

# RTE Series Low Profile Rotary DIP Switches



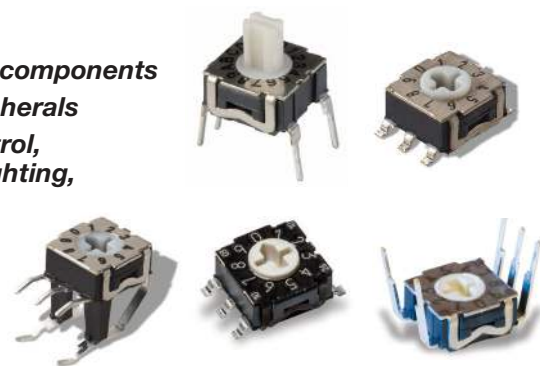
H  
DIP

## Features/Benefits

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

## Typical Applications

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



## Specifications

### CONTACT RATING:

Gold: 100 mA max. 10 $\mu$  A min. 30 V DC max. 20 mVDC min.

### MECHANICAL LIFE: 20,000 indexations

CONTACT RESISTANCE: 100 m $\Omega$  max. initial;  
150 m $\Omega$  after life

### INSULATION RESISTANCE: 10<sup>10</sup> $\Omega$ min. initial

DIELECTRIC STRENGTH: 300 Vrms 1 mn

### OPERATING TEMPERATURE: -25°C to 85°C.

STORAGE TEMPERATURE: -55°C to 85°C.

### PACKAGING:

Quantities

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	All versions		150		1500 (10 boxes)
R	Flush, screwdriver slot	65			1950 (30 tubes)
	Shaft for button		150		1500 (10 boxes)

## Materials

COVER: Brass, nickel plated (black or silver)

BASE: PPS

ACTUATOR: LCP

MOVABLE CONTACTS: Copper alloy, gold plated.

STATIONARY CONTACTS: Brass, gold plated.

TERMINALS: See page I-28 to I-29

O-RING: Silicone

### SOLDERING PROCESS:

- 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

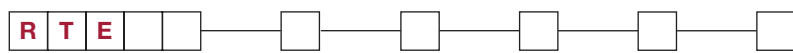
- Reverse Thru-Hole Terminals: Manual soldering: 3 sec / 350°C. Lead free single wave soldering process can be used but validation of the process must be done by customer

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

## How To Order

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.

*NOTE: Some of the configurations may not be available or could require some development.*



Number of Positions \_\_\_\_\_

- RTE04**    **ESD Protection and top plate**
- RTE10**    **0** Without ESD - standard plate
- RTE16**    **1** With ESD - standard plate <sup>2</sup>
- B** Without ESD - black plate

- Actuator**
- 0** Flush, screwdriver slot
- 2** Shaft for button

- Terminations**
- N** Thru-hole
- V** Right angle
- G** Surface mount
- R** Reverse, thru-hole

- Switch Function**
- 0** Single pole <sup>1</sup>
- 1** BCD code
- 3** Gray Code (for RTE 10)
- 4** Hexadecimal code (for RTE 16)
- 7** Gray Code (for RTE 16)

- Contact/Terminal Material**
- 4** Gold 0.5  $\mu$ m/ Lead free tin
- 7** Gold 1.0  $\mu$ m/ Gold



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

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## SWITCHES WITH STANDARD OPTIONS

