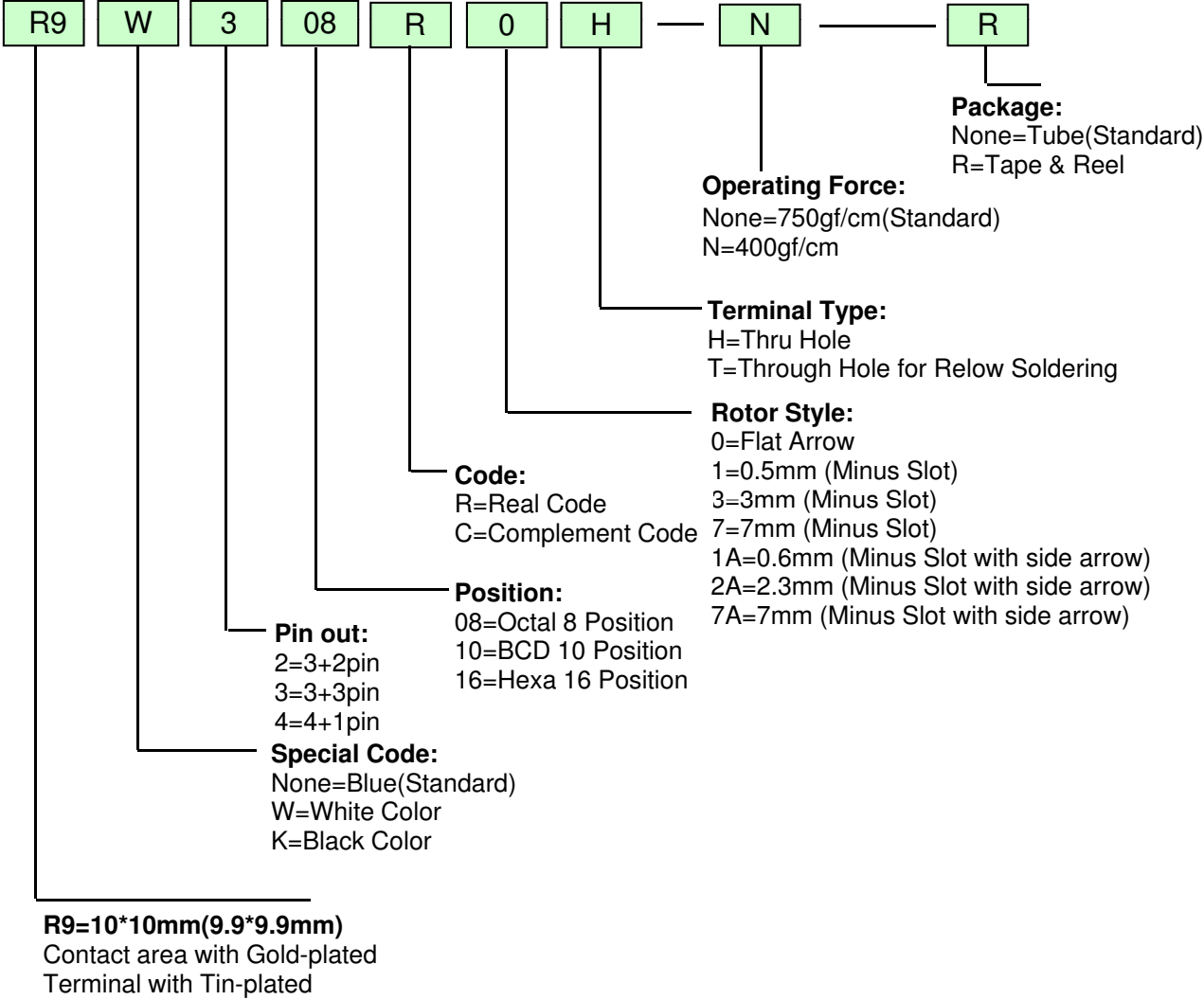
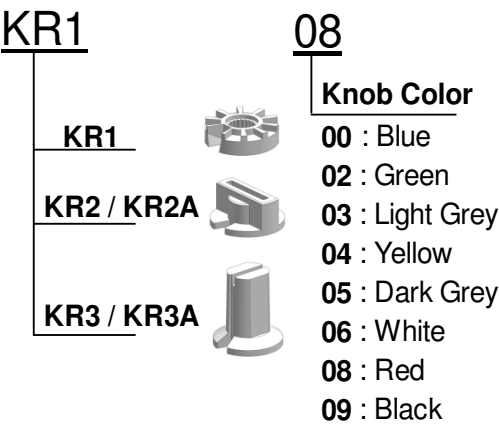


