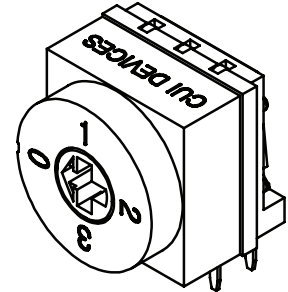




## SERIES: RDS3-1012-RA | DESCRIPTION: ROTARY DIP SWITCH

### FEATURES

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

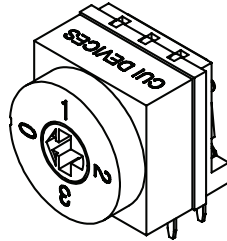
parameter	conditions/description	min	typ	max	units
hand soldering	for maximum 3 seconds			350	°C
wave soldering	for maximum 5 seconds			260	°C

### PART NUMBER KEY

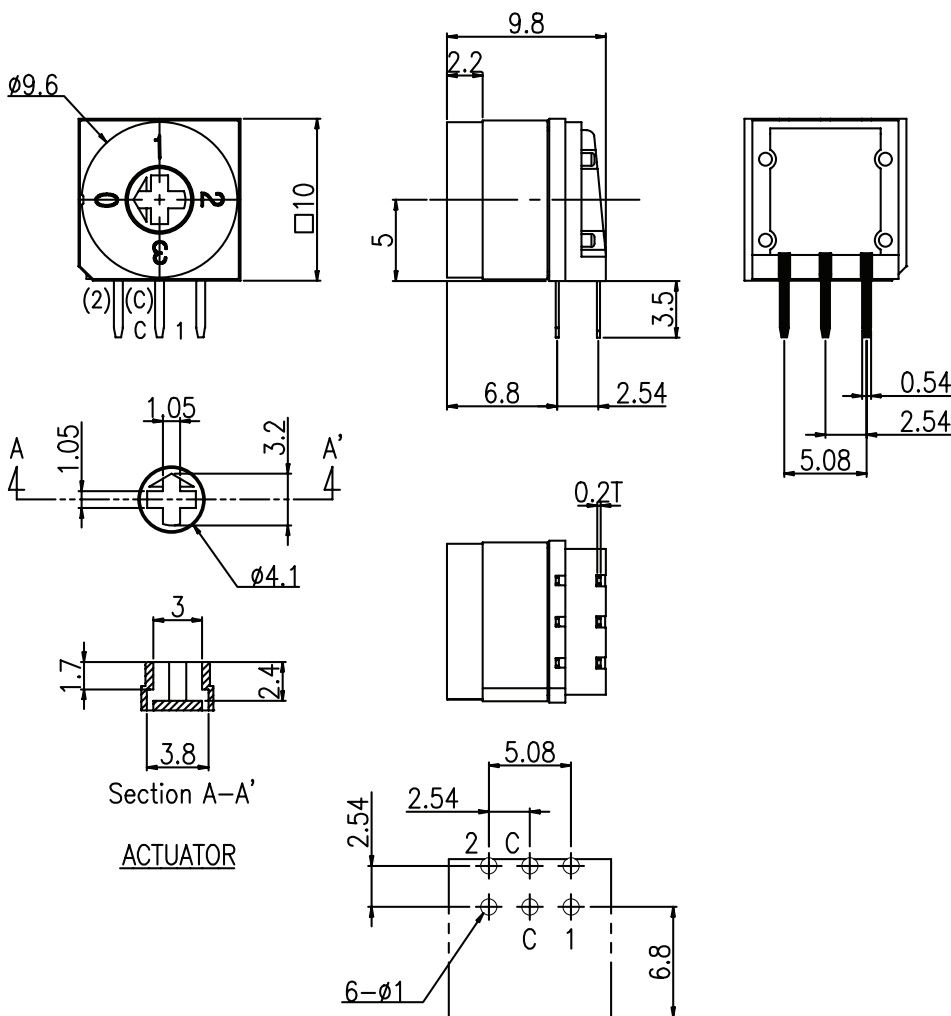
<b>RDS3</b>	<b>- XXS</b>	<b>- 1012</b>	<b>- X</b>	<b>- RA</b>	<b>- XXX</b>	<b>- D</b>
Base Number	No. of Positions: 4 = 4 Positions 8 = 8 Positions 10 = 10 Positions 16 = 16 Positions		Actuator Cap: "blank" = Without Cap 1 = Notched Cap 2 = Raised Slotted Cap 3 = Numbered Dial		Pitch: 254 = 2.54 mm 508 = 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)	light white
base	PA66 (UL94V-0)	black
terminals	phosphorus bronze	Ni/Au



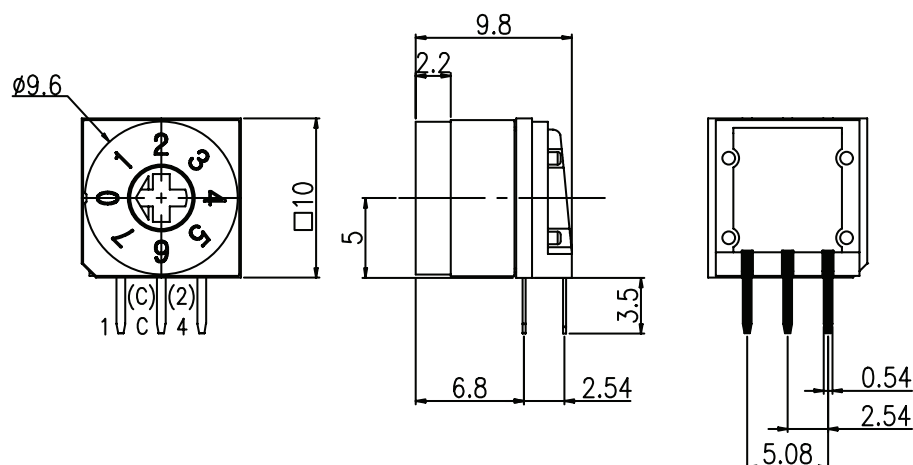
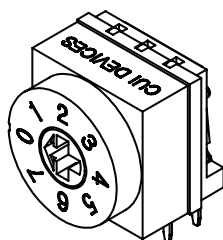
ON ●	CODE			
OFF ○	CODE			
TYPE	POS	C	1	2
4 POSITION	0	●	○	○
	1	●	●	○
	2	●	○	●
	3	●	●	●

