

RTE Series Low Profile Rotary DIP Switches



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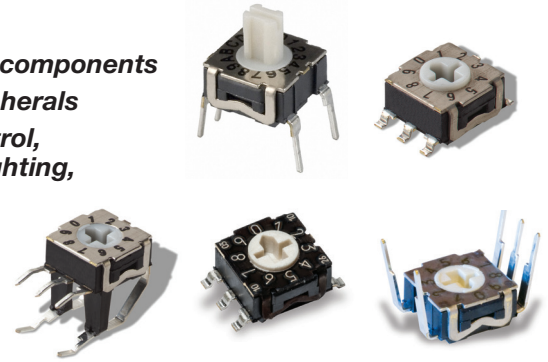
DIP

Features/Benefits

- Thru-hole and 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
- 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 μ A min. 30 V DC max. 20 mVDC min.

MECHANICAL LIFE: 20,000 indexations

CONTACT RESISTANCE: 100 m Ω max. initial;
150 m Ω after life

INSULATION RESISTANCE: 10¹⁰ Ω 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

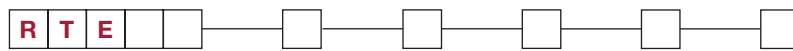
- Reverse Thru-Hole Terminals: Manual soldering: 3 sec / 350°C. Lead free single wave soldering process can be used but validation of the process must be done by customer

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 ²
- 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 ¹
- 1** BCD code
- 3** Gray Code (for RTE 10)
- 4** Hexadecimal code (for RTE 16)
- 7** Gray Code (for RTE16)

- Contact/Terminal Material**
- 4** Gold 0.5 μ m/ lead free tin
- 7** Gold 1.0 μ m



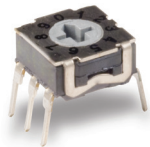
First Angle Projection

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

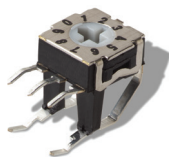
RTE Series Low Profile Rotary DIP Switches

SWITCHES WITH STANDARD OPTIONS

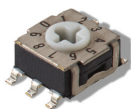
PC Mount-Terminal Option N



Right Angle Mount-Terminal Option V

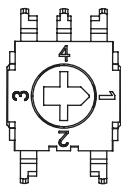


Surface Mount-Terminal Option G

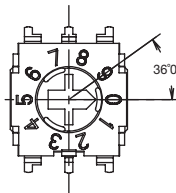


NUMBER OF POSITIONS

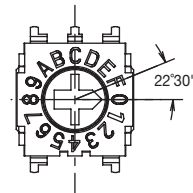
RTE04 4 POSITIONS



RTE10 10 POSITIONS



RTE16 16 POSITIONS



RTE Series Low Profile Rotary DIP Switches

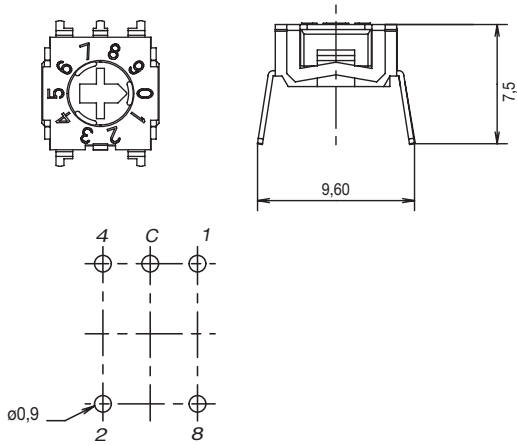


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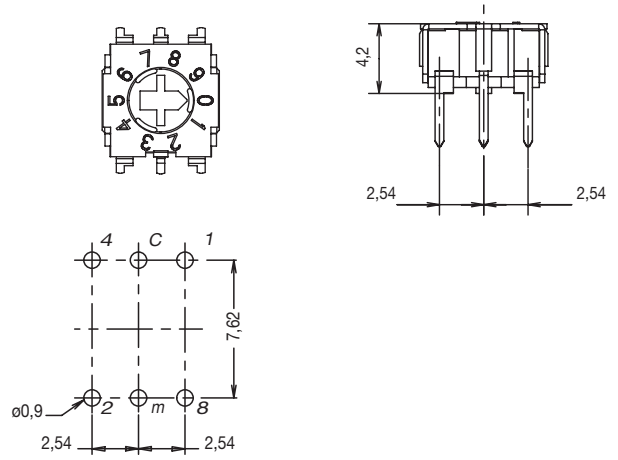
DIP

