259/261	59.6	66.4	73.2	73.2	80.0	80.0	80.0	86.8	86.8	86.8