Recommended PCB Layout  
 Top View

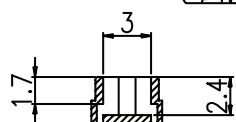
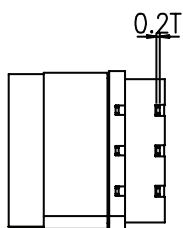
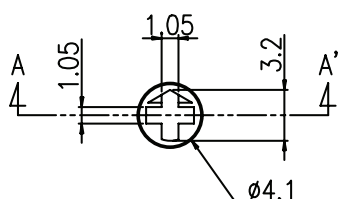
## MECHANICAL DRAWING (8 POSITION, 2.54 MM PITCH)

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

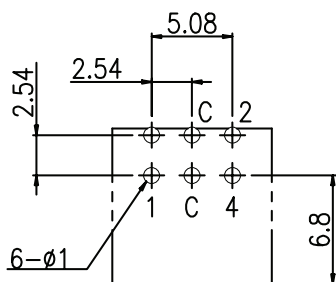


ON ●					
OFF ○	CODE				
TYPE	POS	C	1	2	4
8 POSITION	0	●	○	○	○
	1	●	●	○	○
	2	●	○	●	○
	3	●	●	●	○
	4	●	○	○	●
	5	●	●	○	●
	6	●	○	●	●
	7	●	●	●	●



Section A-A'

ACTUATOR

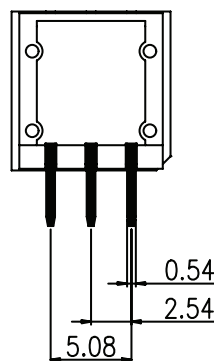
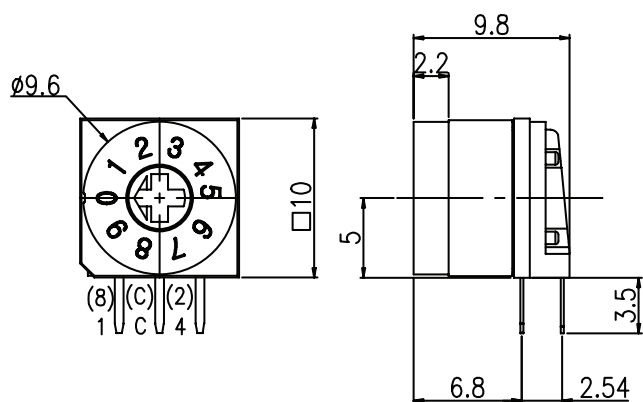
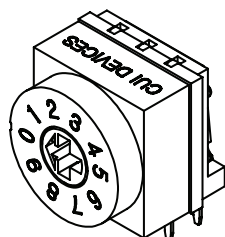


Recommended PCB Layout  
 Top View

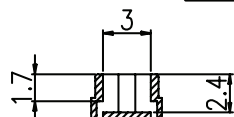
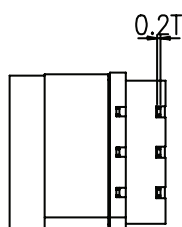
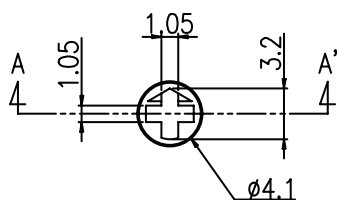
## MECHANICAL DRAWING (10 POSITION, 2.54 MM PITCH)

units: mm  
 tolerance: ±0.3 mm  
 unless otherwise specified

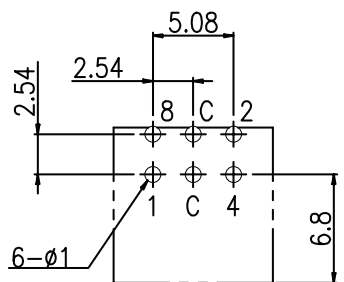
DESCRIPTION	MATERIAL	PLATING/COLOR
actuator	POM (UL94HB)	gray
cover	PA66 (UL94V-0)	light white
base	PA66 (UL94V-0)	black
terminals	phosphorus bronze	Ni/Au



