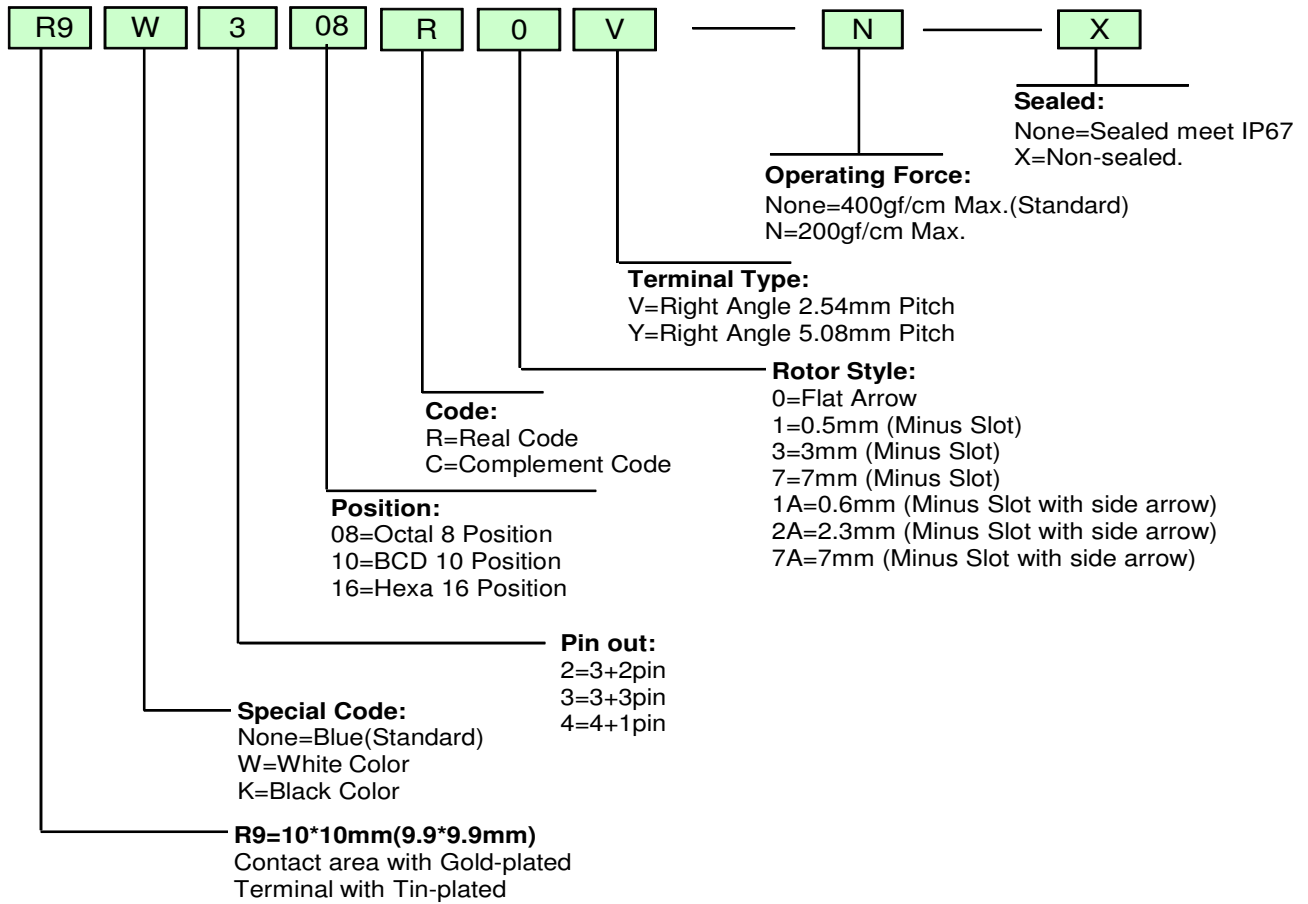
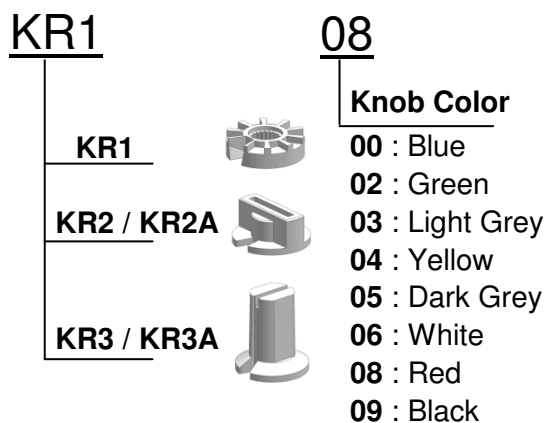


