

**SERIES:** PTN10 | **DESCRIPTION:** ROTARY POTENTIOMETER

**FEATURES**

- carbon element
- dust proof enclosure
- multiple rotor options
- linear, logarithmic, and reverse logarithmic tapers


**SPECIFICATIONS**

parameter	conditions/description	min	typ	max	units
maximum operating voltage				200	Vdc
power rating	at 70°C			0.15	W
taper	linear, logarithmic, and reverse logarithmic				
standard resistance range	see Resistance Table	1.0		2,000	kΩ
standard resistance tolerance	±10% or ±20%, see Part Number Key				
residual resistance				10	Ω
sliding noise				68	mV
operating temperature		-10		70	°C
hand soldering	for 3 seconds max			350	°C
wave soldering	for 5±1 seconds	255	260	265	°C
RoHS	yes				

**MECHANICAL**

parameter	conditions/description	min	typ	max	units
mechanical angle		225	235	245	°
rotational torque		10		80	gf-cm
stop strength		400			gf-cm
rotational life				10,000	cycles
weight	varies by model	0.5		0.7	g

## PART NUMBER KEY

**PTN10 - X XX X X XX**

Base Number

Terminal Configuration:

- A = Vertical, Straight Inward Terminals
- B = Vertical, Crimped Terminals
- C = Vertical, Straight Outward Terminals
- D = Horizontal, Crimped Terminals
- E = Horizontal, Straight Terminals

Resistance:

- 01 = 1 kΩ
- 02 = 2 kΩ
- 05 = 5 kΩ
- 10 = 10 kΩ
- 20 = 20 kΩ
- 25 = 25 kΩ
- 50 = 50 kΩ
- 100 = 100 kΩ
- 200 = 200 kΩ
- 500 = 500 kΩ
- 11 = 1 MΩ
- 22 = 2 MΩ

Resistance Taper:

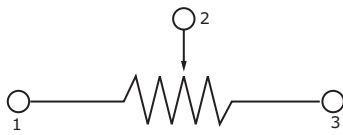
- A = Reverse Logarithmic
- B = Linear
- C = Logarithmic

Rotor Type:

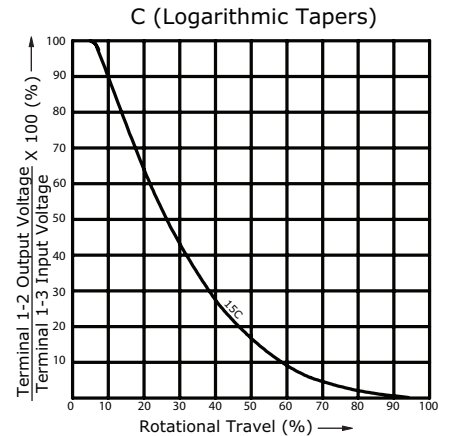
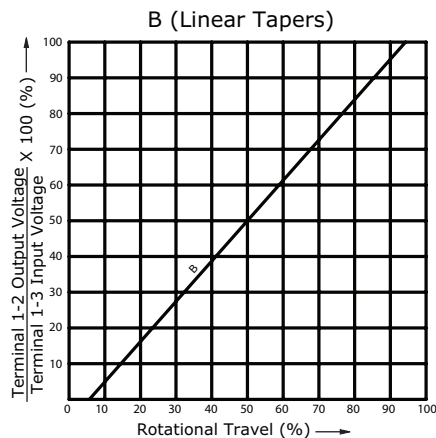
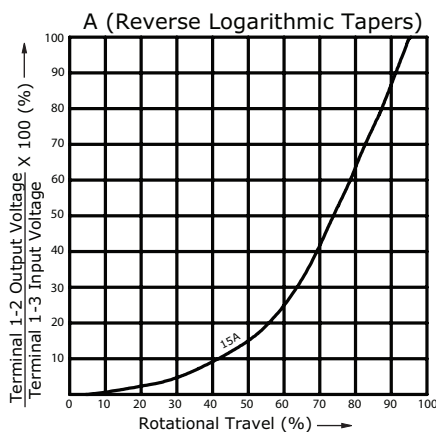
- S = Screwdriver
- H = Hexagonal
- C = Cross Slot
- D = D-Cut

