



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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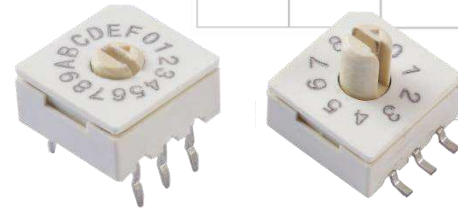




Series 221

10x10mm Compact Rotary DIP Switch

- Standard through hole and surface mount gull-wing terminal configurations
- Binary coded decimal, Hexadecimal code output
- Clockwise or counterclockwise rotation
- Suitable for board spray washing



Ordering Information

| Series | Terminal Type | Actuator Height | Positions | Number of | Type | Packaging |
|--------|---------------|-----------------|-----------|-----------|------|-----------|
| 221 | AM | A | | 10 | | R |

| Code | Spec. |
|------|-------------------------|
| AM | Surface mount gull wing |
| AD | Standard through hole |

| Code | Spec. |
|------|--------------------------------------|
| A | Flush arrow rotor & slotted rotor |
| B | Arrow & slotted, 4.32mm height shaft |
| C | Arrow & slotted, 6.86mm height shaft |

| Code | Spec. |
|------|--------------|
| 10 | 10 Positions |
| 16 | 16 Positions |

| Code | Spec. |
|-------|--|
| BLANK | Tube packaging, through hole switch |
| R | Tape & reel packaging (surface mount only) |

Notes: Contact CTS for other common features not listed.



Electrical Specifications

| Parameter | Conditions & Remarks | Min | Max | Unit |
|-----------------------|-------------------------------------|------------------|----------|-----------|
| Output | Binary coded decimal Hexadecimal | | 10 16 | position |
| Contact Resistance | | | 80 | milliohms |
| Insulation Resistance | Between insulated terminals | 1000 | | megohms |
| Dielectric Strength | 350 Vac between adjacent switches | | 1 | minute |
| Actuation Life | | | 20,000 | steps |
| Nonswitching Rating | | | 100 | mA |
| | | | or | or |
| | | | 50 | Vdc |
| Load | | 1 μ A 20m | | VDC |

Mechanical and Environmental

| | |
|------------------------------|---|
| Soldering | Maximum reflow temperature, 260°C for 10 seconds Maximum wave temperature, 260°C for 10 seconds Maximum manual temperature, 350°C for 5 seconds |
| RoHS | Lead-Free. Fully compliant to RoHS |
| Rotational Torque: | 144~432 gf-cm |
| Marking: | Special top marking available-consult CTS |
| Packaging : | Standard anti-static tube packaging for through hole terminal Standard tape and reel packaging for gull wing terminal |
| Operating Temperature Range: | -40°C to +85°C |
| Storage Temperature Range: | -40°C to +85°C |