MODEL	SPECIFICATION Rotary Coded Switch RoHS&REACH Compliant / Halogen Free	SP-001	Page
R9 Series Right Angle Type			1/9

Order Information:



Knob order information



Note:

1. All caps are not allowed to pass through soldering process.
2. All caps should be assembled after all soldering process finished.

MODEL	SPECIFICATION Rotary Coded Switch RoHS&REACH Compliant / Halogen Free	SP-002	Page
R9 Series Right Angle Type			2/9

Specifications

◆ Rating	Switching	5VDC 20mA (Min. AC/DC 20mA 1 μ A)
	Non-Switching.....	Max. 50VDC 100mA
◆ Contact Resistance	.....	100m Ω Max.
◆ Insulation Resistance	.....	1,000 M Ω Min. at 100 VDC
◆ Dielectric Strength	.....	250 VAC / 1 minute
◆ Operating Force	.....	400gf/cm Max. (Standard)
	.....	200gf/cm Max. (N)
◆ Mechanical Life	.....	20,000 Steps
◆ Operating Temperature	.....	-40°C ~ +85°C
◆ Storage Temperature	.....	-40°C ~ +85°C
◆ Waterproof	.....	Meet IP67

Materials:

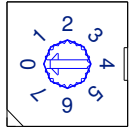
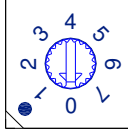
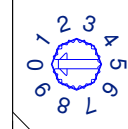
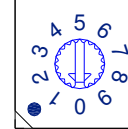
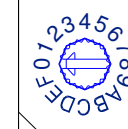
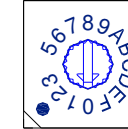
◆ Cover & Base	Halogen Free (R9).....	Thermoplastic UL 94-HB, Blue
	Halogen Free (R9W).....	Thermoplastic UL 94-HB, White
	Halogen Free (R9K).....	Thermoplastic UL 94-HB, Black
◆ Rotor	Halogen Free (R93/R92).....	Thermoplastic UL 94-HB, White/ Red
	Halogen Free (R94).....	Thermoplastic UL 94-HB, Gray/ Green
◆ Knob	Halogen Free.....	Thermoplastic, ABS UL94-HB
◆ "O" Ring	.....	Silicone Rubber
◆ Step	.....	Stainless Steel
◆ Spacer	.....	Stainless Steel
◆ Movable Contact	.....	Cooper alloy with 1u" Gold Plated over nickel plate
◆ Terminal Contact	.....	Copper alloy with 1u" Gold Plated over nickel plate
◆ Terminal	.....	Cooper alloy with (Pure) Tin-Plated over nickel plate

Code Format:

No. of Positions		16 Positions																
		10 Positions																
		08 Postions																
Position		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
Code	Real Code	8								●	●	●	●	●	●	●	●	
		4				●	●	●	●					●	●	●	●	
		2			●	●			●	●			●	●			●	●
		1		●		●		●		●		●		●		●		●
	Complementary Code	$\overline{8}$	●	●	●	●	●	●	●	●								
		$\overline{4}$	●	●	●	●					●	●	●	●				
		$\overline{2}$	●	●			●	●			●	●			●	●		
		$\overline{1}$	●		●		●		●		●		●		●		●	