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



Section A-A'  
**ACTUATOR**

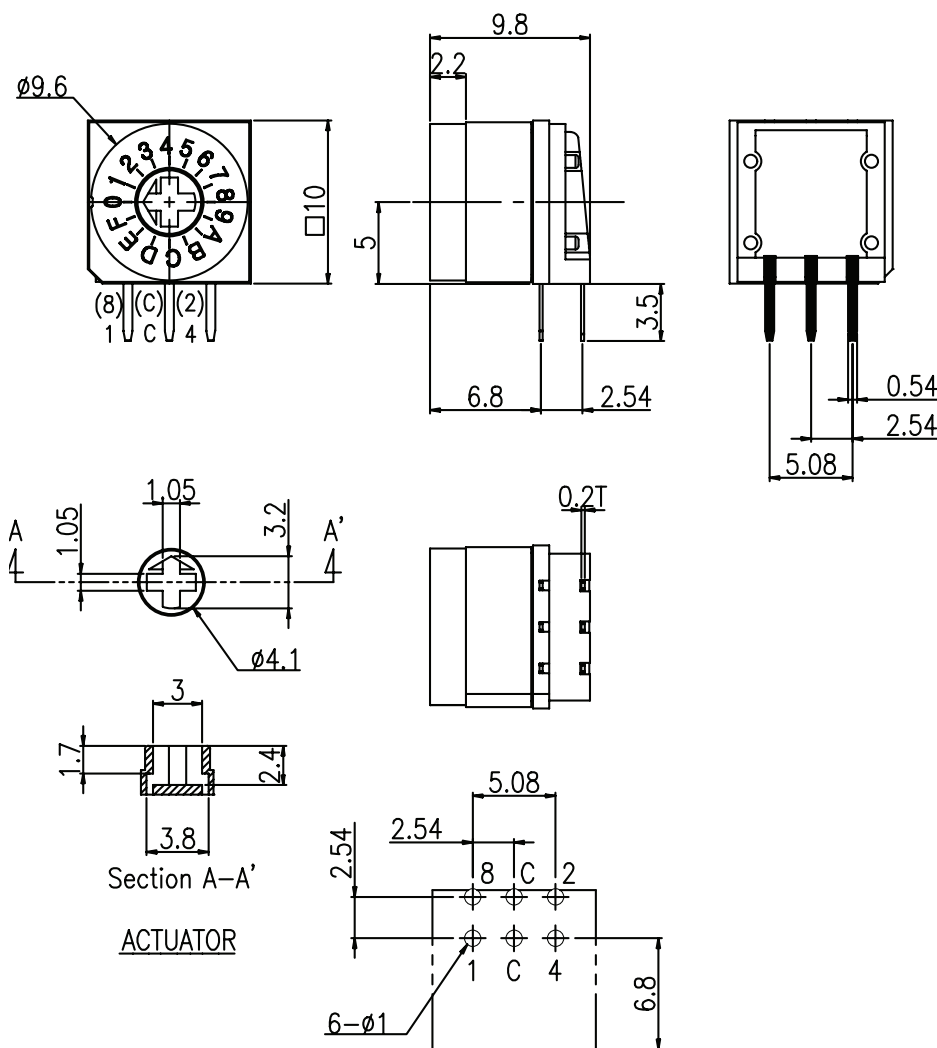
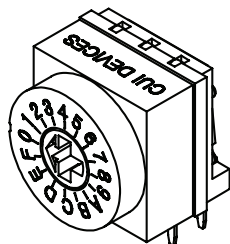


Recommended PCB Layout  
 Top View

## 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)	light white
base	PA66 (UL94V-0)	black
terminals	phosphorus bronze	Ni/Au

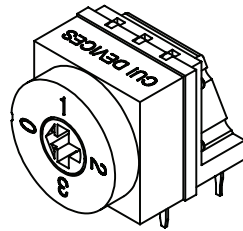


ON ●						
OFF ○	CODE					
TYPE	POS	C	1	2	4	8
16 POSITION	0	●	○	○	○	○
	1	●	●	○	○	○
	2	●	○	●	○	○
	3	●	●	●	○	○
	4	●	○	○	●	○
	5	●	●	○	●	○
	6	●	○	●	●	○
	7	●	●	●	●	○
	8	●	○	○	○	●
	9	●	●	○	○	●
	A	●	○	●	○	●
	B	●	●	●	○	●
	C	●	○	○	●	●
	D	●	●	○	●	●
	E	●	○	●	●	●
	F	●	●	●	●	●