MODEL	SPECIFICATION Rotary Coded Switch RoHS&REACH Compliant / Halogen Free	SP-001	Page
R9 Series Thru-Hole Type			1/6

Order Information:



Knob Order information



MODEL	SPECIFICATION		Page
Blue Series Thru-Hole Type	Rotary Coded Switch RoHS&REACH Compliant / Halogen Free	SP-002	2/6

Specifications

◆ Contact Rating		
Switching	.....	5VDC 20mA (Min. AC/DC 20mA 1μA)
Non Switching	.....	Max. 50VDC 100mA
◆ Contact	.....	100mΩ Max.
◆ Insulation Resistance	.....	1,000MΩ Min. at 100 VDC
◆ Dielectric Strength	.....	250VAC for 1 minute
◆ Operating Force	.....	750gf/cm (Standard)
	.....	400gf/cm Max. (N)
◆ Life	.....	20,000 Steps
◆ Operating Temperature	THT.....	-40℃ ~ +85℃
	THR.....	-40℃ ~ +125℃
◆ Storage Temperature	.....	-40℃ ~ +85℃
◆ Waterproof	.....	Meet IP67

Materials:

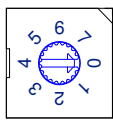
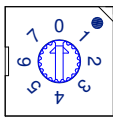
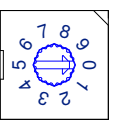
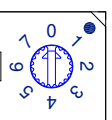
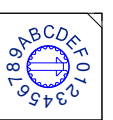
◆ Cover & Base	Halogen Free (R9).....	Thermoplastic UL 94 rate, Blue
	Halogen Free (R9-T).....	Thermoplastic UL 94 rate, Black(THR)
	Halogen Free (R9W).....	Thermoplastic UL 94 rate, White
	Halogen Free (R9K).....	Thermoplastic UL 94 rate, Black
◆ Rotor	Halogen Free (R93/R92).....	Thermoplastic UL 94 rate, White/Red
	Halogen Free (R94).....	Thermoplastic UL 94 rate, Gray/Green
◆ Knob	Halogen Free.....	Thermoplastic, ABS UL 94 rate
◆ "O" Ring	.....	Silicone Rubber
◆ Step	.....	Stainless Steel
◆ Spacer	.....	Stainless Steel
◆ Movable Contact	.....	Gold Plated
◆ Terminal Contact	.....	Gold Plated
◆ Terminal	.....	Tin-Plated

Code Format:

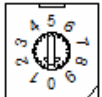
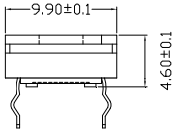
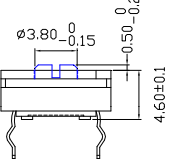
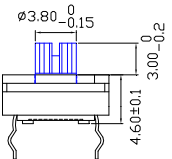
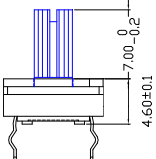
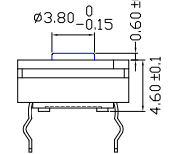
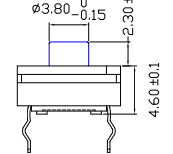
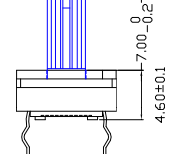
No. of Positions			16 Positions															
			10 Positions															
			08 Postions															
Position			0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Code	Real Code	8									●	●	●	●	●	●	●	●
		4					●	●	●	●					●	●	●	●
		2			●	●			●	●			●	●			●	●
		1		●		●		●		●		●		●		●		●
	Complemen- -tary Code	$\overline{8}$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

MODEL	SPECIFICATION Rotary Coded Switch RoHS&REACH Compliant / Halogen Free	SP-003	Page
R9 series			3/6
Thru-Hole Type			

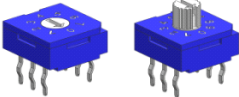
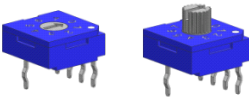
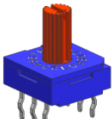
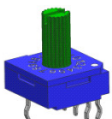
Position

8 Position		10 Position		16 Position	
R92/93	R94	R92/93	R94	R92/93	R94
					

Rotor Style

Standard Rotor	0 (Flat Type)	1 (0.5mm)	3 (3mm)	7 (7mm)
				
A type Rotor	1A (0.6mm)	2A (2.3mm)	7A (7mm)	
				

Rotor Color

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

Part Number Table:

Pin Out	No. Pos.	Real Code			Complementary Code		
		H/T Type Flat Rotor Tube Package	H/T Type 0.5mm Rotor Tube Package	H/T Type 7mm Rotor Tube Package	H/T Type 0.6mm Rotor Tube Package	H/T Type 2.3mm Rotor Tube Package	H/T Type 7mm Rotor Tube Package
3+2	08	R9208R0H/T	R9208R1H/T	R9208R7H/T	R9208C1AH/T	R9208C2AH/T	R9208C7AH/T
	10	R9210R0H/T	R9210R1H/T	R9210R7H/T	R9210C1AH/T	R9210C2AH/T	R9210C7AH/T
	16	R9216R0H/T	R9216R1H/T	R9216R7H/T	R9216C1AH/T	R9216C2AH/T	R9216C7AH/T
3+3	08	R9308R0H/T	R9308R1H/T	R9308R7H/T	R9308C1AH/T	R9308C2AH/T	R9308C7AH/T
	10	R9310R0H/T	R9310R1H/T	R9310R7H/T	R9310C1AH/T	R9310C2AH/T	R9310C7AH/T
	16	R9316R0H/T	R9316R1H/T	R9316R7H/T	R9316C1AH/T	R9316C2AH/T	R9316C7AH/T
4+1	08	R9408R0H/T	R9408R1H/T	R9408R7H/T	R9408C1AH/T	R9408C2AH/T	R9408C7AH/T
	10	R9410R0H/T	R9410R1H/T	R9410R7H/T	R9410C1AH/T	R9410C2AH/T	R9410C7AH/T
	16	R9416R0H/T	R9416R1H/T	R9416R7H/T	R9416C1AH/T	R9416C2AH/T	R9416C7AH/T

MODEL	SPECIFICATION Rotary Coded Switch RoHS&REACH Compliant / Halogen Free	SP-004	Page
R9 series Thru-Hole Type			4/6

R92

PC board layout
as viewed from the
top of the switch

R93(1A Rotor)

PC board layout
as viewed from the
top of the switch

R93

PC board layout
as viewed from the
top of the switch

R93(2A Rotor)

PC board layout
as viewed from the
top of the switch

R94

PC board layout
as viewed from the
top of the switch

R94(7A Rotor)

PC board layout
as viewed from the
top of the switch

MODEL	SPECIFICATION		Page
R9 series Thru-Hole Type	Rotary Coded Switch RoHS&REACH Compliant / Halogen Free	SP-005	5/6

Soldering Information

◆ Hand Soldering

Soldering iron 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 to 275°C.

The hold time in the solder shall be 10 +2/-0 seconds.

◆ Reflow Soldering(For Through-Hole reflow type)

260°C +/-5°C within 30sec for reflow, In-line or Batch system.

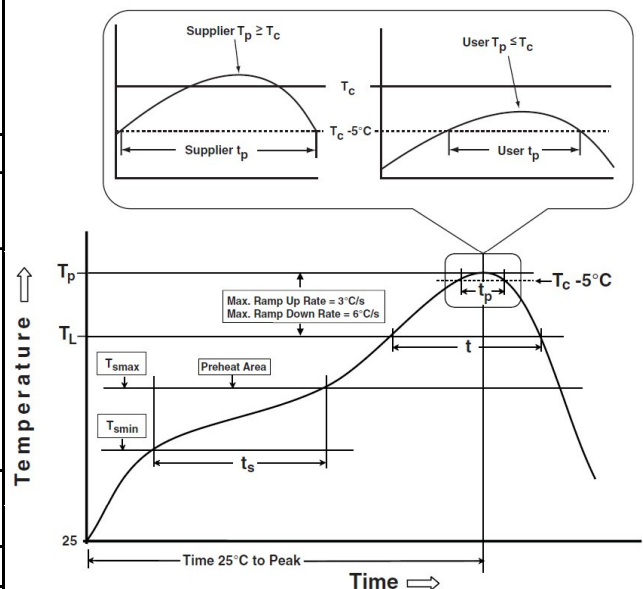
The table copy from IPC/JEDEC J-STD-020 D.1

Profile Feature	Pb-Free Assembly
Preheat / Soak	
Temperature Min (T_{smin})	150°C
Temperature Max (T_{smax})	200°C
Time(t_s) from (T_{smin} to T_{smax})	60 ~120 seconds
Ramp-up Rate (T_L to T_p)	3°C /second max
Liquidous temperature (T_L)	217°C
Time (t_L) maintained above to T_L	60 ~ 150 seconds
Peak package body temperature (T_p)	For users T_p must not exceed the Classification temp:250°C (Package Thickness>2.5mm) For suppliers T_p must equal or exceed the Classification temp:250°C (Package Thickness>2.5mm)
Time (t_p) within 5°C of specified classification temperature (T_c)	30 seconds
Ramp-Down Rate (T_p to T_L)	6°C /second max
Time 25°C to Peak Temperature	8 minutes max
* Tolerance for peak profile temperature(T_p) is defined as a supplier minimum and a user maximum	

