

SERIES: PT01 | **DESCRIPTION:** ROTARY POTENTIOMETER**FEATURES**

- carbon element
- wide variety of mounting styles
- multiple shaft options
- available with center detent
- linear, logarithmic, and reverse logarithmic tapers

**SPECIFICATIONS**

parameter	conditions/description	min	typ	max	units
maximum operating voltage	linear and logarithmic (audio)			20 50	Vdc Vac
power rating	linear and logarithmic (audio)			0.05	W
taper	linear and logarithmic (audio)				
standard resistance range	see Resistance Table	1.0		1,000	k Ω
standard resistance tolerance			± 20		%
residual resistance	50 Ω or $\pm 1\%$ max				
sliding noise				68	mV
operating temperature		-10		60	$^{\circ}\text{C}$
hand soldering	for 3 seconds max			300	$^{\circ}\text{C}$
RoHS	yes				

MECHANICAL

parameter	conditions/description	min	typ	max	units
mechanical angle		275	280	285	$^{\circ}$
rotational torque		10		150	gf-cm
detent torque		20		200	gf-cm
stop strength		2			kg-cm
rotational life			10,000		cycles
weight			2.5		g

PART NUMBER KEY

PT01 - X X X X X - X X X X

Base Number

Terminal Configuration:

- A = Horizontal/Rear Mount w/Sleeve Bushing
- B = Vertical/Side Mount, Bushingless, 10 mm Height
- C = Vertical/Side Mount, Bushingless, 6.5 mm Height
- D = Horizontal/Rear Mount, Bushingless
- E = Horizontal/Rear Mount w/Plastic Plain Bushing
- F = Horizontal/Rear Mount w/Metal Threaded Bushing
- G = Vertical/Side Mount w/Sleeve Bushing, 6.5 mm Height
- H = Vertical/Side Mount w/Sleeve Bushing, 10 mm Height

Detent:

- 1 = No Detent
- 2 = Center Detent

Shaft Length:

- 15 = 15 mm
- 20 = 20 mm
- 25 = 25 mm
- 30 = 30 mm

Shaft Style:

- D = D-cut
- K1 = Knurled (18 teeth)
- K2 = Knurled (40 teeth)

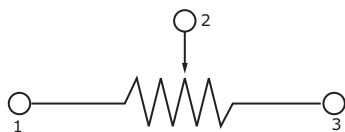
Resistance Taper:

- A = Reverse Logarithmic
- B = Linear
- C = Logarithmic

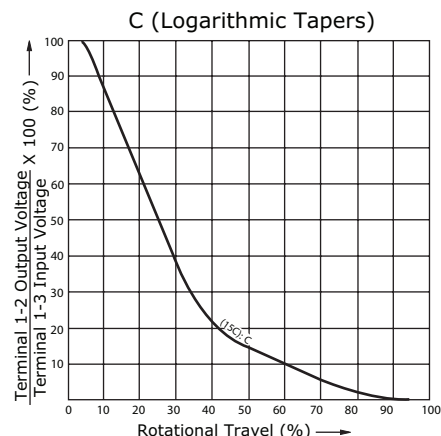
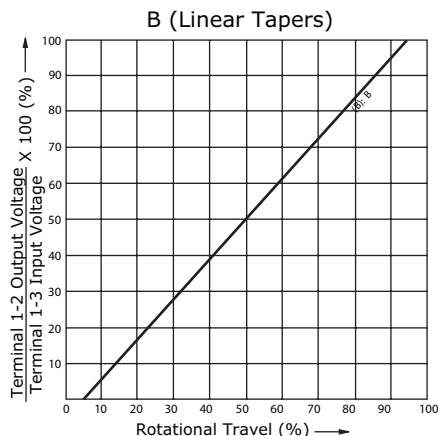
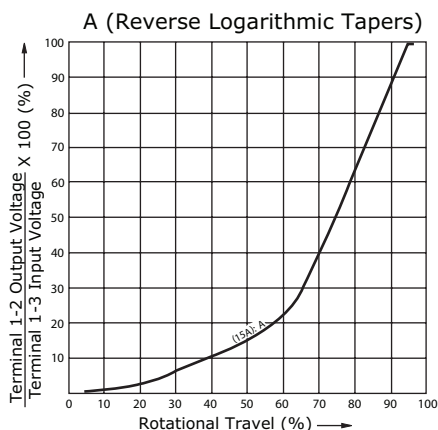
Resistance (Ω):

