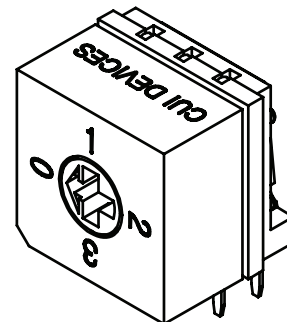


SERIES: RDS6-1011-RA | **DESCRIPTION:** ROTARY DIP SWITCH

FEATURES

- 4, 8, 10, & 16 positions
- removable cap options
- 2.54 and 5.08 pitch


SPECIFICATIONS

| parameter | conditions/description | min | typ | max | units |
|-----------------------|--|-----|--------|-----|---------|
| rated voltage | switching | | | 42 | Vdc |
| | non-switching | | | 42 | Vdc |
| rated current | switching | | | 150 | mA |
| | non-switching | | | 200 | 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 | | | | |

SOLDERABILITY

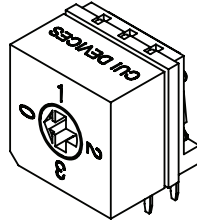
| parameter | conditions/description | min | typ | max | units |
|----------------|------------------------|-----|-----|-----|-------|
| hand soldering | for maximum 3 seconds | | | 350 | °C |
| wave soldering | for maximum 5 seconds | | | 260 | °C |

PART NUMBER KEY

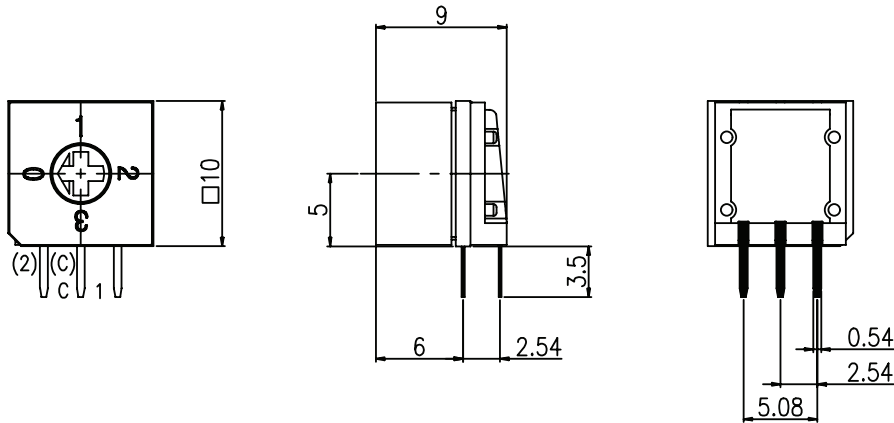
| | | | | | | |
|-------------|---|---------------|--|-------------|--|------------|
| RDS6 | - XXS | - 1011 | - X | - RA | - XXX | - D |
| Base Number | No. of Positions: 4 = 4 Positions 8 = 8 Positions 10 = 10 Positions 16 = 16 Positions | | Actuator Cap: "blank" = Without Cap 1 = Notched Cap 2 = Raised Slotted Cap 3 = Numbered Dial | | Pitch: 254 = 2.54 mm 508 = 5.08 mm | |

MECHANICAL DRAWING (4 POSITION, 2.54 MM PITCH)

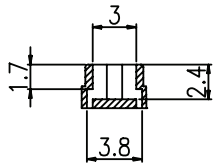
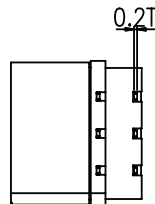
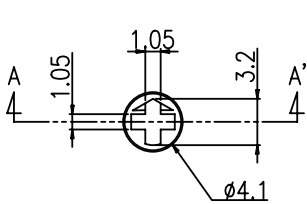
units: mm
 tolerance: ±0.3 mm
 unless otherwise specified



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

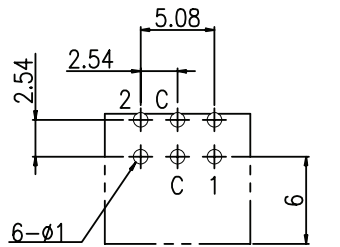


| ON ● | CODE | | | |
|------------|------|---|---|---|
| OFF ○ | | | | |
| TYPE | POS | C | 1 | 2 |
| 4 POSITION | 0 | ● | ○ | ○ |
| | 1 | ● | ● | ○ |
| | 2 | ● | ○ | ● |
| | 3 | ● | ● | ● |



Section A-A'

