

SPS10-8100

STEPPING MOTORS

FEATURES

- Precise position control is available ($20 \mu\text{m} \pm 7 \mu\text{m}$: Default)
- Position hold is available at power-off
- Easy soft-running and proportional control
- Compatible with micro step drive
- Easy origin positioning
- Easy lead assembly due to connector type
- RoHS compliant



APPLICATIONS

- Precision position control
- Small bulbs
- Game machines

PART NUMBER DESIGNATION

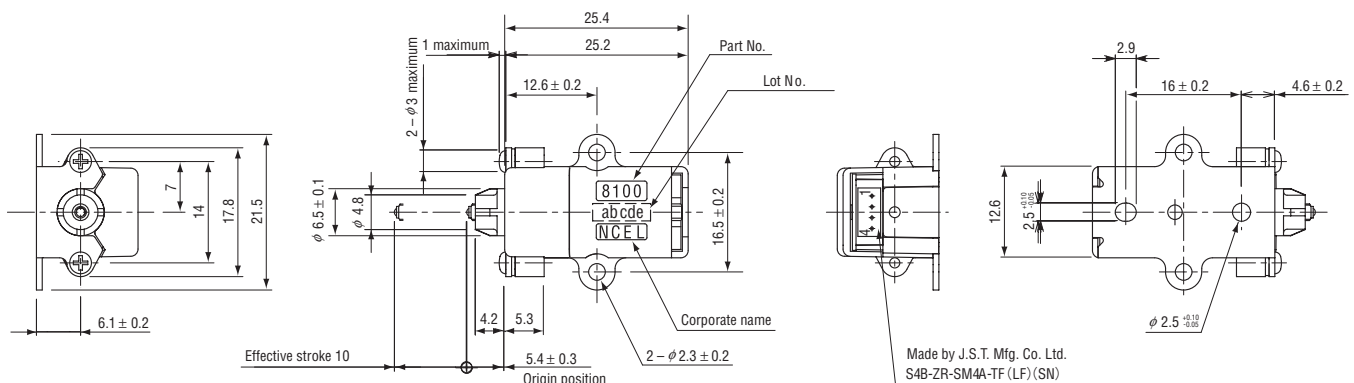
SPS10 - 8100

Series name

Dash number

OUTLINE DIMENSIONS

Unless otherwise specified tolerance: ± 0.5 (Unit: mm)



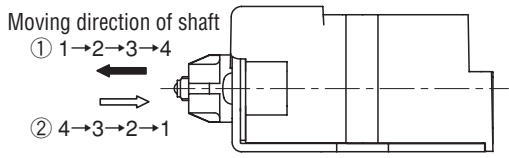
Made by J.S.T. Mfg. Co. Ltd.
S4B-ZR-SM4A-TF (LF) (SN)

Terminal No.	
1	φ 1
2	φ 2
3	φ 3
4	φ 4

**Lot production is required.
Please consult us for ordering.**

SPS10-8100
STEPPING MOTORS

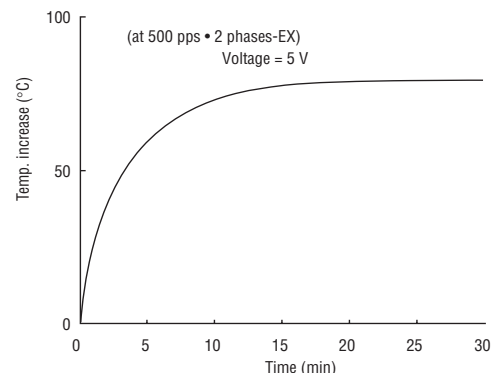
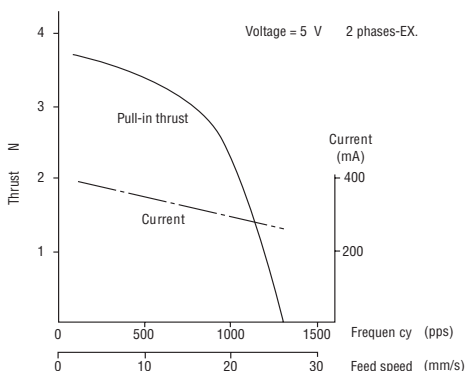
STANDARD SPECIFICATIONS

Item	SPS10-8100	Remarks																														
Number of phases	2 phase bipolar	—																														
Steps	20	2 phases-EX.																														
Screw pitch	0.4 mm	—																														
Step size	20 μm	2 phases-EX.																														
Winding resistance	22 Ω	—																														
Allowable thrust	4.9 N	—																														
Thrust	0.98 N	Reference value																														
Voltage	Refer to PERFORMANCE CURVES	Initial strength																														
Current																																
Pull-in thrust																																
Temperature increase	Refer to TEMPERATURE CHARACTERISTICS	—																														
Insulation resistance	30 MΩ	DC 500 V																														
Dielectric strength	500 Vrms	AC. 1 min																														
Effective mechanical stroke	10 mm	—																														
Effective stroke	10 mm																															
Operating temperature range	0 ~ 50 °C																															
Storage temperature range	-30 ~ 60 °C																															
Life	1 million cycles minimum at a load 0.98 N	Reference value																														
Net weight	Approx. 13 g maximum	—																														
Wiring diagram	<table border="1"> <thead> <tr> <th>STEP</th> <th>φ 1</th> <th>φ 3</th> <th>φ 2</th> <th>φ 4</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>H</td> <td>L</td> <td>H</td> <td>L</td> </tr> <tr> <td>2</td> <td>L</td> <td>H</td> <td>H</td> <td>L</td> </tr> <tr> <td>3</td> <td>L</td> <td>H</td> <td>L</td> <td>H</td> </tr> <tr> <td>4</td> <td>H</td> <td>L</td> <td>L</td> <td>H</td> </tr> <tr> <td>1</td> <td>H</td> <td>L</td> <td>H</td> <td>L</td> </tr> </tbody> </table> <p>Moving direction of shaft ① 1→2→3→4 ② 4→3→2→1</p> 		STEP	φ 1	φ 3	φ 2	φ 4	1	H	L	H	L	2	L	H	H	L	3	L	H	L	H	4	H	L	L	H	1	H	L	H	L
STEP	φ 1	φ 3	φ 2	φ 4																												
1	H	L	H	L																												
2	L	H	H	L																												
3	L	H	L	H																												
4	H	L	L	H																												
1	H	L	H	L																												
<p>When it drives with microstep, please use it after confirmation to us, because the characteristic is different according to adopted IC.</p>																																

※ The characteristics are measured using our standard circuit.

PERFORMANCE CURVES (Reference values)

TEMPERATURE CHARACTERISTICS



■ Specifications are subject to change without notice. Specifications in this catalog are for reference. The formal specification sheets will be submitted upon request.