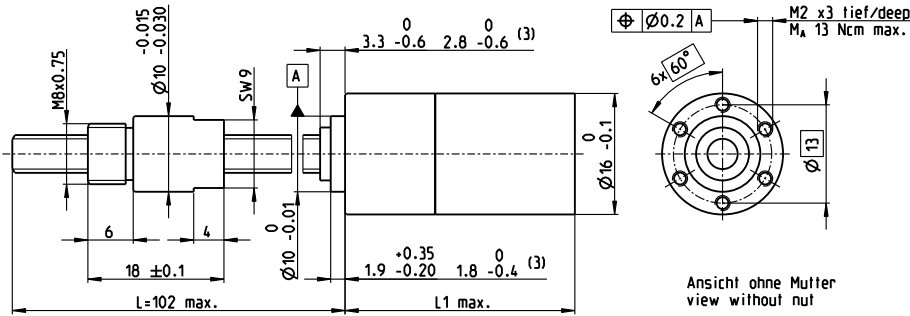


Screw Drive GP 16 S $\varnothing 16$ mm, ball screw



Technical Data

Screw	$\varnothing 5 \times 2$, stainless steel
Standard length	102 mm
Special length (5 mm steps)	max. 200 mm
Nut (standard)	thread nut
Material	X46Cr13, hardened
Axial play	< 0.01 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 ²	12000 rpm
Recommended temperature range	-15...+80°C
Max. axial load (static) ¹	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

screw drive

M 1:1

		Part Numbers				
		424221	424222	424223	424219	424224
Screw Drive Data (provisional)						
1	Reduction	1:1	4.4:1	19:1	84:1	370:1
2	Absolute reduction	$\frac{1}{1}$	$\frac{57}{13}$	$\frac{3249}{169}$	$\frac{185193}{2197}$	$\frac{10556001}{28561}$
20	Max. feed velocity ¹	mm/s	150	90.9	21.1	4.8
21	Max. feed force (continuous) ¹	N	54	64	104	171
22	Max. feed force (intermittent) ¹	N	149	176	287	403
Part Numbers			424731	424733	424745	424749
1	Reduction		5.4:1	24:1	104:1	455:1
2	Absolute reduction		$\frac{27}{5}$	$\frac{1539}{65}$	$\frac{87723}{645}$	$\frac{500021}{10985}$
20	Max. feed velocity ¹	mm/s	74.1	16.7	3.8	0.9
21	Max. feed force (continuous) ¹	N	69	113	184	300
22	Max. feed force (intermittent) ¹	N	189	311	403	403
Part Numbers			424744	424747	424750	
1	Reduction		29:1	128:1	561:1	
2	Absolute reduction		$\frac{729}{25}$	$\frac{41553}{325}$	$\frac{2368521}{4225}$	
20	Max. feed velocity ¹	mm/s	13.8	3.1	0.7	
21	Max. feed force (continuous) ¹	N	120	197	322	
22	Max. feed force (intermittent) ¹	N	331	403	403	
Part Numbers				424748	424751	
1	Reduction			157:1	690:1	
2	Absolute reduction			$\frac{19683}{125}$	$\frac{112193}{1625}$	
20	Max. feed velocity ¹	mm/s		2.5	0.6	
21	Max. feed force (continuous) ¹	N		211	345	
22	Max. feed force (intermittent) ¹	N		403	403	
Part Numbers					424752	
1	Reduction				850:1	
2	Absolute reduction				$\frac{531441}{625}$	
20	Max. feed velocity ¹	mm/s			0.5	
21	Max. feed force (continuous) ¹	N			370	
22	Max. feed force (intermittent) ¹	N			403	
4	Number of stages		0	1	2	3
7	Max. efficiency gearhead incl. screw	%	93	87	79	71
8	Weight ¹	g	52	58	61	65
9	Average backlash no load	°	1.0	1.4	1.6	2.0
23	Mechanical positioning accuracy ¹	mm	0.039	0.041	0.042	0.044
10	Mass inertia gearhead incl. screw ¹	gcm ²	0.23	0.11	0.05	0.05
11	Gearhead length L1	mm	19.2	22.3	27.4	31.0

¹ based on screw length 102 mm (standard length) ² for reduction 1:1 = 4500 rpm ³ for reduction 1:1



maxon Modular System							
+ Motor	Page	+ Sensor/Brake	Page	Overall length [mm] = Motor length + gearhead length + (sensor / brake) + assembly parts			
RE 16, 2 W	139			41.6	44.7	49.8	53.4
RE 16, 2 W	139	MR	475/476	47.3	50.4	55.5	59.1
RE 16, 3.2 W	140/141			59.7	62.8	67.9	71.5
RE 16, 3.2 W	141	MR	475/476	64.7	67.8	72.9	76.5
RE 16, 4.5 W	142/143			62.7	65.8	70.9	74.5
RE 16, 4.5 W	143	MR	475/476	67.7	70.8	75.9	79.5
A-max 16	159-162			-	47.8	52.9	56.5
A-max 16	160/162	MR	475/476	-	52.8	57.9	61.5
EC-max 16, 5 W	245			-	46.4	51.5	55.1
EC-max 16, 5 W	245	MR	477	-	53.7	58.8	62.4
EC-max 16, 8 W	247			-	58.4	63.5	67.1
EC-max 16, 8 W	247	MR	477	-	65.7	70.8	74.4