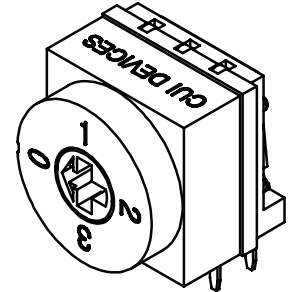


SERIES: RDS3-1012-RA | **DESCRIPTION:** ROTARY DIP SWITCH

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

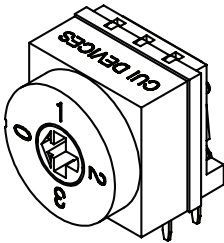
parameter	conditions/description	min	typ	max	units
hand soldering	for maximum 3 seconds			350	°C
wave soldering	for maximum 5 seconds			260	°C

PART NUMBER KEY

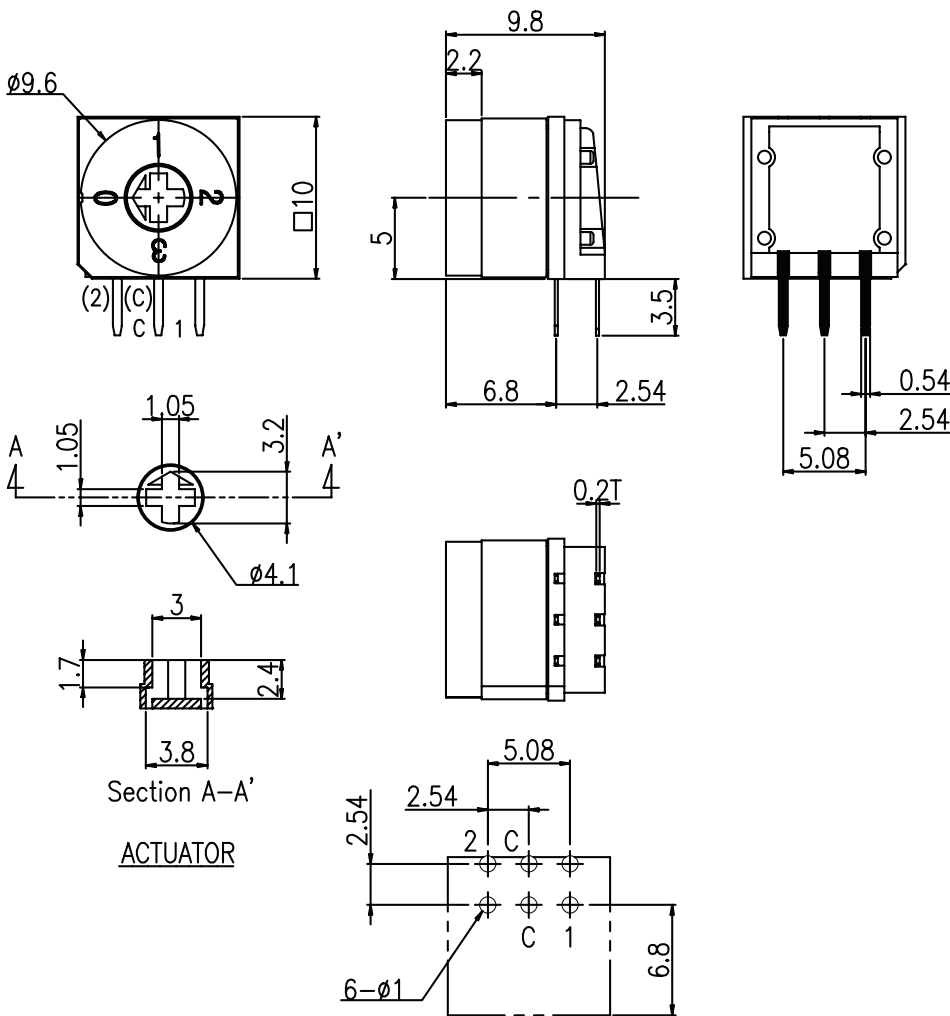
RDS3 - XXS - 1012 - X - RA - XXX - D			
Base Number	No. of Positions: 4 = 4 Positions 8 = 8 Positions 10 = 10 Positions 16 = 16 Positions	Actuator Cap: "blank" = Without Cap 1 = Notched Cap 2 = Raised Slotted Cap 3 = Numbered Dial	Pitch: 254 = 2.54 mm 508 = 5.08 mm

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]	light white
base	PA66 [UL94V-0]	black
terminals	phosphorus bronze	Ni/Au



