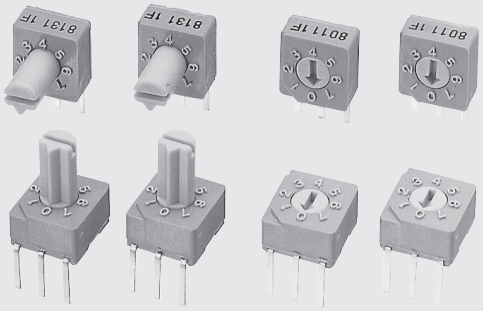
ROTARY CODED SWITCHES S-8000

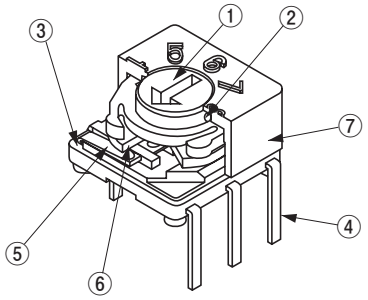
RoHS compliant



FEATURES

- RoHS compliant
- 3 bits 8 positions type
- Protection against dust and washable after soldering
- DIP-pin configuration: 2.54 mm pitch
- Resin material is UL Recognized 94HB

INTERNAL STRUCTURE



Part name		Material
①	Rotor	Polyoxymethylene
②	“O” ring	Silicone rubber
③	Base	Polybutyleneterephthalate
④	Terminal pin	Copper alloy, Gold-plated
⑤	contact	
⑥	P.C.B.	Gold-plated epoxy board
⑦	Housing	Polybutyleneterephthalate

PART NUMBER DESIGNATION

S - 8 0 1 0 W

Series name

Shape of rotor
0 : Without knob
1 : With knob (extended shaft)

Code format
1 : Real code
3 : Complementary code

Form of packaging
W : Tray packaging
Blank : Plastic bag

Setting position
0 : Top setting
1 : Side setting

LIST OF PART NUMBERS

Shape		Form of packaging	Binary coded octal		Packaging quantity
			Real code	Complementary code	
Top setting	Without knob	Tray packaging	S-8010W	S-8030W	50 pcs./tray
		Plastic bag	S-8010	S-8030	100 pcs./pack
	With knob	Tray packaging	S-8110W	S-8130W	50 pcs./tray
		Plastic bag	S-8110	S-8130	100 pcs./pack
Side setting	Without knob	Tray packaging	S-8011W	S-8031W	50 pcs./tray
		Plastic bag	S-8011	S-8031	100 pcs./pack
	With knob	Tray packaging	S-8111W	S-8131W	50 pcs./tray
		Plastic bag	S-8111	S-8131	100 pcs./pack

※ Verify the above part numbers when placing orders.
Tray version can be supplied only in tray units.

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■ STANDARD SPECIFICATIONS

Circuit type	BCO (Real code, complementary code)
Operating temp. range	−25 ~ 70 °C
Storage temp. range	
Sealing	Washable by “O” ring ※ Please refer to page 149,150
Net weight	Approx. 0.27 g (S-8010, S-8030) Approx. 0.34 g (S-8110, S-8130) Approx. 0.33 g (S-8011, S-8031) Approx. 0.40 g (S-8111, S-8131)

■ ELECTRICAL CHARACTERISTICS

Contact rating Non-switching Switching Minimum	 DC50 V 100 mA DC5 V 100 mA DC20 mV 1 μA
Contact resistance	100 mΩ maximum
Insulation resistance	1000 MΩ (DC100 V) minimum
Dielectric strength	AC250 V, 60 s

■ MECHANICAL CHARACTERISTICS

No. of positions	8
Adjustment torque	36 mN·m {367 gf·cm} maximum
Stepping angle	45°
Terminal strength	10 N {1.02 kgf} minimum
Solderability	245 ± 3 °C, 2 ～ 3 s
Soldering heat	Flow : 260 ± 3 °C as the temperature in a pot of molten solder, immersion from head of terminal to backside of board, 5 ~ 6 s, two times maximum
	Manual soldering : 380 ± 10 °C, 3 ~ 4 s

{ } : Reference only

■ ENVIRONMENTAL CHARACTERISTICS

Vibration	Amplitude 1.5 mm or Acceleration 98 m/s^2, 10-500-10 Hz, 3 directions for 2 h each
Shock	490 m/s^2, 11 ms 6 directions for 3 times each
Load life	10000 steps minimum DC5 V, 100 mA
Humidity (Steady state)	40 °C, Relative humidity 90 ~ 95 %, 240 h
High temp. exposure	70 °C, 96 h
Low temp. exposure	−25 °C, 96 h
Thermal shock	−25 (0.5 h) ~ 70 °C (0.5 h), 5 cycles

■ CODE FORMAT

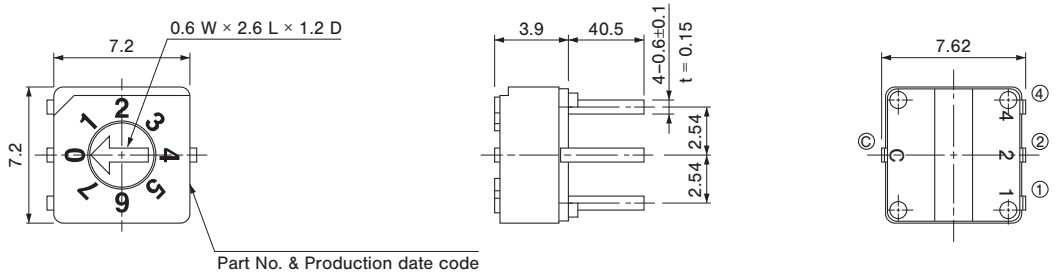
No. of positions			8 positions							
Positions			0	1	2	3	4	5	6	7
Code	Real code	4					●	●	●	●
		2			●	●			●	●
		1		●		●		●		●
	Complementary code	$\overline{4}$	●	●	●	●				
		$\overline{2}$	●	●			●	●		
		$\overline{1}$	●		●		●		●	

