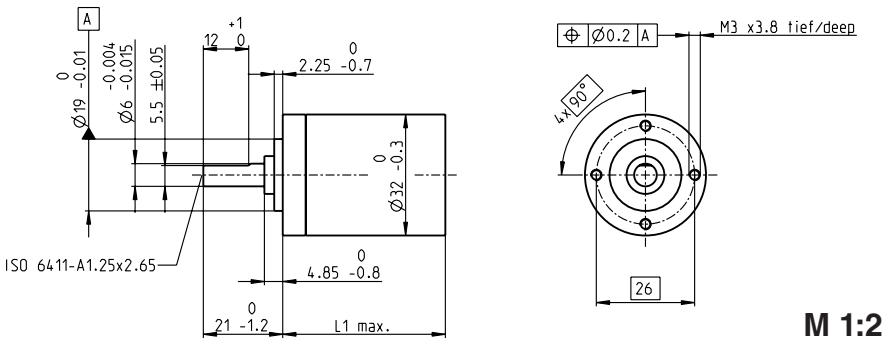
Planetary Gearhead GP 32 A ∅32 mm, 0.75 - 4.5 Nm



M 1:2

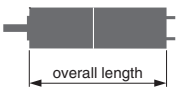
Technical Data

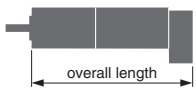
Planetary Gearhead	straight teeth
Output shaft	stainless steel
Shaft diameter as option	8 mm
Bearing at output	ball bearing
Radial play, 5 mm from flange	max. 0.14 mm
Axial play	max. 0.4 mm
Max. radial load, 10 mm from flange	140 N
Max. permissible axial load	120 N
Max. permissible force for press fits	120 N
Sense of rotation, drive to output	=
Recommended input speed	< 6000 rpm
Recommended temperature range	-40 ... +100°C

Option: Low-noise version

Stock program
Standard program
Special program (on request)

Order Number		166155	166158	166163	166164	166169	166174	166179	166184	166187	166192	166197	166202
Gearhead Data													
1 Reduction		3.7 : 1	14 : 1	33 : 1	51 : 1	111 : 1	246 : 1	492 : 1	762 : 1	1181 : 1	1972 : 1	2829 : 1	4380 : 1
2 Reduction absolute		$^{26}/_{7}$	$^{676}/_{49}$	$^{529}/_{16}$	$^{17576}/_{343}$	$^{13824}/_{125}$	$^{421824}/_{1715}$	$^{86112}/_{175}$	$^{19044}/_{25}$	$^{10123776}/_{8575}$	$^{8626176}/_{4375}$	$^{495144}/_{175}$	$^{109503}/_{25}$
3 Max. motor shaft diameter	mm	6	6	3	6	4	4	3	3	4	4	3	3
Order Number		166156	166159		166165	166170	166175	166180	166185	166188	166193	166198	166203
1 Reduction		4.8 : 1	18 : 1		66 : 1	123 : 1	295 : 1	531 : 1	913 : 1	1414 : 1	2189 : 1	3052 : 1	5247 : 1
2 Reduction absolute		$^{24}/_{5}$	$^{624}/_{35}$		$^{16224}/_{245}$	$^{6877}/_{56}$	$^{101062}/_{343}$	$^{331776}/_{625}$	$^{36501}/_{40}$	$^{2425488}/_{1715}$	$^{536406}/_{245}$	$^{712}/_{625}$	$^{523}/_{160}$
3 Max. motor shaft diameter	mm	4	4		4	3	3	4	3	3	3	3	3
Order Number		166157	166160		166166	166171	166176	166181	166186	166189	166194	166199	166204
1 Reduction		5.8 : 1	21 : 1		79 : 1	132 : 1	318 : 1	589 : 1	1093 : 1	1526 : 1	2362 : 1	3389 : 1	6285 : 1
2 Reduction absolute		$^{23}/_{4}$	$^{299}/_{14}$		$^{3887}/_{49}$	$^{3312}/_{25}$	$^{389376}/_{1225}$	$^{20631}/_{35}$	$^{279841}/_{256}$	$^{9345024}/_{6125}$	$^{2066688}/_{875}$	$^{474513}/_{140}$	$^{6436343}/_{1024}$
3 Max. motor shaft diameter	mm	3	3		3	3	4	3	3	4	3	3	3
Order Number			166161		166167	166172	166177	166182		166190	166195	166200	
1 Reduction			23 : 1		86 : 1	159 : 1	411 : 1	636 : 1		1694 : 1	2548 : 1	3656 : 1	
2 Reduction absolute			$^{576}/_{25}$		$^{14976}/_{175}$	$^{1587}/_{10}$	$^{359424}/_{875}$	$^{79488}/_{125}$		$^{1162213}/_{686}$	$^{7962624}/_{3125}$	$^{457056}/_{125}$	
3 Max. motor shaft diameter	mm		4		4	3	4	3		3	4	3	
Order Number			166162		166168	166173	166178	166183		166191	166196	166201	
1 Reduction			28 : 1		103 : 1	190 : 1	456 : 1	706 : 1		1828 : 1	2623 : 1	4060 : 1	
2 Reduction absolute			$^{138}/_{5}$		$^{3588}/_{35}$	$^{12167}/_{64}$	$^{89401}/_{196}$	$^{158171}/_{224}$		$^{2238912}/_{1225}$	$^{2056223}/_{784}$	$^{3637933}/_{896}$	
3 Max. motor shaft diameter	mm		3		3	3	3	3		3	3	3	
4 Number of stages		1	2	2	3	3	4	4	4	5	5	5	5
5 Max. continuous torque	Nm	0.75	2.25	2.25	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
6 Intermittently permissible torque at gear output	Nm	1.1	3.4	3.4	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
7 Max. efficiency	%	80	75	75	70	70	60	60	60	50	50	50	50
8 Weight	g	118	162	162	194	194	226	226	226	258	258	258	258
9 Average backlash no load	°	0.7	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
10 Mass inertia	gcm²	1.5	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
11 Gearhead length L1	mm	26.5	36.4	36.4	43.1	43.1	49.8	49.8	49.8	56.5	56.5	56.5	56.5

