

- 规格书 -

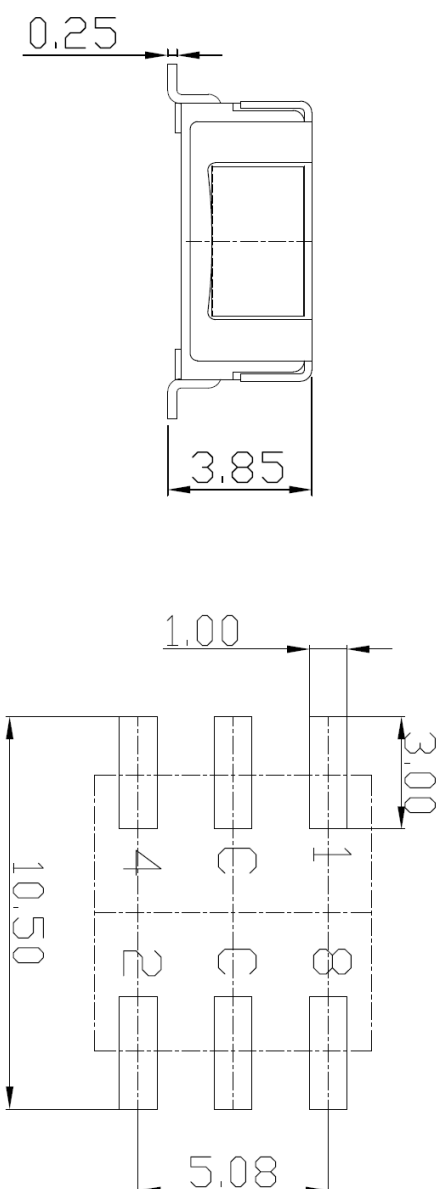
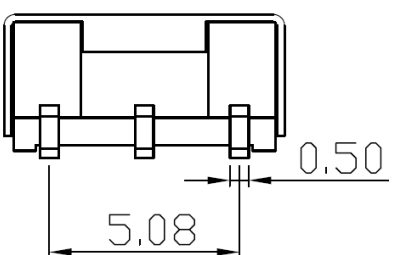
产品型号: STAR-10S

产品名称: 旋转编码开关

SM SWITCH CO.,LTD

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Technical drawing of a square mechanical component. The overall width is 7.40 and the overall height is 9.50. A central circular feature with a gear-like pattern is shown. The distance from the left edge to the center of the gear is 5.08. The distance from the center of the gear to the right edge is 7.40. The drawing includes various internal features, including a central circular hole, a smaller circular hole, and several rectangular slots. The gear-like pattern is composed of 12 teeth, with numbers 1 through 12 indicating their positions. The drawing is a top-down view of the component.



Real Coded					
	C	1	2	4	8
0	●				
1	●	●			
2	●		●		
3	●	●			
4	●			●	
5	●	●		●	
6	●		●		
7	●	●		●	
8	●				●
9	●	●			●

SM SWITCH CO., LTD.

1. Style:

This specification describes "Rotary Switch" mainly used as signal switch of electric devices with the general requirements of mechanical and electrical characteristics.

1.1 Operating / Storage Temperature Range : -40℃ ~ +85℃

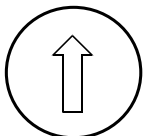
2. Current Range:

2.1 None-Switching : 400 mA, 42V

2.2 Switching : 150 mA, 42V

3. Type of Actuation : Rotating

4. Test Sequence :

E L E C T R I C P E R F O R M A N C E	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS
	1	Visual Examination	By visual examination check without any out pressure & testing.	There shall be no defects that affect the serviceability of the product
	2	Contact Resistance	① To be measured between the two terminals associated with each switch pole ② Measurements shall be made with a 1kHz shall current contact resistance meter	80mΩ max.(initial)
	3	Insulation Resistance	250V DC, 1minute ±5seconds	100MΩ min
	4	Dielectric withstanding Volotage	250V AC(50Hz or 60Hz)shall be applied between all the adjacent terminal and between the terminal and the frame For 1 minute	There shall be no breakdown or flashover
	5	Operation Force	Applied in the direction of operation 	120gf ±30gf