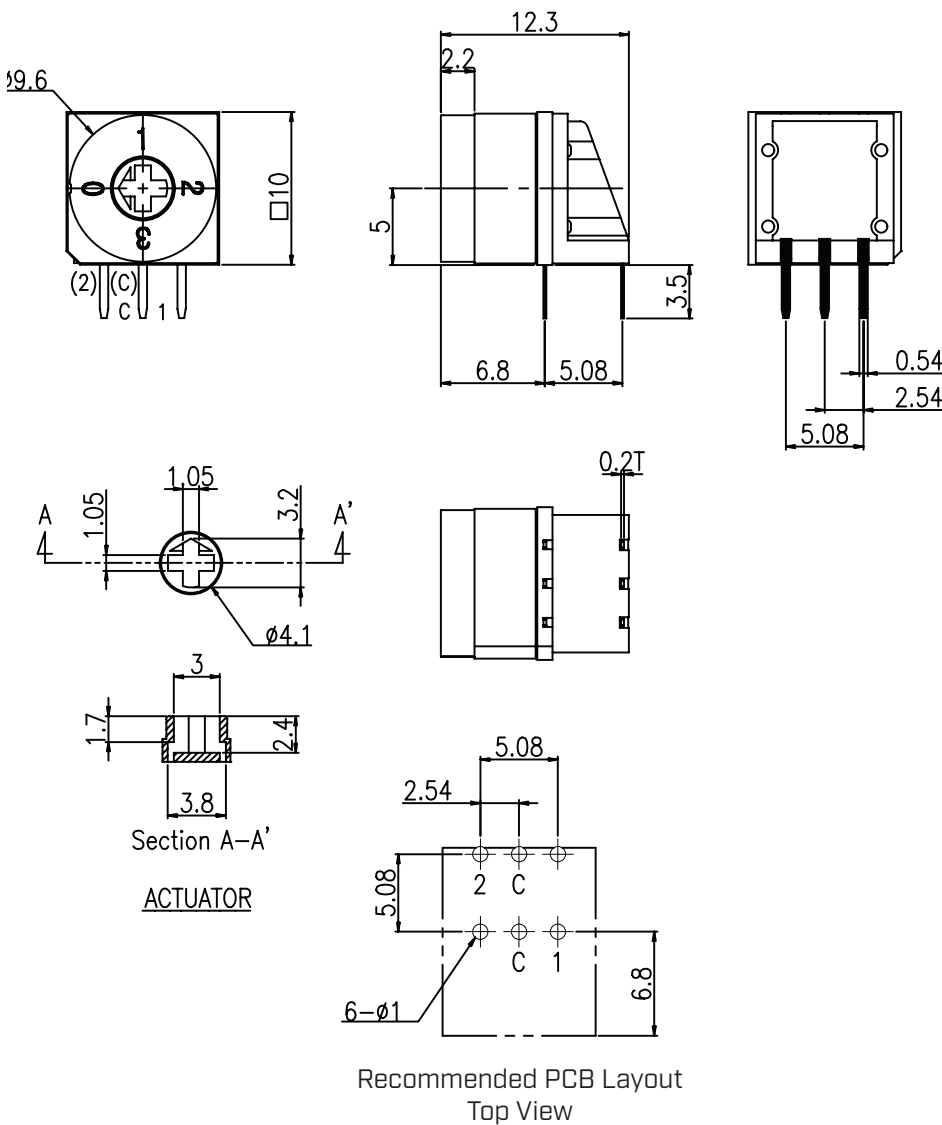
Recommended PCB Layout  
 Top View

## 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

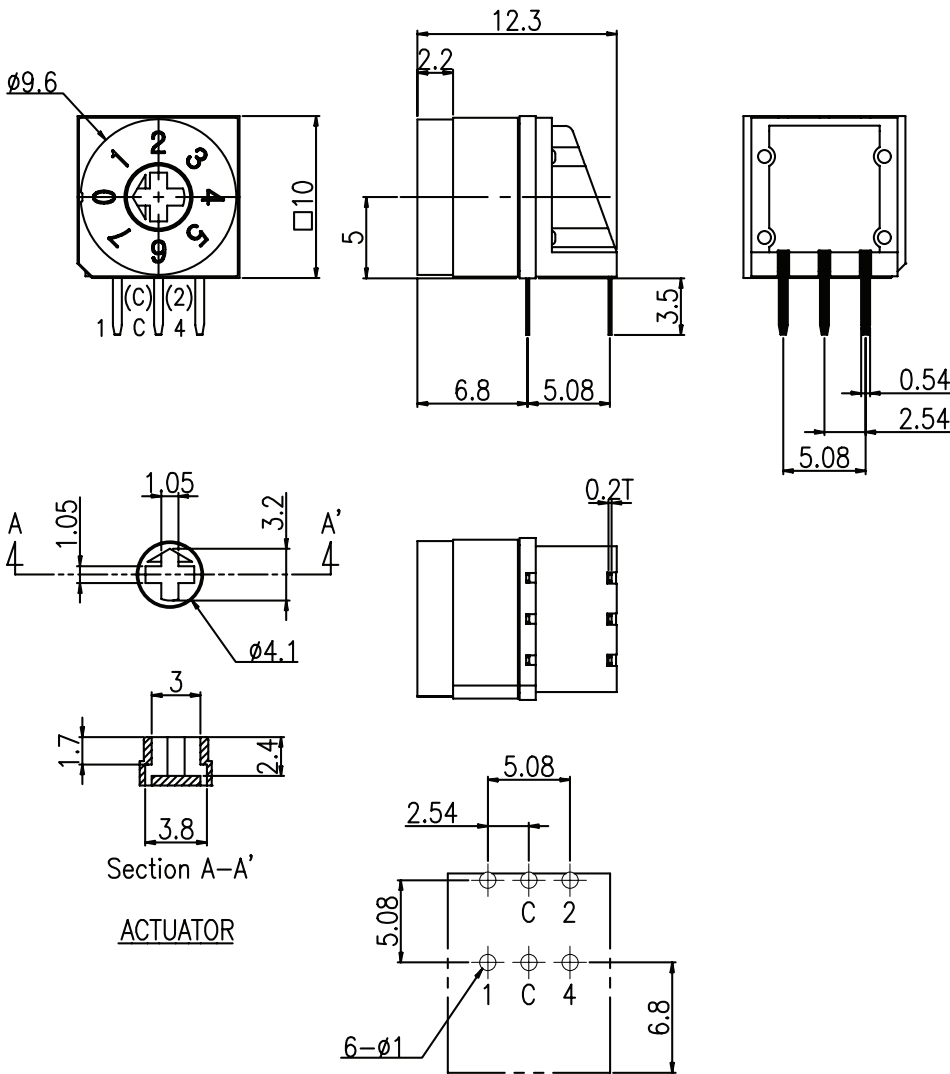
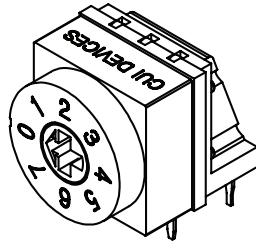