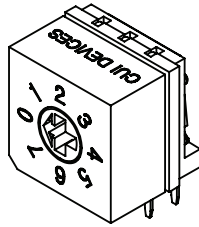
ACTUATOR



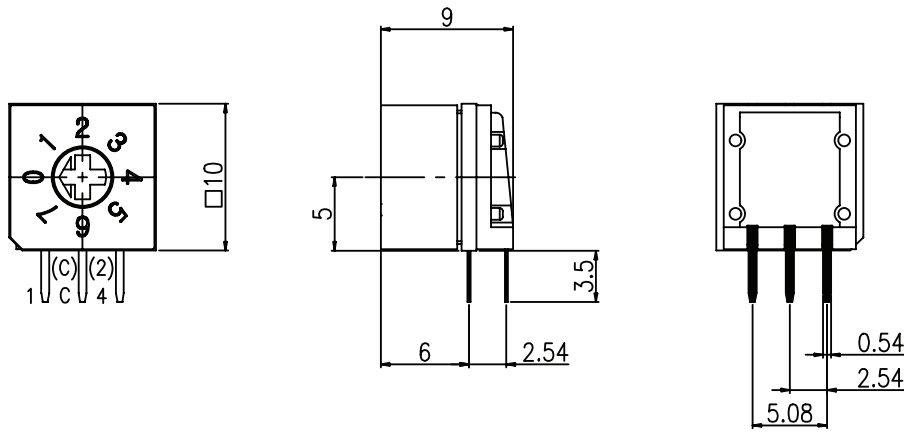
Recommended PCB Layout
 Top View

MECHANICAL DRAWING (8 POSITION, 2.54 MM PITCH)

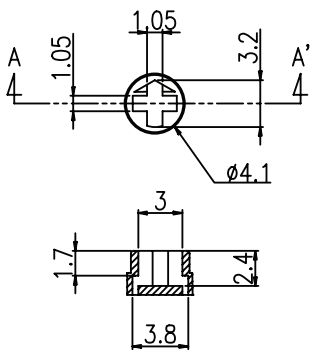
units: mm
 tolerance: ±0.3 mm
 unless otherwise specified



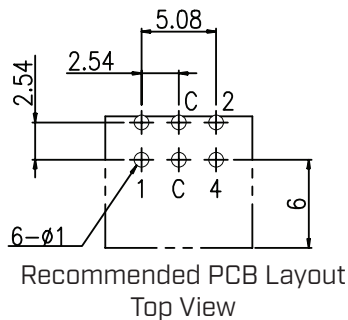
| DESCRIPTION | MATERIAL | PLATING/COLOR |
|-------------|-------------------|---------------|
| actuator | POM (UL94HB) | gray |
| cover | PA66 (UL94V-0) | black |
| base | PA66 (UL94V-0) | black |
| terminals | phosphorus bronze | Ni/Au |



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

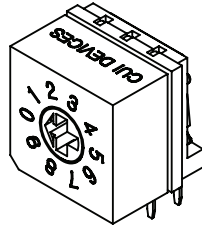


Section A-A'
 ACTUATOR

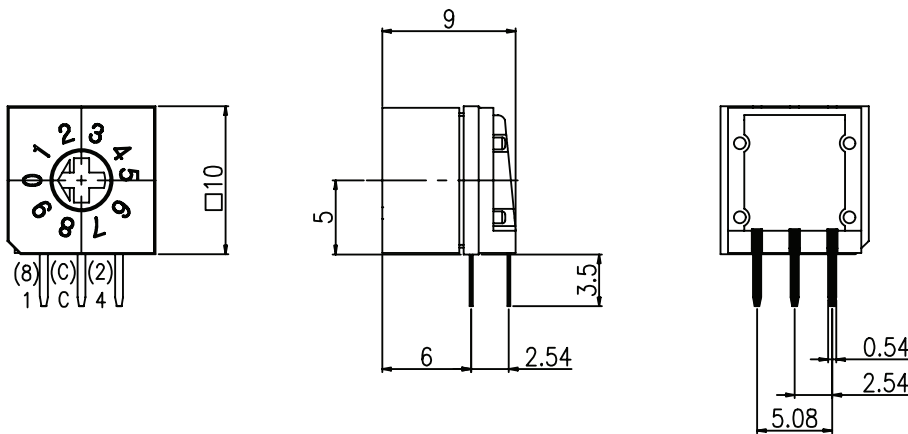


MECHANICAL DRAWING (10 POSITION, 2.54 MM PITCH)

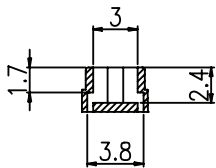
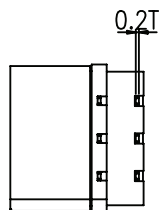
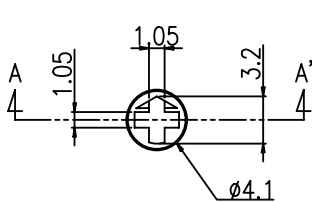
units: mm
 tolerance: ±0.3 mm
 unless otherwise specified



