

**SERIES:** RDS2-1012-RA-67 | **DESCRIPTION:** ROTARY DIP SWITCH**FEATURES**

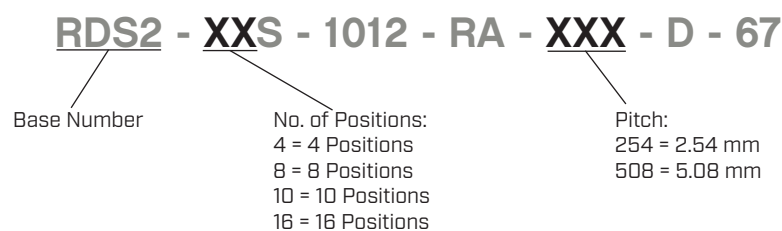
- 4, 8, 10, & 16 positions
- right angle
- 2.54 & 5.08 pitch
- IP67

**SPECIFICATIONS**

| parameter             | conditions/description                 | min | typ    | max        | units      |
|-----------------------|----------------------------------------|-----|--------|------------|------------|
| rated voltage         | switching<br>non-switching             |     |        | 42<br>42   | Vdc<br>Vdc |
| rated current         | switching<br>non-switching             |     |        | 150<br>200 | mA<br>mA   |
| withstanding voltage  | for 1 minute                           |     | 250    |            | Vac        |
| contact resistance    |                                        |     |        | 80         | mΩ         |
| insulation resistance | for 1 minute at 250 Vdc                | 100 |        |            | MΩ         |
| operating torque      |                                        |     |        | 700        | gf*cm      |
| actuator travel       | continuous rotation                    |     | 360    |            | degrees    |
| operating temperature |                                        | -40 |        | 85         | °C         |
| storage temperature   |                                        | -40 |        | 85         | °C         |
| life                  | at 42 Vdc, 150 mA, 15~20 cycles/minute |     | 10,000 |            | steps      |
| flammability rating   | see material tables                    |     |        |            |            |
| RoHS                  | yes                                    |     |        |            |            |
| IP level              | IP67                                   |     |        |            |            |

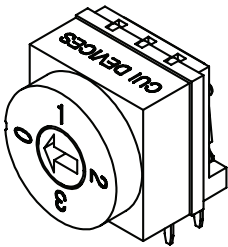
**SOLDERABILITY**

| parameter      | conditions/description | min | typ | max | units |
|----------------|------------------------|-----|-----|-----|-------|
| hand soldering | for maximum 3 seconds  |     |     | 350 | °C    |
| wave soldering | for maximum 5 seconds  |     |     | 260 | °C    |

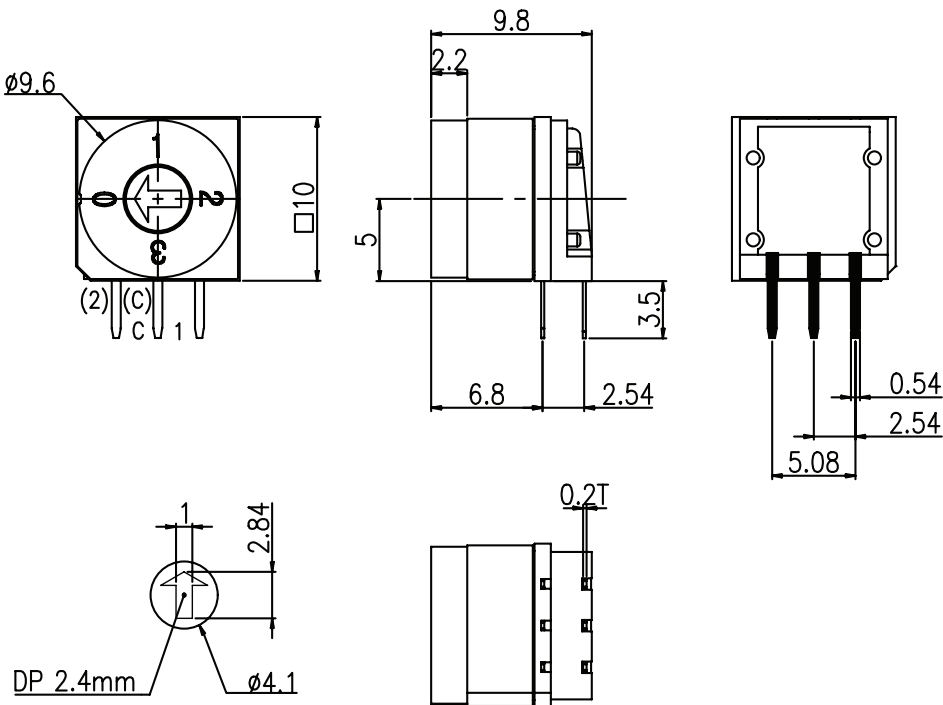
**PART NUMBER KEY**

MECHANICAL DRAWING (4 POSITION, 2.54 MM PITCH)