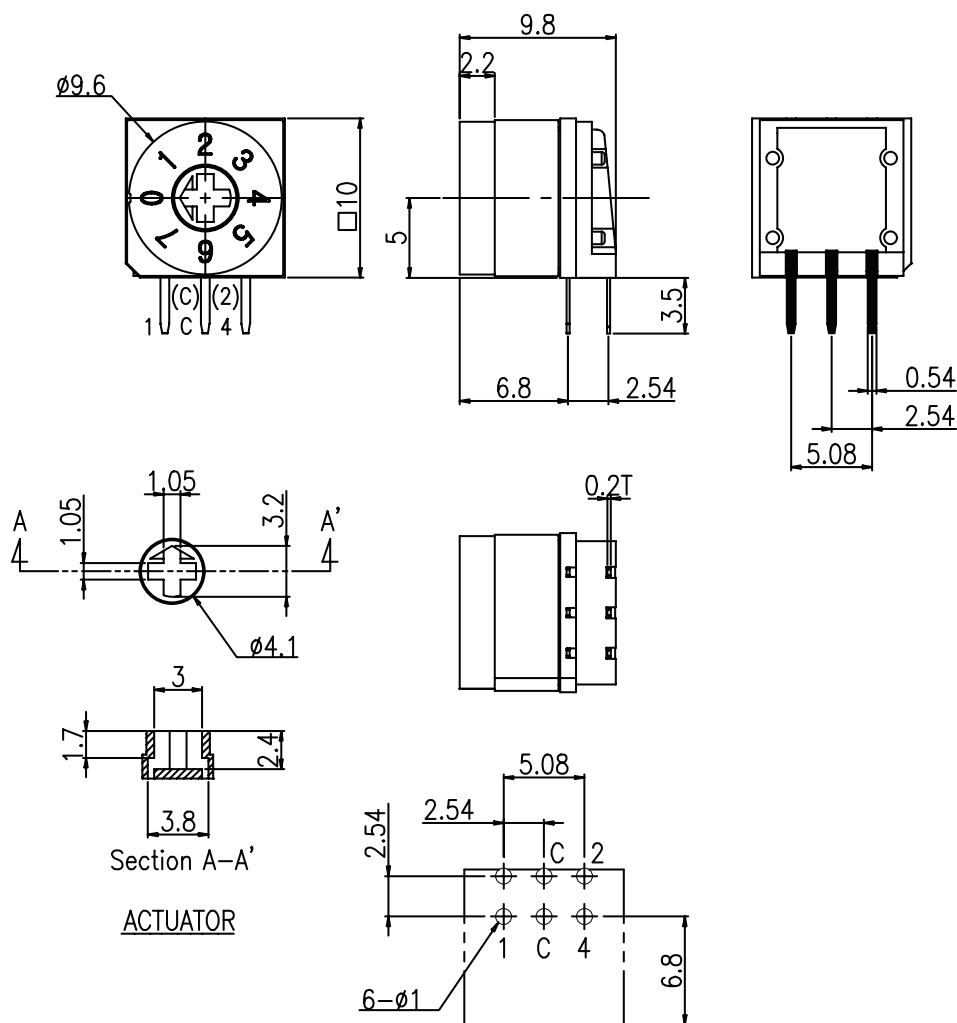
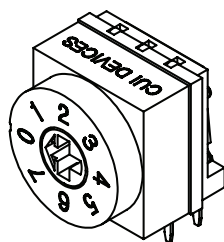
ON ●				
OFF ○	CODE			
TYPE	POS	C	1	2
4 POSITION	0	●	○	○
	1	●	●	○
	2	●	○	●
	3	●	●	●

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



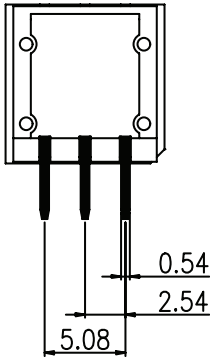
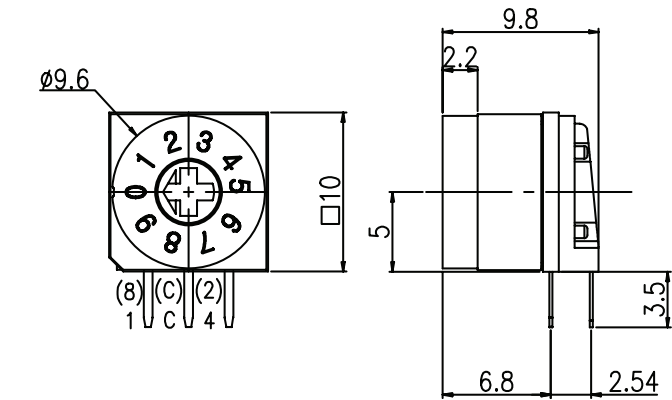
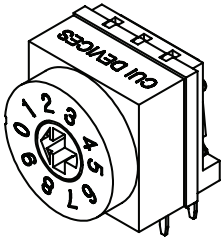
ON ●					
OFF ○		CODE			
TYPE	POS	C	1	2	4
8 POSITION	0	●	○	○	○
	1	●	●	○	○
	2	●	○	●	○
	3	●	●	●	○
	4	●	○	○	●
	5	●	●	○	●
	6	●	○	●	●
	7	●	●	●	●

Recommended PCB Layout Top View

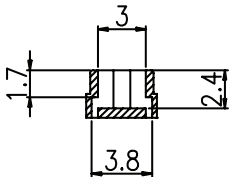
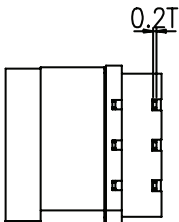
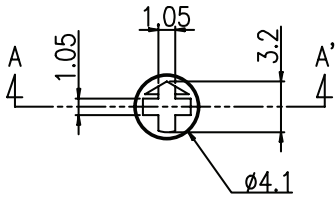
MECHANICAL DRAWING (10 POSITION, 2.54 MM PITCH)

units: mm
tolerance: ±0.3 mm
unless otherwise specified

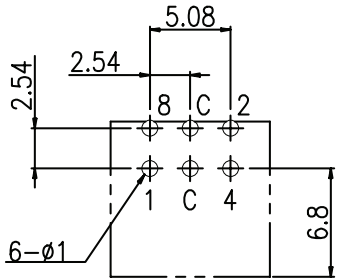
DESCRIPTION	MATERIAL	PLATING/COLOR
actuator	POM (UL94HB)	gray
cover	PA66 (UL94V-0)	light white
base	PA66 (UL94V-0)	black
terminals	phosphorus bronze	Ni/Au