Mechanical Specifications

Figure 1 – Surface Mount Gull Wing

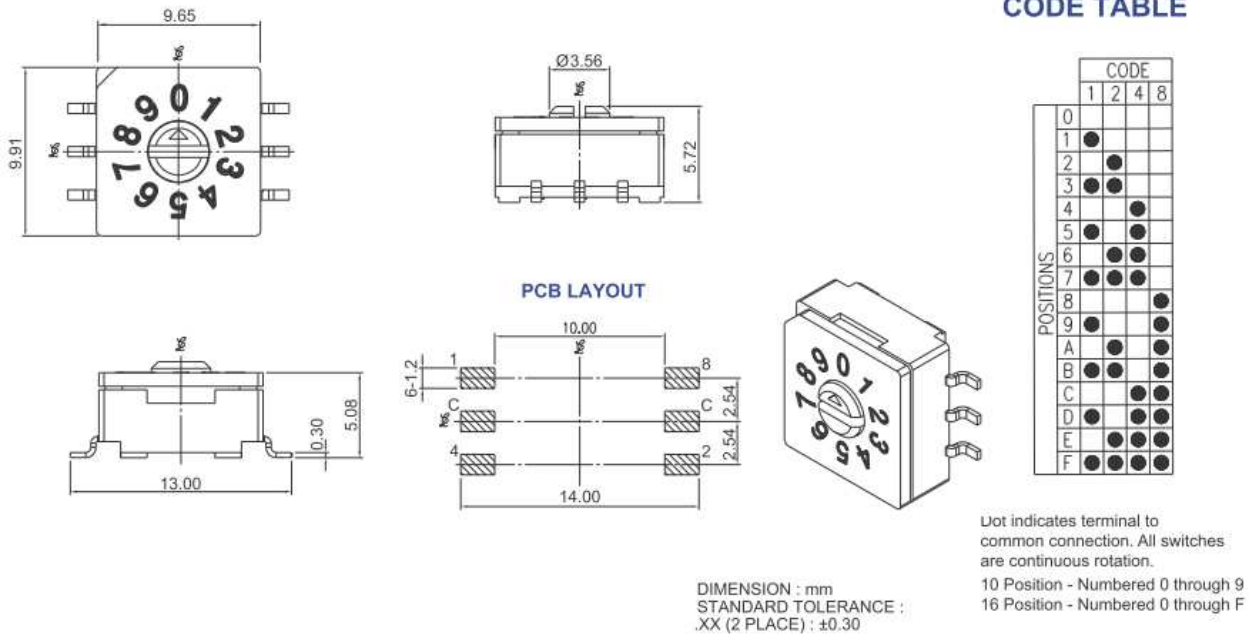