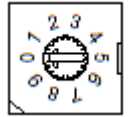
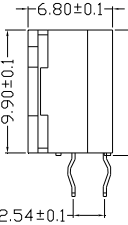
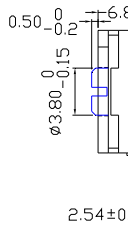
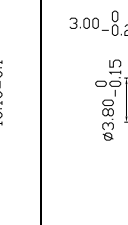
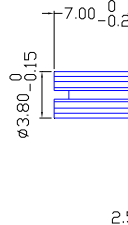

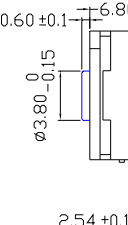
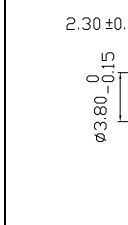
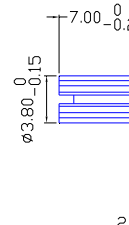
MODEL	SPECIFICATION Rotary Coded Switch RoHS&REACH Compliant / Halogen Free	Page
R9 Series Right Angle Type		SP-003 3/9

Position


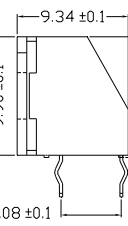
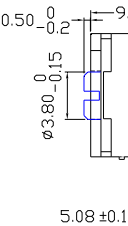
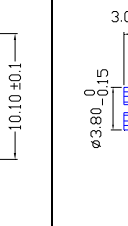
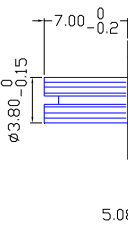

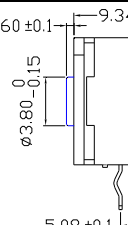
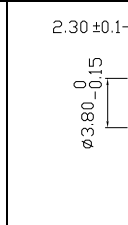
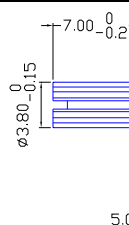
8 Position		10 Position		16 Position	
R93	R94	R93	R94	R93	R94
					

Rotor

◆ V Type

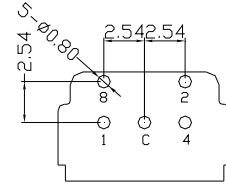
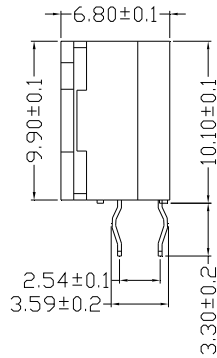
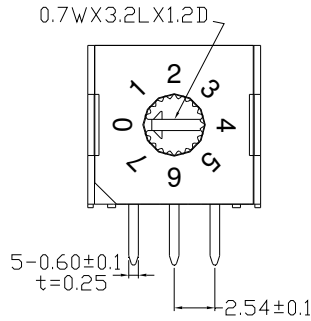
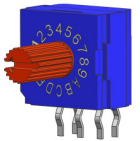
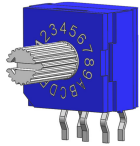
Rotor Style	Flat Type	0.5mm	3mm	7mm
				
Rotor Style	0.6mm	2.3mm	7mm	
				

◆ Y Type

Rotor Style	Flat Type	0.5mm	3mm	7mm
				
Rotor Style	0.6mm	2.3mm	7mm	
				

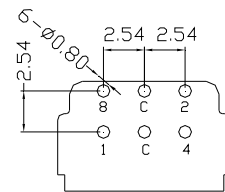
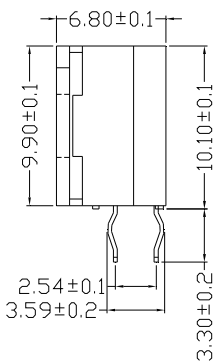
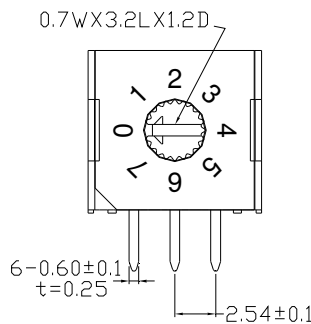
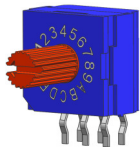
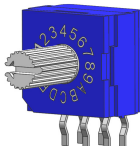
MODEL	SPECIFICATION Rotary Coded Switch RoHS&REACH Compliant / Halogen Free	SP-004	Page
R9 Series Right Angle Type			4/9