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



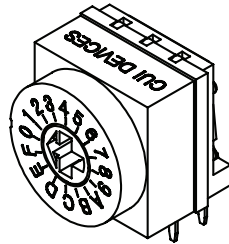
Section A-A'
ACTUATOR



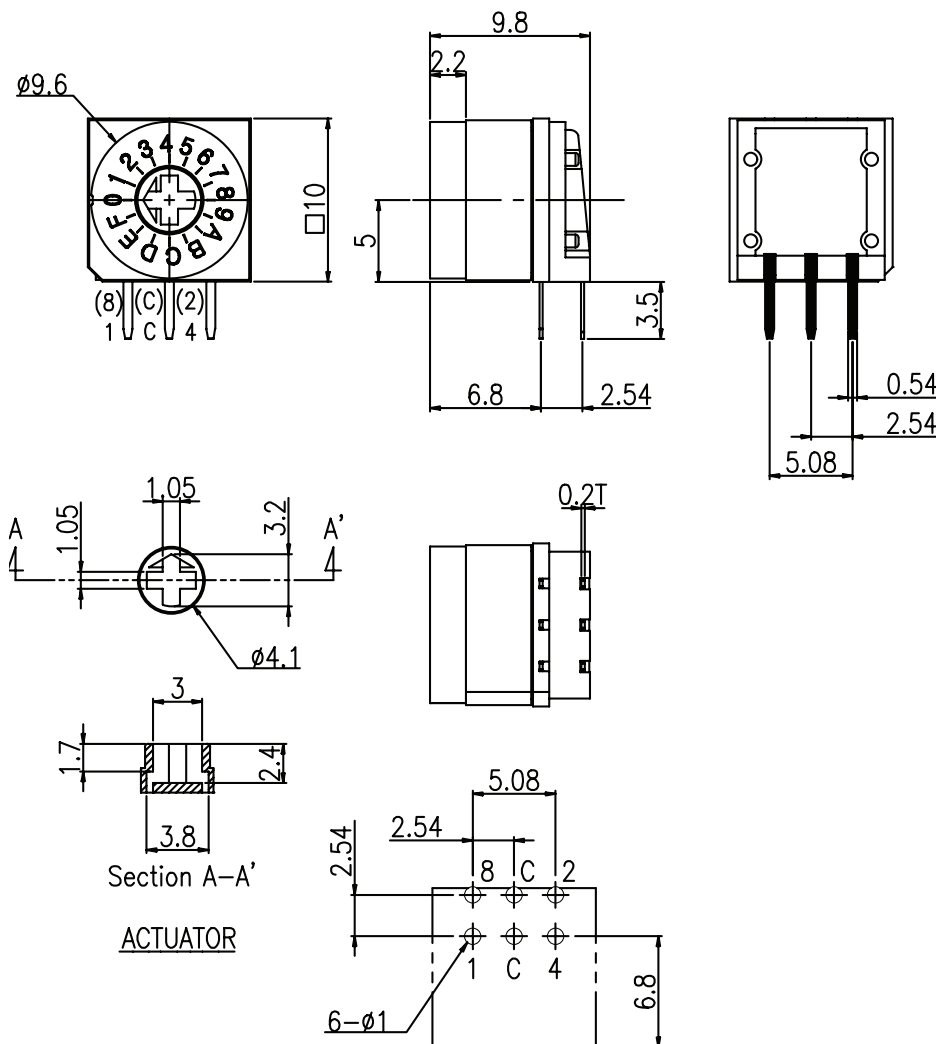
Recommended PCB Layout
Top View

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



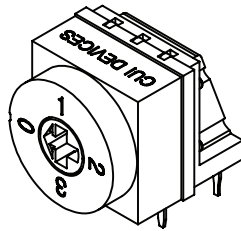
ON ●						
OFF ○	CODE					
TYPE	POS	C	1	2	4	8
16 POSITION	0	●	○	○	○	○
	1	●	●	○	○	○
	2	●	○	●	○	○
	3	●	●	●	○	○
	4	●	○	○	●	○
	5	●	●	○	●	○
	6	●	○	●	●	○
	7	●	●	●	●	○
	8	●	○	○	○	●
	9	●	●	○	○	●
	A	●	○	●	○	●
	B	●	●	●	○	●
	C	●	○	○	●	●
	D	●	●	○	●	●
	E	●	○	●	●	●
	F	●	●	●	●	●

MECHANICAL DRAWING (4 POSITION, 5.08 MM PITCH)