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

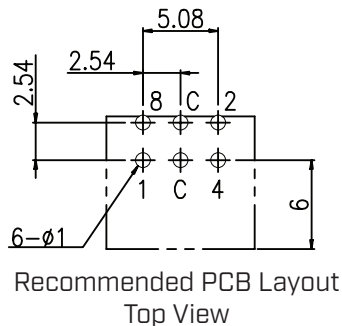


| TYPE | POS | CODE | | | | |
|-------------|-----|------|---|---|---|---|
| | | C | 1 | 2 | 4 | 8 |
| 10 POSITION | 0 | ● | ○ | ○ | ○ | ○ |
| | 1 | ● | ● | ○ | ○ | ○ |
| | 2 | ● | ○ | ● | ○ | ○ |
| | 3 | ● | ● | ● | ○ | ○ |
| | 4 | ● | ○ | ○ | ● | ○ |
| | 5 | ● | ● | ○ | ● | ○ |
| | 6 | ● | ○ | ● |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



Section A-A'

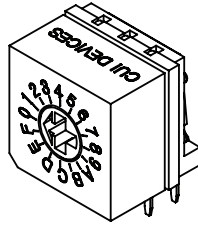
ACTUATOR



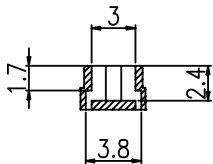
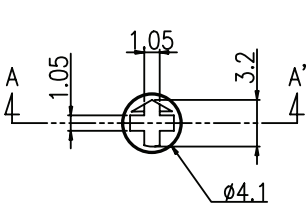
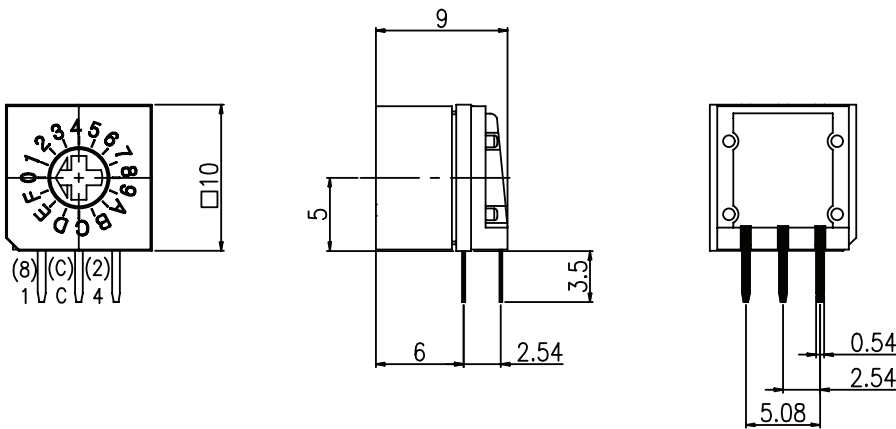
Recommended PCB Layout
 Top View

MECHANICAL DRAWING (16 POSITION, 2.54 MM PITCH)

units: mm
 tolerance: ±0.3 mm
 unless otherwise specified

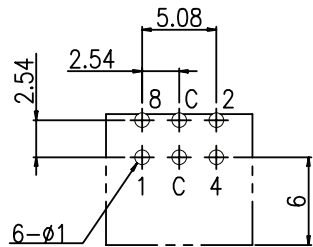


| DESCRIPTION | MATERIAL | PLATING/COLOR |
|-------------|-------------------|---------------|
| actuator | POM (UL94HB) | gray |
| cover | PA66 (UL94V-0) | black |
| base | PA66 (UL94V-0) | black |
| terminals | phosphorus bronze | Ni/Au |



Section A-A'

ACTUATOR

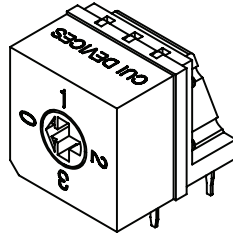


Recommended PCB Layout
 Top View

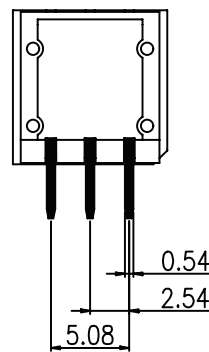
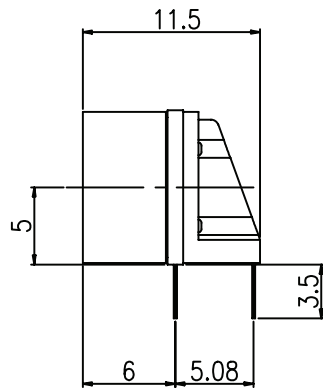
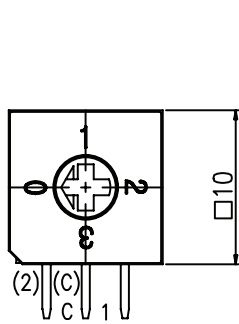
| TYPE | POS | CODE | | | | |
|-------------|-----|------|---|---|---|---|
| | | C | 1 | 2 | 4 | 8 |
| 16 POSITION | 0 | ● | ○ | ○ | ○ | ○ |
| | 1 | ● | ● | ○ | ○ | ○ |
| | 2 | ● | ○ | ● | ○ | ○ |
| | 3 | ● | ● | ● | ○ | ○ |
| | 4 | ● | ○ | ○ | ● | ○ |
| | 5 | ● | ● | ○ | ● | ○ |
| | 6 | ● | ○ | ● |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

