

RTE Series

Low Profile Rotary DIP Switches



Specifications

Contact Rating	Gold: 100 mA max. 10 μ A min. 30 V DC max. 20 mVDC min.
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Environmental Characteristics

Storage Temperature	-55°C to 85°C
Operating Temperature	-25°C to 85°C
Operating Force	0.75-3 N.cm

Process

Solderability	Surface Mount Terminals: Infrared Reflow Soldering in accordance with IEC 61760-1. Non Reverse Thru-Hole Terminals: Lead free single or double wave soldering process according to C&K Procedure PS-LF-001. Reverse Thru-Hole Terminals: Manual soldering: 3 sec / 350°C. Lead free single wave soldering process can be used but validation of the process must be done by customer
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Mechanical Characteristics

Mechanical Life	20,000 indexations
Contact Resistance	100 m Ω max. initial; 150 m Ω after life
Insulation Resistance	10 ¹⁰ Ω min. initial
Dielectric Strength	300 Vrms 1 mn

Description

For designers of timers, automation components, alarms, access controls and smoke detectors, the RTE series low profile rotary DIP switches are the preferred choice. These miniature switches are available with a robust metal cover (in either black or silver nickel finish), a large choice of codings, and in either a vertical or reverse version.

Features & Benefits

- Thru-hole and surface mount models
- Miniature size with robust metal cover in black or silver nickel finish
- 4, 10 and 16 positions
- Large choice of codings
- Vertical, right angle, or reverse versions
- IP54
- RoHS compliant

Applications

- Timers, automation components
- Computer peripherals
- Instrumentation
- Alarms, access control, smoke detectors, lighting, and home protection

Materials

Cover	Brass, nickel plated (black or silver)
Base	PPS
Actuator	LCP
Movable Contacts	Copper alloy, gold plated
Stationary Contacts	Brass, gold plated
Terminals	Lead free tin or gold
O-ring	Silicone

Note: Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

Packaging

Terminations	Actuator	Tube	Box (in bulk)	Carrier Tape	Standard Package
G	Flush, screwdriver slot	-	-	1250	1250 (1 reel)
	Shaft for button	-	-	750	750 (1 reel)
N	All Versions	65	-	-	1950 (30 tubes)
V		-	150	-	1500 (10 boxes)
R	Flush, screwdriver slot	65	-	-	1950 (30 tubes)
	Shaft for button	-	150	-	1500 (10 boxes)

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Ordering Number

The Build-A Switch concept allows you to mix and match options to create the switch you need. Below is a complete listing of options shown in catalog. To order, simply select desired option from each category and place in the appropriate box. All switches supplied in “OFF” position.

RTExx - x - x - x - x - x

Number of Positions
RTE04
RTE10
RTE16

ESD Protection and top plate
0: Without ESD - standard plate
1: With ESD - standard plate²
B: Without ESD - black plate

Actuator
0: Flush, screwdriver slot
2: Shaft for button

Contact Material
4: Gold 0.5 µm / Lead free tin
7: Gold 1.0 µm / Gold

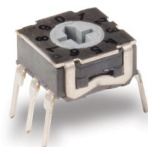
Switch Function
0: Single pole¹
1: BCD code
3: Gray code (for RTE 10)
4: Hexadecimal code (for RTE 16)
7: Gray code (for RTE 16)

Termination
N: Thru-hole
V: Right Angle
G: Surface mount
R: Reverse, thru-hole

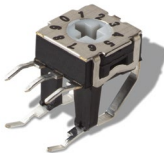
Notes:
1. Single pole function not available for RTE10/RTE16
2. ESD protection available with "N" and "R" terminations only

