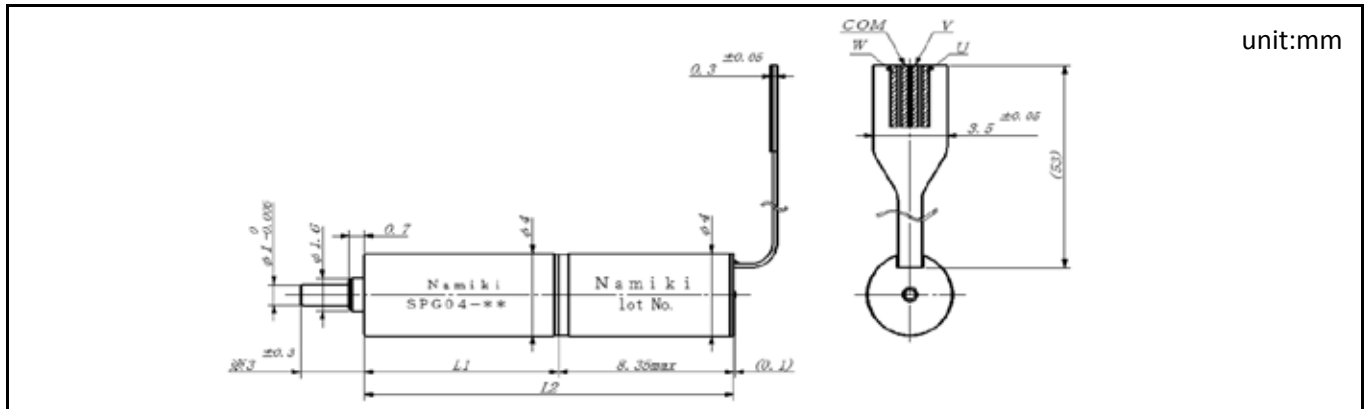


# SBL04-08

Electronically commutated sensorless motor, slotless stator design



Note) Dimension marked ※ is measured with shaft pushed against gearhead.

Geared motor data	SBL04-0829	SBL04-0829	SBL04-0829	SBL04-0829
	PG04-4.3	PG04-18	PG04-79	PG04-337
1 Nominal voltage	3	3	3	3 V
2 Terminal resistance	29	29	29	29 Ω
3 Gearhead reduction ratio	4.29	18.37	78.72	337.36 :1
4 Gearhead number of stage	1	2	3	4
5 Max. output power, gearhead output	0.02	0.02	0.02	0.02 W
6 Max. efficiency, motor only	8.5	8.7	8.2	7.9 %
7 No-load speed, gearhead output	8100	1960	464	103 rpm
8 No-load current	49.6	49.6	50.8	51.6 mA
9 Stall torque (Calculated value), gearhead output	0.09	0.37	1.49	6.47 mNm
10 Friction torque	0.066	0.272	1.16	5.245 mNm
11 Back-EMF constant	0.2	0.8	3.2	14.1 mV/rpm
12 Torque constant	1.8	7.3	30.3	134.3 mNm/A
13 Coil inductance	74	74	74	74 μH
14 Mechanical time constant, motor only	5	5	5	5 ms
15 Gearhead length, L1	5.52	6.72	7.92	9.12 mm
16 Total length, L2	13.75	14.95	16.15	17.35 mm
17 Rotor inertia, motor only	9 x 10 <sup>-4</sup>	9 x 10 <sup>-4</sup>	9 x 10 <sup>-4</sup>	9 x 10 <sup>-4</sup> gcm <sup>2</sup>
18 Total weight	1.103	1.191	1.258	1.345 g

General data			
19	Operating temperature range	-20 ... +70	°C
20	Max. temperature raise at stall	55	°C
21	Bearing type : Motor	Sintered sleeves	
	Bearing type : Gearhead	Ball bearings	
22	Max. permissible press fit force, gearhead output	5	N
23	Max. radial play, gearhead output	0.044	mm
24	Max. axial play, gearhead output	0.15	mm
25	Connector	SMK : CFP5506-0150F	

### Ordering example

**SBL04-0829PG18** corresponds to:  
 Motor SBL04-0829 +  
 Planetary gearhead SPG04-18

V01

Specifications subject to change without notice