R92-V



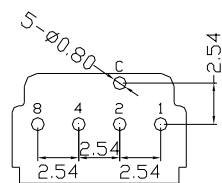
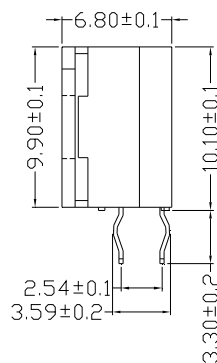
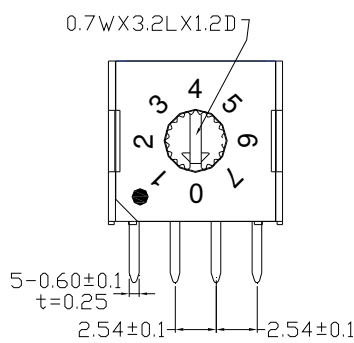
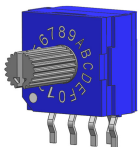
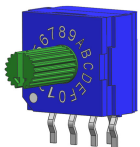
PC board layout
as viewed from the
top of the switch

R93-V



PC board layout
as viewed from the
top of the switch

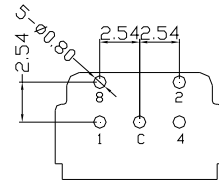
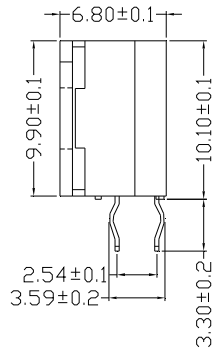
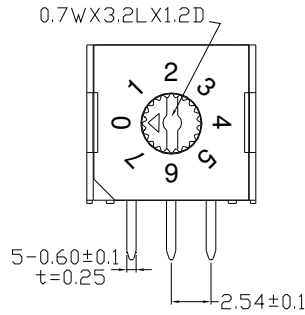
R94-V



PC board layout
as viewed from the
top of the switch

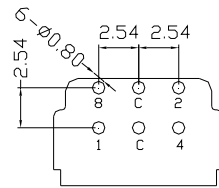
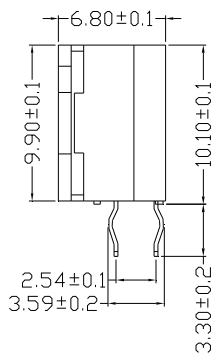
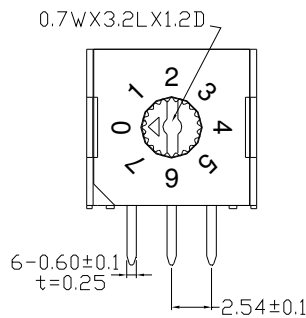
MODEL	SPECIFICATION Rotary Coded Switch RoHS&REACH Compliant / Halogen Free	SP-005	Page
R9 Series Right Angle Type			5/9

R92-V (A Rotor)



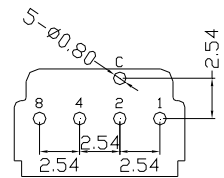
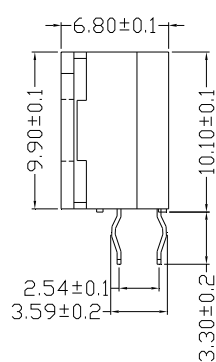
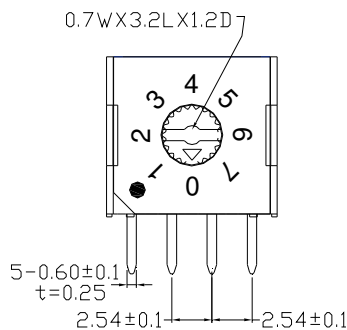
PC board layout
as viewed from the
top of the switch