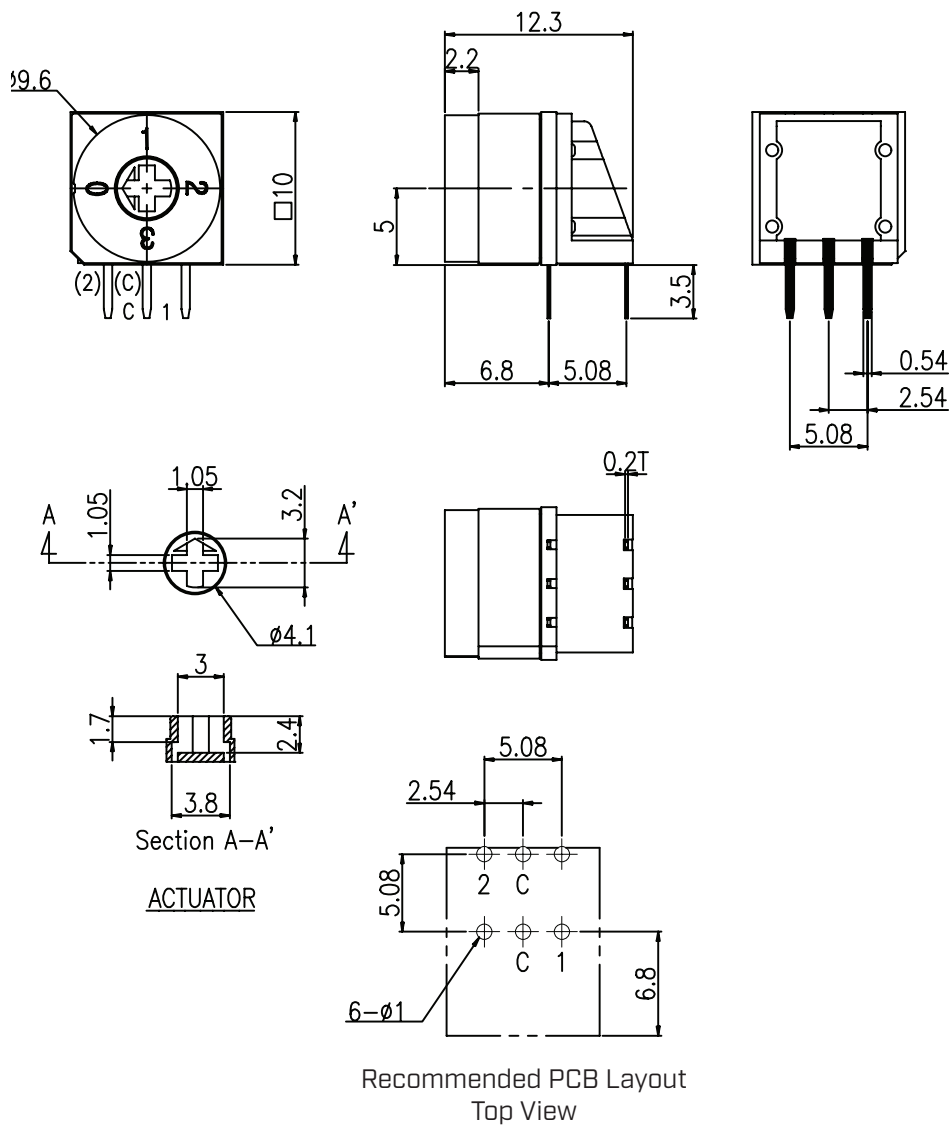
units: mm

tolerance: ± 0.3 mm

unless otherwise specified



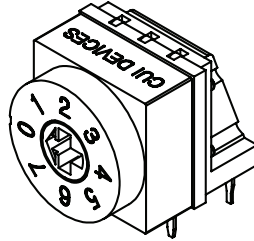
DESCRIPTION	MATERIAL	PLATING/COLOR
actuator	PDM [UL94HB]	gray
cover	PA66 [UL94V-0]	light white
base	PA66 [UL94V-0]	black
terminals	phosphorus bronze	Ni/Au



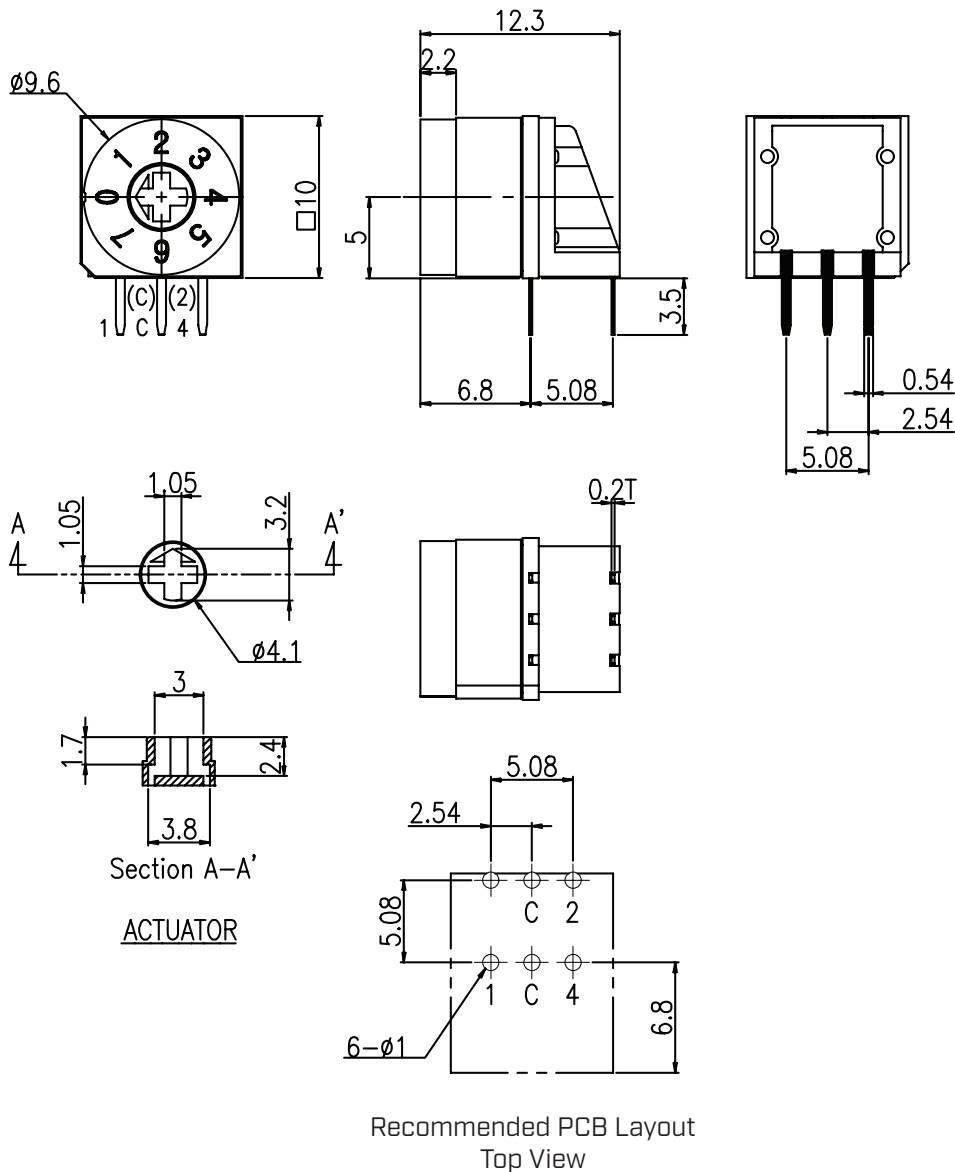
ON ●				
OFF ○		CODE		
TYPE	POS	C	1	2
4 POSITION	0	●	○	○
	1	●	●	○
	2	●	○	●
	3	●	●	●