units: mm  
tolerance: ±0.3 mm  
unless otherwise specified

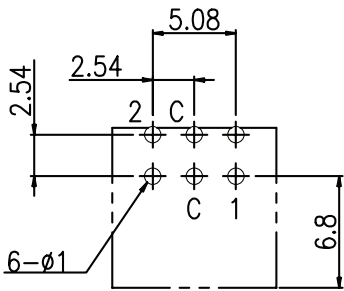


| DESCRIPTION | MATERIAL          | PLATING/COLOR |
|-------------|-------------------|---------------|
| actuator    | POM [UL94HB]      | gray          |
| cover       | PA66 [UL94V-0]    | light white   |
| base        | PA66 [UL94V-0]    | black         |
| terminals   | phosphorus bronze | Ni/Au         |



| ON ●       |      |   |   |   |
|------------|------|---|---|---|
| OFF ○      | CODE |   |   |   |
| TYPE       | POS  | C | 1 | 2 |
| 4 POSITION | 0    | ● | ○ | ○ |
|            | 1    | ● | ● | ○ |
|            | 2    | ● | ○ | ● |
|            | 3    | ● | ● | ● |

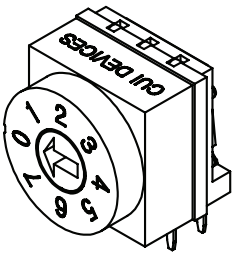
ACTUATOR



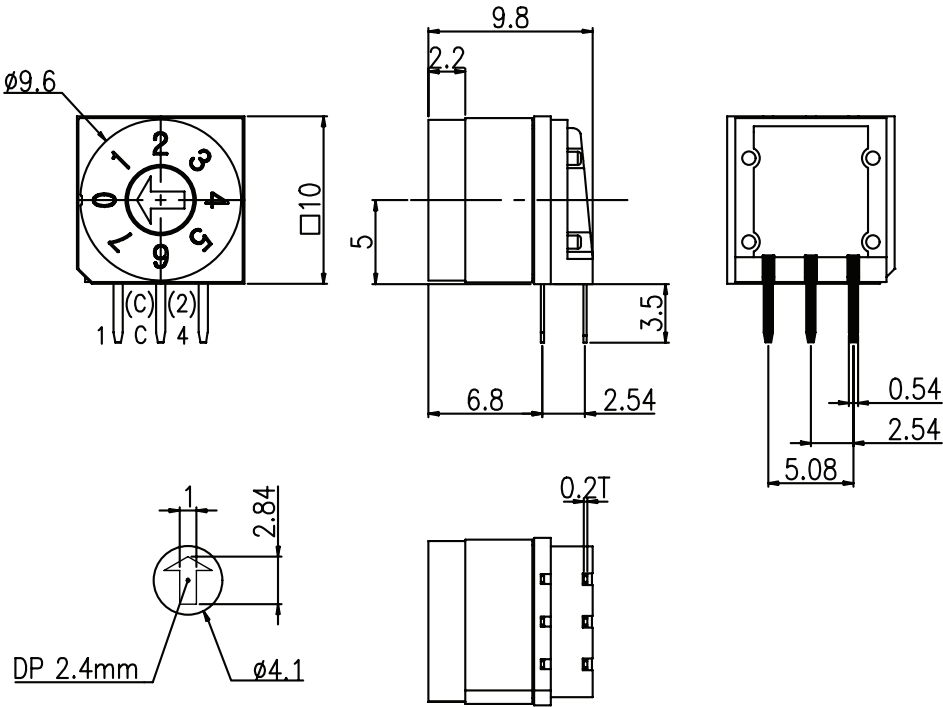
Recommended PCB Layout  
Top View

MECHANICAL DRAWING (8 POSITION, 2.54 MM PITCH)

units: mm  
tolerance: ±0.3 mm  
unless otherwise specified

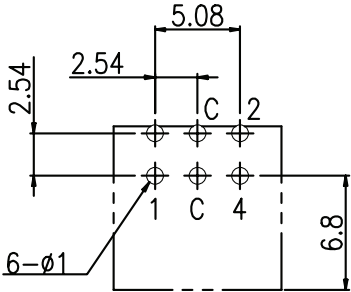


| DESCRIPTION | MATERIAL          | PLATING/COLOR |
|-------------|-------------------|---------------|
| actuator    | POM [UL94HB]      | gray          |
| cover       | PA66 [UL94V-0]    | light white   |
| base        | PA66 [UL94V-0]    | black         |
| terminals   | phosphorus bronze | Ni/Au         |



| ON ●       |      |   |   |   |   |
|------------|------|---|---|---|---|
| OFF ○      | CODE |   |   |   |   |
| TYPE       | POS  | C | 1 | 2 | 4 |
| 8 POSITION | 0    | ● | ○ | ○ | ○ |
|            | 1    | ● | ● | ○ | ○ |
|            | 2    | ● | ○ | ● | ○ |
|            | 3    | ● | ● | ● | ○ |
|            | 4    | ● | ○ | ○ | ● |
|            | 5    | ● | ● | ○ | ● |
|            | 6    | ● | ○ | ● | ● |
|            | 7    | ● | ● | ● | ● |