R93-V (A Rotor)



PC board layout
as viewed from the
top of the switch

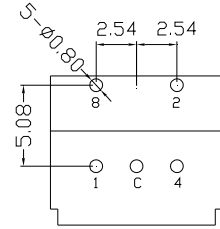
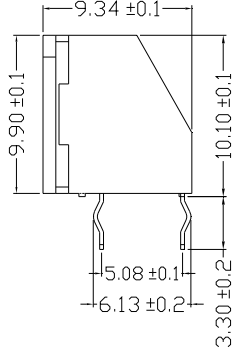
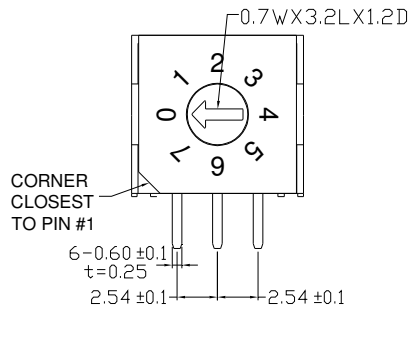
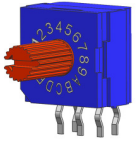
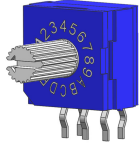
R94-V (A Rotor)



PC board layout
as viewed from the
top of the switch

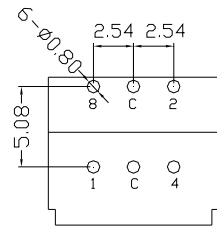
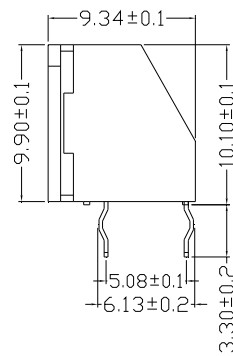
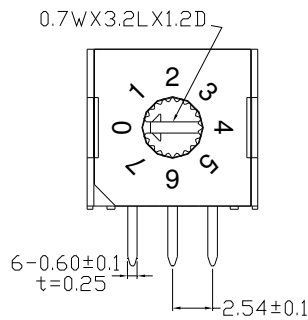
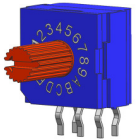
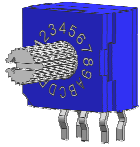
MODEL	SPECIFICATION Rotary Coded Switch RoHS&REACH Compliant / Halogen Free	SP-006	Page
R9 Series Right Angle Type			6/9

R92-Y



PC board layout
as viewed from the
top of the switch

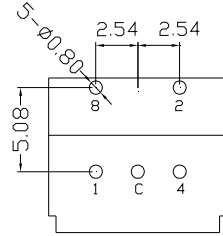
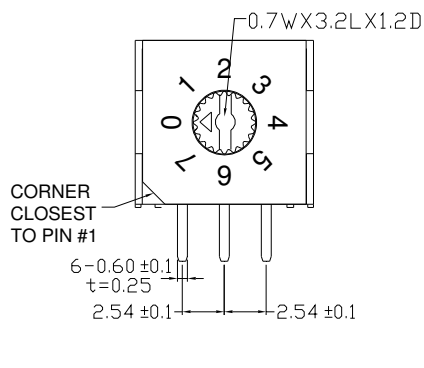
R93-Y



PC board layout
as viewed from the
top of the switch

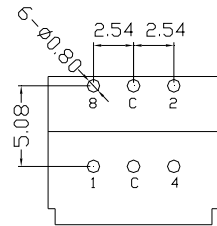
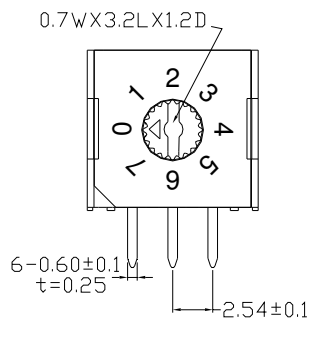
MODEL	SPECIFICATION Rotary Coded Switch RoHS&REACH Compliant / Halogen Free	SP-007	Page
R9 Series Right Angle Type			7/9