- 102 = 1,000
- 202 = 2,000
- 502 = 5,000
- 103 = 10,000
- 203 = 20,000
- 503 = 50,000
- 104 = 100,000
- 204 = 200,000
- 504 = 500,000
- 105 = 1,000,000

SCHEMATIC/TAPERS

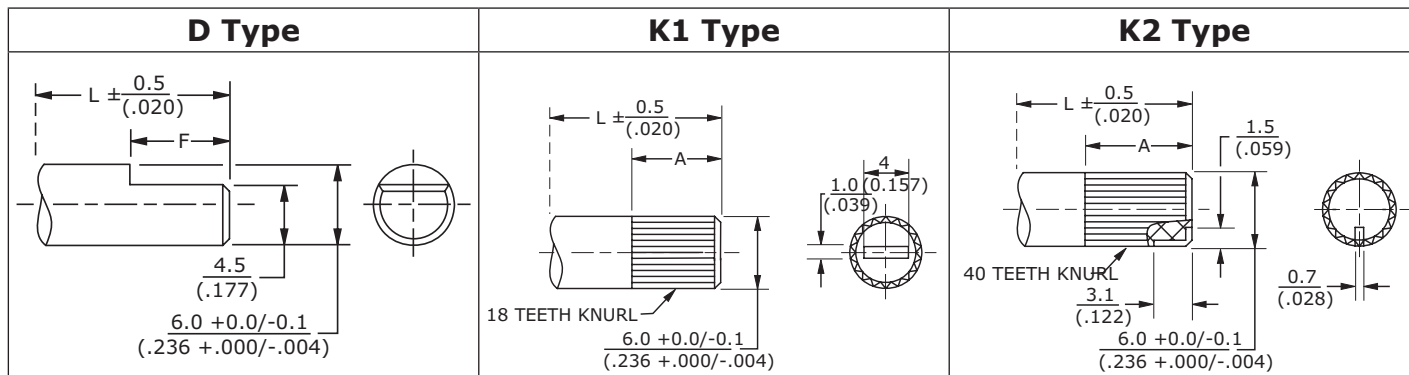


Resistance Table	
Resistance (Ω)	Code
1,000	102
2,000	202
5,000	502
10,000	103
20,000	203
50,000	503
100,000	104
200,000	204
500,000	504
1,000,000	105



SHAFT TYPES

units: mm [inch]
 tolerance: ±0.3 mm
 unless otherwise noted



	15D	20D	25D	30D
L	15	20	25	30
F	6	7	12	12

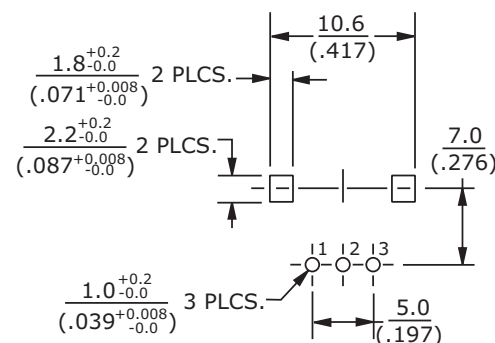
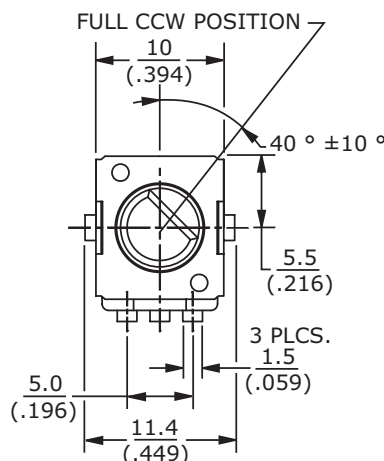
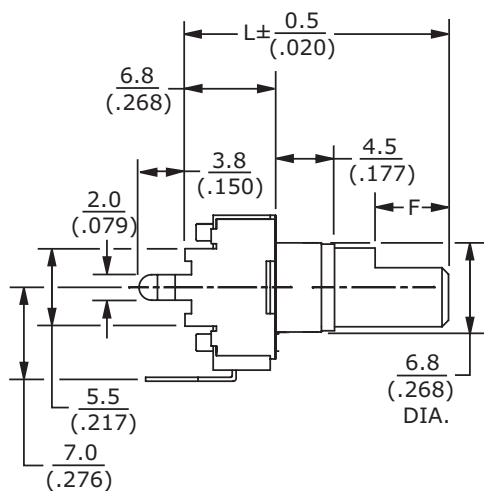
	15K1	20K1	25K1	30K1
L	15	20	25	30
A	6	7	12	12