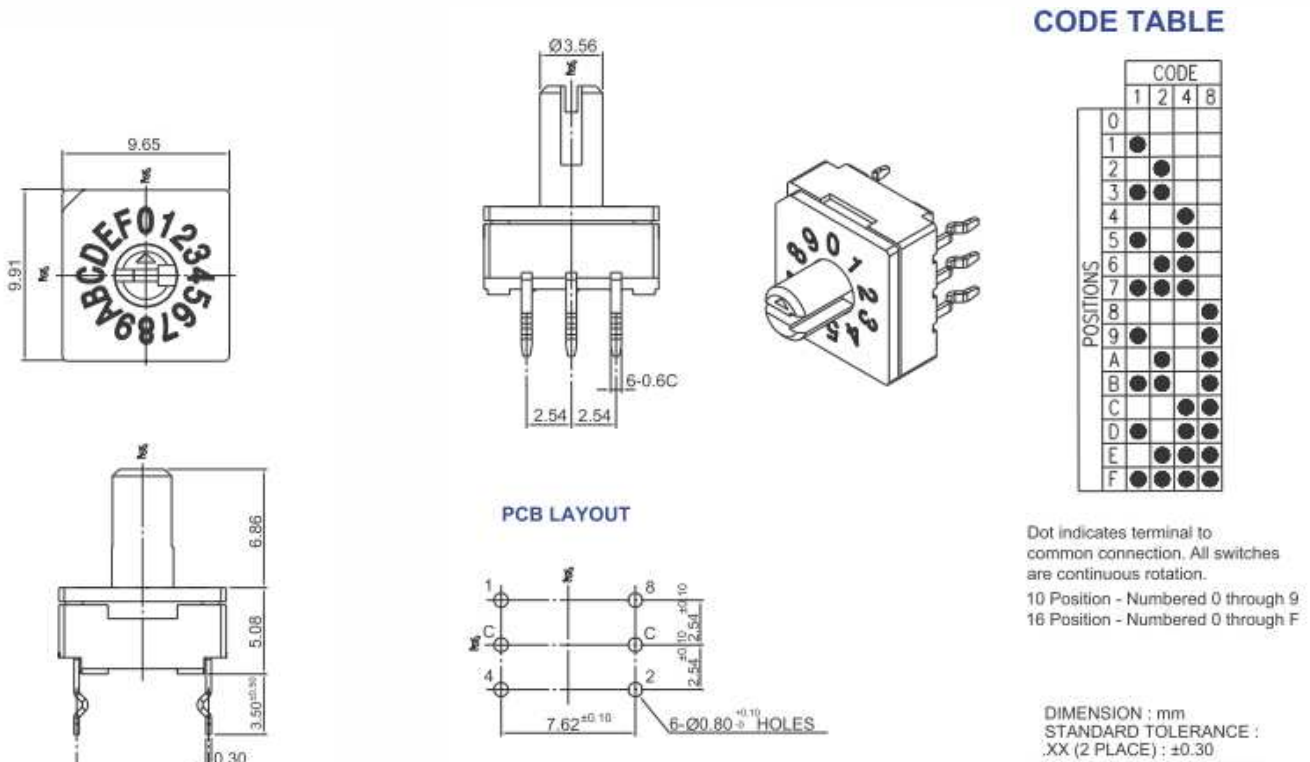
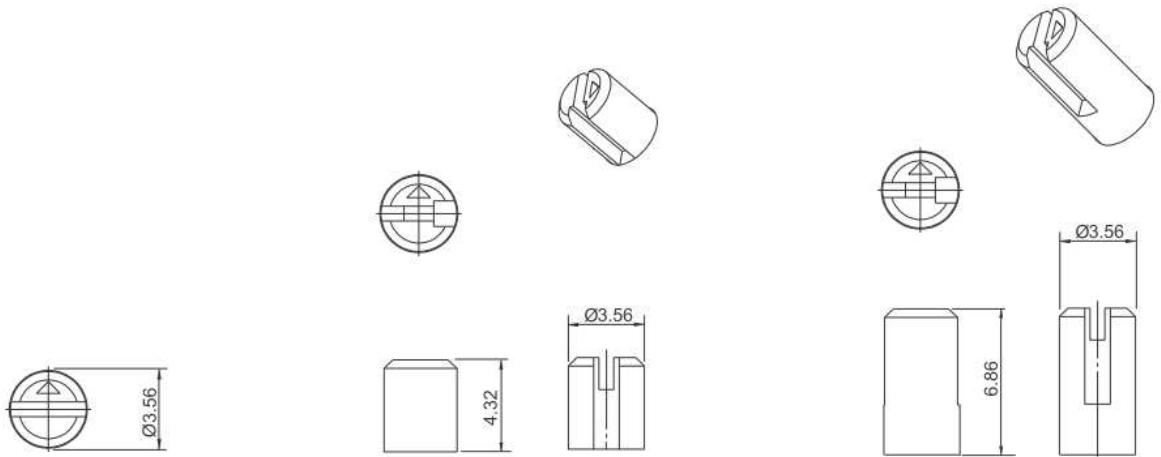


