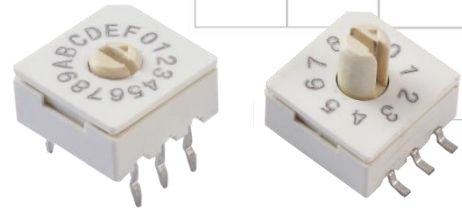




Series 221

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	Number of Positions	Packaging Type																				
221	AM	A	10	R																				
<div>↓</div>		<div>↓</div>	<div>↓</div>	<div>↓</div>																				
<table><tr><th>Code</th><th>Spec.</th></tr><tr><td>AM</td><td>Surface mount gull wing</td></tr><tr><td>AD</td><td>Standard through hole</td></tr></table>	Code	Spec.	AM	Surface mount gull wing	AD	Standard through hole		<table><tr><th>Code</th><th>Spec.</th></tr><tr><td>A</td><td>Flush arrow rotor & slotted rotor</td></tr><tr><td>B</td><td>Arrow & slotted, 4.32mm height shaft</td></tr><tr><td>C</td><td>Arrow & slotted, 6.86mm height shaft</td></tr></table>	Code	Spec.	A	Flush arrow rotor & slotted rotor	B	Arrow & slotted, 4.32mm height shaft	C	Arrow & slotted, 6.86mm height shaft	<table><tr><th>Code</th><th>Spec.</th></tr><tr><td>10</td><td>10 Positions</td></tr><tr><td>16</td><td>16 Positions</td></tr></table>	Code	Spec.	10	10 Positions	16	16 Positions	
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Notes: Contact CTS for other common features not listed.

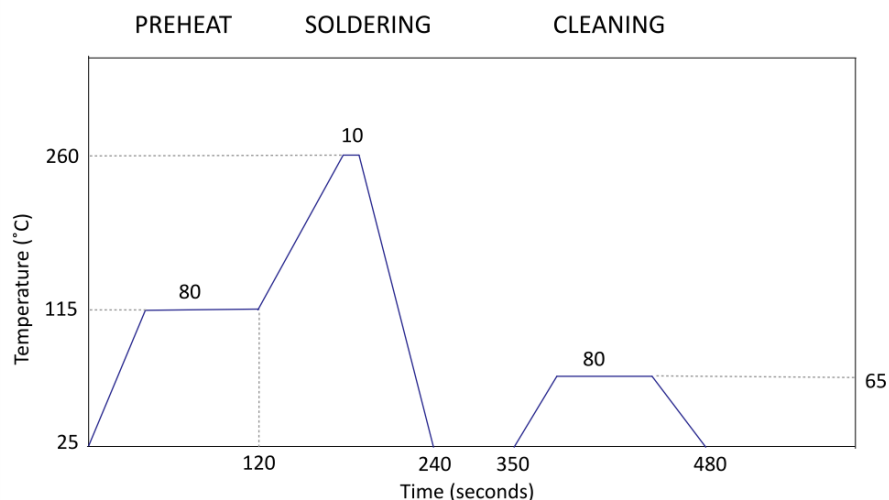
Electrical Specifications

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 50	or 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