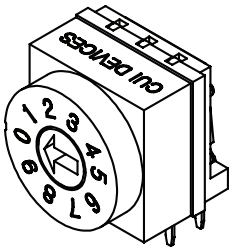
ACTUATOR



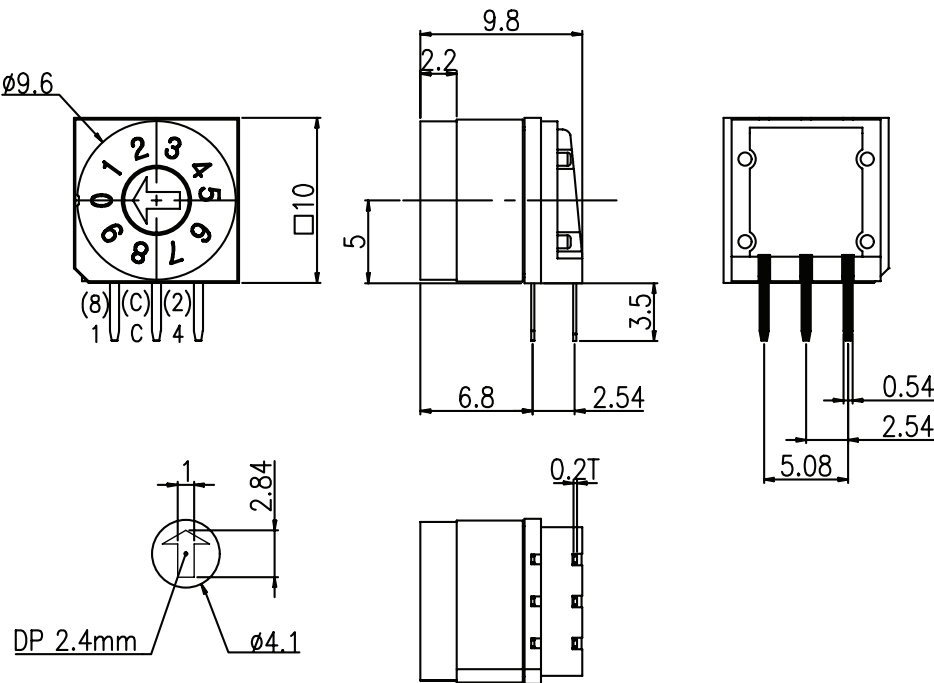
Recommended PCB Layout  
Top View

MECHANICAL DRAWING (10 POSITION, 2.54 MM PITCH)

units: mm  
tolerance: ±0.3 mm  
unless otherwise specified

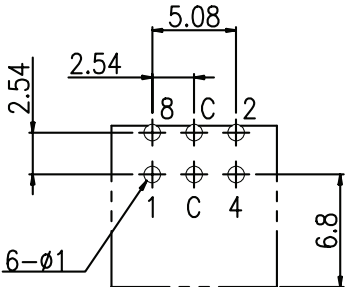


| DESCRIPTION | MATERIAL          | PLATING/COLOR |
|-------------|-------------------|---------------|
| actuator    | POM (UL94HB)      | gray          |
| cover       | PA66 (UL94V-0)    | light white   |
| base        | PA66 (UL94V-0)    | black         |
| terminals   | phosphorus bronze | Ni/Au         |



| ON ●        |      |   |   |   |   |   |
|-------------|------|---|---|---|---|---|
| OFF ○       | CODE |   |   |   |   |   |
| TYPE        | POS  | C | 1 | 2 | 4 | 8 |
| 10 POSITION | 0    | ● | ○ | ○ | ○ | ○ |
|             | 1    | ● | ● | ○ | ○ | ○ |
|             | 2    | ● | ○ | ● | ○ | ○ |
|             | 3    | ● | ● | ● | ○ | ○ |
|             | 4    | ● | ○ | ○ | ● | ○ |
|             | 5    | ● | ● | ○ | ● | ○ |
|             | 6    | ● | ○ | ● | ● | ○ |
|             | 7    | ● | ● | ● | ● | ○ |
|             | 8    | ● | ○ | ○ | ○ | ● |
|             | 9    | ● | ● | ○ | ○ | ● |

