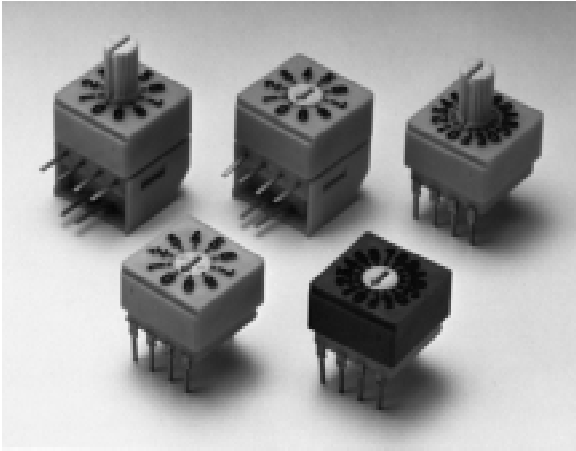


# Model S-5000

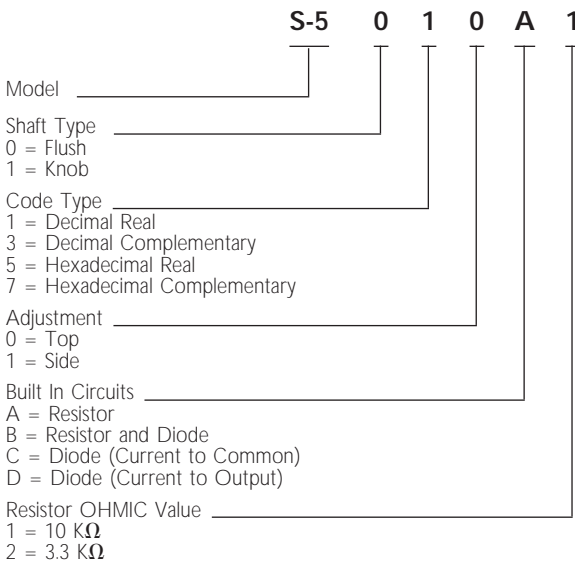
## Dip Rotary Code Switch W/ Built In Resistors And/Or Diode Array 11 mm Square



### Features

- Hexadecimal or Decimal to Binary
- Sealed to Allow for Automatic Processing
- Precious Metal Contact
- Available with Resistor and or Diode Array

### Part Number



### Marking

Units Marked With Two Digit Date Code, Full Part Number and Switch Position Marks

### Packaging

Bulk Pack

## SPECIFICATIONS

### General

Operating Temp. Range	: -25°C TO +75°C
Storage Temp. Range	: -25°C TO +75°C
Sealing Method	: O Ring Sealed

### Electrical

Contact Rating	
Non-Switching	: 100 mA @ 50 VDC max.
Switching	: 100 mA @ 5 VDC max.
Contact Resistance	: 1 $\Omega$ max. @ 1KHz, 20 mV
Insulation Resistance	: 100 M $\Omega$ min. @ 100 VDC
Dielectric Strength	: 1 mA max. 250 VAC @ 50 Hz For 60 Sec.

### Mechanical

Shaft Torque	: 350 g-cm Max. (4.8602-in Max.)
Number Of Positions	: 10 (Decimal), 16 (Hex)
Step Angle	: 36° (Decimal), 22.5° (Hex)
Rotational Life	: 10,000 Steps min.

### Environmental

<b>Thermal Shock:</b> (-25°C to +75°C, 30 min. Dwell, 5 Cycles)	See Criteria Note Below
<b>Humidity:</b> (90 - 95% RH, 40°C, 240 Hrs.)	See Criteria Note Below
<b>Low Temp. Storage:</b> (-25°C, 96 Hrs.)	See Criteria Note Below
<b>High Temp. Storage:</b> (75°C, 96 Hrs.)	See Criteria Note Below
<b>Rotational Life:</b> (10,000 Steps @ 0 Load or 100 mA, 5 VDC)	See Criteria Note Below
<b>Soldering Heat:</b> (260°C, 10 Sec.)	See Criteria Note Below
<b>Mechanical Shock:</b> (50 g, 11 ms, Sawtooth, 6 Axes, 3 Cycles)	Contact Bounce 0.1 ms max.
<b>Vibration:</b> (10 g, .060 DA, 10 to 500 Hz, 2 Hrs. 3 Axes)	Contact Bounce 0.1 ms max.