### PC Mount-Terminal Option N



### Right Angle Mount-Terminal Option V

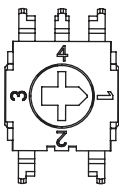


### Surface Mount-Terminal Option G

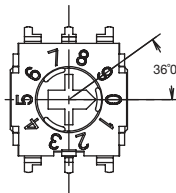


## NUMBER OF POSITIONS

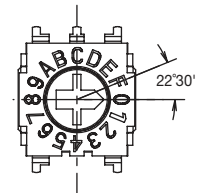
### RTE04 4 POSITIONS



### RTE10 10 POSITIONS



### RTE16 16 POSITIONS



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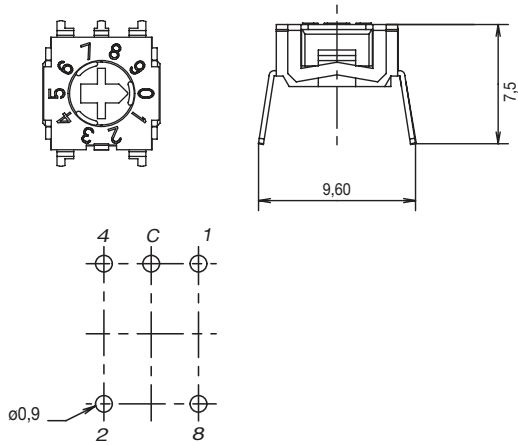


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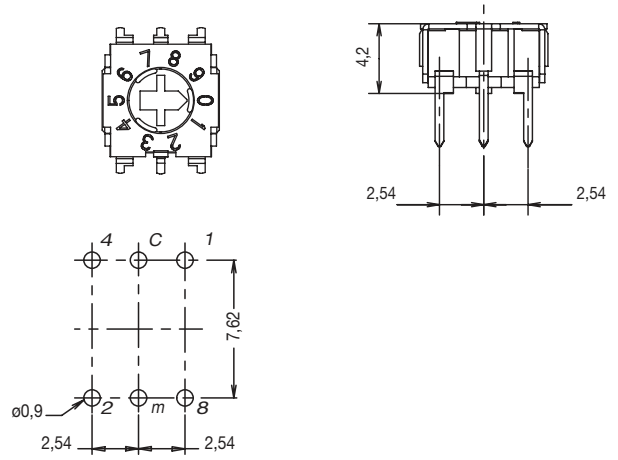
DIP

## ESD PROTECTION

0 WITHOUT

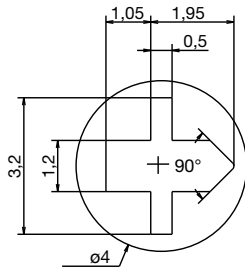


1 WITH

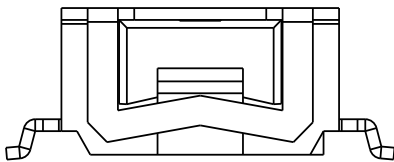


## ACTUATOR

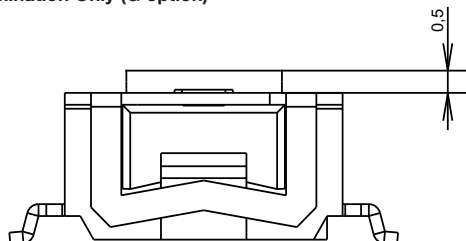
0 SCREWDRIVER SLOT



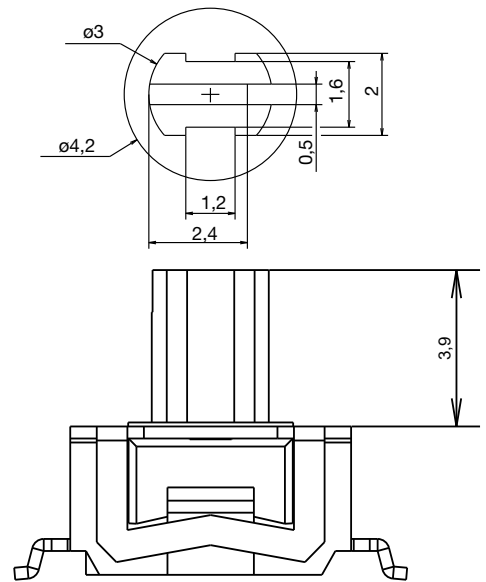
For non-SMT Terminations (N, V or R option)



For SMT Termination Only (G option)