ESD PROTECTION

0 WITHOUT

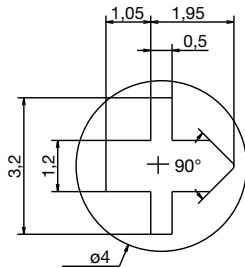


1 WITH

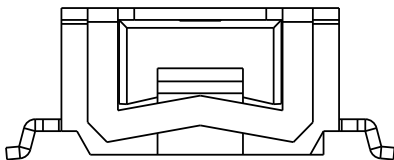


ACTUATOR

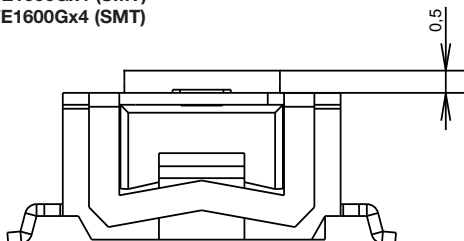
0 SCREWDRIVER SLOT



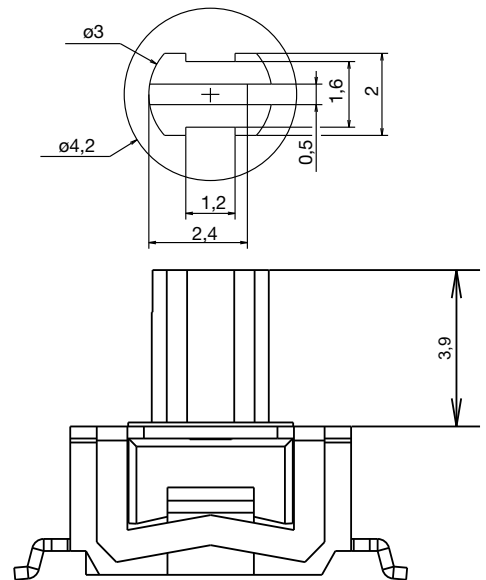
For all RTE versions



Except for RTE1000Gx4 (SMT)
RTE1600Gx4 (SMT)



2 SHAFT FOR BUTTON



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

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TERMINATIONS

TERMINATIONS

DIP I

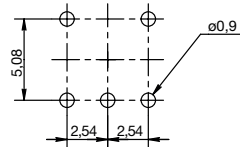
N THRU-HOLE



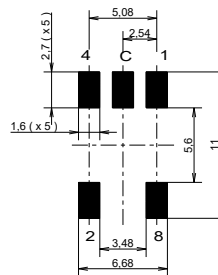
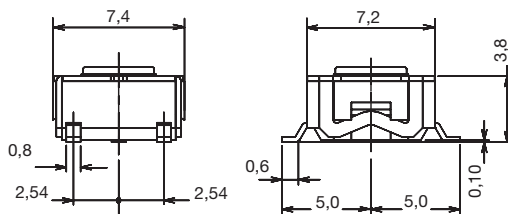
R REVERSE, THRU-HOLE



V RIGHT ANGLE, THRU-HOLE



G SURFACE MOUNT



PCB layout seen component side





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 µm / lead free tin |
| 7 | Gold | 1.0 µm |



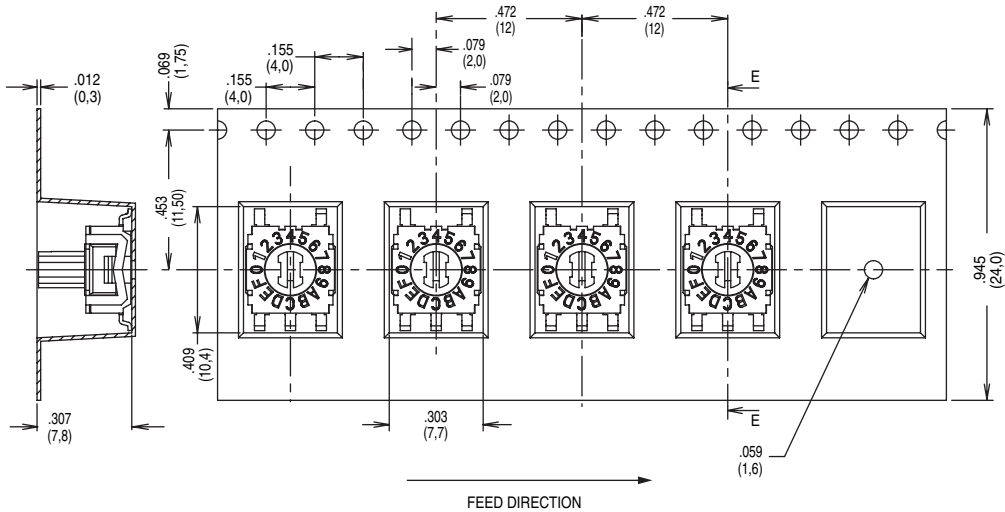
First Angle
Projection

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

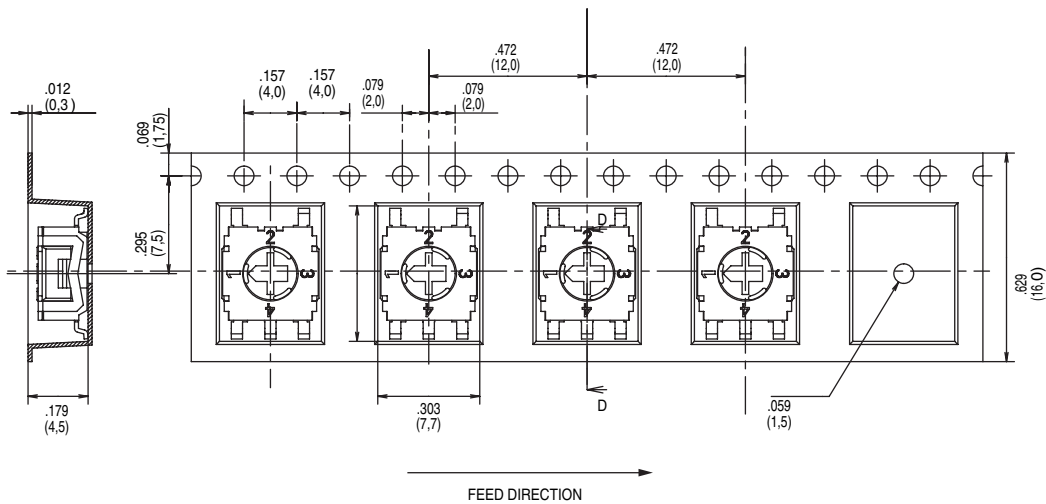
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TAPE AND REEL

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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