### Criteria Note:

- Contact Resistance Not Greater Than 1  $\Omega$
- Insulation Resistance Not Less Than 100 M $\Omega$  (10 M $\Omega$  Humidity)
- Shaft Torque Within Original Specification
- No Mechanical Damage

List of Types

Shape	Inner circuit	Code		Binary coded decimal		Binary coded hexadecimal	
		Resistance value	Real code	Complementary code	Real code	Complementary code	
Top Setting	Without knob	Built-in resistor	10kΩ	S-5010A1	S-5030A1	S-5050A1	S-5070A1
			3.3kΩ	S-5010A3	S-5030A3	S-5050A3	S-5070A3
		Built-in resistor and diode	10kΩ	S-5010B1	S-5030B1	S-5050B1	S-5070B1
			3.3kΩ	S-5010B3	S-5030B3	S-5050B3	S-5070B3
		Built-in diode		S-5010C	S-5030C	S-5050C	S-5070C
	With knob	Built-in resistor	10kΩ	S-5110A1	S-5130A1	S-5150A1	S-5170A1
			3.3kΩ	S-5110A3	S-5130A3	S-5150A3	S-5170A3
		Built-in resistor and diode	10kΩ	S-5110B1	S-5130B1	S-5150B1	S-5170B1
			3.3kΩ	S-5110B3	S-5130B3	S-5150B3	S-5170B3
		Built-in diode		S-5110C	S-5130C	S-5150C	S-5170C
Side Setting	Without knob	Built-in resistor	10kΩ	S-5011A1	S-5031A1	S-5051A1	S-5071A1
			3.3kΩ	S-5011A3	S-5031A3	S-5051A3	S-5071A3
		Built-in resistor and diode	10kΩ	S-5011B1	S-5031B1	S-5051B1	S-5071B1
			3.3kΩ	S-5011B3	S-5031B3	S-5051B3	S-5071B3
		Built-in diode		S-5011C	S-5031C	S-5051C	S-5071C
	With knob	Built-in resistor	10kΩ	S-5111A1	S-5131A1	S-5151A1	S-5171A1
			3.3kΩ	S-5111A3	S-5131A3	S-5151A3	S-5171A3
		Built-in resistor and diode	10kΩ	S-5111B1	S-5131B1	S-5151B1	S-5171B1
			3.3kΩ	S-5111B3	S-5131B3	S-5151B3	S-5171B3
		Built-in diode		S-5111C	S-5131C	S-5151C	S-5171C
				S-5111D	S-5131D	S-5151D	S-5171D
				S-5111D	S-5131D	S-5151D	S-5171D

Code Format

Series	16 positions															
	10 positions															
Position	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
C o d e	Real code	8									•	•	•	•	•	•
		4				•	•	•	•					•	•	•
		2		•	•					•			•	•		
e	Complementary code	8	•	•	•	•	•	•	•	•						
		4	•	•	•	•					•	•				
		2	•	•	•	•								•	•	
		8									•	•	•	•	•	
		4														•
		2														
		1														

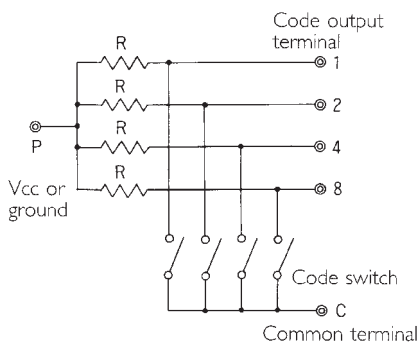
•..... Contact closed

Terminal Connection Size of PCB processing

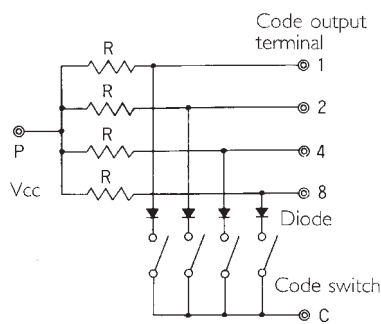
	Top setting	Side setting
Terminal pin layout (Bottom view)		
P.C.B. Dimensions		

Schematic diagram

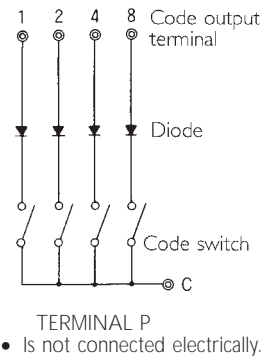
**A type**  
(Resistors built in)