MECHANICAL DRAWING (4 POSITION, 5.08 MM PITCH)

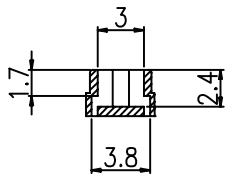
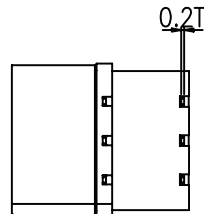
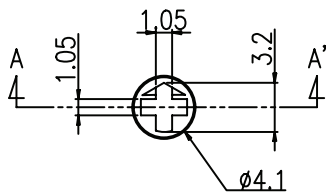
units: mm
 tolerance: ±0.3 mm
 unless otherwise specified



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

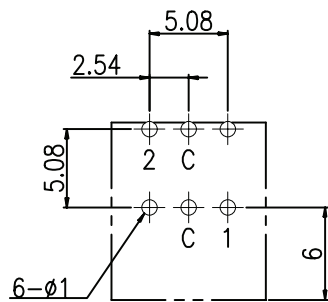


| ON ● | CODE | | | |
|------------|------|---|---|---|
| OFF ○ | | | | |
| TYPE | POS | C | 1 | 2 |
| 4 POSITION | 0 | ● | ○ | ○ |
| | 1 | ● | ● | ○ |
| | 2 | ● | ○ | ● |
| | 3 | ● | ● | ● |



Section A-A'

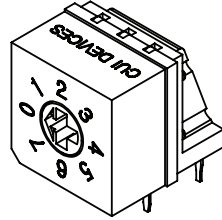
ACTUATOR



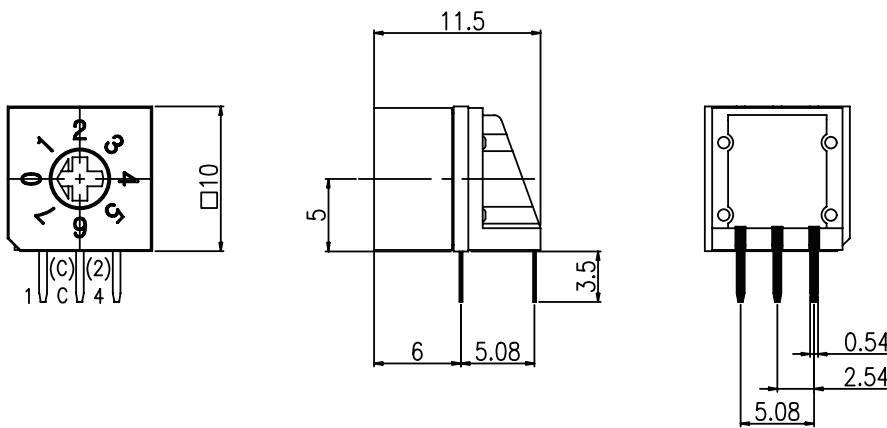
Recommended PCB Layout
 Top View

MECHANICAL DRAWING (8 POSITION, 5.08 MM PITCH)

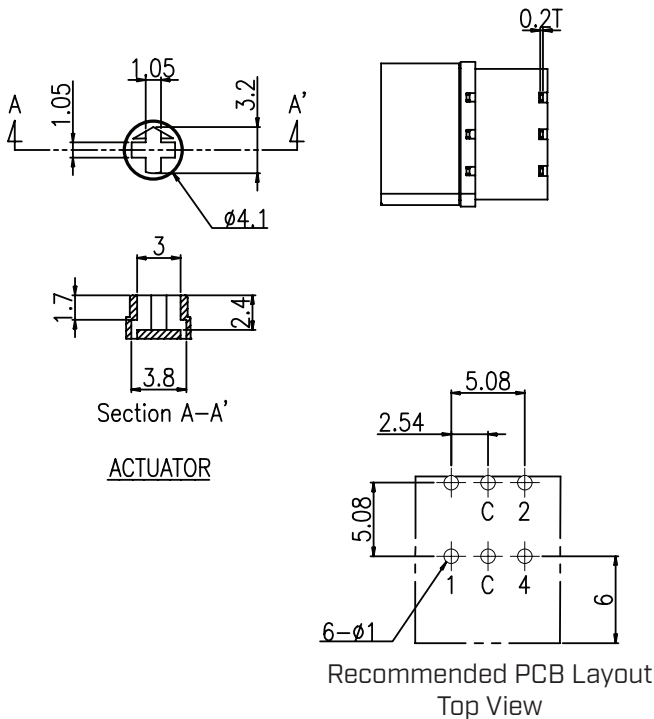
units: mm
 tolerance: ±0.3 mm
 unless otherwise specified