Switches and Standard Options

PC Mount-Terminal Option N



Right Angle Mount-Terminal Option V

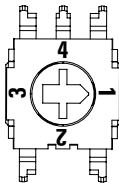


Surface Mount-Terminal Option G

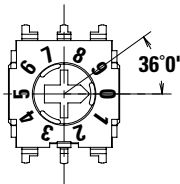


Number of Positions

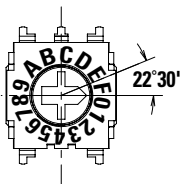
RTE04 - 4 positions



RTE10 - 10 positions



RTE16 - 16 positions



RTE Series

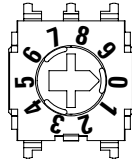
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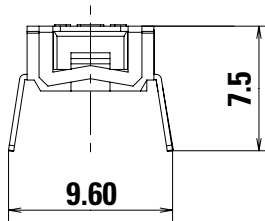
ESD Protection

0 - Without

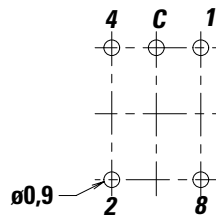
Top View



Side View

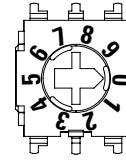


PCB Mounting

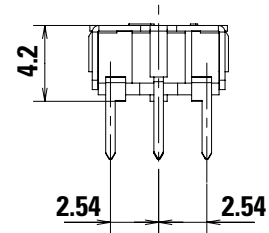


1 - With

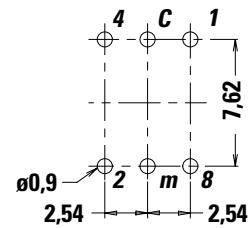
Top View



Side View



PCB Mounting



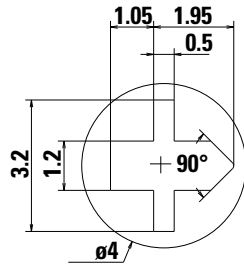
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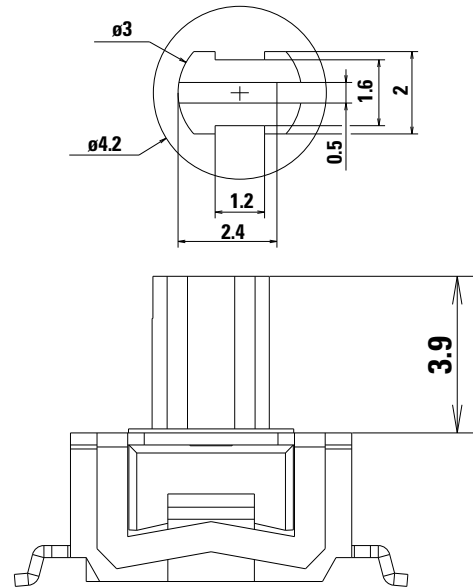


Actuator (mm)

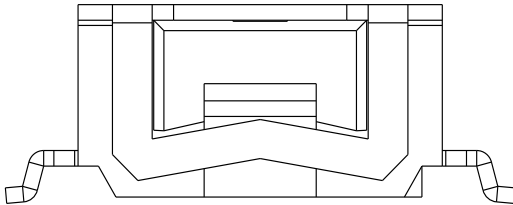
0 - Screwdriver Slot



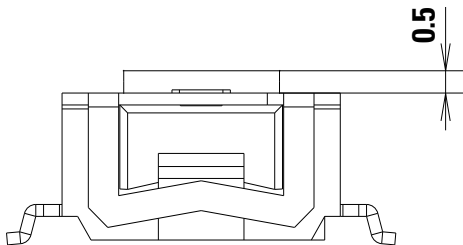
2 - Shaft for Button



For non-SMT Terminations (N, V or R option)

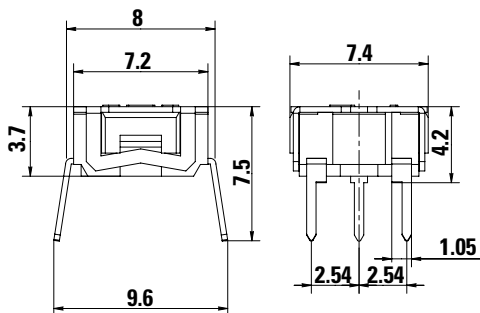


For SMT Termination Only (G option)