	15K2	20K2	25K2	30K2
L	15	20	25	30
A	6	7	12	12

MECHANICAL DRAWING (HORIZONTAL/REAR MOUNT W/SLEEVE BUSHING)

units: mm [inch]
 tolerance:
 X ≤ 10: ±0.3 mm
 10 < X ≤ 30: ±0.5 mm
 30 < X ≤ 100: ±1.0 mm
 unless otherwise noted

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
A	base	PBT (UL94V-0)	black
B	shaft	PC (UL94V-0)	black
C	reed	nickel-zinc alloy	
D	bracket	iron	bright tin
E	terminals	cold rolled steel	dark tin

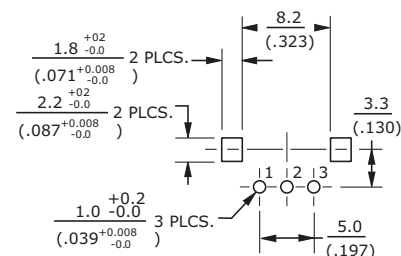
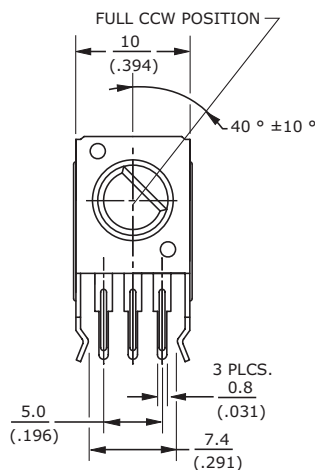
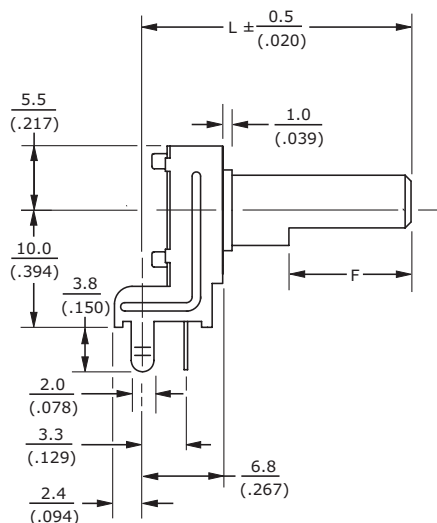


Recommended PCB Layout Top View

MECHANICAL DRAWING (VERTICAL/SIDE MOUNT, BUSHINGLESS, 10 MM HEIGHT)

units: mm [inch]
 tolerance:
 $X \leq 10$: ± 0.3 mm
 $10 < X \leq 30$: ± 0.5 mm
 $30 < X \leq 100$: ± 1.0 mm
 unless otherwise noted

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
A	base	PBT (UL94V-0)	black
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D	bracket	iron	bright tin
E	terminals	cold rolled steel	dark tin

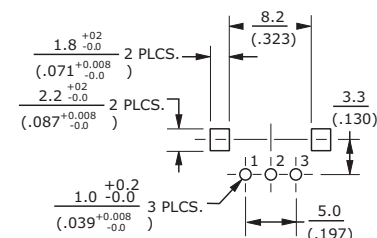
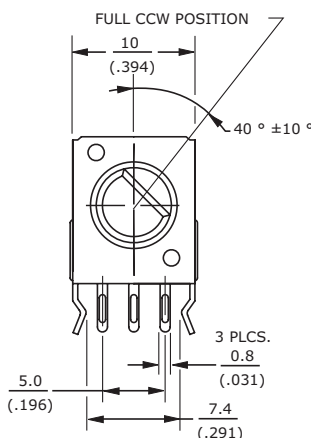
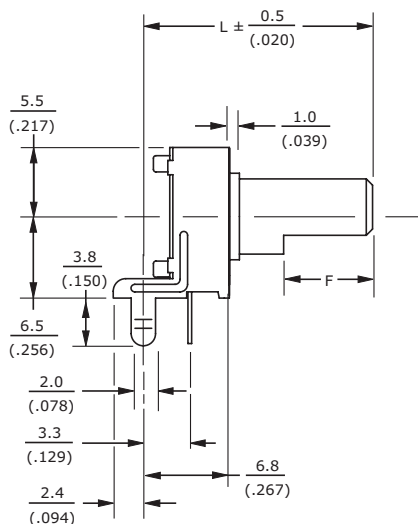