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

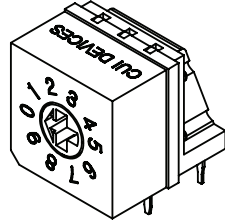


| TYPE | POS | CODE | | | |
|------------|-----|------|---|---|---|
| | | C | 1 | 2 | 4 |
| 8 POSITION | 0 | ● | ○ | ○ | ○ |
| | 1 | ● | ● | ○ | ○ |
| | 2 | ● | ○ | ● | ○ |
| | 3 | ● | ● | ● | ○ |
| | 4 | ● | ○ | ○ | ● |
| | 5 | ● | ● | ○ | ● |
| | 6 | ● | ○ | ● | ● |
| | 7 | ● | ● | ● | ● |

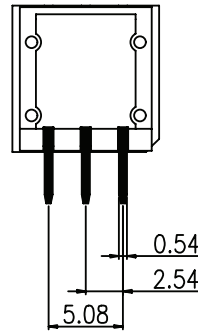
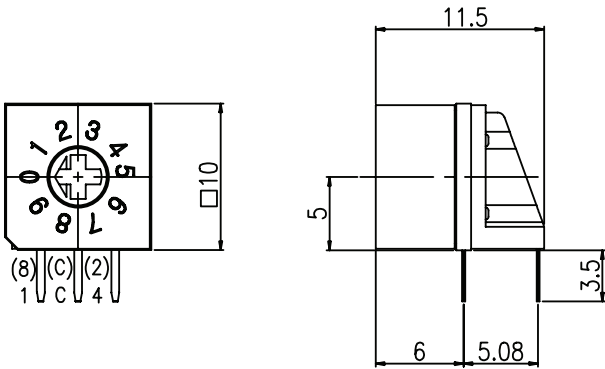


MECHANICAL DRAWING (10 POSITION, 5.08 MM PITCH)

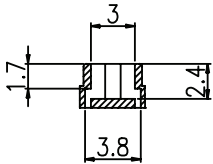
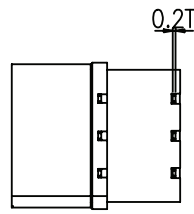
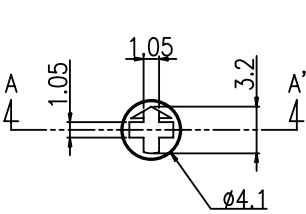
units: mm
tolerance: ±0.3 mm
unless otherwise specified



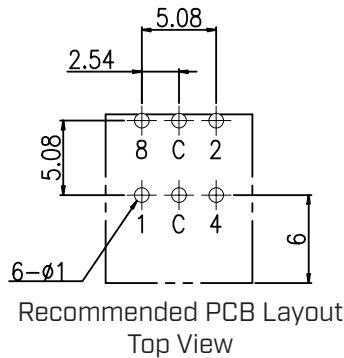
| DESCRIPTION | MATERIAL | PLATING/COLOR |
|-------------|-------------------|---------------|
| actuator | POM (UL94HB) | gray |
| cover | PA66 (UL94V-0) | black |
| base | PA66 (UL94V-0) | black |
| terminals | phosphorus bronze | Ni/Au |



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

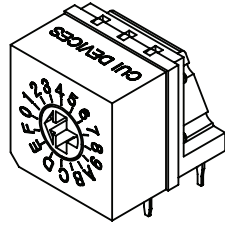


Section A-A'
ACTUATOR

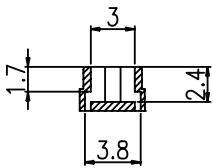
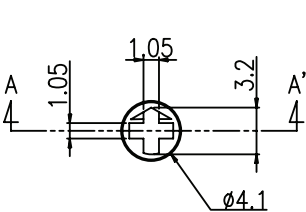
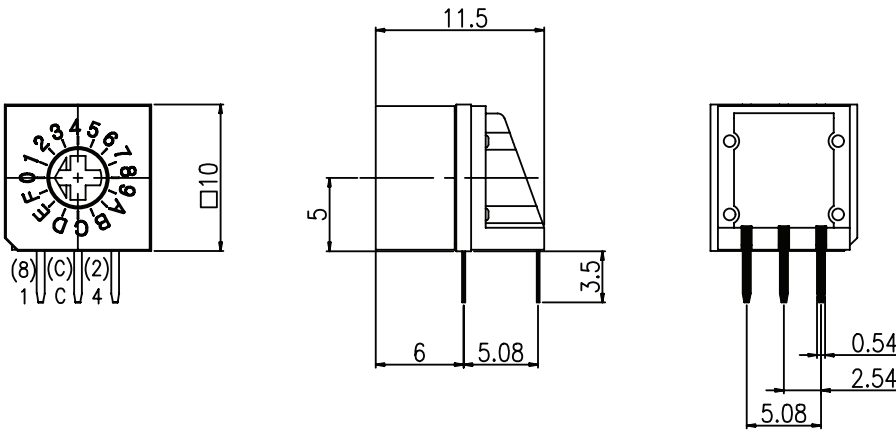


MECHANICAL DRAWING (16 POSITION, 5.08 MM PITCH)