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

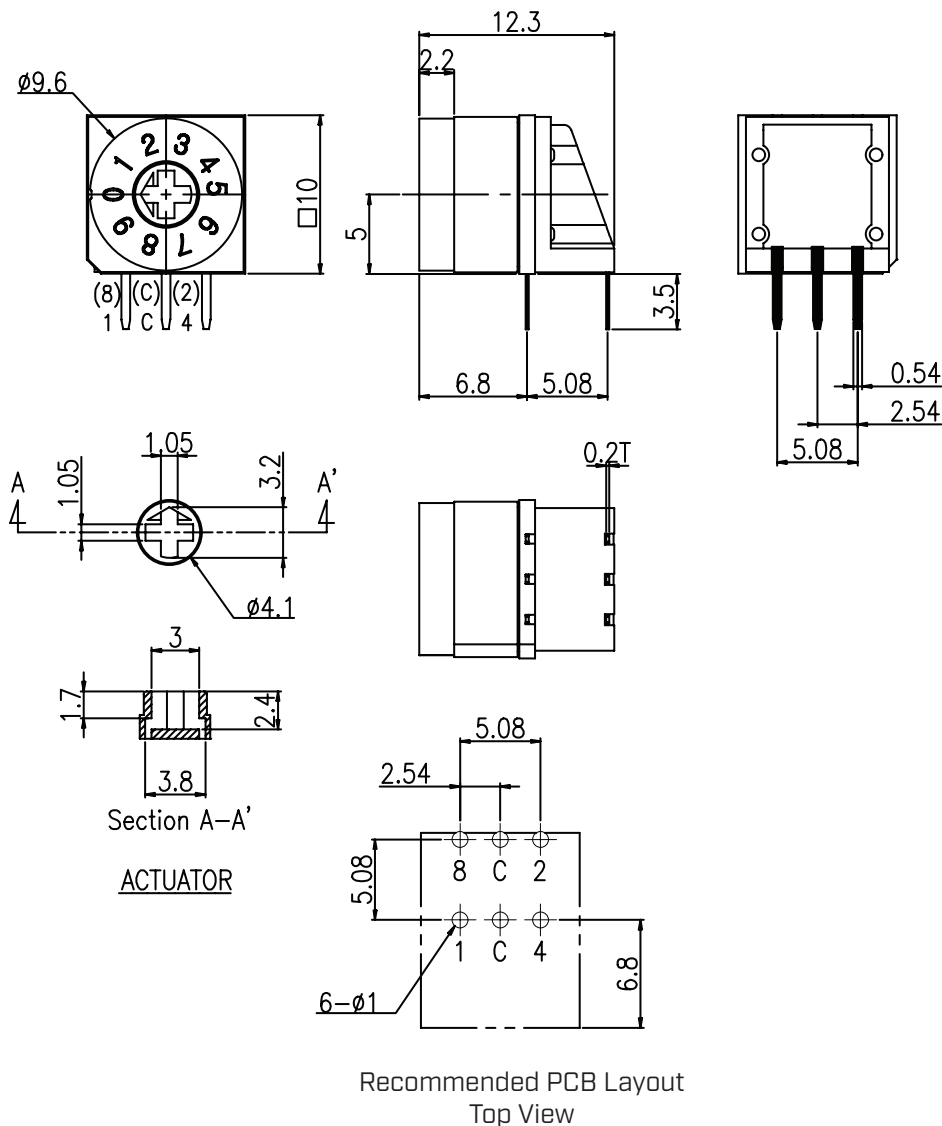
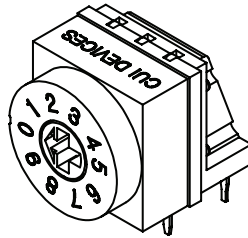


ON ●					
OFF ○	CODE				
TYPE	POS	C	1	2	4
8 POSITION	0	●	○	○	○
	1	●	●	○	○
	2	●	○	●	○
	3	●	●	●	○
	4	●	○	○	●
	5	●	●	○	●
	6	●	○	●	●
	7	●	●	●	●

