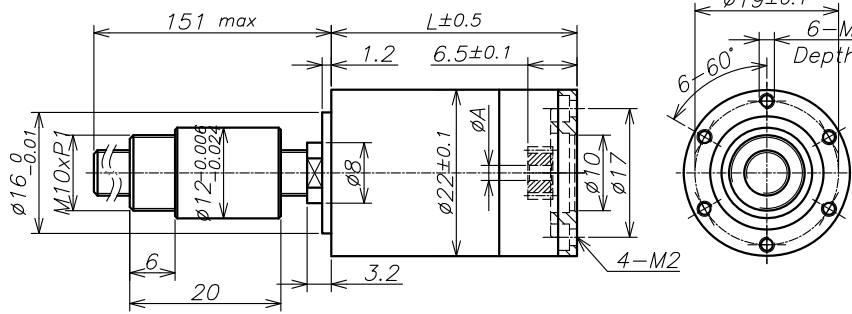


# AM-BS22GP Series Planetary Gearbox + Ball Screw



Screw:  $\phi 6 \times 2$ , GCr15, hardened  
 Standard length: 151mm  
 Special length(5 mm steps): 300mm  
 Nut: (standard) thread nut  
 Material: GCr15,hardened  
 Axial play: 0  
 Planetary gearhead: straight teeth  
 Bearing: ball bearing/thrust ball bearing  
 Radial play (5mm from flange): < 0.05mm  
 Axial play: preloaded  
 Max.continuous input speed<sup>2</sup>: 8000rpm  
 Recommended Temperature Range:  
 - 40°C~+100 °C  
 Max.axial load(static)<sup>1</sup>: 200N  
 Number of stages 0 1 2 3 4  
 Max. radial load:  
 (15mm from flange)120N 140N 200N 200N 200N

## Screw Drive Data:

Reduction	1:1	3.1:1	10:1	36:1	31:1	75:1	201:1	384:1
Absolute reduction	1/1	22/7	484/49	36/1	10648/343	528/7	1408/7	384/1
Max.feed velocity <sup>1</sup> (mm/s)	150	86	26	7.4	8.6	3.5	1.3	0.7
Max.feed force (continuous) <sup>1</sup> (N)	77	93	137	210	200	269	374	464
Max.feed force (intermittent) <sup>1</sup> (N)	154	186	274	420	400	500	500	500
Max. Gear Hole "A"	3	3	3	2	3	3	3	3
Reduction		4:1	13:1		40:1	96:1	237:1	453:1
Absolute reduction		4/1	88/7		1936/49	96/1	11616/49	3168/7
Max.feed velocity <sup>1</sup> (mm/s)		66	20		6.6	2.7	1.1	0.6
Max.feed force (continuous) <sup>1</sup> (N)		101	150		218	292	395	490
Max.feed force (intermittent) <sup>1</sup> (N)		202	300		436	500	500	500
Max. Gear Hole "A"		3	3		3	3	3	3
Reduction		6:1	16:1		50:1	113:1	256:1	576:1
Absolute reduction		6/1	16/1		352/7	792/7	256/1	576/1
Max.feed velocity <sup>1</sup> (mm/s)		44	17		5.3	2.3	1.0	0.4
Max.feed force (continuous) <sup>1</sup> (N)		116	161		235	308	405	500
Max.feed force (intermittent) <sup>1</sup> (N)		232	322		470	500	500	500
Max. Gear Hole "A"		2	3		3	3	3	3
Reduction			19:1		59:1	144:1	302:1	679:1
Absolute reduction			132/7		2904/49	144/1	2112/7	4752/7
Max.feed velocity <sup>1</sup> (mm/s)			14		4.5	1.9	0.8	0.4
Max.feed force (continuous) <sup>1</sup> (N)			170		248	334	428	500
Max.feed force (intermittent) <sup>1</sup> (N)			340		496	500	500	500
Max. Gear Hole "A"			3		3	3	3	3
Reduction			24:1		64:1	216:1	356:1	864:1
Absolute reduction			24/1		64/1	216/1	17424/49	864/1
Max.feed velocity <sup>1</sup> (mm/s)			11		4.2	1.2	0.7	0.3
Max.feed force (continuous) <sup>1</sup> (N)			184		255	383	452	500
Max.feed force (intermittent) <sup>1</sup> (N)			368		500	500	500	500
Max. Gear Hole "A"			3		3	2	3	3
Number of stages	0 <sup>2</sup>	1	2	2	3	3	4	4
Max. efficiency gearhead incl.screw (%)	93	84	75	75	68	68	61	61
Weight <sup>1</sup> (g)	115	115	125	125	140	140	150	150
Average backlash no load (°)	0.8°	1.1°	1.3°	1.3°	1.3°	1.3°	1.3°	1.3°
Mechanical positioning accuracy <sup>1</sup> (mm)	0.038	0.039	0.04	0.04	0.04	0.04	0.04	0.04
Mass inertia gearhead incl.screw (gcm <sup>2</sup> )	6.87	0.73	0.14	0.14	0.13	0.13	0.13	0.13
Gearhead length L1 (mm)	34.5	34.5	39.3	39.3	44.1	44.1	48.9	48.9

<sup>1</sup> based on screw length 151 mm (standard length)    <sup>2</sup> for reduction 1:1=4500rpm

For more motor and encoder specs, see Assun Motor website. Approved: 龚远宽 Drawn: 龚远宽 Date: 2024-03-22 REV: D