Recommended PCB Layout
Top View

MECHANICAL DRAWING (VERTICAL/SIDE MOUNT, BUSHINGLESS, 6.5 MM HEIGHT)

units: mm [inch]
 tolerance:
 $X \leq 10$: ± 0.3 mm
 $10 < X \leq 30$: ± 0.5 mm
 $30 < X \leq 100$: ± 1.0 mm
 unless otherwise noted

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
A	base	PBT (UL94V-0)	black
B	shaft	PC (UL94V-0)	black
C	reed	nickel-zinc alloy	
D	bracket	iron	bright tin
E	terminals	cold rolled steel	dark tin

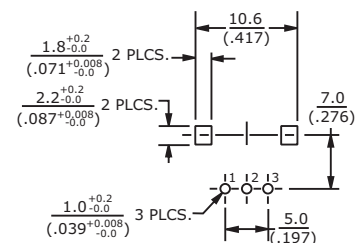
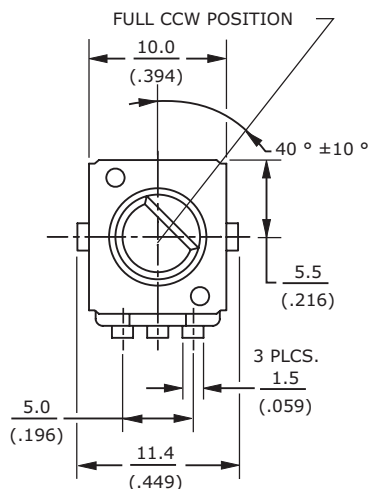
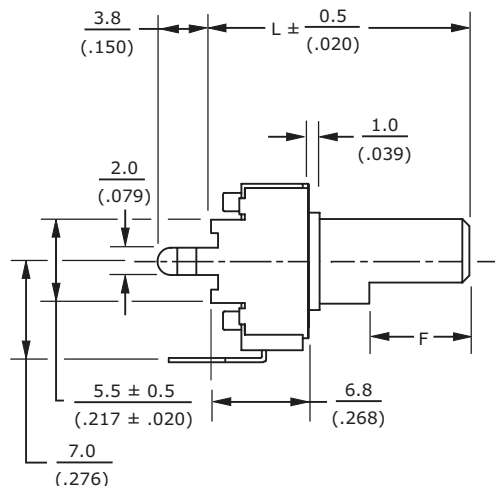


Recommended PCB Layout
Top View

MECHANICAL DRAWING (HORIZONTAL/REAR MOUNT, BUSHINGLESS)

units: mm [inch]
 tolerance:
 $X \leq 10$: ± 0.3 mm
 $10 < X \leq 30$: ± 0.5 mm
 $30 < X \leq 100$: ± 1.0 mm
 unless otherwise noted

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
A	base	PBT (UL94V-0)	black
B	shaft	PC (UL94V-0)	black
C	reed	nickel-zinc alloy	
D	bracket	iron	bright tin
E	terminals	cold rolled steel	dark tin

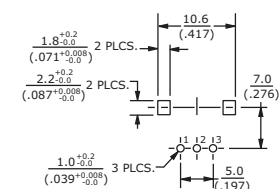
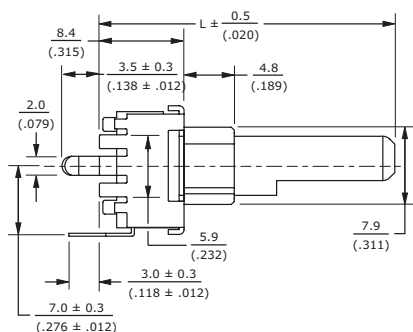


Recommended PCB Layout Top View

MECHANICAL DRAWING (HORIZONTAL/REAR MOUNT W/PLASTIC PLAIN BUSHING)

units: mm [inch]
 tolerance:
 $X \leq 10$: ± 0.3 mm
 $10 < X \leq 30$: ± 0.5 mm
 $30 < X \leq 100$: ± 1.0 mm
 unless otherwise noted