ON ●				
OFF ○	CODE			
TYPE	POS	C	1	2
4 POSITION	0	●	○	○
	1	●	●	○
	2	●	○	●
	3	●	●	●

## 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



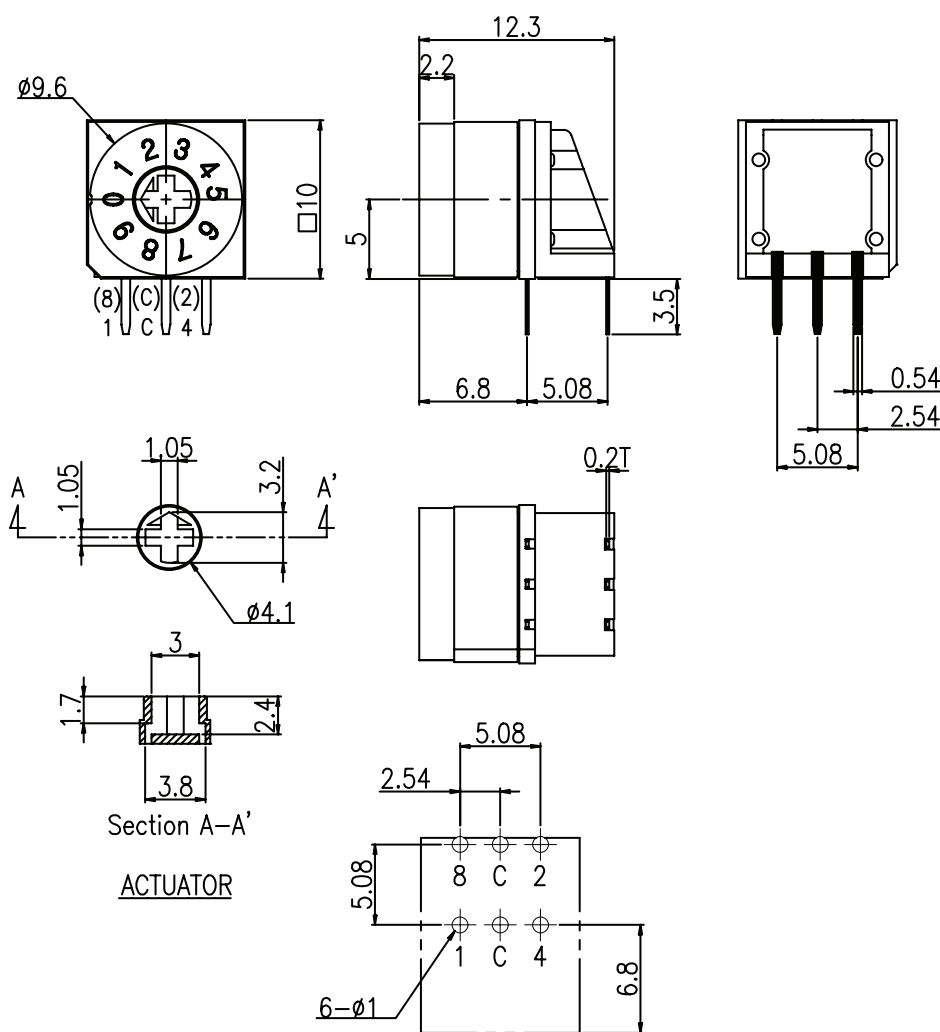
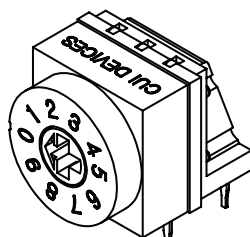
TYPE	POS	CODE			
		C	1	2	4
8 POSITION	0	●	○	○	○
	1	●	●	○	○
	2	●	○	●	○
	3	●	●	●	○
	4	●	○	○	●
	5	●	●	○	●
	6	●	○	●	●
	7	●	●	●	●