Soldering Profile



Mechanical Specifications

Figure 1 – Surface Mount Gull Wing

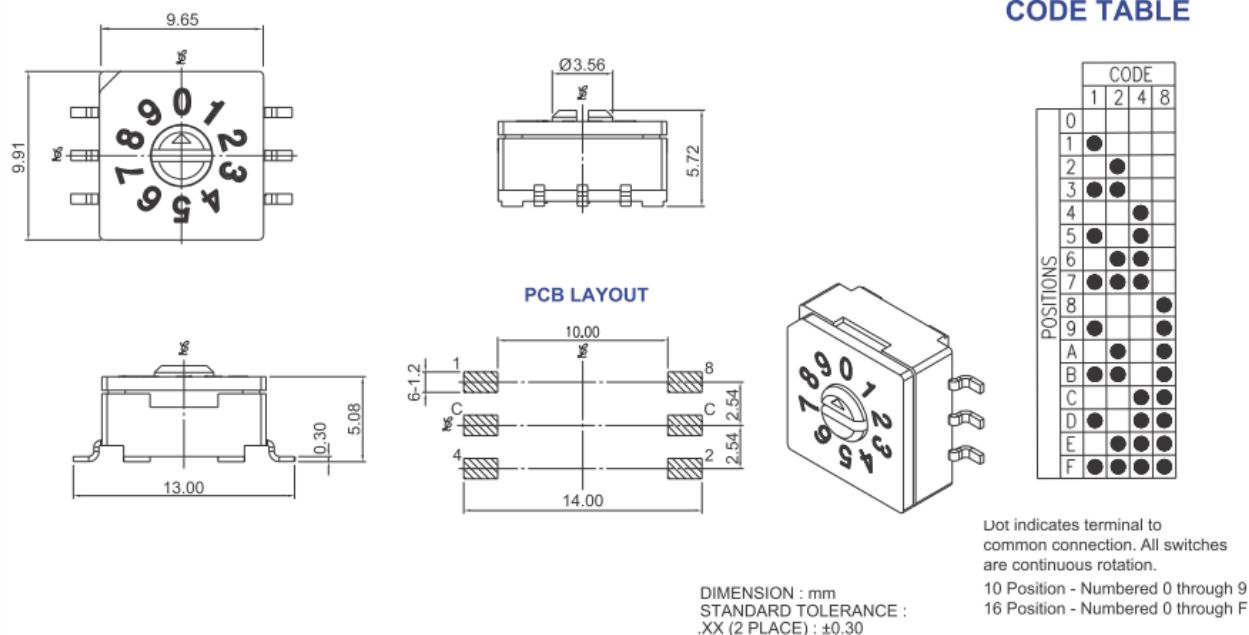
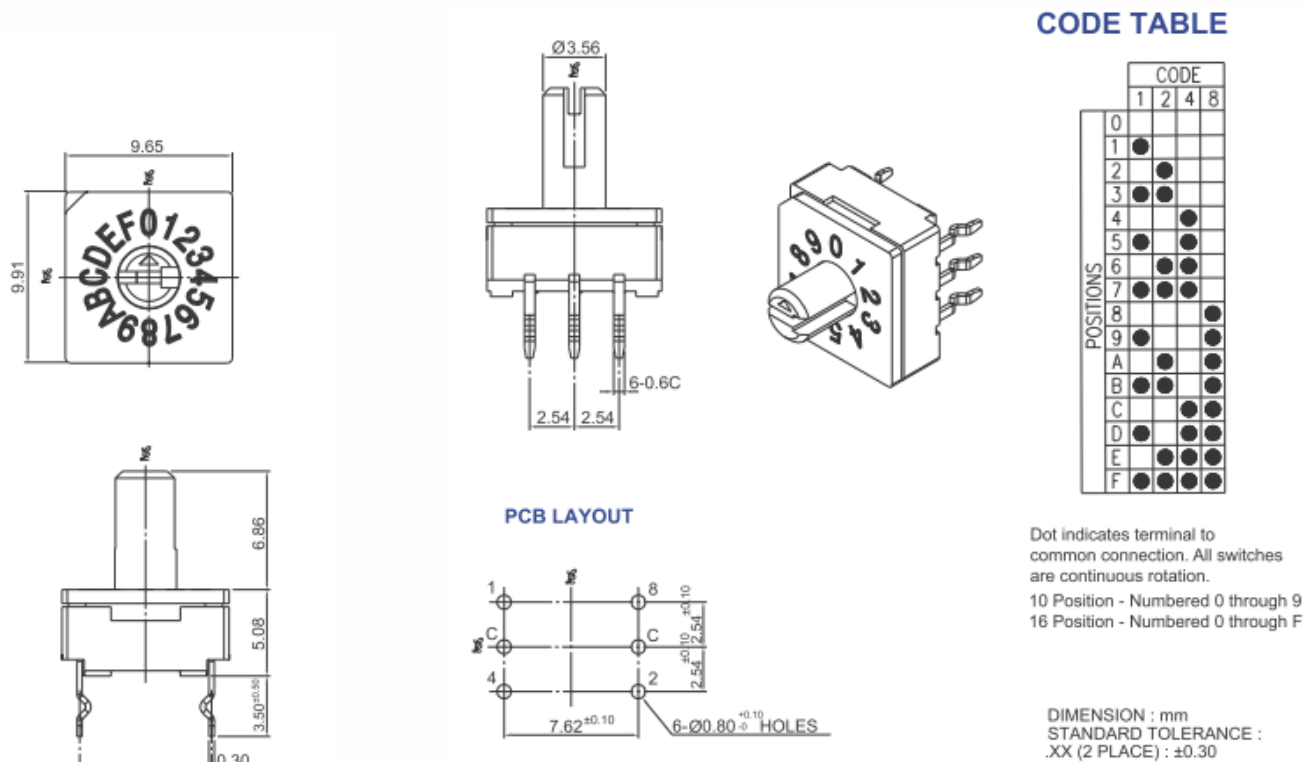
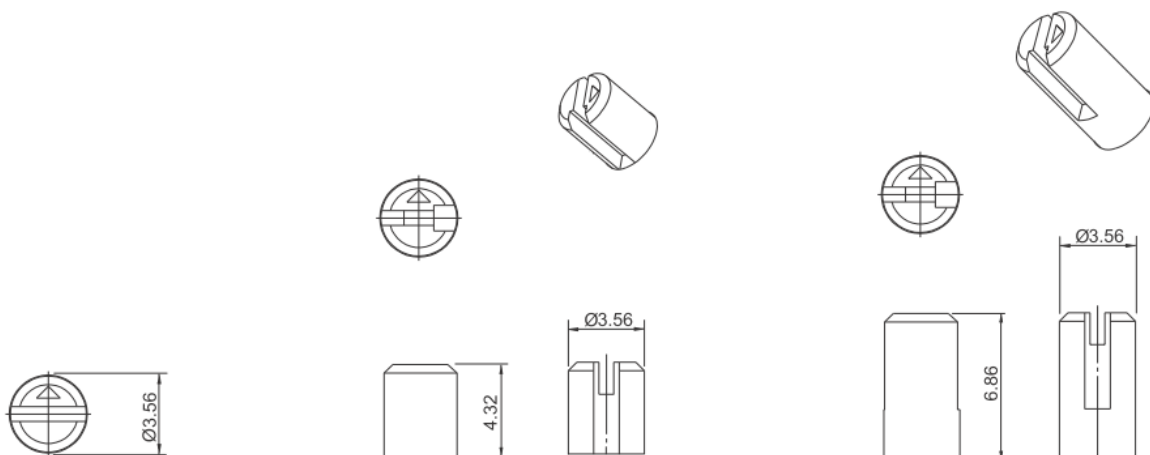