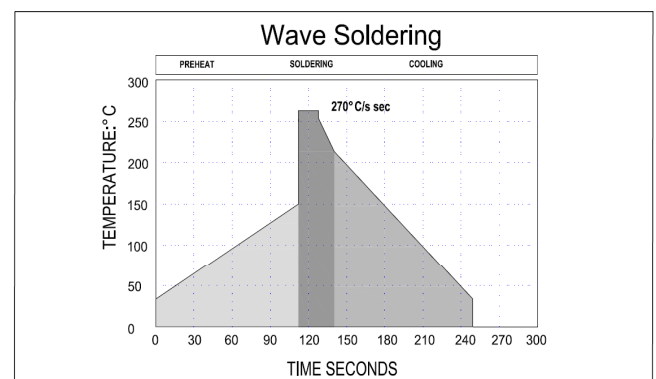
Note 1: All temperatures refer to topside of the package, measured on the package body surface.

Note 2: Time within 5 °C of actual peak temperature (t_p) specified for the reflow profiles is a "supplier" minimum and "user" maximum.

Classification Reflow Soldering Profiles



Classification Wave Soldering Profiles

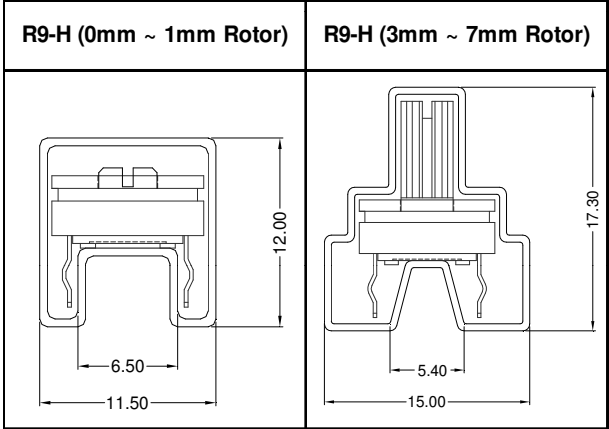


Maximum dwell time in the solder wave (270°C) shall not exceed 5 seconds.

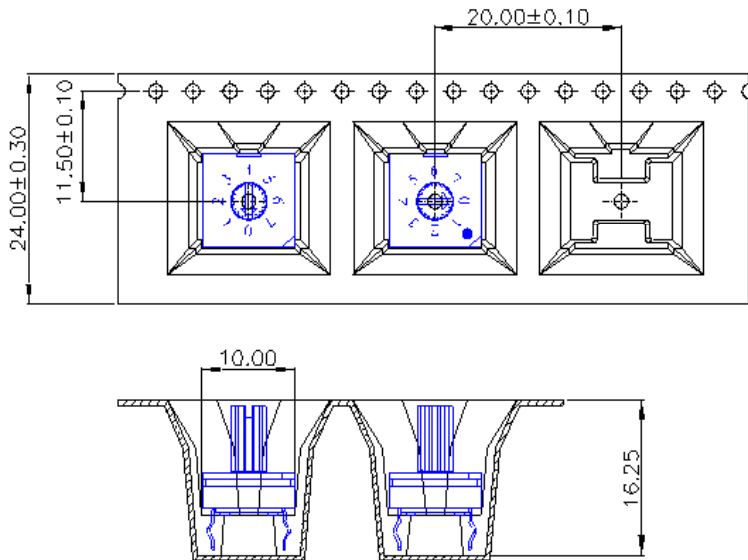
MODEL	SPECIFICATION Rotary Coded Switch RoHS&REACH Compliant / Halogen Free	SP-006	Page
R9 Series Thru-Hole Type			6/6

Tube Package:

Thru Hole ROTOR		H/T Type 0mm ~ 1mm	H/T Type 3mm ~ 7mm
Per TUBE	(pcs)	50	50
BOX	(pcs)	4000	2000
CTN 1	(pcs)	8000	4000
CTN 2	(pcs)	16000	8000



Tape & Reel package (for 7mm Rotor)



Box Dimension:

- ◆ Tube 57.0cm x 13.0cm x 12.5cm
- ◆ Tape & Reel 34.5cm x 34.5cm x 15.0cm

Carton Dimension:

- ◆ Tube
 - 2 Boxes..... 58.5cm x 29.0cm x 15.0cm
 - 4 Boxes..... 58.5cm x 28.0cm x 27.0cm
- ◆ Tape & Reel
 - 1 Box..... 34.5cm x 34.5cm x 15.0cm
 - 2 Boxes..... 36.0cm x 27.5cm x 37.0cm