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	●	●	○	○	●

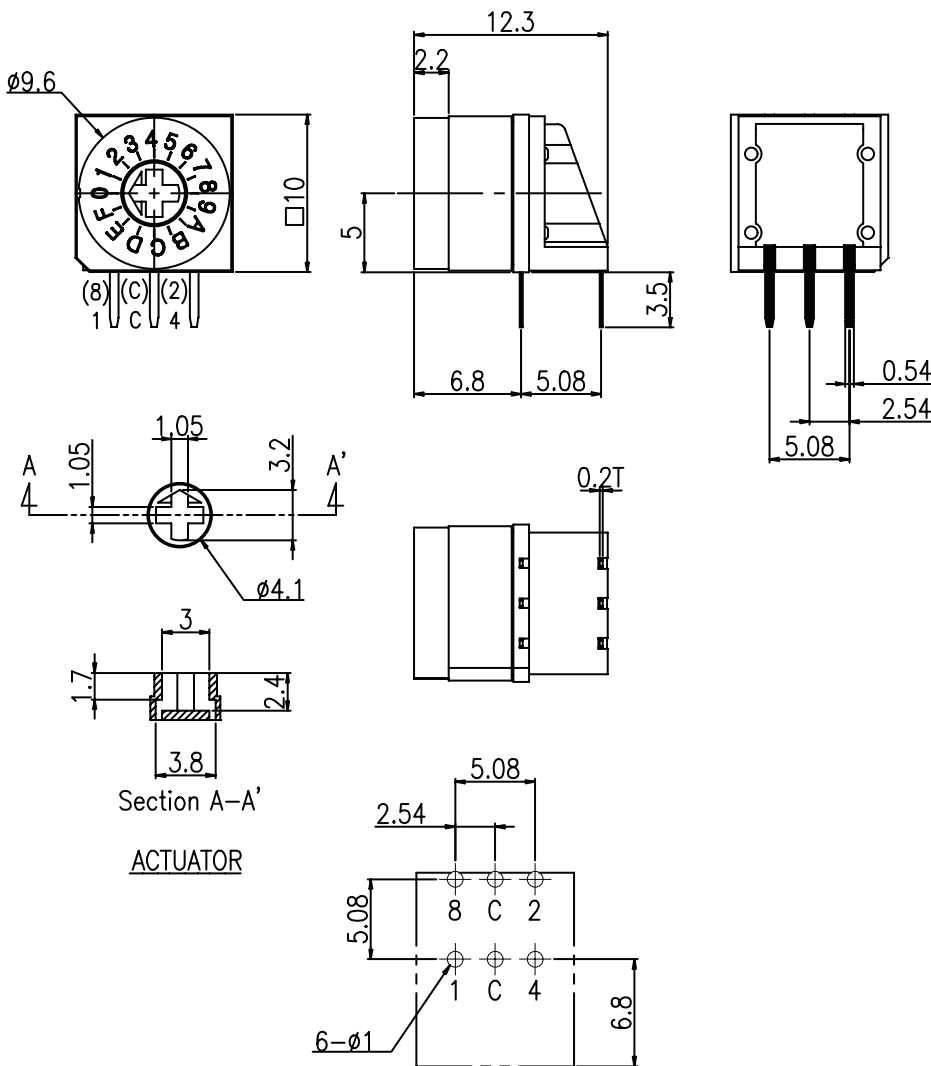
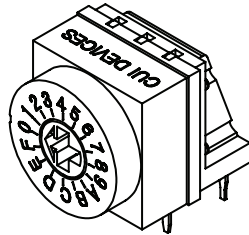
Recommended PCB Layout  
 Top View



## 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)	light white
base	PA66 (UL94V-0)	black
terminals	phosphorus bronze	Ni/Au



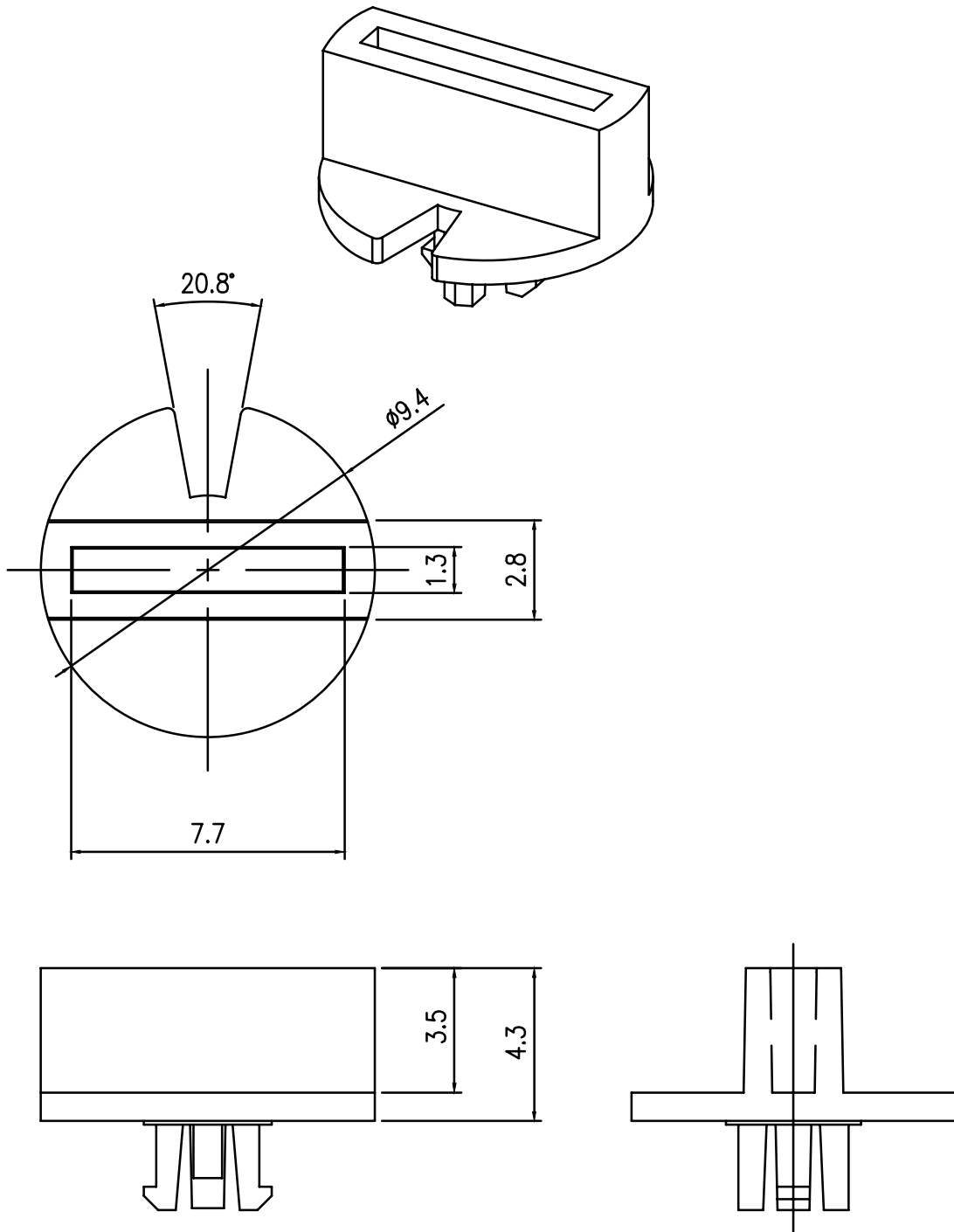
ON ●						
OFF ○	CODE					
TYPE	POS	C	1	2	4	8
16 POSITION	0	●	○	○	○	○
	1	●	●	○	○	○
	2	●	○	●	○	○
	3	●	●	●	○	○
	4	●	○	○	●	○
	5	●	●	○	●	○
	6	●	○	●	●	○
	7	●	●	●	●	○
	8	●	○	○	○	●
	9	●	●	○	○	●
	A	●	○	●	○	●
	B	●	●	●	○	●
	C	●	○	○	●	●
	D	●	●	○	●	●
	E	●	○	●	●	●
	F	●	●	●	●	●