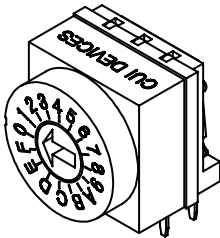
ACTUATOR



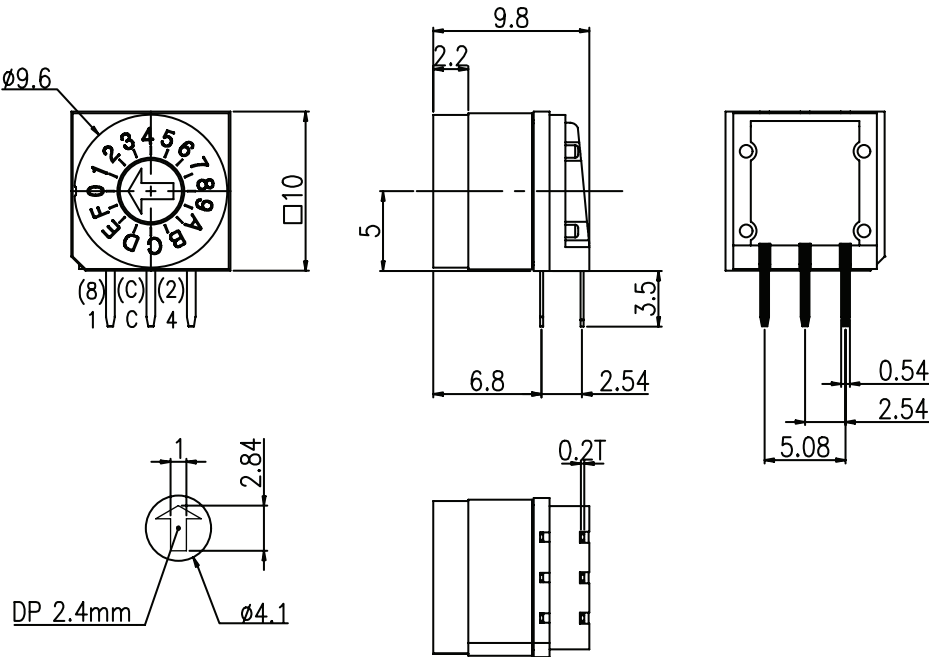
Recommended PCB Layout  
Top View

MECHANICAL DRAWING (16 POSITION, 2.54 MM PITCH)

units: mm  
tolerance: ±0.3 mm  
unless otherwise specified

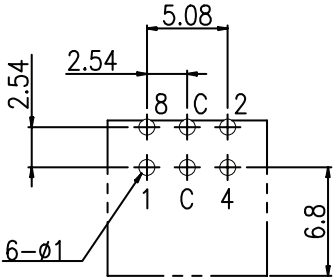


| DESCRIPTION | MATERIAL          | PLATING/COLOR |
|-------------|-------------------|---------------|
| actuator    | POM [UL94HB]      | gray          |
| cover       | PA66 [UL94V-0]    | light white   |
| base        | PA66 [UL94V-0]    | black         |
| terminals   | phosphorus bronze | Ni/Au         |



ACTUATOR

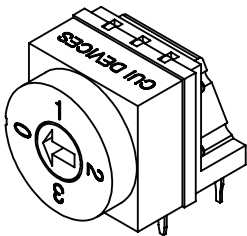
| ON ●        |      |   |   |   |   |   |
|-------------|------|---|---|---|---|---|
| OFF ○       | CODE |   |   |   |   |   |
| TYPE        | POS  | C | 1 | 2 | 4 | 8 |
| 16 POSITION | 0    | ● | ○ | ○ | ○ | ○ |
|             | 1    | ● | ● | ○ | ○ | ○ |
|             | 2    | ● | ○ | ● | ○ | ○ |
|             | 3    | ● | ● | ● | ○ | ○ |
|             | 4    | ● | ○ | ○ | ● | ○ |
|             | 5    | ● | ● | ○ | ● | ○ |
|             | 6    | ● | ○ | ● | ● | ○ |
|             | 7    | ● | ● | ● | ● | ○ |
|             | 8    | ● | ○ | ○ | ○ | ● |
|             | 9    | ● | ● | ○ | ○ | ● |
|             | A    | ● | ○ | ● | ○ | ● |
|             | B    | ● | ● | ● | ○ | ● |
|             | C    | ● | ○ | ○ | ● | ● |
|             | D    | ● | ● | ○ | ● | ● |
|             | E    | ● | ○ | ● | ● | ● |
|             | F    | ● | ● | ● | ● | ● |