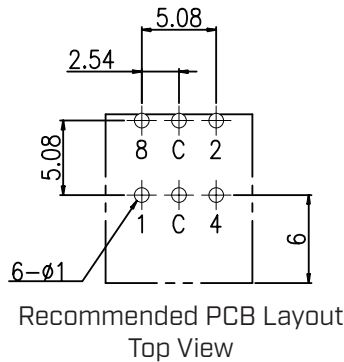
units: mm
 tolerance: ±0.3 mm
 unless otherwise specified



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



Section A-A'
 ACTUATOR



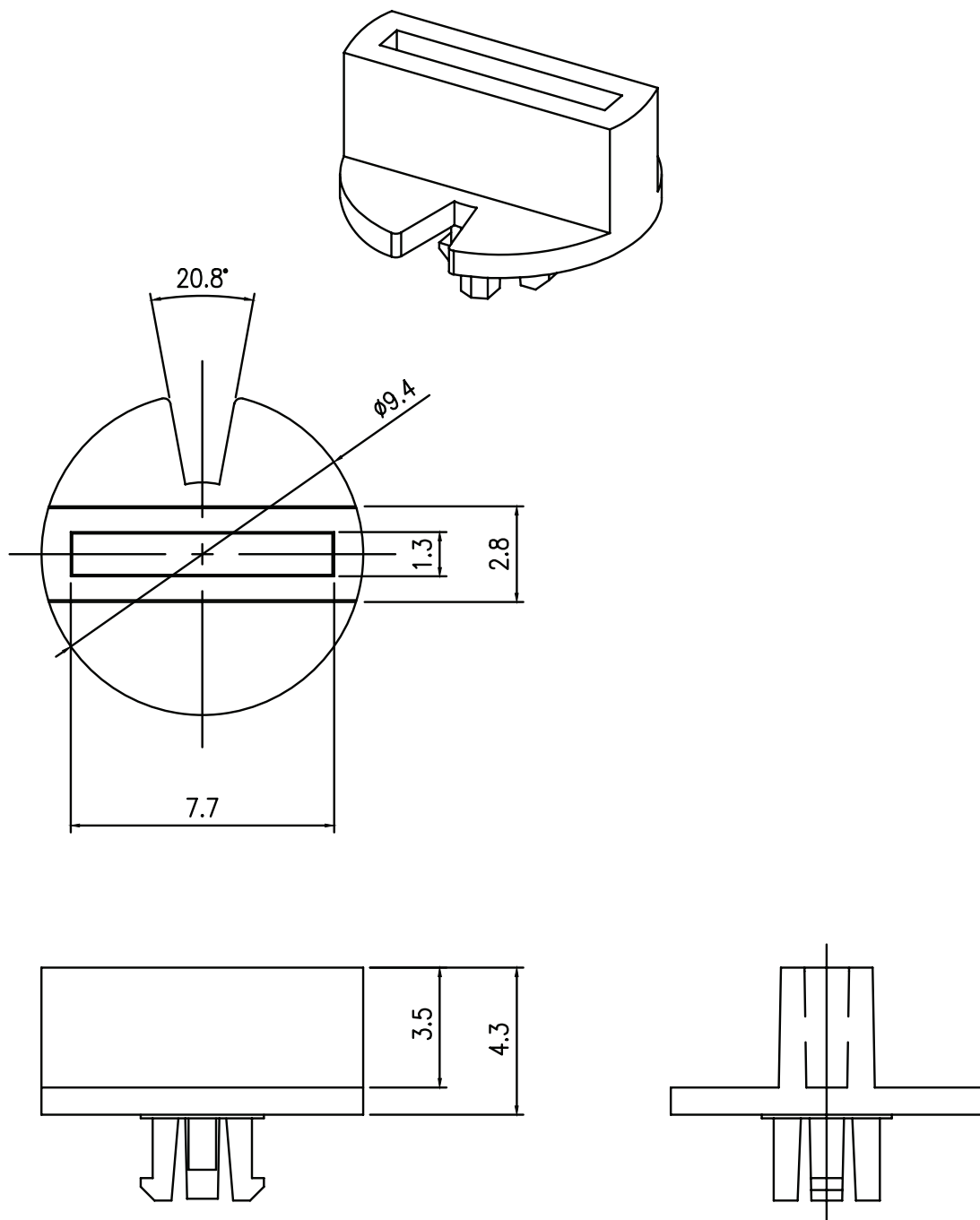
Recommended PCB Layout
 Top View

| 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 | ● | ● | ● | ● | ● |

MECHANICAL DRAWING (NOTCHED CAP)

