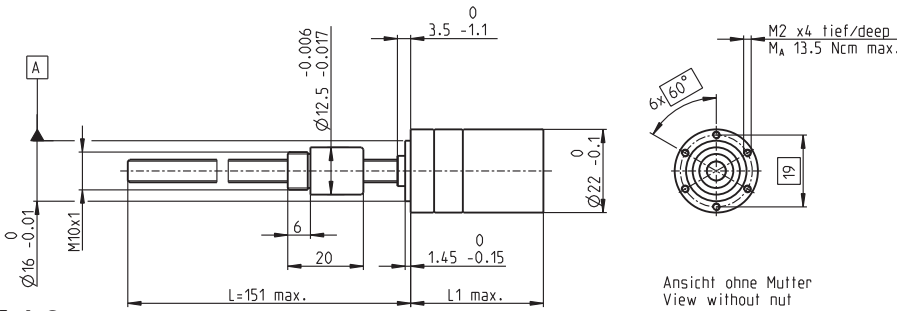


# Spindle Drive GP 22 S Ø22 mm, Metric spindle



M 1:2

## Technical Data

Spindle	M6 x 1, stainless steel
Standard length	150 mm
Special length (5 mm steps)	max. 300 mm
Max. efficiency	41.6%
Mass inertia	1 gcm <sup>2</sup>
Nut (standard)	thread nut
Material	CuSn12
Axial play	< 0.008 mm
Planetary gearhead	straight teeth
Bearing	ball bearing / thrust roller bearing
Radial play, 5 mm from flange	< 0.05 mm
Axial play	< 0.008 mm
Recommended input speed <sup>4</sup>	< 8000 rpm
Recommended temperature range	-15 ... +80°C
Max. radial load, 15 mm from flange	150 N
Max. axial load (static) <sup>1</sup>	550 N