Recommended PCB Layout  
 Top View

## MECHANICAL DRAWING (NOTCHED CAP)

units: mm  
 tolerance: ±0.1 mm  
 unless otherwise specified

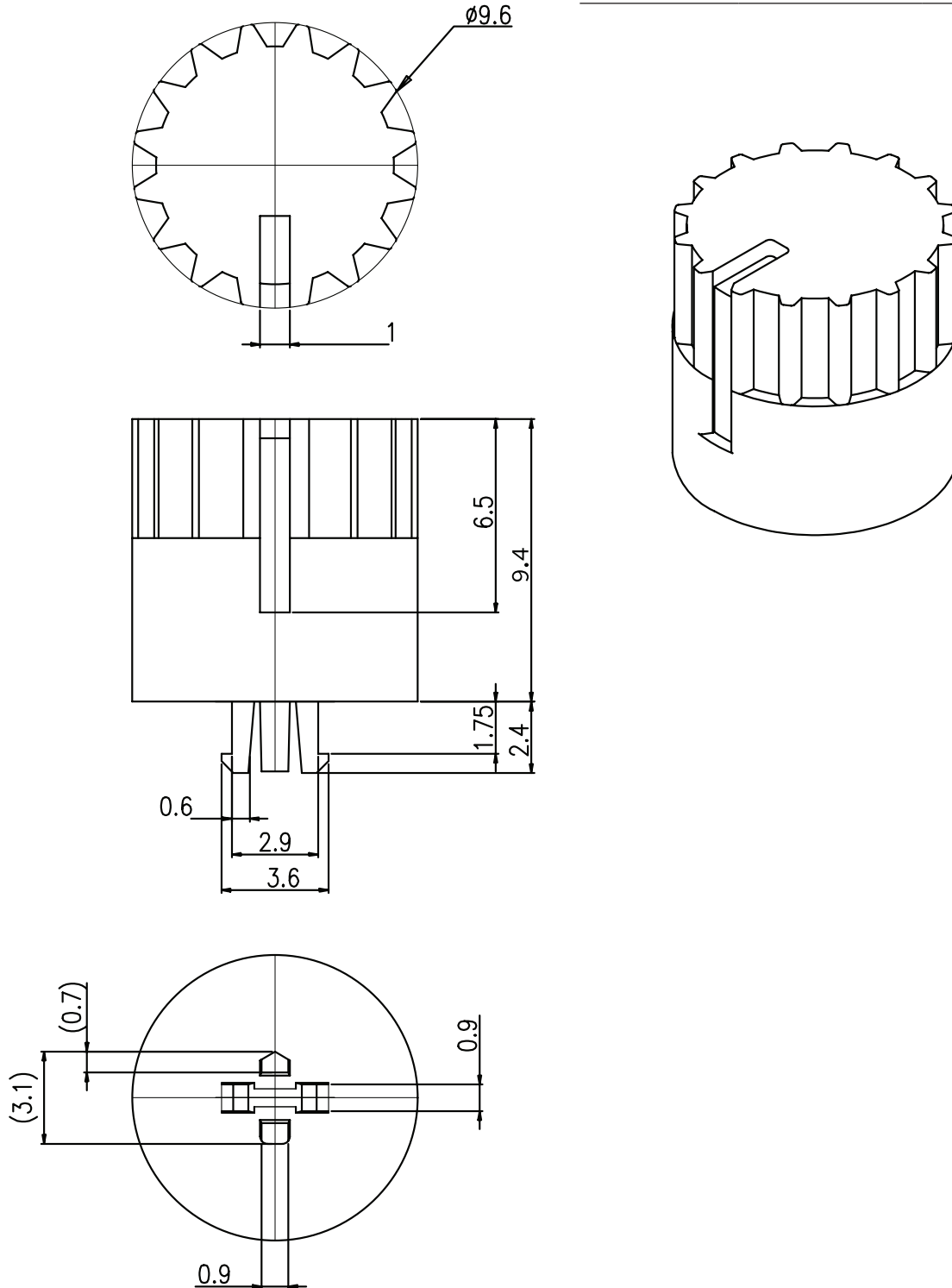
DESCRIPTION	MATERIAL	PLATING/COLOR
housing	PA66 (UL94V-0)	gray



## MECHANICAL DRAWING (RAISED SLOTTED CAP)

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

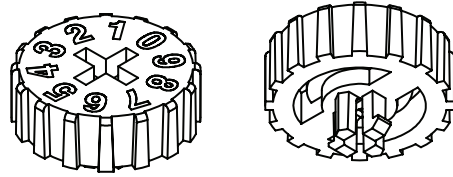
DESCRIPTION	MATERIAL	PLATING/COLOR
housing	PA66 (UL94V-0)	black