units: mm
 tolerance: ±0.1 mm
 unless otherwise specified

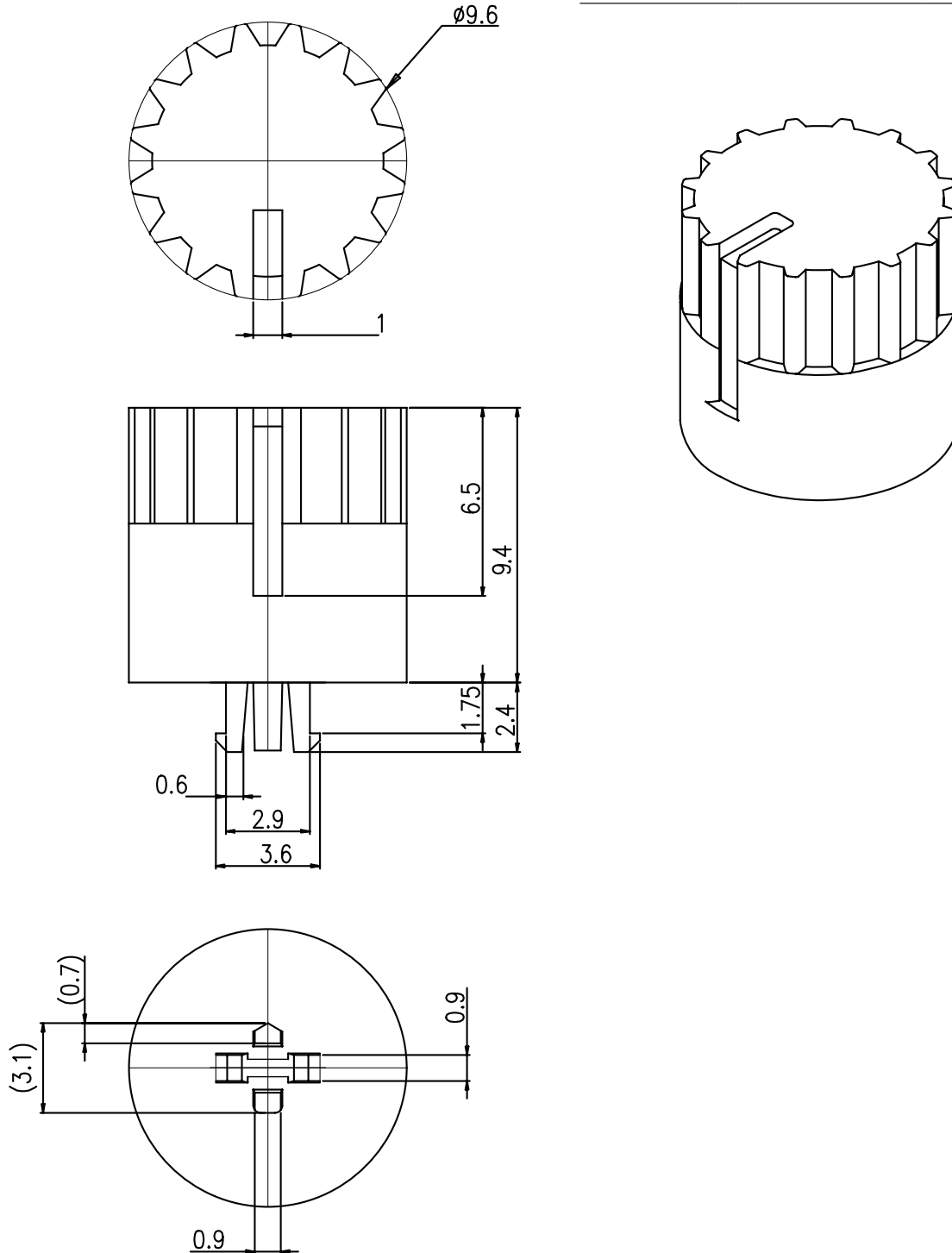
| DESCRIPTION | MATERIAL | PLATING/COLOR |
|-------------|----------------|---------------|
| housing | PA66 (UL94V-0) | gray |



MECHANICAL DRAWING (RAISED SLOTTED CAP)

units: mm
 tolerance: ± 0.3 mm
 unless otherwise specified

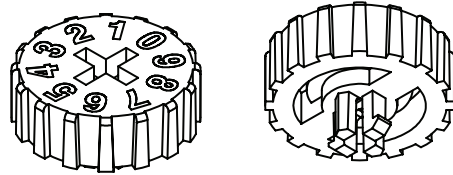
| DESCRIPTION | MATERIAL | PLATING/COLOR |
|-------------|----------------|---------------|
| housing | PA66 (UL94V-0) | black |



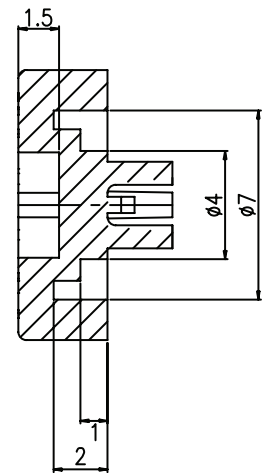
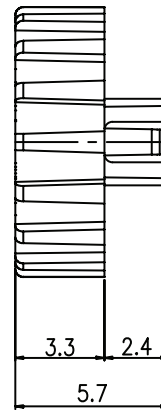
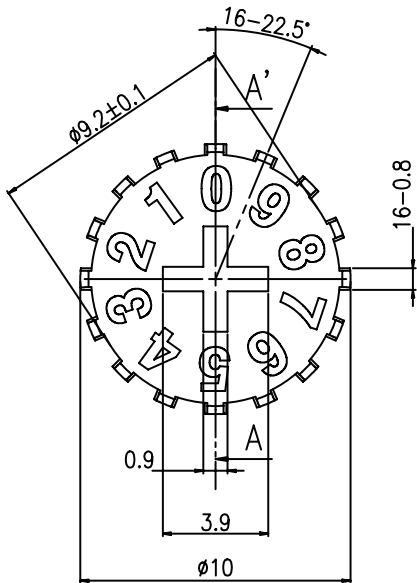
MECHANICAL DRAWING (NUMBERED DIAL)

