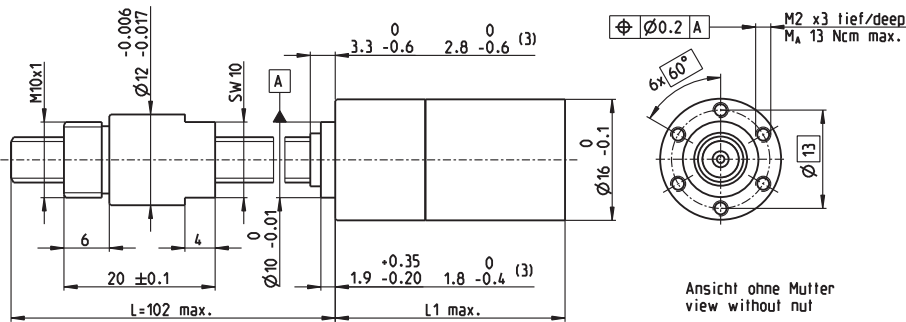


# Spindle Drive GP 16 S Ø16 mm, Metric spindle



**M 1:1**

## Technical Data

Spindle	M6 x 1, stainless steel
Standard length	102 mm
Special length (5 mm steps)	max. 200 mm
Nut (standard)	thread nut
Material	bronze
Axial play	< 0.134 mm
Planetary gearhead	straight teeth
Bearing	ball bearing/axial bearing
Radial play, 6 mm from flange	< 0.08 mm
Axial play	preloaded
Max. continuous input speed <sup>2</sup>	12 000 rpm
Recommended temperature range	-15...+80°C
Max. axial load (static) <sup>1</sup>	500 N
Number of stages	0 1 2 3 4
Max. radial load, 6 mm from flange	20 N 40 N 60 N 80 N 80 N

<input checked="" type="checkbox"/> Stock program	<b>Part Numbers</b>
<input type="checkbox"/> Standard program	
<input type="checkbox"/> Special program (on request)	

Spindle Drive Data (provisional)		424231	424232	424233	424234	424235
1 Reduction		1:1	4.4:1	19:1	84:1	370:1
2 Absolute reduction		1/1	57/13	3249/169	185193/2197	10556001/28561
20 Max. feed velocity <sup>1</sup>	mm/s	50.0	45.5	10.5	2.4	0.5
21 Max. feed force (continuous) <sup>1</sup>	N	35	37	60	98	160
22 Max. feed force (intermittent) <sup>1</sup>	N	134	138	224	315	315
<b>Part Numbers</b>			424797	424798	424800	424806
1 Reduction			5.4:1	24:1	104:1	455:1
2 Absolute reduction			27/5	1539/65	87729/845	5000211/10985
20 Max. feed velocity <sup>1</sup>	mm/s		37.0	8.3	1.9	0.4
21 Max. feed force (continuous) <sup>1</sup>	N		39	64	105	172
22 Max. feed force (intermittent) <sup>1</sup>	N		148	243	315	315
<b>Part Numbers</b>			424799	424803	424807	
1 Reduction			29:1	128:1	561:1	
2 Absolute reduction			729/25	41553/325	2368521/4225	
20 Max. feed velocity <sup>1</sup>	mm/s		6.9	1.6	0.4	
21 Max. feed force (continuous) <sup>1</sup>	N		69	112	184	
22 Max. feed force (intermittent) <sup>1</sup>	N		258	315	315	
<b>Part Numbers</b>				424804	424808	
1 Reduction				157:1	690:1	
2 Absolute reduction				19683/125	1121931/1625	
20 Max. feed velocity <sup>1</sup>	mm/s			1.3	0.3	
21 Max. feed force (continuous) <sup>1</sup>	N			120	197	
22 Max. feed force (intermittent) <sup>1</sup>	N			315	315	
<b>Part Numbers</b>					424809	
1 Reduction					850:1	
2 Absolute reduction					531441/625	
20 Max. feed velocity <sup>1</sup>	mm/s				0.2	
21 Max. feed force (continuous) <sup>1</sup>	N				211	
22 Max. feed force (intermittent) <sup>1</sup>	N				315	
4 Number of stages		0	1	2	3	4
7 Max. efficiency gearhead incl. spindle	%	28	27	24	22	19
8 Weight <sup>1</sup>	g	55	61	64	68	72
9 Average backlash no load	°	1.0	1.4	1.6	2.0	2.4
23 Mechanical positioning accuracy <sup>1</sup>	mm	0.166	0.167	0.167	0.169	0.170
10 Mass inertia gearhead incl. spindle <sup>1</sup>	gcm <sup>2</sup>	0.23	0.11	0.05	0.05	0.05
11 Gearhead length L1	mm	19.2	22.3	27.4	31.0	34.6

<sup>1</sup> based on spindle length 102 mm (standard length)    <sup>2</sup> for reduction 1:1 = 3000 rpm



maxon Modular System				
+ Motor	Page	+ Sensor/Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor/brake) + assembly parts
A-max 16	193-196			47.8 52.9 56.5 60.1
A-max 16	194/196	MR	388/390	52.8 57.9 61.5 65.1
A-max 16	194/196	MEnc 13	409	55.9 61.0 64.6 68.2

Continuation of the modular system (irrespective of the spindle) on pages 365 and 367.