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

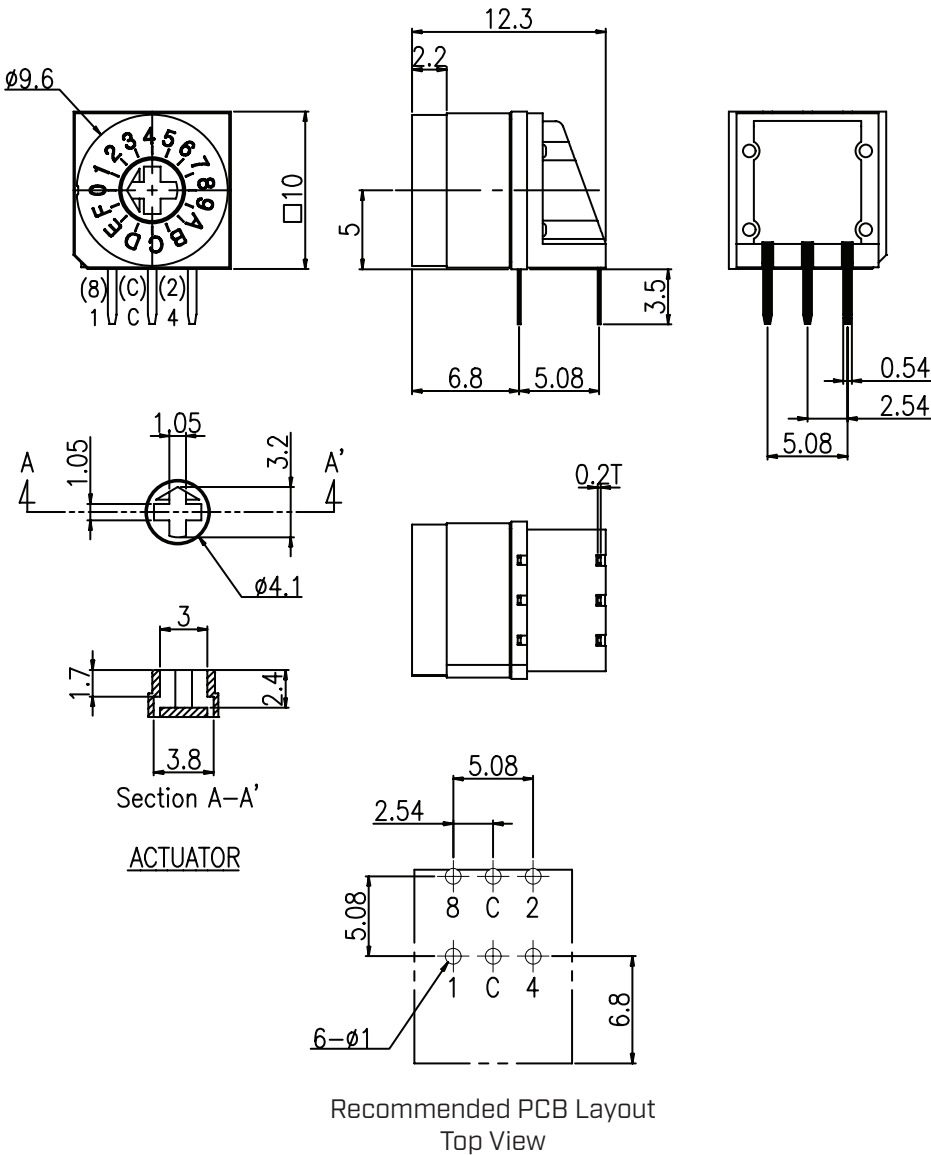
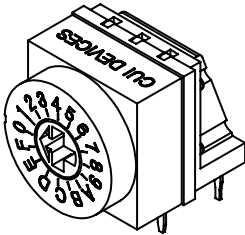


ON ●						
OFF ○	CODE					
TYPE	POS	C	1	2	4	8
10 POSITION	0	●	○	○	○	○
	1	●	●	○	○	○
	2	●	○	●	○	○
	3	●	●	●	○	○
	4	●	○	○	●	○
	5	●	●	○	●	○
	6	●	○	●	●	○
	7	●	●	●	●	○
	8	●	○	○	○	●
	9	●	●	○	○	●