2 SHAFT FOR BUTTON



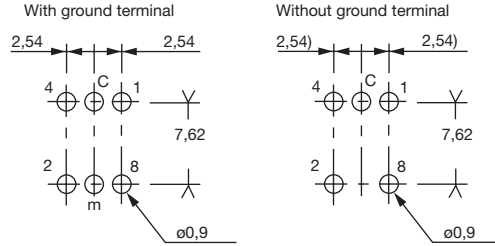
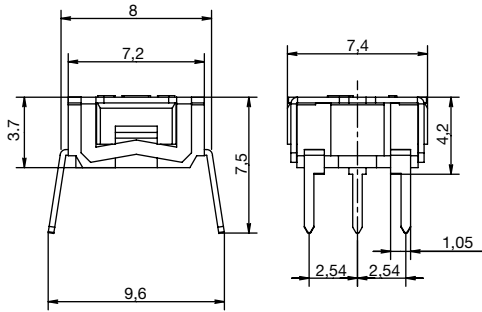
First Angle  
Projection

Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

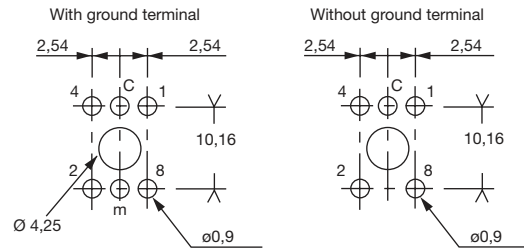
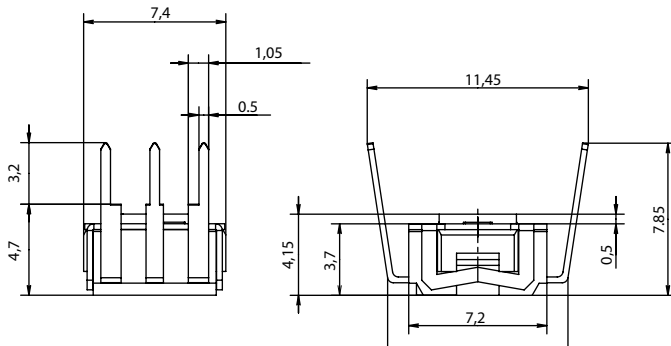
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## TERMINATIONS

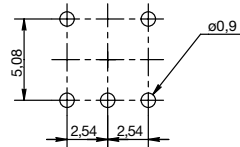
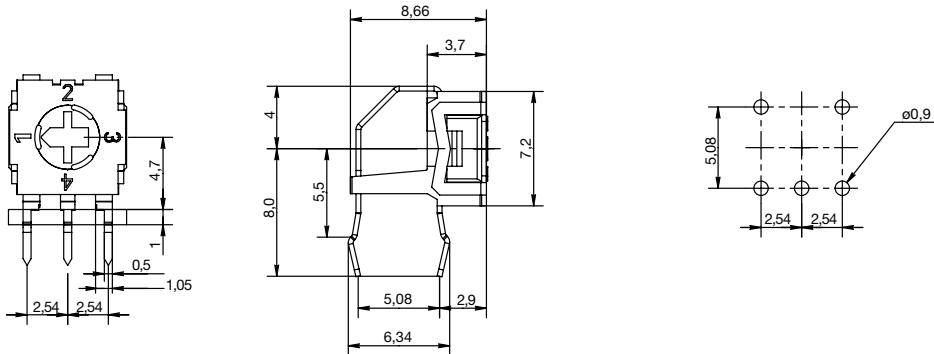
### N THRU-HOLE



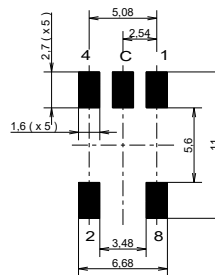
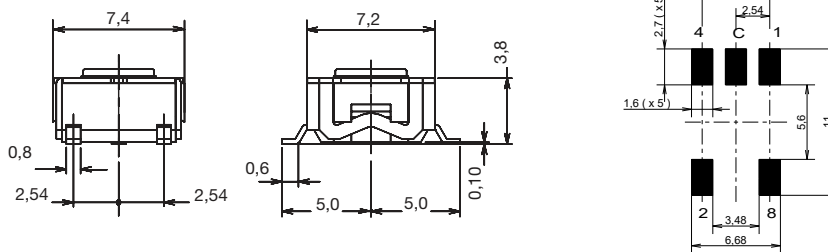
### R REVERSE, THRU-HOLE