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
A	base	PBT (UL94V-0)	black
B	shaft	PC (UL94V-0)	black
C	reed	nickel-zinc alloy	
D	bracket	iron	bright tin
E	terminals	cold rolled steel	dark tin

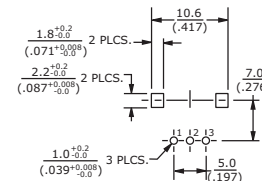
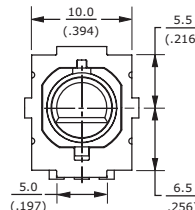
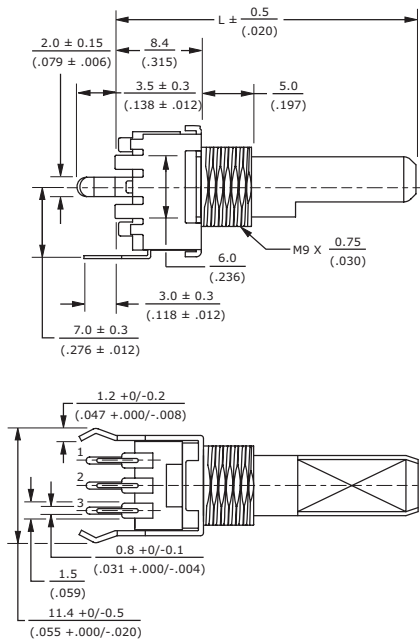


Recommended PCB Layout Top View



MECHANICAL DRAWING (HORIZONTAL/REAR MOUNT W/METAL THREADED BUSHING)

units: mm [inch]
 tolerance:
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 $10 < X \leq 30$: ± 0.5 mm
 $30 < X \leq 100$: ± 1.0 mm
 unless otherwise noted

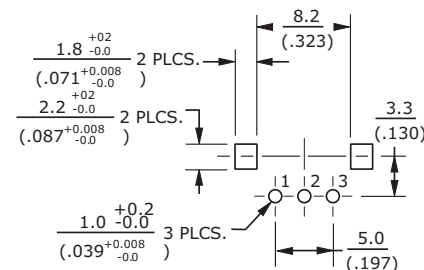
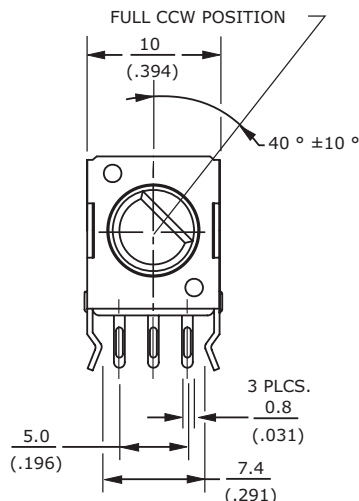
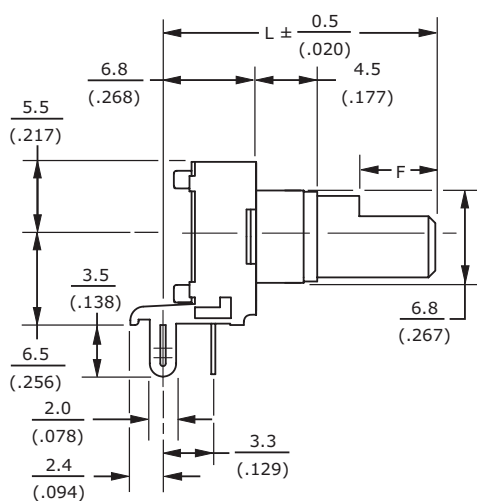


Recommended PCB Layout
Top View

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
A	base	PBT (UL94V-0)	black
B	shaft	PC (UL94V-0)	black
C	reed	nickel-zinc alloy	
D	bracket	iron	bright tin
E	terminals	cold rolled steel	dark tin

MECHANICAL DRAWING (VERTICAL/SIDE MOUNT W/SLEEVE BUSHING, 6.5 MM HEIGHT)

units: mm [inch]
 tolerance:
 $X \leq 10$: ± 0.3 mm
 $10 < X \leq 30$: ± 0.5 mm
 $30 < X \leq 100$: ± 1.0 mm
 unless otherwise noted



