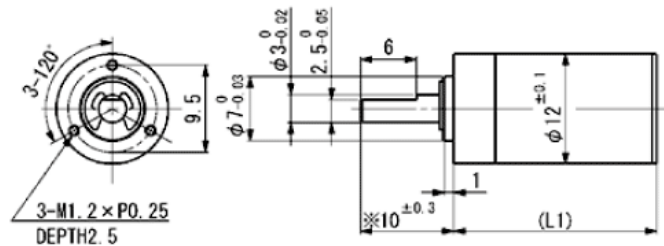


Gearhead SPG12

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Planetary Gearhead



Dimension in mm

Note) Dimension marked $\approx$ is measured with shaft pushed against gearhead.

SPG12 General specifications

		Gearhead SPG12	
1	Housing material	Metal	
2	Geartrain material	Steel	
3	Recommended max input speed	8000	rpm
4	Operation temperature range	-10...+60	°C
5	Backlash at no-load per stage	≤ 1	°
6	Bearings on output shaft	Sintered Sleeve bearings	
7	Max shaft radial load(7mm from flange)	4(25)	N
8	Max shaft axial load	2	N
9	Max shaft press fit force	30	N
10	Shaft radial play	≤ 0.03	mm
11	Shaft axial play	≤ 0.3	mm
12	Max allowable torque (Continuous)	100	mNm
13	Max allowable torque (Intermittent)	200	mNm

Spec Based on stages

	Gear Ratio	3.5	4.8	12	23	58	107	509	
14	Reduction ratio (absolute value)	3.50:1	4.80:1	12.25:1	22.56:1	58.19:1	107.177:1	509.07:1	
15	Number of stage	1	1	2	2	3	3	4	
16	Efficiency	85.0	85.0	72.3	72.3	61.4	61.4	52.2	%
17	Direction of rotation	=	=	=	=	=	=	=	
18	Gearhead length : L1	14.2	14.2	18	18	21.8	21.8	25.7	mm
19	Weight	11.6	11.6	14.1	14.1	16.6	16.6	19.1	g

Combination with motor

Type	Model name	3.5	4.8	12	23	58	107	509	
Coreless Motor	CMS12-15..P	29.2	29.2	33	33	36.8	36.8	40.7	mm
	CMS12-20..P	33.4	33.4	37.2	37.2	41	41	44.9	
	CMS12-30..P	44.2	44.2	48	48	51.8	51.8	55.7	
Brushless Motor	BMS12-15..P	20.5	20.5	23.5	23.5	26.5	26.5	29.6	mm
	BMS12-21..P	35.2	35.2	39	39	42.8	42.8	46.7	