Figure 2 – Standard Through Hole





A: FLUSH ARROW & SLOTTED ROTOR

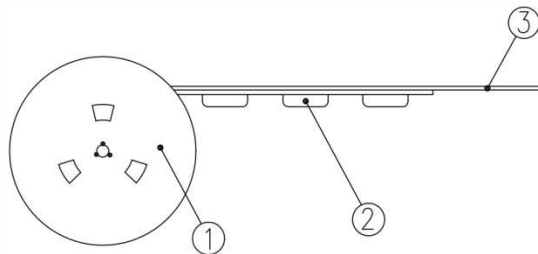
B: ARROW & SLOTTED SHAFT

C: ARROW & SLOTTED SHAFT

Packing: Tape and Reel

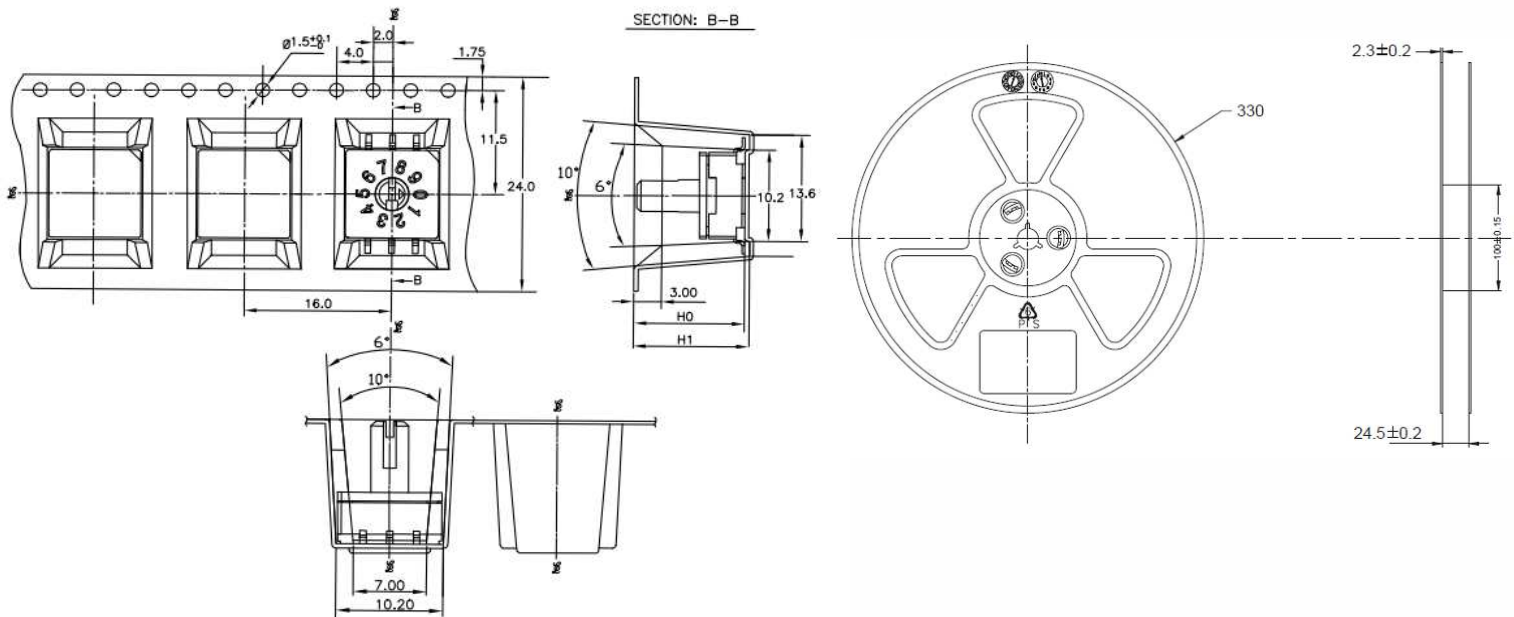
The packing specifications:

1. Structure and materials:



| No | PART NAME | MATERIAL |
|----|--------------|-------------|
| ① | REEL | POLYSTYRENE |
| ② | CARRIER TAPE | POLYSTYRENE |
| ③ | COVER TAPE | POLYESTER |

2. More than 10 empty pockets should remain at each end of the carrier tape for each reel.
3. Shortage of less than 10 pcs a reel is acceptable but no more than 3 consecutive empty pockets are allowed.
4. Stripping strength of cover tape is between 10 gf to 130 gf and stripping angle should be within 165°~180°.
5. The product in the pocket of carrier tape should be placed in a specified correct position.
6. Tape and reel per EIA-481.
7. Dimensions:



Unit: mm

| CTS P/N | H0 | H1 | Product total height | Package quantity (Pcs/reel) |
|----------|-------|-------|----------------------|-----------------------------|
| 221AMAxR | 5.92 | 6.42 | 5.72 | 700 |
| 221AMBxR | 9.60 | 10.10 | 9.40 | 450 |
| 221AMCxR | 12.14 | 12.64 | 11.94 | 350 |