units: mm
 tolerance: ± 0.3 mm
 unless otherwise specified

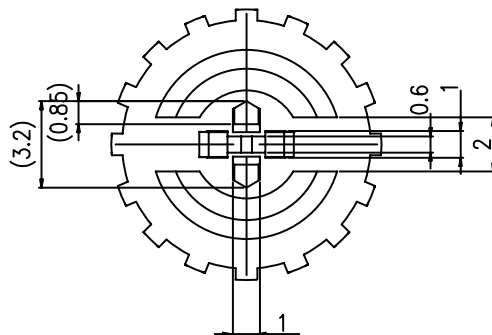
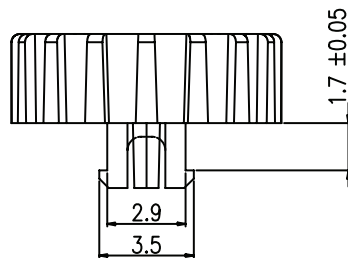
| DESCRIPTION | MATERIAL | PLATING/COLOR |
|-------------|----------------|------------------------|
| housing | PA66 (UL94V-0) | red with white letters |



| Position | Direction |
|----------|-----------|
| 04 | |
| 08 | |
| 10 | |
| 16 | |



SECTION A-A'



PACKAGING

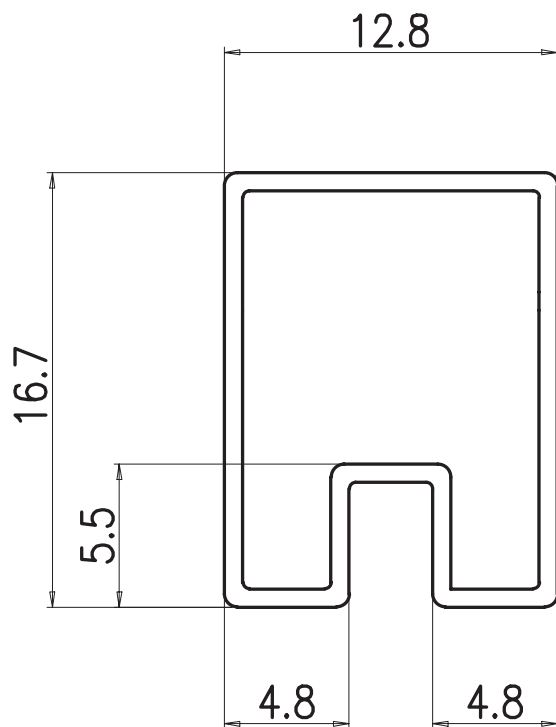
units: mm

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

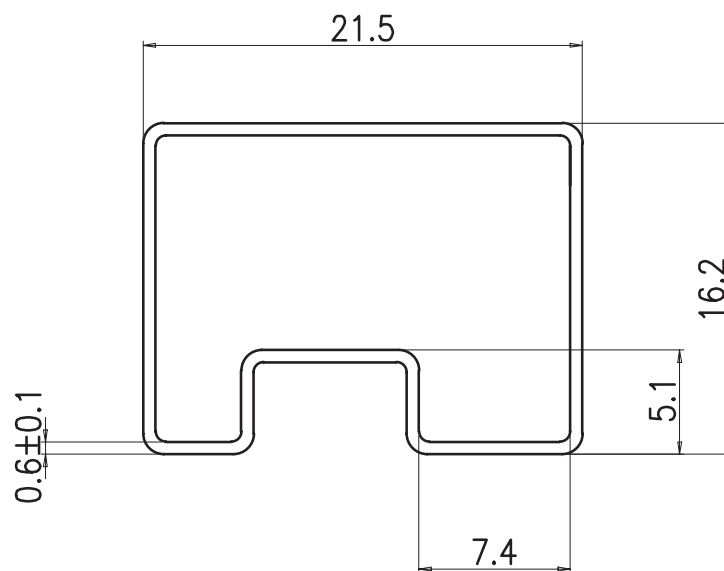
Tube Size [5.08 mm pitch]: 16.2 x 21.5 x 540 mm

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.

CUI Devices reserves the right to make changes to the product at any time without notice. Information provided by CUI Devices is believed to be accurate and reliable. However, no responsibility is assumed by CUI Devices for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

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