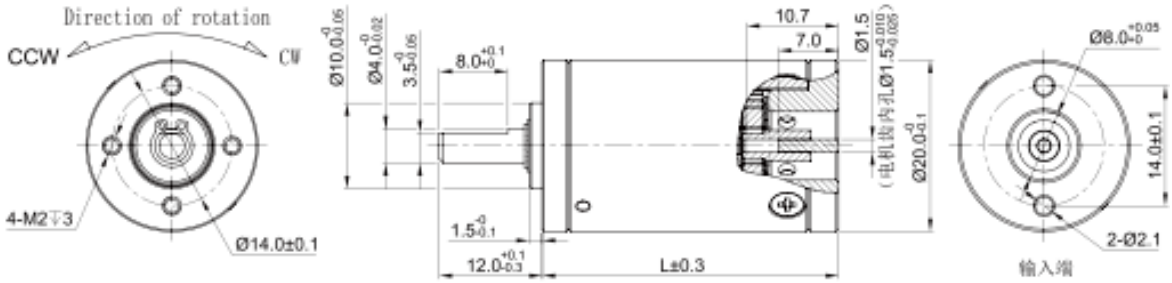
PG SERIES / PRECISION PLANETARY GEARHEADS

20P | Ø20 mm Miniature Planetary Gearhead

GEARHEAD ONLY / PRODUCT TECHNICAL DATASHEET

SIGGEAR / 20P / MECHANICAL INTERFACE **REV 1.0 | 17 NOV 2026**

01 MECHANICAL INTERFACE / SOURCE DRAWING



Mechanical interface drawing: 20P source drawing | Dimensions and tolerances as shown | Input side at right

02 GENERAL TECHNICAL DATA

Nominal outside diameter	**Ø20 mm**	Number of stages	**1–4**
Gearhead body length	**20.1–34.5 mm**	Backlash at no load	**≤ 1.5°**
Reduction ratio range	**4:1–1296:1**	Operating temperature	**−40 to +120 °C**
Max. radial load (10 mm from flange)	**15.7 N**	Radial shaft play	**≤ 0.04 mm**
Max. axial shaft load	**4.90 N**	Axial shaft play	**≤ 0.20 mm**

Housing / gears: steel; output bearing: ball bearing.

03 PERFORMANCE BY REDUCTION STAGE

STAGE	L (mm)	RATED (mN·m)	MOMENTARY (mN·m)	EFF. (%)	AVAILABLE REDUCTION RATIOS (x:1)
1	**20.1**	**588.4**	**1,176.8**	**90%**	4 / 4.75 / 6
2	**24.9**	**686.5**	**1,372.9**	**80%**	16 / 19 / 22.6 / 24 / 28.5 / 36
3	**29.7**	**980.7**	**1,961.3**	**73%**	64 / 76 / 90.2 / 96 / 107.2 / 114 / 135.4 / 144 / 171 / 216
4	**34.5**	**1,274.9**	**2,549.7**	**66%**	256 / 304 / 361 / 384 / 428.7 / 456 / 509.1 / 541.5 / 576 / 643 / 684 / 812.2 / 864 / 1,026 / 1,296

Rated allowable torque is a continuous-load reference; maximum momentary torque is not a continuous rating. Input-speed eligibility depends on the matched motor, load, gearhead design and duty cycle; no universal rpm ceiling. Stage efficiency is a reference value; confirm ratio-specific behavior and source drawing revision before production. Force values converted from kgf using standard gravity (1 kgf = 9.80665 N); torque values converted using 1 kgf·cm = 98.0665 mN·m.