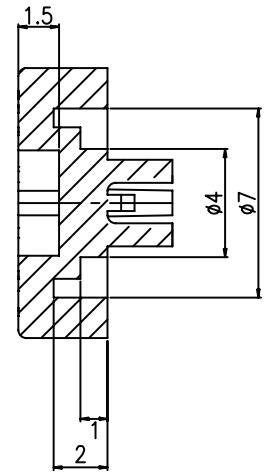
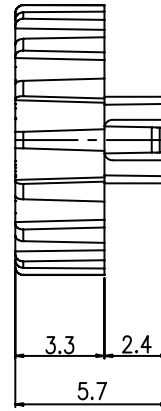
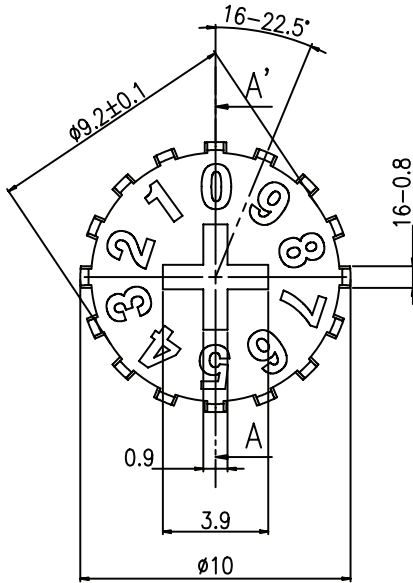
## MECHANICAL DRAWING (NUMBERED DIAL)

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

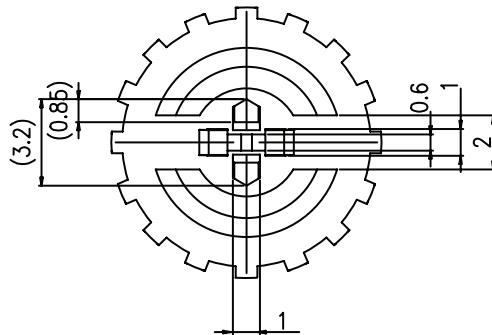
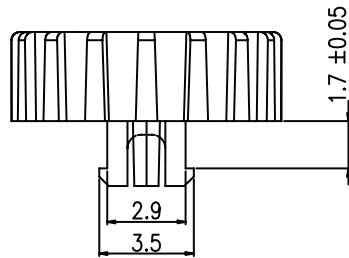
DESCRIPTION	MATERIAL	PLATING/COLOR
housing	PA66 (UL94V-0)	red with black letters



Position	Direction
04	
08	
10	
16	



SECTION A-A'



## PACKAGING

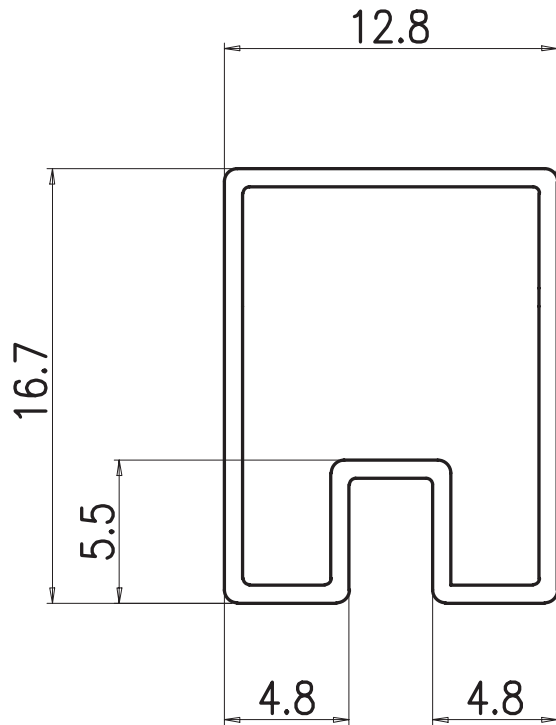
units: mm

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

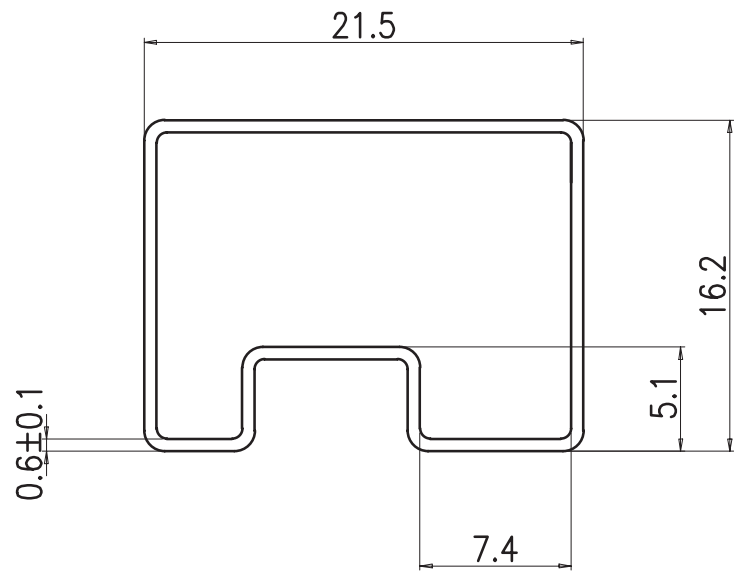
Tube Size [5.08 mm pitch]: 16.2 x 21.5 x 540 mm

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.

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