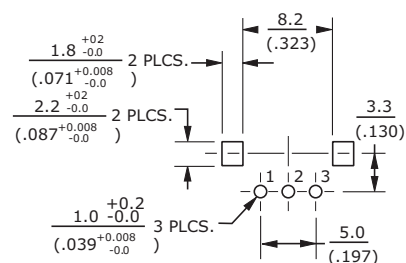
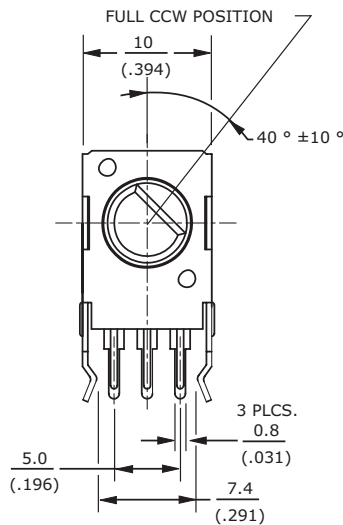
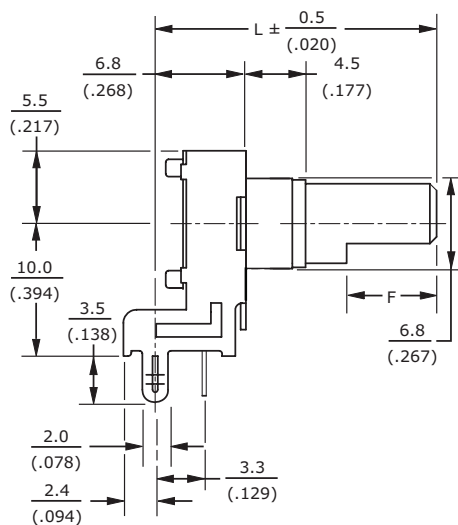
Recommended PCB Layout
Top View

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
A	base	PBT (UL94V-0)	black
B	shaft	PC (UL94V-0)	black
C	reed	nickel-zinc alloy	
D	bracket	iron	bright tin
E	terminals	cold rolled steel	dark tin

MECHANICAL DRAWING (VERTICAL/SIDE MOUNT W/SLEEVE BUSHING, 10 MM HEIGHT)

units: mm [inch]
 tolerance:
 $X \leq 10$: ± 0.3 mm
 $10 < X \leq 30$: ± 0.5 mm
 $30 < X \leq 100$: ± 1.0 mm
 unless otherwise noted

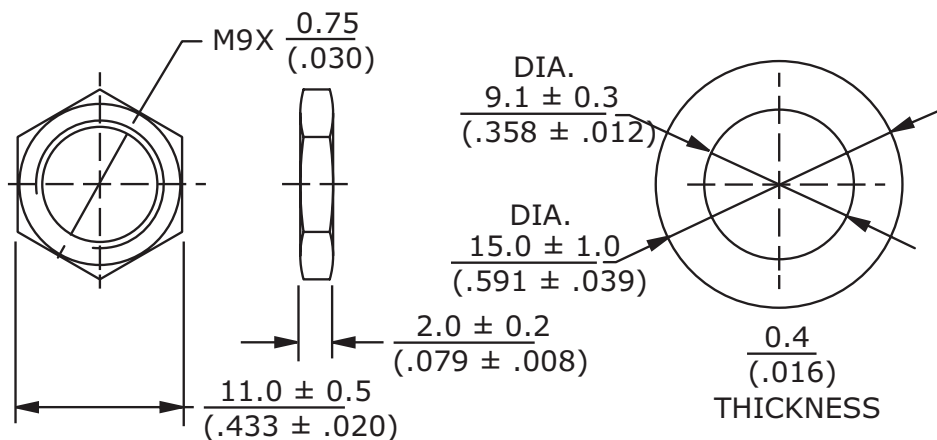
ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
A	base	PBT (UL94V-0)	black
B	shaft	PC (UL94V-0)	black
C	reed	nickel-zinc alloy	
D	bracket	iron	bright tin
E	terminals	cold rolled steel	dark tin



Recommended PCB Layout Top View

MOUNTING HARDWARE

units: mm [inch]



Note: Hex nut and washer supplied with threaded bushing version.

REVISION HISTORY

rev.	description	date
1.0	initial release	12/15/2021

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

CUI DEVICES

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