Figure 2 – Standard Through Hole





A: FLUSH ARROW & SLOTTED ROTOR

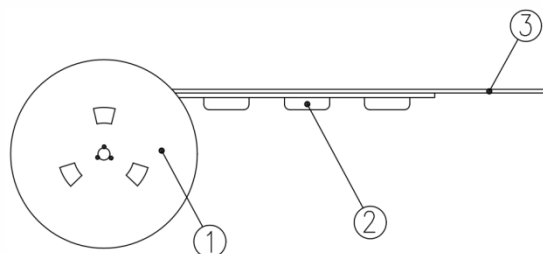
B: ARROW & SLOTTED SHAFT

C: ARROW & SLOTTED SHAFT

Packing: Tape and Reel

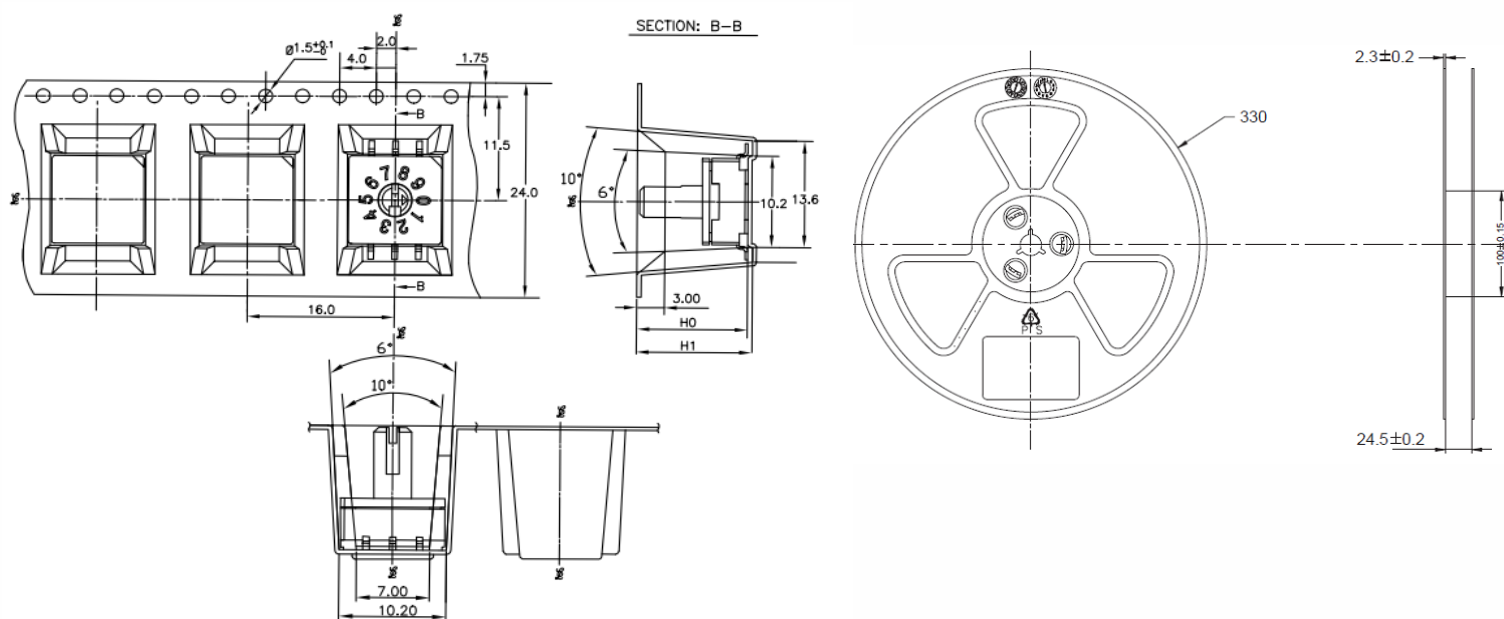
The packing specifications:

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
221AMBxxR	9.60	10.10	9.40	450
221AMCxxR	12.14	12.64	11.94	350

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[CTS:](#)

[221AMA10R](#) [221AMA16R](#) [221AMB16R](#) [221ADA10](#) [221AMB10R](#) [221ADC10](#) [221ADB10](#) [221ADA16](#) [221AMC16R](#)
[221ADC16](#) [221AMC10R](#) [221ADB16](#)