R92-Y (A Rotor)



PC board layout as viewed from the top of the switch

R93-Y (A Rotor)

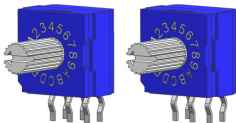
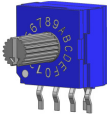
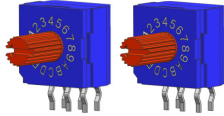
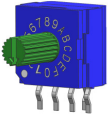


PC board layout as viewed from the top of the switch

MODEL	SPECIFICATION Rotary Coded Switch RoHS&REACH Compliant / Halogen Free	SP-008	Page
R9 Series Right Angle Type			8/9

Rotor Color

◆ V Type

Real Code		Complement Code	
R93/R92 (White)	R94 (Gray)	R93/R92 (Red)	R94 (Green)
			

◆ Y Type

Real Code		Complement Code	
R93/R92 (White)	R94 (Gray)	R93/R92 (Red)	R94 (Green)

Soldering Information

◆ Hand Soldering

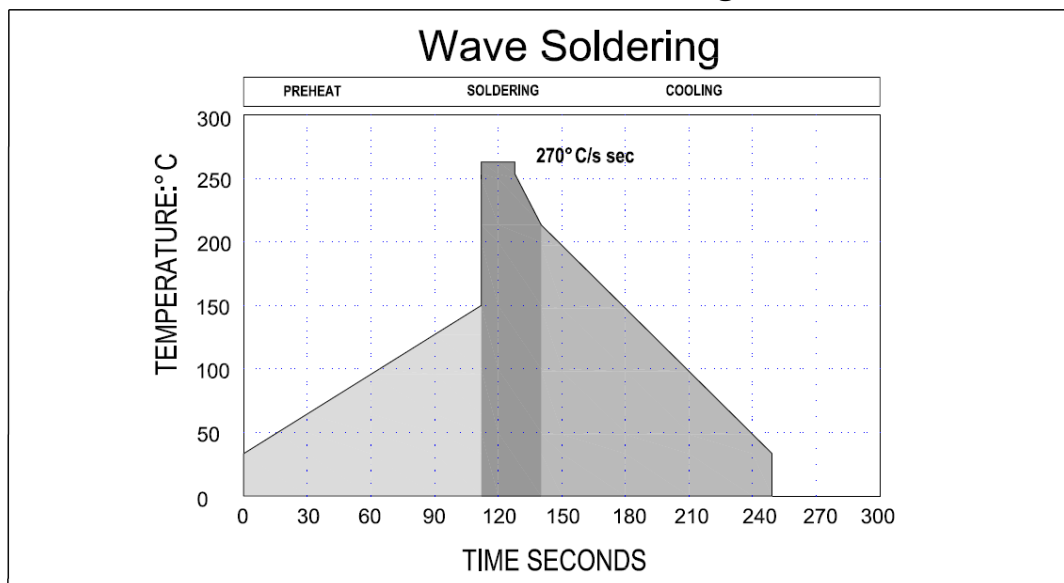
Soldering iron of 30W or under at 350°C for 3 sec. max or at 270°C for 5 sec. max.

◆ Wave Soldering

For lead free wave solder simulation of typical components, the solder bath temperature shall be maintained at 270°C max./5~10 seconds.

◆ Keep all actuators in "OFF" position during soldering and cleaning processes.

Recommended Wave Soldering Profiles



Maximum dwell time in the solder wave (270°C) shall not exceed 10 seconds.