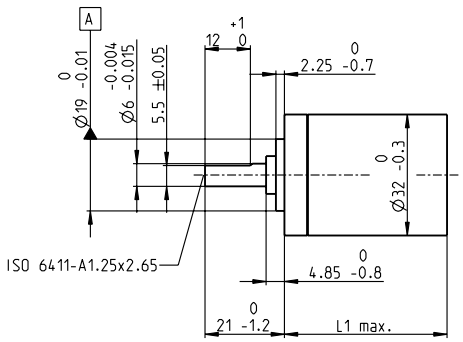


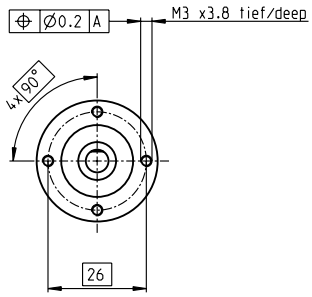


maxon Modular System

+ Motor	Page	+ Sensor / Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor / brake) + assembly parts											
RE 25	77/79			81.1	91.0	91.0	97.7	97.7	104.4	104.4	104.4	111.1	111.1	111.1	111.1
RE 25	77/79	MR	262	92.1	102.0	102.0	108.7	108.7	115.4	115.4	115.4	122.1	122.1	122.1	122.1
RE 25	77/79	Enc 22	264	95.2	105.1	105.1	111.8	111.8	118.5	118.5	118.5	125.2	125.2	125.2	125.2
RE 25	77/79	HED_ 5540	266/268	101.9	111.8	111.8	118.5	118.5	125.2	125.2	125.2	131.9	131.9	131.9	131.9
RE 25	77/79	DCT 22	276	103.4	113.3	113.3	120.0	120.0	126.7	126.7	126.7	133.4	133.4	133.4	133.4
RE 25, 20 W	78			69.6	79.5	79.5	86.2	86.2	92.9	92.9	92.9	99.6	99.6	99.6	99.6
RE 25, 20 W	78	MR	262	80.6	90.5	90.5	97.2	97.2	103.9	103.9	103.9	110.6	110.6	110.6	110.6
RE 25, 20 W	78	HED_ 5540	267/270	90.4	100.3	100.3	107.0	107.0	113.7	113.7	113.7	120.4	120.4	120.4	120.4
RE 25, 20 W	78	DCT22	276	91.9	101.8	101.8	108.5	108.5	115.2	115.2	115.2	121.9	121.9	121.9	121.9
RE 25, 20 W	78	AB 28	318	103.7	113.6	113.6	120.3	120.3	127.0	127.0	127.0	133.7	133.7	133.7	133.7
RE 25, 20 W	78	HED_ 5540 / AB 28	267/318	120.9	130.8	130.8	137.5	137.5	144.2	144.2	144.2	150.9	150.9	150.9	150.9
RE 25, 20 W	79	AB 28	318	115.2	125.1	125.1	131.8	131.8	138.5	138.5	138.5	145.2	145.2	145.2	145.2
RE 25, 20 W	79	HED_ 5540/AB 28	266/318	132.3	142.2	142.2	148.9	148.9	155.6	155.6	155.6	162.3	162.3	162.3	162.3
A-max 26	101-108			71.3	81.2	81.2	87.9	87.9	94.6	94.6	94.6	101.3	101.3	101.3	101.3
A-max 26	102-108	MEnc 13	275	78.4	88.3	88.3	95.0	95.0	101.7	101.7	101.7	108.4	108.4	108.4	108.4
A-max 26	102-108	MR	262	80.1	90.0	90.0	96.7	96.7	103.4	103.4	103.4	110.1	110.1	110.1	110.1
A-max 26	102-108	Enc 22	265	85.7	95.6	95.6	102.3	102.3	109.0	109.0	109.0	115.7	115.7	115.7	115.7
A-max 26	102-108	HED_ 5540	267/268	90.1	100.0	100.0	106.7	106.7	113.4	113.4	113.4	120.1	120.1	120.1	120.1
RE-max 29	131-134			71.3	81.2	81.2	87.9	87.9	94.6	94.6	94.6	101.3	101.3	101.3	101.3
RE-max 29	132/134	MR	262	80.1	90.0	90.0	96.7	96.7	103.4	103.4	103.4	110.1	110.1	110.1	110.1