● ... Contact closed

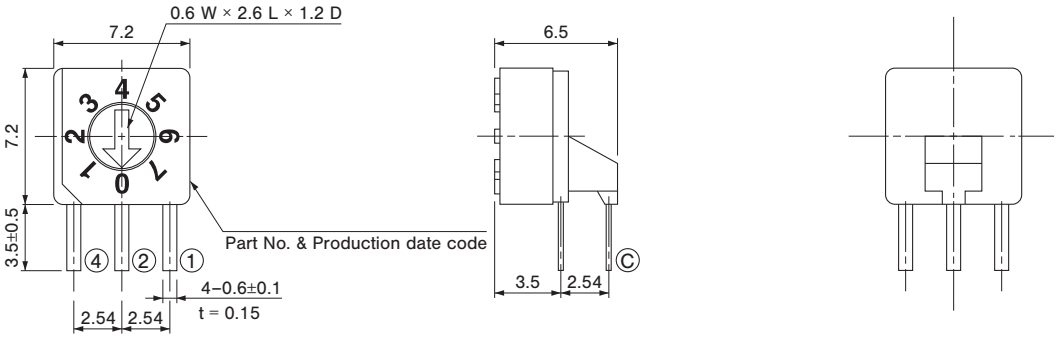
■ OUTLINE DIMENSIONS

Unless otherwise specified, tolerance: ± 0.3 (Unit: mm)

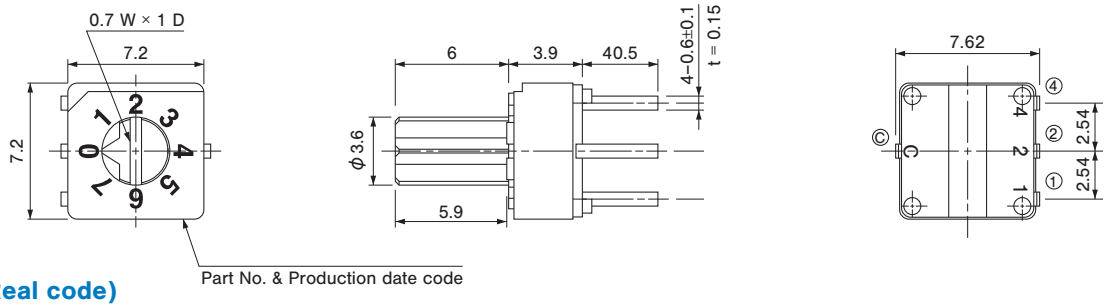
● S-8010 (Real code)
● S-8030 (Complementary code)



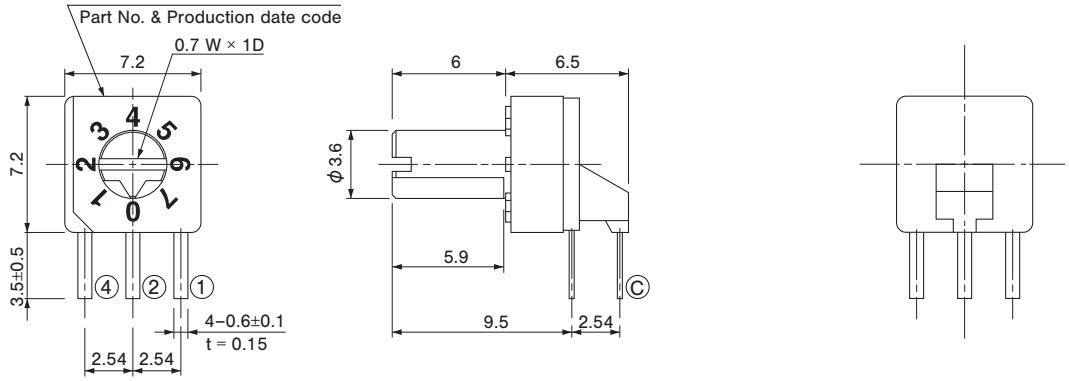
● S-8011 (Real code)
● S-8031 (Complementary code)



● S-8110 (Real code)
● S-8130 (Complementary code)



● S-8111 (Real code)
● S-8131 (Complementary code)



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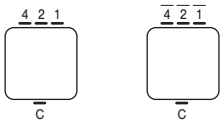
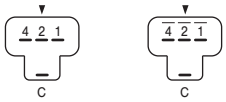
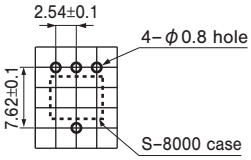
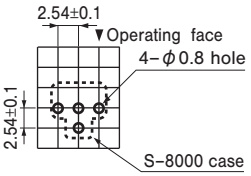
■ TERMINAL CONNECTION / P.C.B. THROUGH HOLE DIMENSIONS

(Unit: mm)

	Top setting	Side setting
Terminal pin layout (Bottom view)	Real code / Complementary code 	Operating face of real code / Operating face of complementary code 
P.C.B. dimensions (Bottom view)		

■ PACKAGING SPECIFICATIONS

<Tray packaging specifications>

- Tray version is packaged in 50 pcs. per tray. Orders will be accepted for units of 50 pcs., i. e., 50, 100, 150 pcs. etc.
- Tray version is boxed with 10 trays.

<Bulk pack specifications>

- Boxing of bulk in a plastic bag is performed with 50 pcs. (standard 100 pcs.) per box.