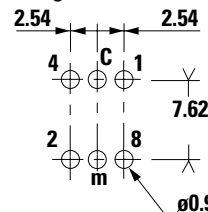


Terminations

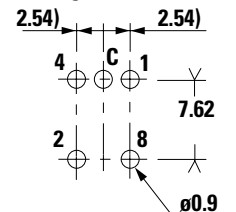
N - Thru-hole (mm)



With ground terminal



Without ground terminal

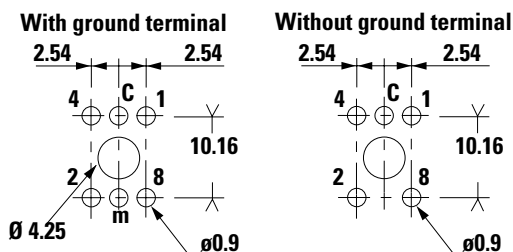
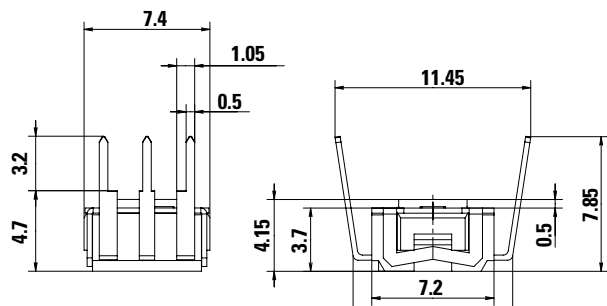


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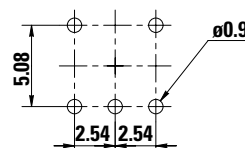
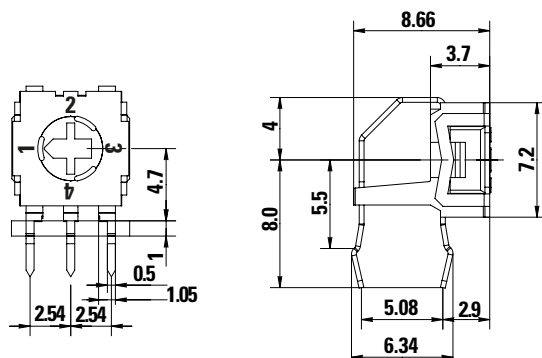
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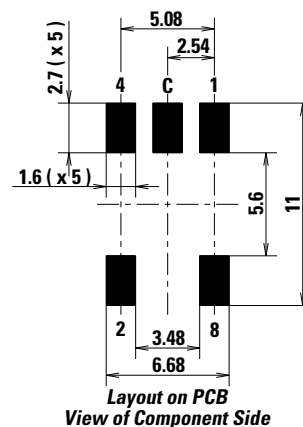
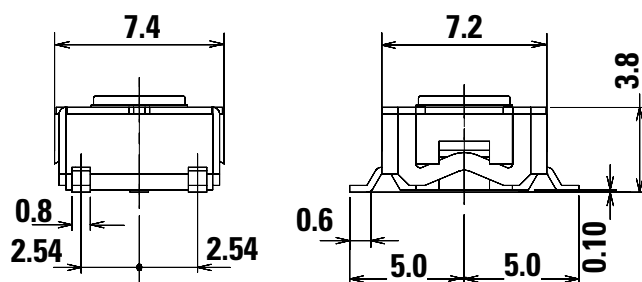
R - Reverse, Thru-hole (mm)



V - Right Angle, Thru-hole (mm)



G - Surface Mount (mm)



Switch Function

0 - Single Pole (For RTE04 only)