Planetary Gearhead GP 32 A ∅32 mm, 0.75 - 4.5 Nm





M 1:2

Technical Data

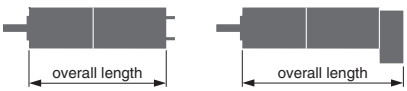
Planetary Gearhead	straight teeth
Output shaft	stainless steel
Shaft diameter as option	8 mm
Bearing at output	ball bearing
Radial play, 5 mm from flange	max. 0.14 mm
Axial play	max. 0.4 mm
Max. radial load, 10 mm from flange	140 N
Max. permissible axial load	120 N
Max. permissible force for press fits	120 N
Sense of rotation, drive to output	=
Recommended input speed	< 6000 rpm
Recommended temperature range	-40 ... +100°C

Option: Low-noise version

Stock program
Standard program
Special program (on request)

Order Number												
Gearhead Data	166155	166158	166163	166164	**166169**	**166174**	166179	166184	**166187**	**166192**	166197	166202
1 Reduction	3.7 : 1	14 : 1	33 : 1	51 : 1	111 : 1	246 : 1	492 : 1	762 : 1	1181 : 1	1972 : 1	2829 : 1	4380 : 1
2 Reduction absolute	$^{26}/_{7}$	$^{676}/_{49}$	$^{529}/_{16}$	$^{17576}/_{343}$	$^{13824}/_{125}$	$^{421824}/_{1715}$	$^{86112}/_{175}$	$^{19044}/_{25}$	$^{10123776}/_{8575}$	$^{8626176}/_{4375}$	$^{495144}/_{175}$	$^{109503}/_{25}$
3 Max. motor shaft diameter mm	6	6	3	6	4	4	3	3	4	4	3	3
Order Number	**166156**	**166159**		**166165**	166170	166175	**166180**	166185	166188	166193	166198	166203
1 Reduction	4.8 : 1	18 : 1		66 : 1	123 : 1	295 : 1	531 : 1	913 : 1	1414 : 1	2189 : 1	3052 : 1	5247 : 1
2 Reduction absolute	$^{24}/_{5}$	$^{624}/_{35}$		$^{16224}/_{245}$	$^{6877}/_{56}$	$^{101062}/_{343}$	$^{331776}/_{625}$	$^{36501}/_{40}$	$^{2425488}/_{1715}$	$^{536406}/_{245}$	$^{1907712}/_{625}$	$^{839523}/_{160}$
3 Max. motor shaft diameter mm	4	4		4	3	3	4	3	3	3	3	3
Order Number	166157	166160		166166	166171	**166176**	166181	166186	**166189**	166194	166199	166204
1 Reduction	5.8 : 1	21 : 1		79 : 1	132 : 1	318 : 1	589 : 1	1093 : 1	1526 : 1	2362 : 1	3389 : 1	6285 : 1
2 Reduction absolute	$^{23}/_{4}$	$^{299}/_{14}$		$^{3887}/_{49}$	$^{3312}/_{25}$	$^{38976}/_{1225}$	$^{20631}/_{35}$	$^{279841}/_{256}$	$^{9345024}/_{6125}$	$^{2066688}/_{875}$	$^{474513}/_{140}$	$^{6436343}/_{1024}$
3 Max. motor shaft diameter mm	3	3		3	3	4	3	3	4	3	3	3
Order Number		**166161**		**166167**	166172	**166177**	166182		166190	**166195**	166200	
1 Reduction		23 : 1		86 : 1	159 : 1	411 : 1	636 : 1		1694 : 1	2548 : 1	3656 : 1	
2 Reduction absolute		$^{576}/_{25}$		$^{14976}/_{175}$	$^{1587}/_{10}$	$^{359424}/_{875}$	$^{79488}/_{125}$		$^{1162213}/_{686}$	$^{7962624}/_{3125}$	$^{457056}/_{125}$	
3 Max. motor shaft diameter mm		4		4	3	4	3		3	4	3	
Order Number		166162		166168	166173	166178	166183		166191	166196	166201	
1 Reduction		28 : 1		103 : 1	190 : 1	456 : 1	706 : 1		1828 : 1	2623 : 1	4060 : 1	
2 Reduction absolute		$^{138}/_{5}$		$^{3588}/_{35}$	$^{12167}/_{64}$	$^{89401}/_{196}$	$^{158171}/_{224}$		$^{2238912}/_{1225}$	$^{2056223}/_{784}$	$^{3637933}/_{896}$	
3 Max. motor shaft diameter mm		3		3	3	3	3		3	3	3	
4 Number of stages	1	2	2	3	3	4	4	4	5	5	5	5
5 Max. continuous torque Nm	0.75	2.25	2.25	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
6 Intermittently permissible torque at gear output Nm	1.1	3.4	3.4	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
7 Max. efficiency %	80	75	75	70	70	60	60	60	50	50	50	50
8 Weight g	118	162	162	194	194	226	226	226	258	258	258	258
9 Average backlash no load °	0.7	0.8	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
10 Mass inertia gcm²	1.5	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
11 Gearhead length L1* mm	26.5	36.4	36.4	43.1	43.1	49.8	49.8	49.8	56.5	56.5	56.5	56.5