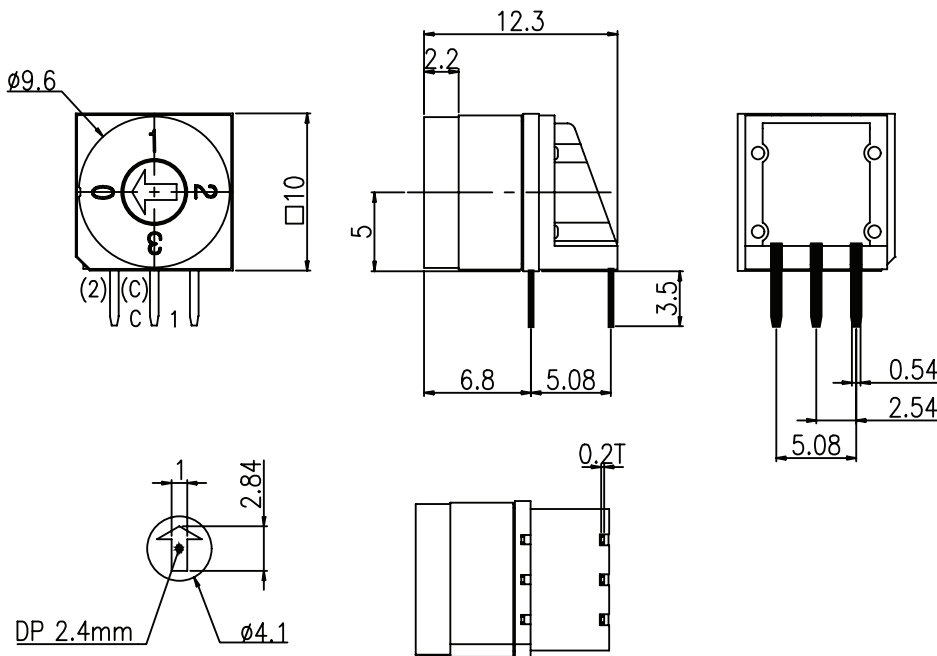
Recommended PCB Layout  
Top View

MECHANICAL DRAWING (4 POSITION, 5.08 MM PITCH)

units: mm  
tolerance: ±0.3 mm  
unless otherwise specified

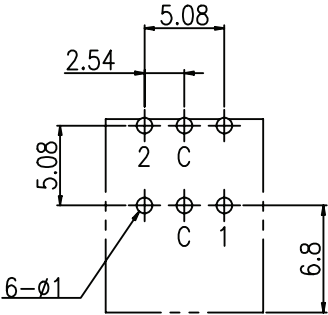


| DESCRIPTION | MATERIAL          | PLATING/COLOR |
|-------------|-------------------|---------------|
| actuator    | POM [UL94HB]      | gray          |
| cover       | PA66 [UL94V-0]    | light white   |
| base        | PA66 [UL94V-0]    | black         |
| terminals   | phosphorus bronze | Ni/Au         |



ACTUATOR

| ON ●       |      |   |   |   |
|------------|------|---|---|---|
| OFF ○      | CODE |   |   |   |
| TYPE       | POS  | C | 1 | 2 |
| 4 POSITION | 0    | ● | ○ | ○ |
|            | 1    | ● | ● | ○ |
|            | 2    | ● | ○ | ● |
|            | 3    | ● | ● | ● |

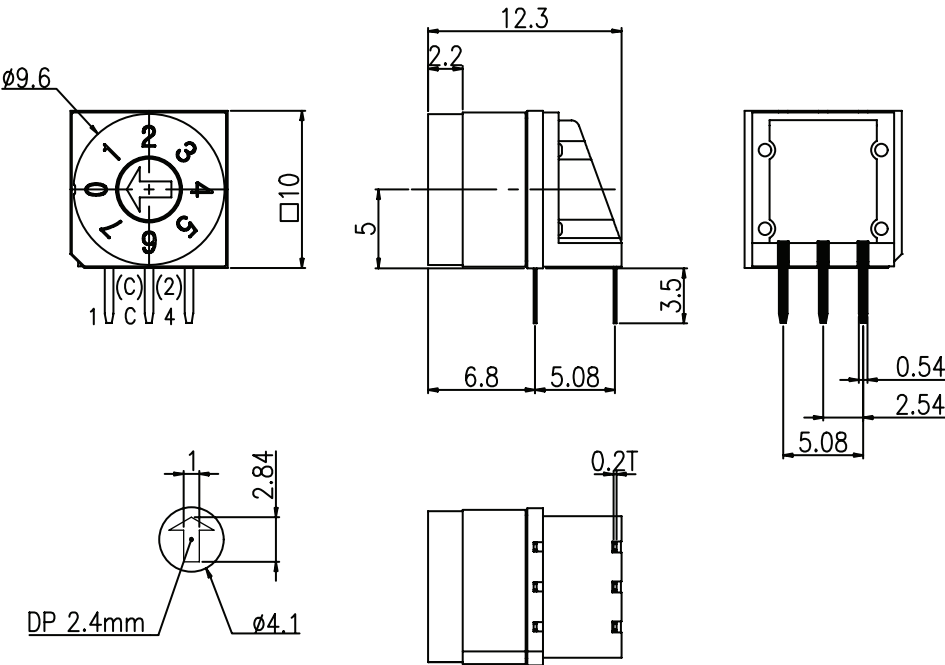
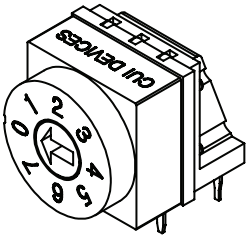