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

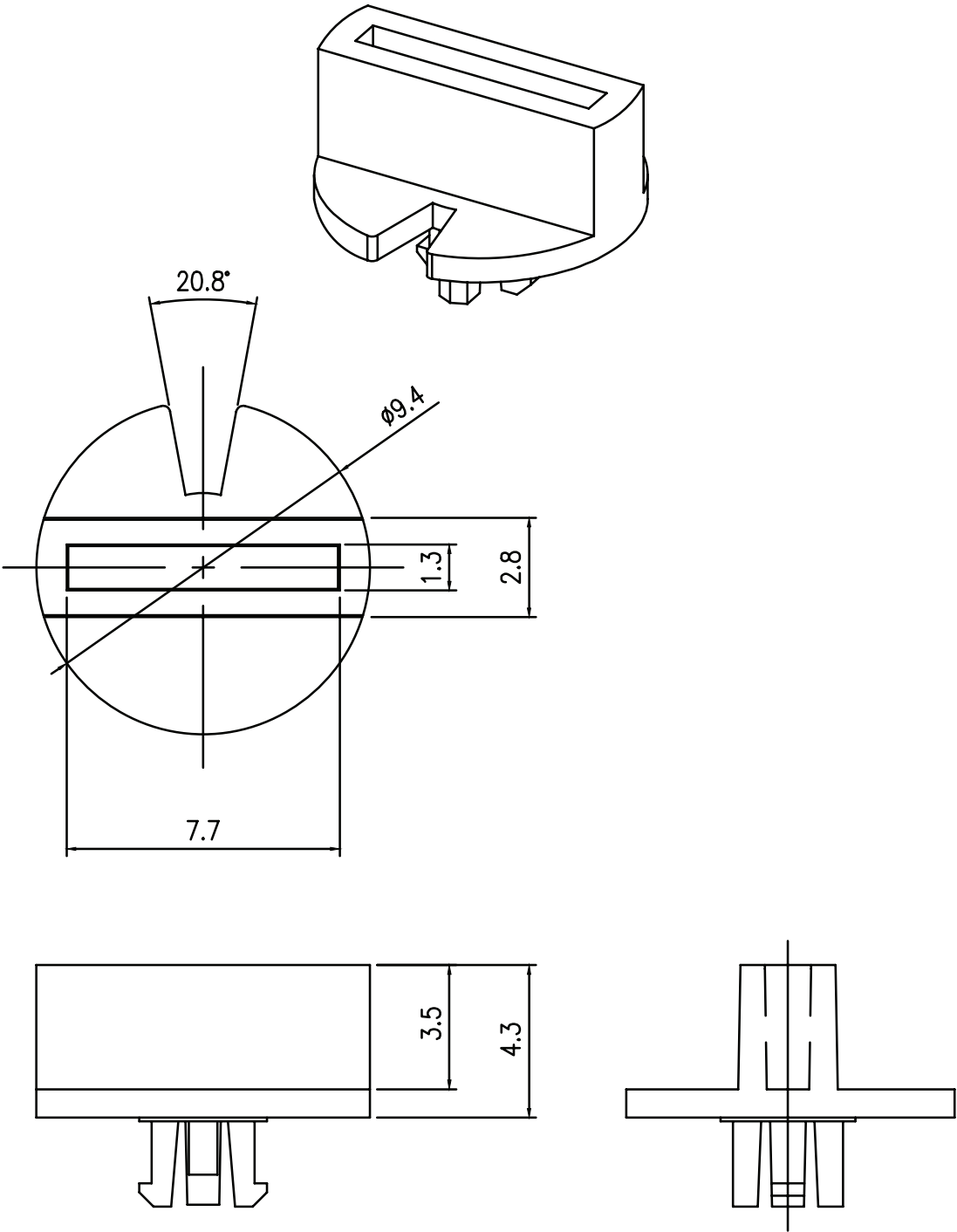


ON ●						
OFF ○	CODE					
TYPE	POS	C	1	2	4	8
16 POSITION	0	●	○	○	○	○
	1	●	●	○	○	○
	2	●	○	●	○	○
	3	●	●	●	○	○
	4	●	○	○	●	○
	5	●	●	○	●	○
	6	●	○	●	●	○
	7	●	●	●	●	○
	8	●	○	○	○	●
	9	●	●	○	○	●
	A	●	○	●	○	●
	B	●	●	●	○	●
	C	●	○	○	●	●
	D	●	●	○	●	●
	E	●	○	●	●	●
	F	●	●	●	●	●

MECHANICAL DRAWING (NOTCHED CAP)

units: mm
tolerance: ±0.1 mm
unless otherwise specified

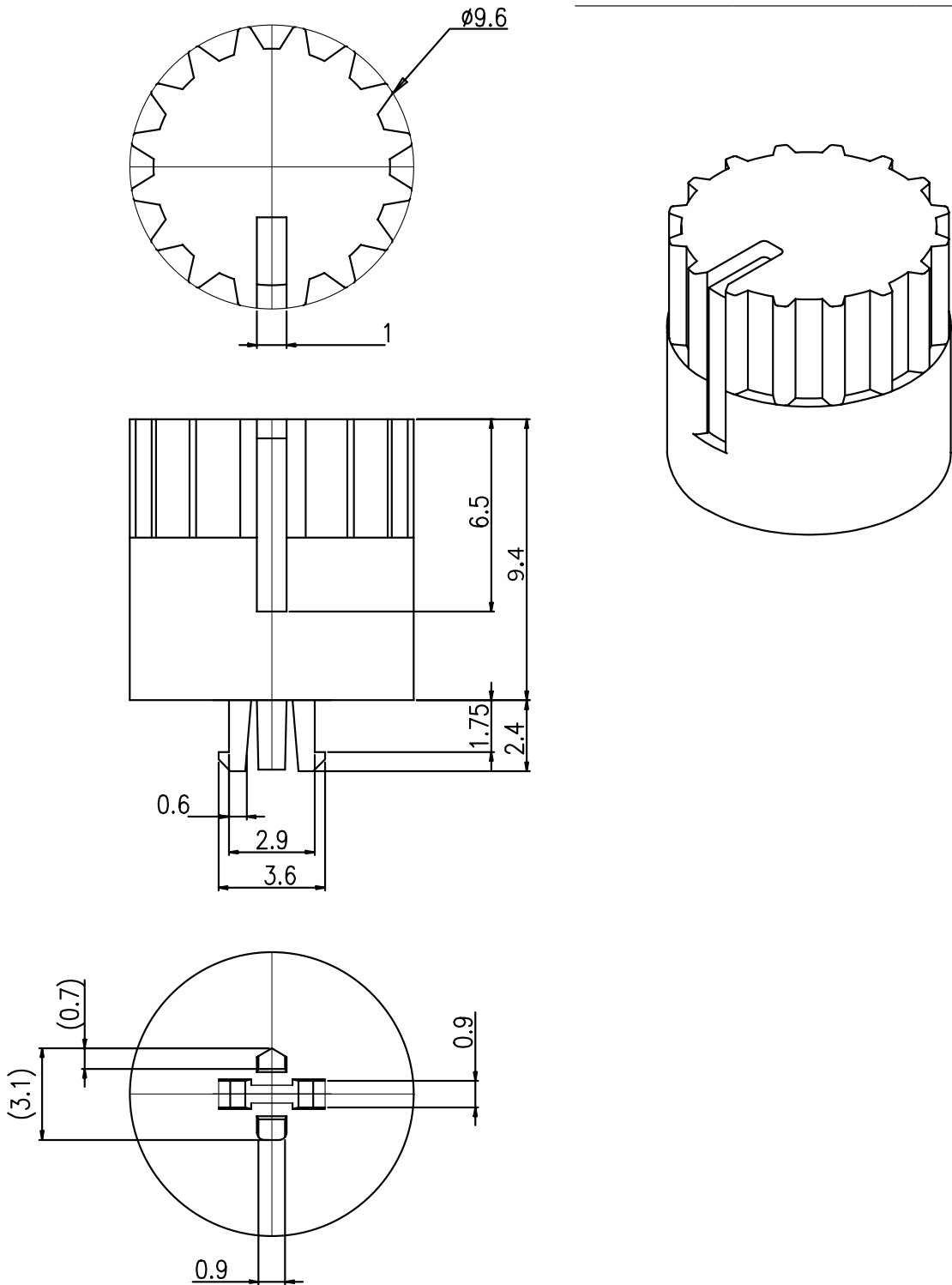
DESCRIPTION	MATERIAL	PLATING/COLOR
housing	PA66 (UL94V-0)	gray