### V RIGHT ANGLE, THRU-HOLE



### G SURFACE MOUNT



PCB layout seen component side



Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

## SWITCH FUNCTION

### 0 SINGLE POLE

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									●	●

### 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

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

### 7 GRAY CODE (for RTE04 only)

POS.	1	2	3	4
C	●	●	●	●
1	●			
2		●		
4			●	
8				●

(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 $\mu$ m	Lead Free Tin
7	Gold: 1 $\mu$ m	Gold



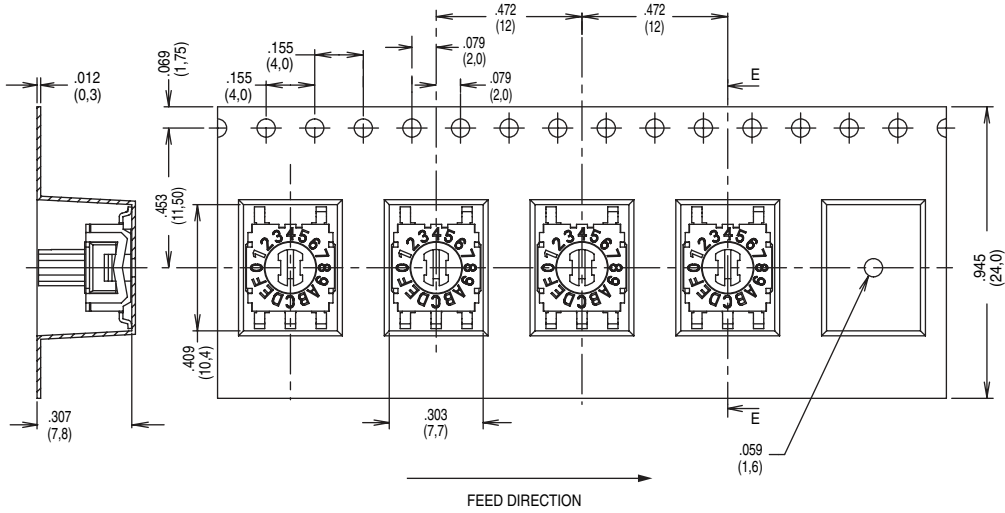
First Angle  
Projection

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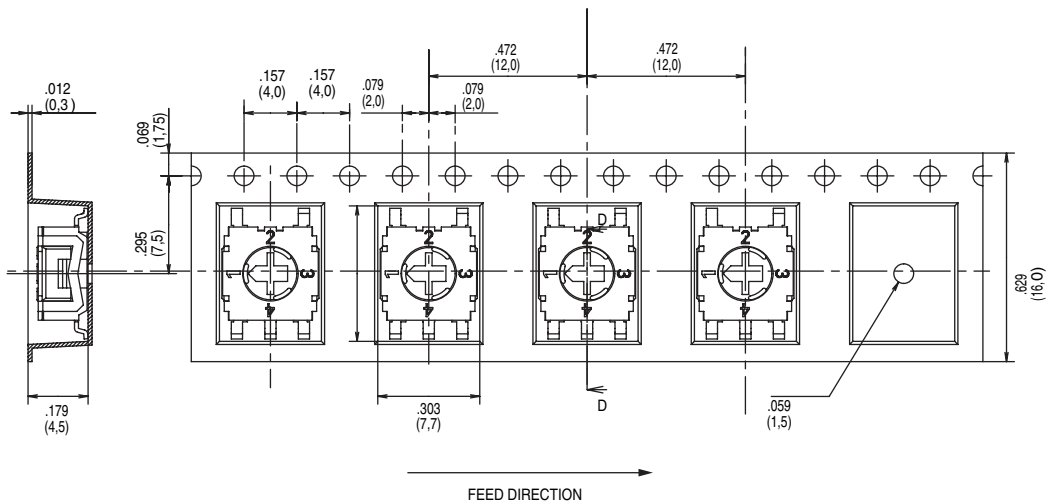
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## TAPE AND REEL

Tape and reel for RTExx02Gxx  
750 pieces per reel.



Tape and reel for RTExx00Gxx  
1,250 pieces per reel.



Dimensions are shown: Inch (mm)  
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