Recommended PCB Layout  
Top View

MECHANICAL DRAWING (8 POSITION, 5.08 MM PITCH)

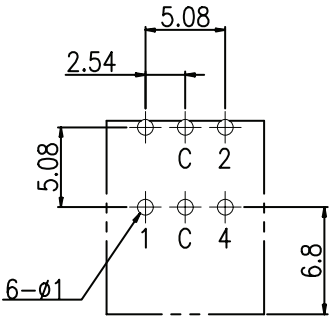
units: mm  
tolerance: ±0.3 mm  
unless otherwise specified

| DESCRIPTION | MATERIAL          | PLATING/COLOR |
|-------------|-------------------|---------------|
| actuator    | POM [UL94HB]      | gray          |
| cover       | PA66 [UL94V-0]    | light white   |
| base        | PA66 [UL94V-0]    | black         |
| terminals   | phosphorus bronze | Ni/Au         |



| ON ●       |      |   |   |   |   |
|------------|------|---|---|---|---|
| OFF ○      | CODE |   |   |   |   |
| TYPE       | POS  | C | 1 | 2 | 4 |
| 8 POSITION | 0    | ● | ○ | ○ | ○ |
|            | 1    | ● | ● | ○ | ○ |
|            | 2    | ● | ○ | ● | ○ |
|            | 3    | ● | ● | ● | ○ |
|            | 4    | ● | ○ | ○ | ● |
|            | 5    | ● | ● | ○ | ● |
|            | 6    | ● | ○ | ● | ● |
|            | 7    | ● | ● | ● | ● |

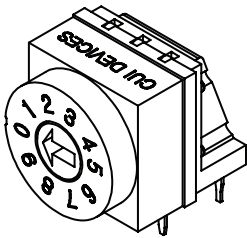
ACTUATOR



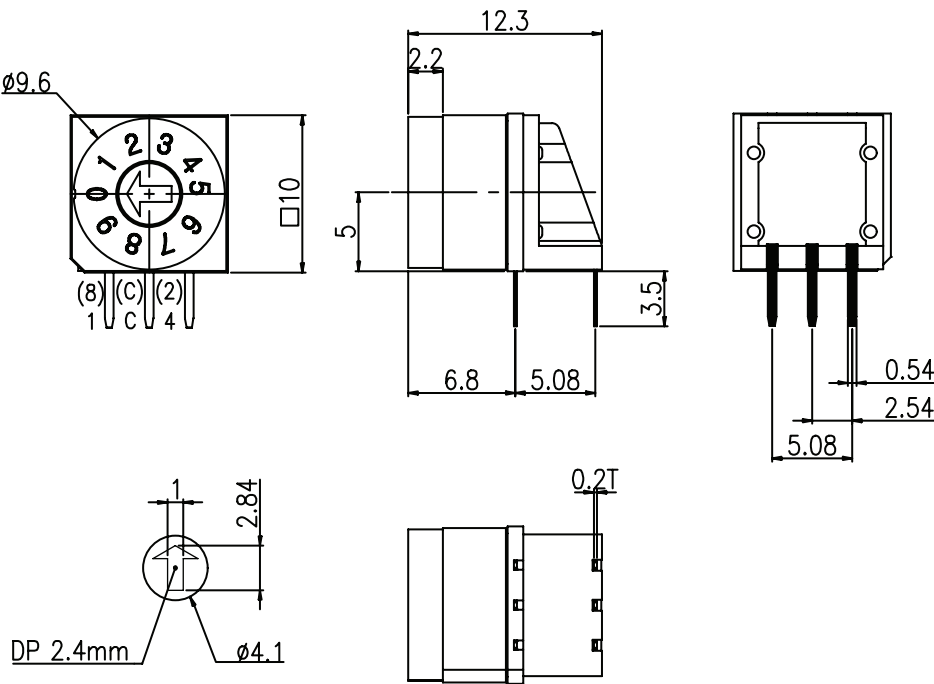
Recommended PCB Layout  
Top View

MECHANICAL DRAWING (10 POSITION, 5.08 MM PITCH)