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

## Order Number

Spindle Drive Data (provisional)	363826	363830	363834	363835	363840	363845	363850	363855
1 Reduction	1 : 1	14 : 1	29 : 1	53 : 1	89 : 1	198 : 1	333 : 1	479 : 1
2 Reduction absolute	1/1	225/16	729/25	3375/64	4617/52	50625/256	69255/208	124659/260
20 Max. feed velocity <sup>1</sup>	mm/s 101	9.5	4.6	2.5	1.5	0.7	0.4	0.3
21 Max. feed force (continuous) <sup>1</sup>	N 42	92	118	144	171	223	266	300
22 Max. feed force (intermittent) <sup>1</sup>	N 118	259	330	350	350	350	350	350
<b>Order Number</b>	<b>363827</b>	<b>364040</b>		<b>363836</b>	<b>363841</b>	<b>363846</b>	<b>363851</b>	<b>363856</b>
1 Reduction	3.8 : 1	16 : 1		62 : 1	104 : 1	231 : 1	370 : 1	561 : 1
2 Reduction absolute	15/4	885/52		12825/208	87729/845	192375/832	10556001/28561	2521/4225
20 Max. feed velocity <sup>1</sup>	mm/s 35	8.3		2.2	1.3	0.6	0.4	0.2
21 Max. feed force (continuous) <sup>1</sup>	N 60	97		152	180	235	275	316
22 Max. feed force (intermittent) <sup>1</sup>	N 167	270		350	350	350	350	350
<b>Order Number</b>	<b>363828</b>	<b>363831</b>		<b>363837</b>	<b>363842</b>	<b>363847</b>	<b>363852</b>	<b>363857</b>
1 Reduction	4.4 : 1	19 : 1		72 : 1	109 : 1	270 : 1	389 : 1	590 : 1
2 Reduction absolute	57/13	3249/169		48735/676	2187/20	731025/2704	263169/676	59049/100
20 Max. feed velocity <sup>1</sup>	mm/s 30	7.0		1.9	1.2	0.5	0.3	0.2
21 Max. feed force (continuous) <sup>1</sup>	N 63	102		159	183	248	280	321
22 Max. feed force (intermittent) <sup>1</sup>	N 176	286		350	350	350	350	350
<b>Order Number</b>	<b>363829</b>	<b>363832</b>		<b>363838</b>	<b>363843</b>	<b>363848</b>	<b>363853</b>	<b>363858</b>
1 Reduction	5.4 : 1	20 : 1		76 : 1	128 : 1	285 : 1	410 : 1	690 : 1
2 Reduction absolute	27/5	81/4		1215/16	41559/325	18225/64	6561/16	1121931/1625
20 Max. feed velocity <sup>1</sup>	mm/s 25	6.7		1.8	1.0	0.5	0.3	0.2
21 Max. feed force (continuous) <sup>1</sup>	N 67	104		162	193	252	285	339
22 Max. feed force (intermittent) <sup>1</sup>	N 188	291		350	350	350	350	350
<b>Order Number</b>		<b>363833</b>		<b>363839</b>	<b>363844</b>	<b>363849</b>	<b>363854</b>	<b>363859</b>
1 Reduction		24 : 1		84 : 1	157 : 1	316 : 1	455 : 1	850 : 1
2 Reduction absolute		1539/65		185193/2197	19683/125	2777895/8788	5000211/10985	531441/625
20 Max. feed velocity <sup>1</sup>		mm/s 5.6		1.6	0.8	0.4	0.3	0.2
21 Max. feed force (continuous) <sup>1</sup>		N 111		168	207	261	295	350
22 Max. feed force (intermittent) <sup>1</sup>		N 310		350	350	350	350	350
4 Number of stages		1	2	3	3	4	4	4
7 Max. efficiency gearhead incl. spindle		% 35 <sup>2</sup>	29	29	25	25	20	20
8 Weight <sup>1</sup>		g 103	116	116	128	128	141	141
9 Average backlash no load		° 1.0	1.2	1.2	1.6	1.6	2.0	2.0
23 Mechanical positioning accuracy <sup>1</sup>		mm 0.034	0.034	0.034	0.034	0.034	0.037	0.037
10 Mass inertia gearhead incl. spindle <sup>1</sup>		gcm <sup>2</sup> 1.03	0.4	0.4	0.3	0.3	0.3	0.3
11 Gearhead length L1		mm 38.0	44.8	44.8	51.6	51.6	58.4	58.4

<sup>1</sup> based on spindle length 151 mm (standard length)

<sup>2</sup> for reduction 1:1 = 42%

<sup>3</sup> for reduction 1:1 = 10 gcm<sup>2</sup>

<sup>4</sup> for reduction 1:1 = 6088 rpm



## maxon Modular System

+ Motor	Page	+ Sensor/Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor / brake) + assembly parts							
EC 16, 60 W	147			94.3	101.1	101.1	107.9	107.9	114.7	114.7	114.7
EC 16, 60 W	147	MR	261	105.0	111.8	111.8	118.6	118.6	125.4	125.4	125.4
EC 22, 40 W	149			82.6	89.4	89.4	96.2	96.2	103.0	103.0	103.0
EC 22, 40 W	149	MR	261	88.6	95.4	95.4	102.2	102.2	109.0	109.0	109.0
EC 22, 100 W	151			100.8	107.6	107.6	114.4	114.4	121.2	121.2	121.2
EC 22, 100 W	151	MR	261	106.8	113.6	113.6	120.4	120.4	127.2	127.2	127.2
EC-max 16, 8 W	163			71.3	78.1	78.1	84.9	84.9	91.7	91.7	91.7
EC-max 16, 8 W	163	MR	261	78.6	85.4	85.4	92.2	92.2	99.0	99.0	99.0
EC-max 22, 12 W	164			70.1	76.9	76.9	83.7	83.7	90.5	90.5	90.5
EC-max 22, 12 W	164	MR	261	79.8	86.6	86.6	93.4	93.4	100.2	100.2	100.2
EC-max 22, 12 W	164	AB 20	316	105.7	112.5	112.5	119.3	119.3	126.1	126.1	126.1

Continuation of the modular system (irrespective of the spindle) on page 247