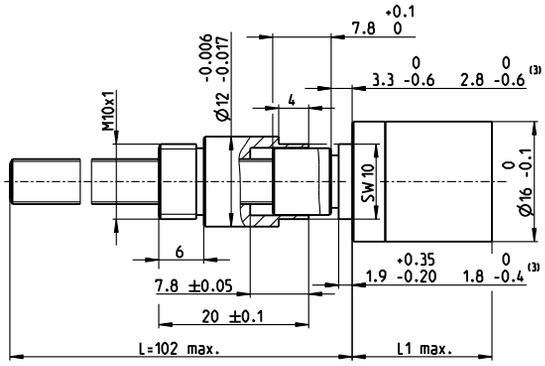
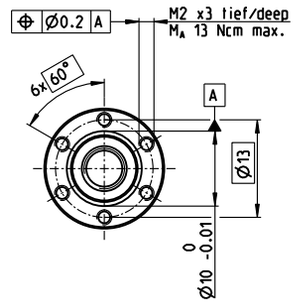
Screw Drive GP 16 S ∅16 mm, metric lead screw

Ceramic Version





Ansicht ohne Mutter
view without nut

M 1:1

Technical Data

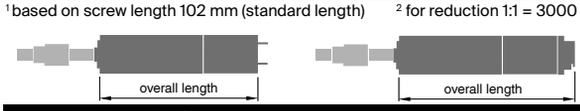
Screw	M6 x 1, ceramic
Standard length	102 mm
Special length (5 mm steps)	max. 200 mm
Nut (standard)	thread nut
Material	X8CrNiS18-9
Axial play	< 0.134 mm
Planetary gearhead	straight teeth
Bearing	ball bearing
Radial play, 6 mm from flange	< 0.08 mm
Axial play	preloaded
Max. continuous input speed [2]	12 000 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

Stock program
Standard program
Special program (on request)

			Part Numbers				
			424241	424242	424243	424244	424245
Screw Drive Data (provisional)							
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[1]	mm/s	50.0	45.5	10.5	2.4	0.5
21	Max. feed force (continuous)[1]	N	44	46	74	122	200
22	Max. feed force (intermittent)[1]	N	134	138	224	315	315
	Part Numbers			424811	424812	424814	424819
1	Reduction			5.4:1	24:1	104:1	455:1
2	Absolute reduction			27/5	1539/65	87723/845	5000211/10985
20	Max. feed velocity[1]	mm/s		37.0	8.3	1.9	0.4
21	Max. feed force (continuous)[1]	N		49	80	131	215
22	Max. feed force (intermittent)[1]	N		148	243	315	315
	Part Numbers				424813	424815	424820
1	Reduction				29:1	128:1	561:1
2	Absolute reduction				729/25	41553/325	2368521/4225
20	Max. feed velocity[1]	mm/s			6.9	1.6	0.4
21	Max. feed force (continuous)[1]	N			86	141	230
22	Max. feed force (intermittent)[1]	N			258	315	315
	Part Numbers					424818	424821
1	Reduction					157:1	690:1
2	Absolute reduction					19683/125	1121931/1625
20	Max. feed velocity[1]	mm/s				1.3	0.3
21	Max. feed force (continuous)[1]	N				150	246
22	Max. feed force (intermittent)[1]	N				315	315
	Part Numbers						424822
1	Reduction						850:1
2	Absolute reduction						53144/625
20	Max. feed velocity[1]	mm/s					0.2
21	Max. feed force (continuous)[1]	N					264
22	Max. feed force (intermittent)[1]	N					315
4	Number of stages		0	1	2	3	4
7	Max. efficiency gearhead incl. screw	%	41	38	34	31	28
8	Weight[1]	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[1]	mm	0.166	0.167	0.167	0.169	0.170
10	Mass inertia gearhead incl. screw[1]	gcm²	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

[1] based on screw length 102 mm (standard length) [2] for reduction 1:1 = 3000 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	57.0
RE 16, 2 W	139	MR	475/476	47.3	50.4	55.5	59.1	62.7
RE 16, 3.2 W	140/141			59.7	62.8	67.9	71.5	75.1
RE 16, 3.2 W	141	MR	475/476	64.7	67.8	72.9	76.5	80.1
RE 16, 4.5 W	142/143			62.7	65.8	70.9	74.5	78.1
RE 16, 4.5 W	143	MR	475/476	67.7	70.8	75.9	79.5	83.1
A-max 16	159–162			–	47.8	52.9	56.5	60.1
A-max 16	160/162	MR	475/476	–	52.8	57.9	61.5	65.1
EC-max 16, 5 W	245			–	46.4	51.5	55.1	58.7
EC-max 16, 5 W	245	MR	477	–	53.7	58.8	62.4	66.0
EC-max 16, 8 W	247			–	58.4	63.5	67.1	70.7
EC-max 16, 8 W	247	MR	477	–	65.7	70.8	74.4	78.0