units: mm  
tolerance: ±0.3 mm  
unless otherwise specified

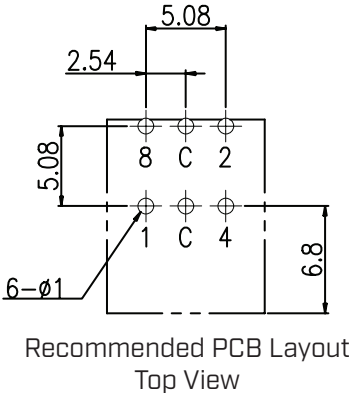


| DESCRIPTION | MATERIAL          | PLATING/COLOR |
|-------------|-------------------|---------------|
| actuator    | POM [UL94HB]      | gray          |
| cover       | PA66 [UL94V-0]    | light white   |
| base        | PA66 [UL94V-0]    | black         |
| terminals   | phosphorus bronze | Ni/Au         |



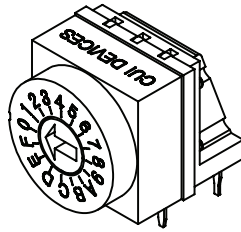
| ON ●        |      |   |   |   |   |   |
|-------------|------|---|---|---|---|---|
| OFF ○       | CODE |   |   |   |   |   |
| TYPE        | POS  | C | 1 | 2 | 4 | 8 |
| 10 POSITION | 0    | ● | ○ | ○ | ○ | ○ |
|             | 1    | ● | ● | ○ | ○ | ○ |
|             | 2    | ● | ○ | ● | ○ | ○ |
|             | 3    | ● | ● | ● | ○ | ○ |
|             | 4    | ● | ○ | ○ | ● | ○ |
|             | 5    | ● | ● | ○ | ● | ○ |
|             | 6    | ● | ○ | ● | ● | ○ |
|             | 7    | ● | ● | ● | ● | ○ |
|             | 8    | ● | ○ | ○ | ○ | ● |
|             | 9    | ● | ● | ○ | ○ | ● |

ACTUATOR

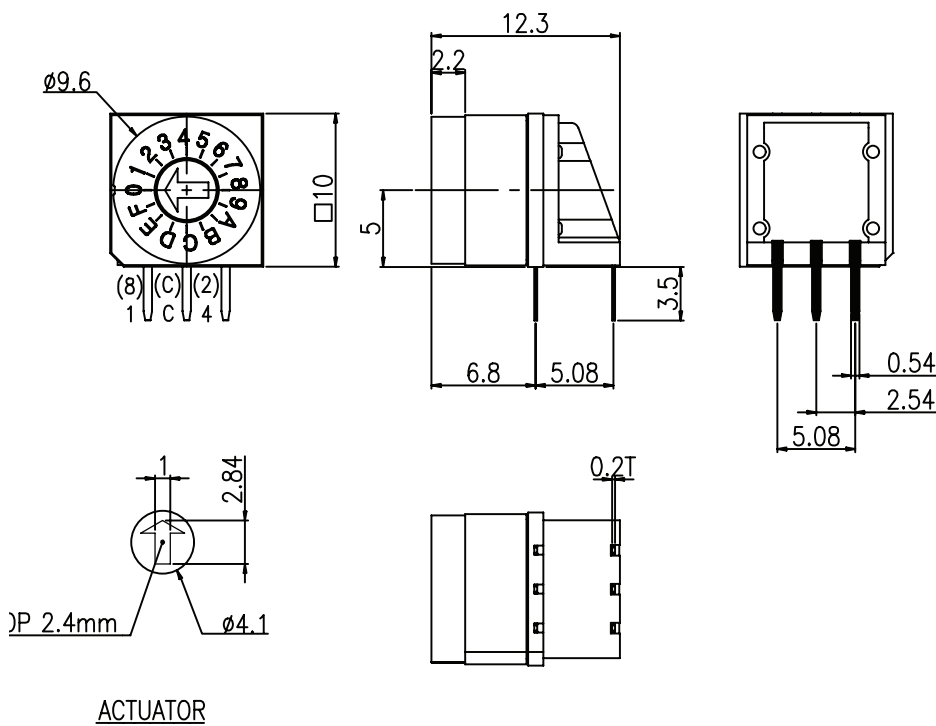


## MECHANICAL DRAWING (16 POSITION, 5.08 MM PITCH)

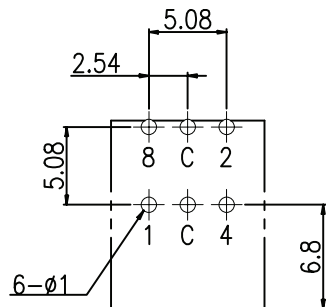
units: mm  
tolerance:  $\pm 0.3$  mm  
unless otherwise specified



| DESCRIPTION | MATERIAL          | PLATING/COLOR |
|-------------|-------------------|---------------|
| actuator    | POM (UL94HB)      | gray          |
| cover       | PA66 (UL94V-0)    | light white   |
| base        | PA66 (UL94V-0)    | black         |
| terminals   | phosphorus bronze | Ni/Au         |