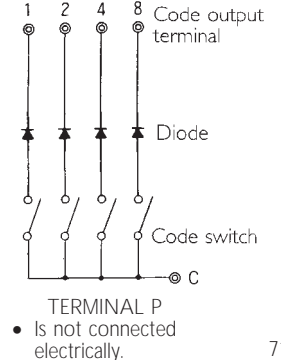
**B type**  
(Pull-up resistors and built-in diodes)



**C type**  
(Built-in diodes)

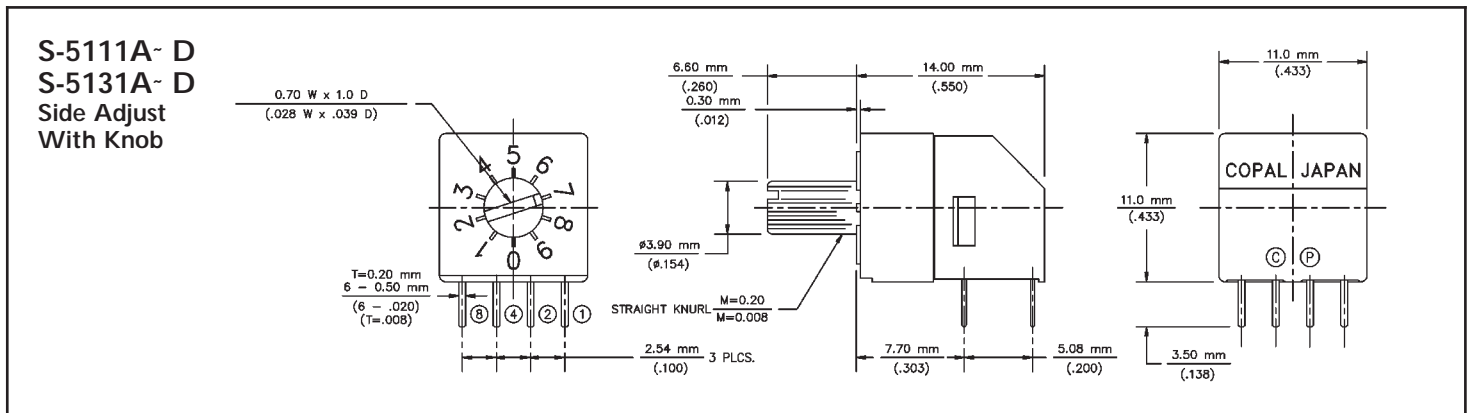
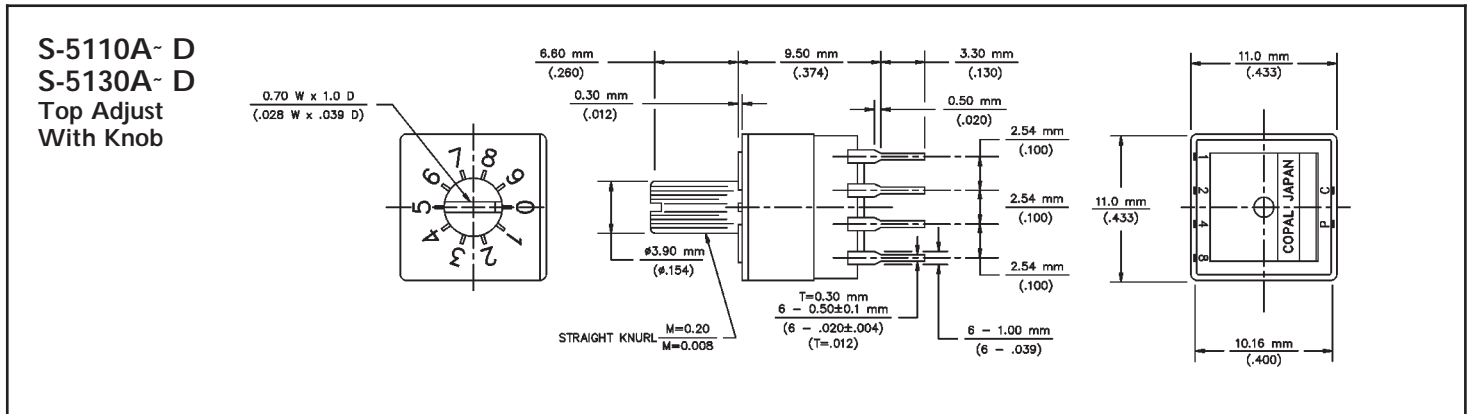