*for EC 32 flat L1 is + 2.0 mm



maxon Modular System

+ Motor	Page	+ Sensor / Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor / brake) + assembly parts											
RE 30, 60 W	80			94.6	104.5	104.5	111.2	111.2	117.9	117.9	117.9	124.6	124.6	124.6	124.6
RE 30, 60 W	80	MR	263	106.0	115.9	115.9	122.6	122.6	129.3	129.3	129.3	136.0	136.0	136.0	136.0
RE 35, 90 W	81			97.6	107.5	107.5	114.2	114.2	120.9	120.9	120.9	127.6	127.6	127.6	127.6
RE 35, 90 W	81	MR	263	109.0	118.9	118.9	125.6	125.6	132.3	132.3	132.3	139.0	139.0	139.0	139.0
RE 35, 90 W	81	HED_ 5540	266/268	118.3	128.2	128.2	134.9	134.9	141.6	141.6	141.6	148.3	148.3	148.3	148.3
RE 35, 90 W	81	DCT 22	276	115.7	125.6	125.6	132.3	132.3	139.0	139.0	139.0	145.7	145.7	145.7	145.7
RE 35, 90 W	81	AB 28	318	133.7	143.6	143.6	150.3	150.3	157.0	157.0	157.0	163.7	163.7	163.7	163.7
RE 35, 90 W	81	HEDS 5540 / AB 28	266/318	150.8	160.7	160.7	167.4	167.4	174.1	174.1	174.1	180.8	180.8	180.8	180.8
A-max 32	109/111			89.5	99.4	99.4	106.1	106.1	112.8	112.8	112.8	119.5	119.5	119.5	119.5
A-max 32	110/112			88.1	98.0	98.0	104.7	104.7	111.4	111.4	111.4	118.1	118.1	118.1	118.1
A-max 32	110/112	MR	263	99.3	109.2	109.2	115.9	115.9	122.6	122.6	122.6	129.3	129.3	129.3	129.3
A-max 32	110/112	HED_ 5540	267/268	108.9	118.8	118.8	125.5	125.5	132.2	132.2	132.2	138.9	138.9	138.9	138.9
EC 32, 80 W	154			86.6	96.5	96.5	103.2	103.2	109.9	109.9	109.9	116.6	116.6	116.6	116.6
EC 32, 80 W	154	HED_ 5540	267/269	105.0	114.9	114.9	121.6	121.6	128.3	128.3	128.3	135.0	135.0	135.0	135.0
EC 32, 80 W	154	Res 26	277	106.7	116.6	116.6	123.3	123.3	130.0	130.0	130.0	136.7	136.7	136.7	136.7
EC 32 flat, 15 W	188			44.5	54.4	54.4	61.1	61.1	67.8	67.8	67.8	74.5	74.5	74.5	74.5
EC 32 flat, IE, IP 00	189			54.6	64.5	64.5	71.2	71.2	77.9	77.9	77.9	84.6	84.6	84.6	84.6
EC 32 flat, IE, IP 40	189			56.3	66.2	66.2	72.9	72.9	79.6	79.6	79.6	86.3	86.3	86.3	86.3