| ON ●        |      |   |   |   |   |   |
|-------------|------|---|---|---|---|---|
| OFF ○       | CODE |   |   |   |   |   |
| TYPE        | POS  | C | 1 | 2 | 4 | 8 |
| 16 POSITION | 0    | ● | ○ | ○ | ○ | ○ |
|             | 1    | ● | ● | ○ | ○ | ○ |
|             | 2    | ● | ○ | ● | ○ | ○ |
|             | 3    | ● | ● | ● | ○ | ○ |
|             | 4    | ● | ○ | ○ | ● | ○ |
|             | 5    | ● | ● | ○ | ● | ○ |
|             | 6    | ● | ○ | ● | ● | ○ |
|             | 7    | ● | ● | ● | ● | ○ |
|             | 8    | ● | ○ | ○ | ○ | ● |
|             | 9    | ● | ● | ○ | ○ | ● |
|             | A    | ● | ○ | ● | ○ | ● |
|             | B    | ● | ● | ● | ○ | ● |
|             | C    | ● | ○ | ○ | ● | ● |
|             | D    | ● | ● | ○ | ● | ● |
|             | E    | ● | ○ | ● | ● | ● |
|             | F    | ● | ● | ● | ● | ● |



Recommended PCB Layout  
Top View

## PACKAGING

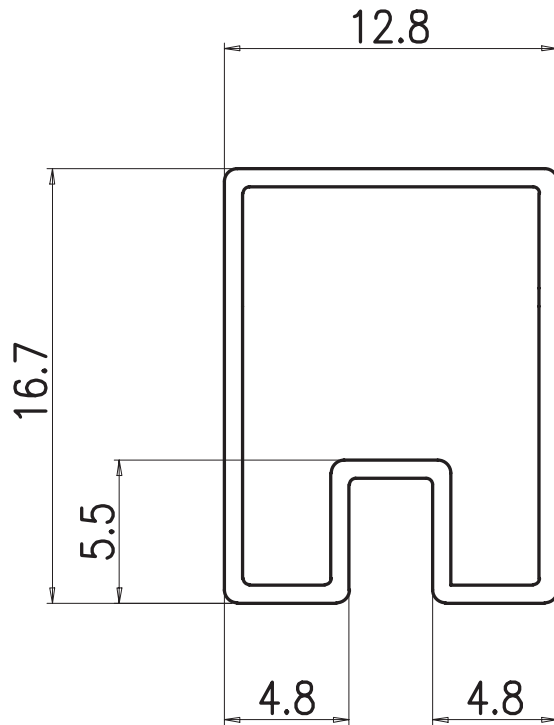
units: mm

Tube Size [2.54 mm pitch]: 16.7 x 12.8 x 540 mm

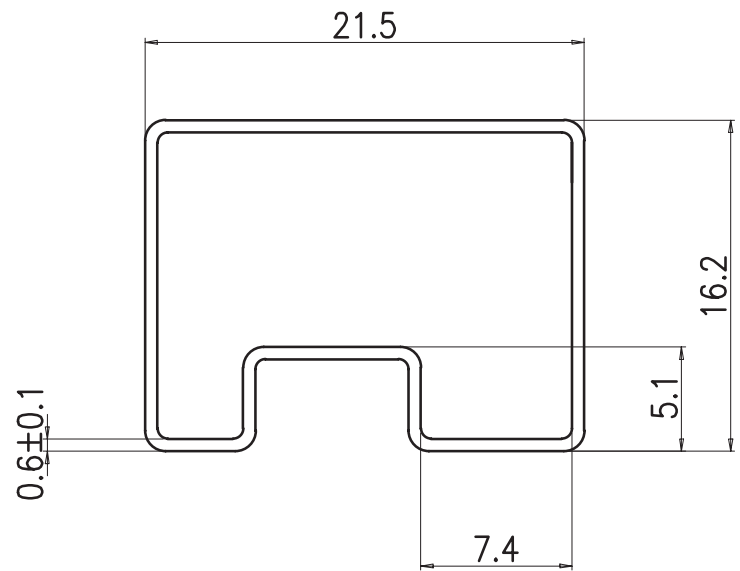
Tube Size [5.08 mm pitch]: 16.2 x 21.5 x 540 mm

Tube QTY: 50 pcs per tube

### 2.54 MM PITCH MODELS



### 5.08 MM PITCH MODELS



## REVISION HISTORY

| rev. | description     | date       |
|------|-----------------|------------|
| 1.0  | initial release | 05/31/2023 |

The revision history provided is for informational purposes only and is believed to be accurate.



CUI Devices offers a one (1) year limited warranty. Complete warranty information is listed on our website.

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