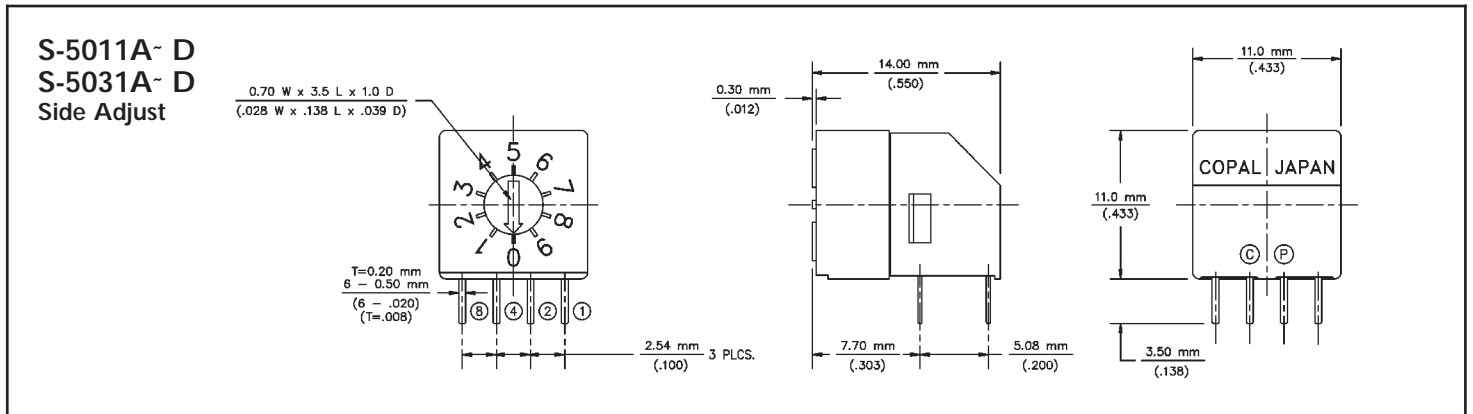
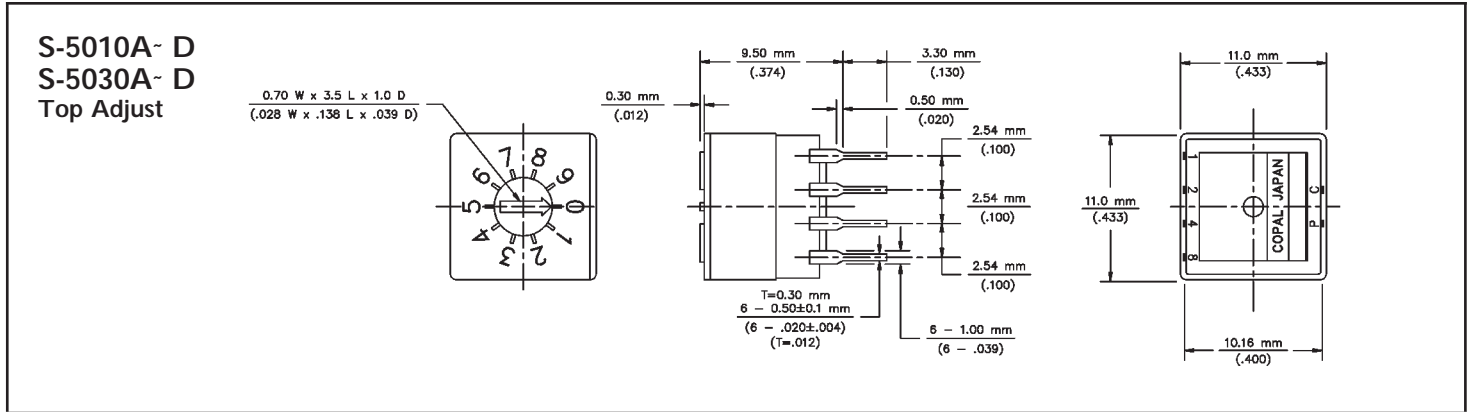


**D type**  
(Built-in diodes)



# S-5000

Binary Coded Decimal Switch



# S-5000

Binary Coded Hexadecimal Switch