POS.	1	2	3	4
C	•	•	•	•
1	•			
2		•		
3			•	
4				•

1 - BCD code

POS.	0	1	2	3	4	5	6	7	8	9
C	•	•	•	•	•	•	•	•	•	•
1	•		•	•	•	•	•	•	•	•
2		•		•		•	•	•	•	
4			•	•	•	•	•	•	•	
8								•	•	

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Switch Function

3 - Gray Code (for RTE10 only)

POS.	0	1	2	3	4	5	6	7	8	9
C	●	●	●	●	●	●	●	●	●	●
1		●				●				●
2			●	●	●	●				
4				●	●	●	●		●	●
8								●	●	

4 - Hexadecimal Code (For RTE16 only)

POS.	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1		●		●		●		●		●		●		●		●
2			●	●		●	●			●	●		●	●		●
4				●	●		●	●			●	●		●	●	
8									●	●	●	●	●	●	●	●

Contact Material

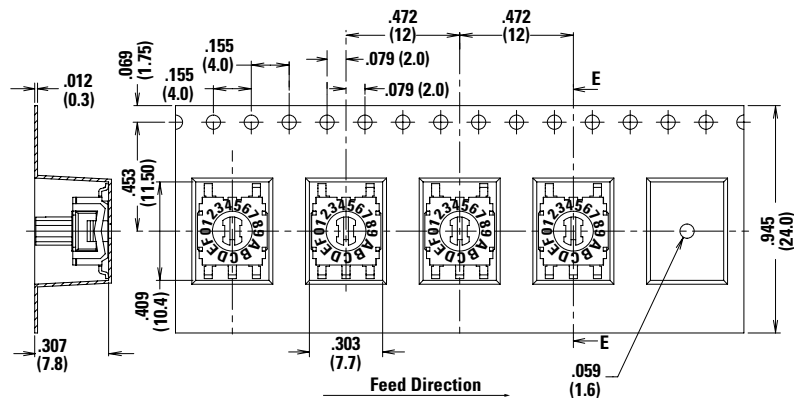
Option Code	Contact Material	Terminal Plating
4	Gold: 0.5 µm	Lead Free Tin
7	Gold: 1.0 µm	Gold

7-Gray code (for RTE16 only)

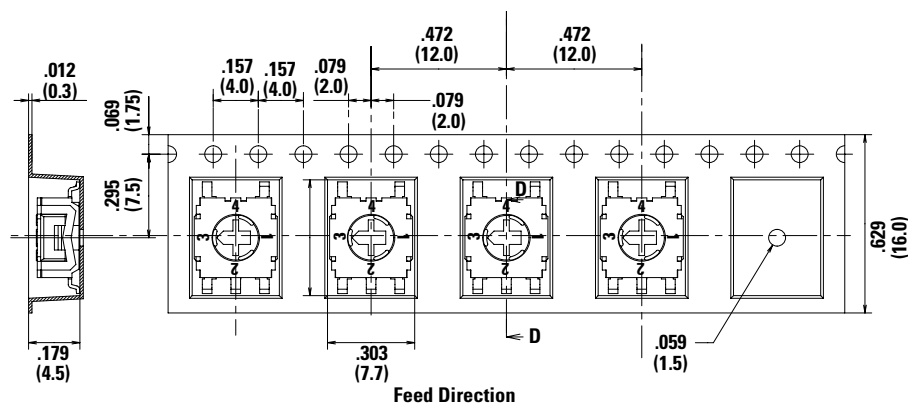
POS.	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
1		●		●		●		●		●		●		●		●
2			●	●		●	●			●	●		●	●		●
4				●	●		●	●			●	●		●	●	
8									●	●	●	●	●	●	●	●

Tape and Reel

Tape and reel for RTExx02Gxx 750 pieces per reel. (mm)



Tape and reel for RTExx00Gxx, 1,250 pieces per reel. (mm)



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