MECHANICAL DRAWING (RAISED SLOTTED CAP)

units: mm
tolerance: ±0.3 mm
unless otherwise specified

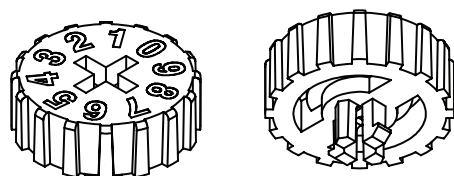
DESCRIPTION	MATERIAL	PLATING/COLOR
housing	PA66 (UL94V-0)	black



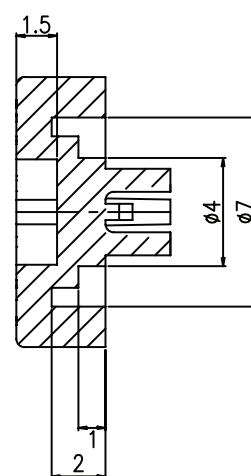
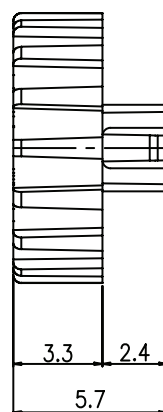
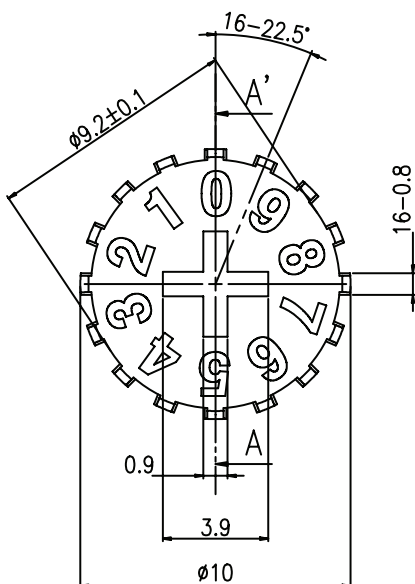
MECHANICAL DRAWING (NUMBERED DIAL)

units: mm
tolerance: ± 0.3 mm
unless otherwise specified

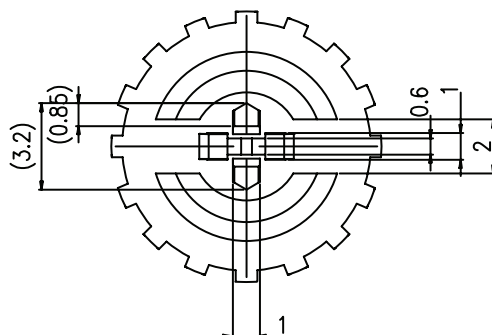
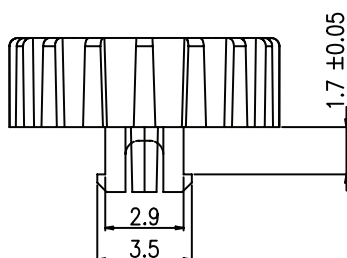
DESCRIPTION	MATERIAL	PLATING/COLOR
housing	PA66 (UL94V-0)	red with black letters



Position	Direction
04	
08	
10	
16	



SECTION A-A'



PACKAGING

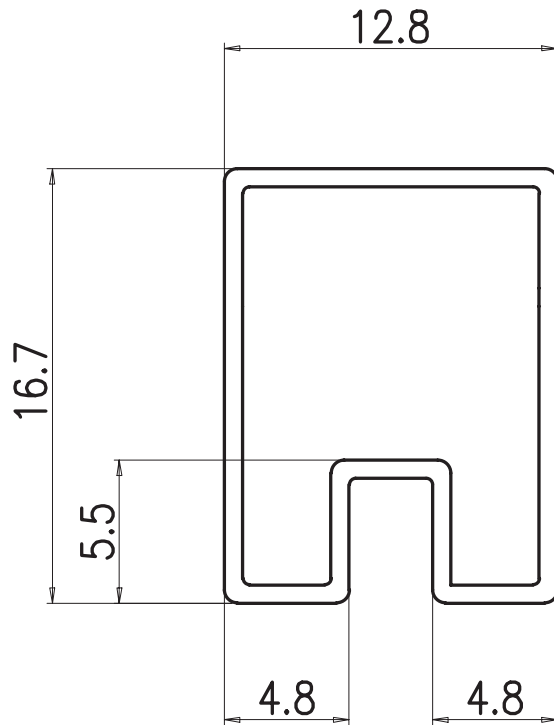
units: mm

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

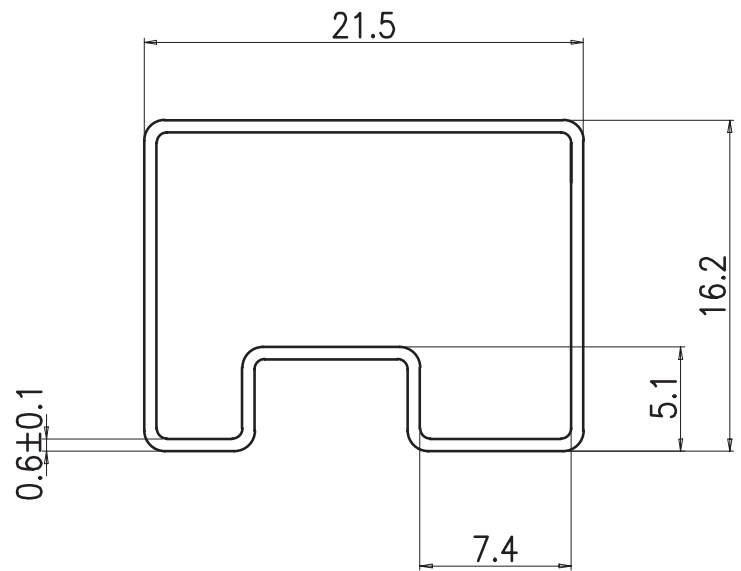
Tube Size [5.08 mm pitch]: 16.2 x 21.5 x 540 mm

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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