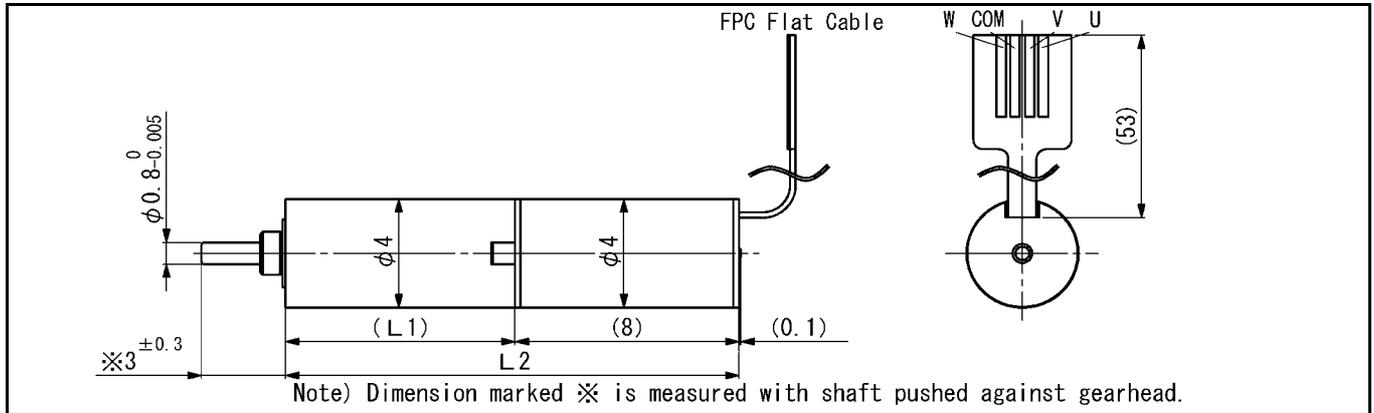


SBL04-08

Electronically commutated sensorless motor, slotless stator design



Sensorless drive circuit SSD04

Ordering number	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	4.3	18	79	337 :1
4 Gearhead number of stage	1	2	3	4
5 Max. output power, gearhead output	0.04	0.03	0.03	0.02 W
6 Max. efficiency	25	25	25	25 %
7 No-load speed, gearhead output	6300	1470	345	80 rpm
8 No-load current	26	26	26	26 mA
9 Stall torque (2-points measurement), gearhead output	0.22	0.8	2.92	10.6 mNm
10 Friction torque	0.075	0.27	0.99	3.6 mNm
11 Back-EMF constant	0.36	1.52	6.5	27.9 mV/rpm
12 Torque constant	2.88	10.5	38.1	138.9 mNm/A
13 Coil inductance	74	74	74	74 μ H
14 Mechanical time constant, motor only	5	5	5	5 ms
15 Gearhead length, L1	5.8	7	8.2	9.4 mm
16 Total length, L2	13.8	15	16.2	17.4 mm
17 Rotor inertia, motor only	9×10^{-4}	9×10^{-4}	9×10^{-4}	9×10^{-4} gcm ²
18 Total weight	810	990	1010	1030 mg

General data

19 Operating temperature range	-20 ... +70	$^{\circ}$ C
20 Max. temperature raise at stall	55	$^{\circ}$ C
21 Bearing type	Sintered sleeves	
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

Ordering example

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