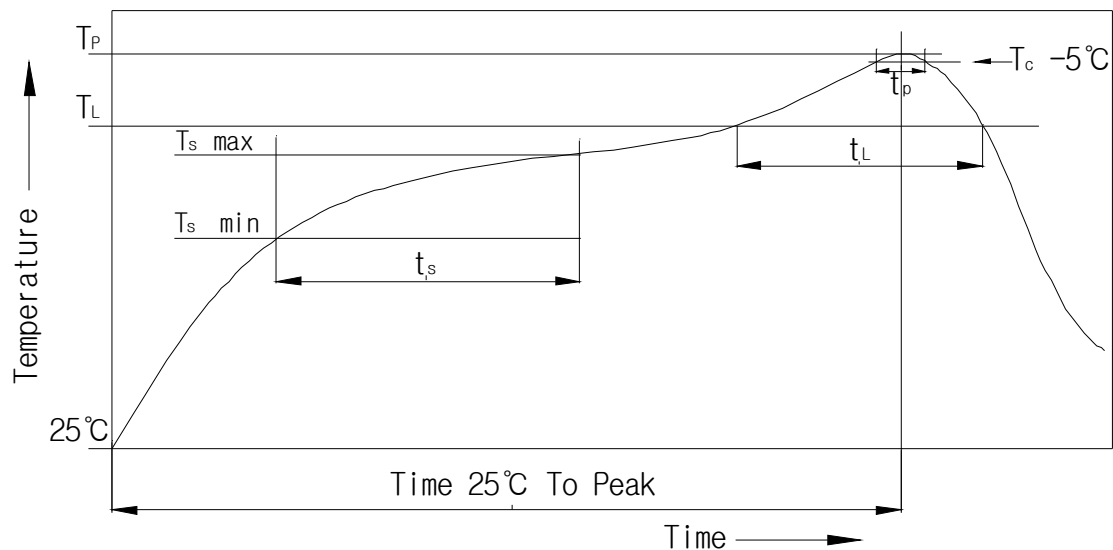


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M A C H I N P E R F O R M A N C E	6	Operation Life	Measurements shall be made following the test set forth below: 1)100mA, 42V DC resistive load 2)Rate of operation: 15~20 cycles/ minute 3)Step of operation: 25,000 steps	1)As shown in item 3,4 2)Contact Resistance: 200mΩ max 3)Final-after test
	7	Resistance Low Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made: 1)Temperature: -60℃ ±3℃ 2)Time: 96 hours	As shown in item 2~5
	8	Resistance High Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made: 1)Temperature: 125℃ ±2℃ 2)Time: 96 hours	1)As shown in item 3~5 2)Contact Resistance: 200mΩ max
	9	Resistance Humidity	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made: 1)Temperature: 40℃ ±2℃ 2)Relative humidity: 90~95% 3)Time: 96 hours	1)As shown in item 4 2)Contact Resistance: 200mΩ max 3)Insulation Resistance: 10MΩ min
	10	Solder Condition	1. Iron Soldering 3s / 350℃ 2. Wave Soldering 5s / 280℃ 3. Reflow Soldering 10s / 260℃	

5. Reflow Soldering Conditions:



1) Classification Reflow Profiles

Profile Feature	Pb-Free Assembly
Average Ramp-UP Rate(Ts max to T _P)	3°C/second max
Preheat - Temperature Min(Ts min) - Temperature Max(Ts max) - Time (ts min to ts max)	150°C 200°C 60-180seconds
Time maintained above: - Temperature (T_L) - Time (t_L)	217°C 60-150seconds
Peak/Classification Temperature(T _P)	260°C +0°C/ -5°C
Time within 5°C of actual Peak Temperature(T _P)	min 30 seconds
Ramp-Down Rate	6°C/sec max
Time 25°C to Peak Temperature	8 minutes max

6. This item is "ROHS" Compliant

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7. Part List

NO	Part Name	Q'ty	Materials	Treatment	Remark
1	Cover	1	Stainless Steel		Laser
2	Spring Plate	1	Stainless Steel		
3	Guide Plate	1	Stainless Steel		
4	Contact	1	Phosphor Bronze	Plating: Gold	Au 0.03 μ m Min Ni 0.1 μ m Min
5	Terminal	1	Phosphor Bronze	Plating: Gold	Au 0.03 μ m Min Ni 0.3 μ m Min
6	Rotor	1	LCP		
7	Base	1	LCP		
8	O-Ring	1	Silicone		