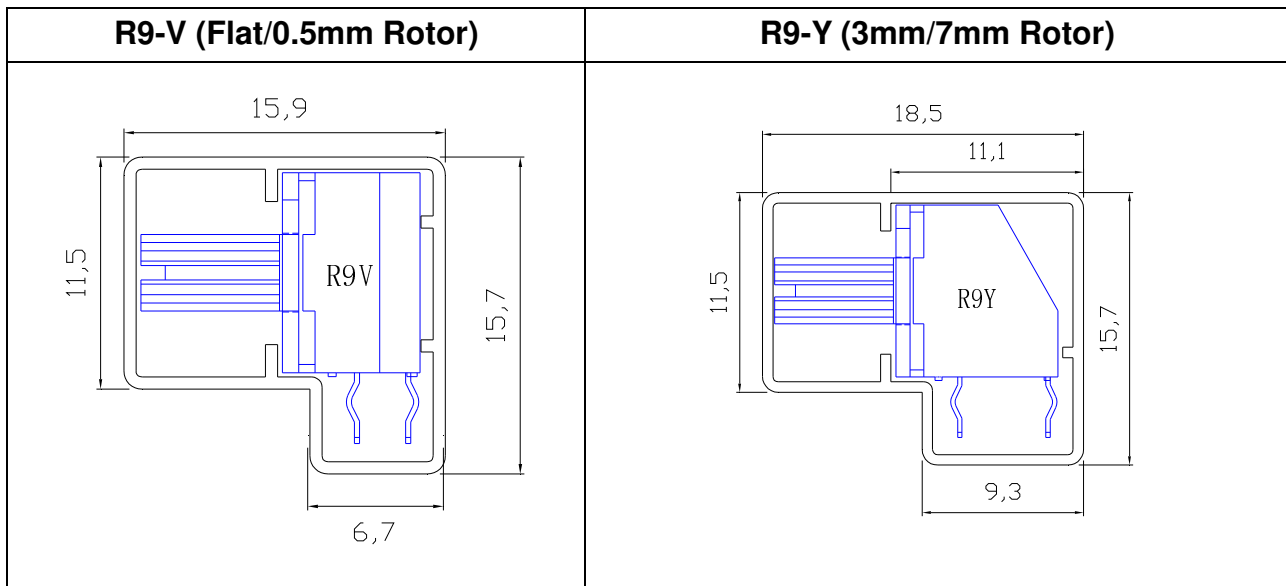
MODEL	SPECIFICATION Rotary Coded Switch	SP-009	Page
R9 Series Right Angle Type			9/9
RoHS&REACH Compliant / Halogen Free			

Part Number Table:

Pin Out	No. Pos.	Real Code			Complementary Code		
		V Type Flat Rotor Tube Package	Y Type 2.3mm Rotor Tube Package	Y Type 7mm Rotor Tube Package	V Type 0.6mm Rotor Tube Package	Y Type 3mm Rotor Tube Package	V Type 7mm Rotor Tube Package
3+2	08	R9208R0V	R9208R2AY	R9208R7Y	R9208C1AV	R9208C3Y	R9208C7V
	10	R9210R0V	R9210R2AY	R9210R7Y	R9210C1AV	R9210C3Y	R9210C7V
	16	R9216R0V	R9216R2AY	R9216R7Y	R9216C1AV	R9216C3Y	R9216C7V
3+3	08	R9308R0V	R9308R2AY	R9308R7Y	R9308C1AV	R9308C3Y	R9308C7V
	10	R9310R0V	R9310R2AY	R9310R7Y	R9310C1AV	R9310C3Y	R9310C7V
	16	R9316R0V	R9316R2AY	R9316R7Y	R9316C1AV	R9316C3Y	R9316C7V
4+1	08	R9408R0V	/	/	R9408C1AV	/	R9408C7V
	10	R9410R0V	/	/	R9410C1AV	/	R9410C7V
	16	R9416R0V	/	/	R9416C1AV	/	R9416C7V

Tube Package:

Thru Hole ROTOR	V Type 0mm ~ 7mm	Y Type 0mm ~ 7mm
Per TUBE (pcs)	45	45
BOX (pcs)	2025	2025
CTN 1 (pcs)	4050	4050
CTN 2 (pcs)	8100	8100



Carton:

◆ Tube	2 Boxes.....	58.5cm x 29.0cm x 15.0cm
	4 Boxes.....	58.5cm x 28.0cm x 27.0cm