Tolerance:  
10 = ±10%  
20 = ±20%

## SCHEMATIC/TAPERS

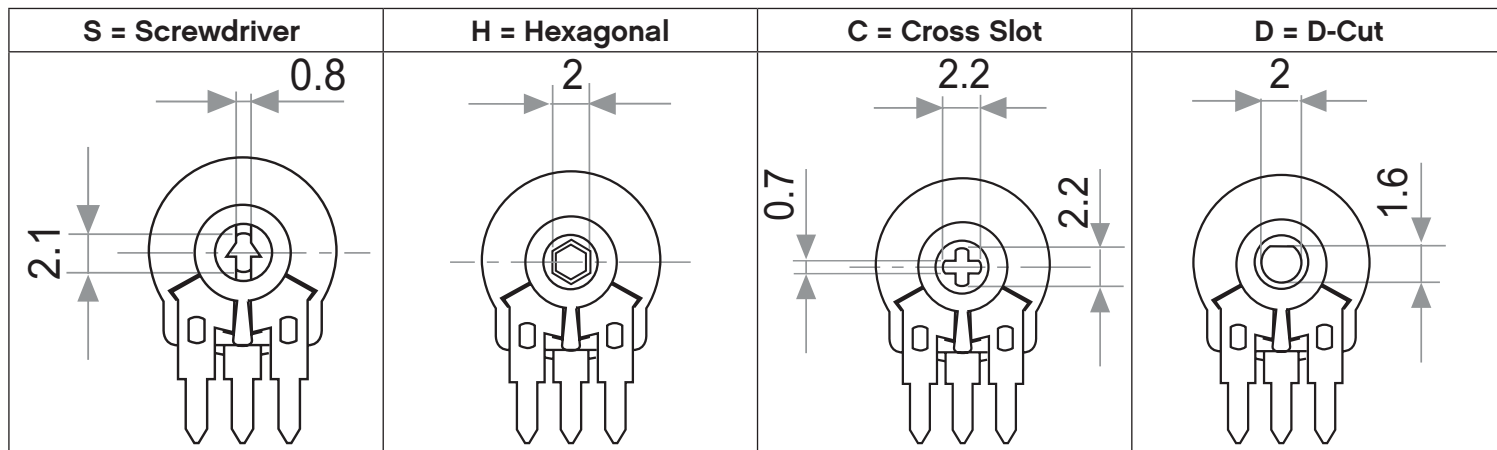


Resistance Table	
Resistance [KΩ]	Code
1	01
2	02
5	05
10	10
20	20
25	25
50	50
100	100
200	200
500	500
1,000	11
2,000	22



## ROTOR TYPE

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



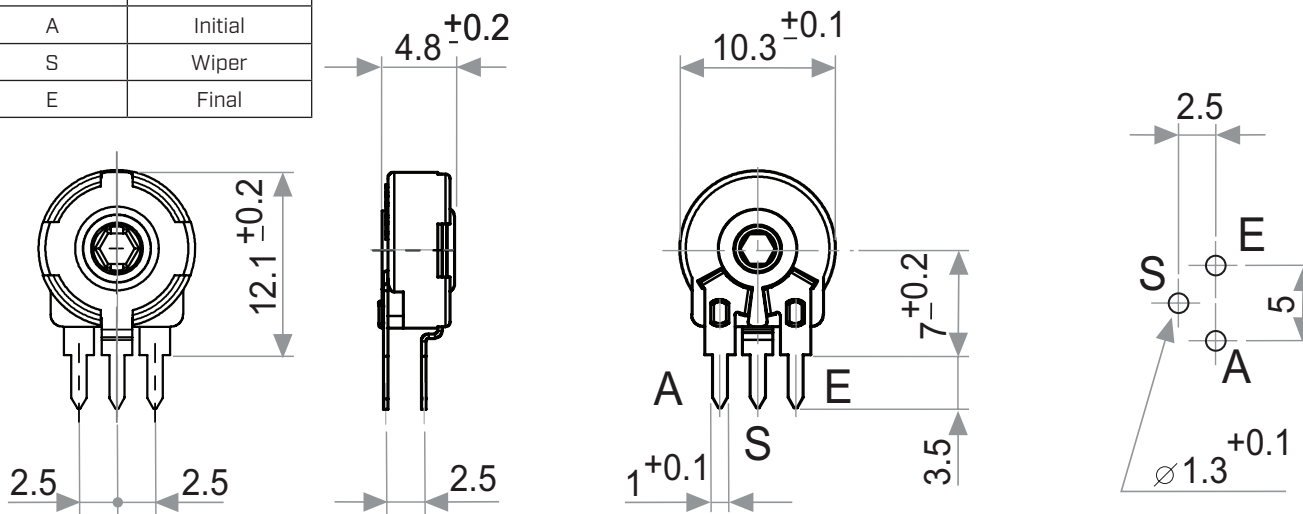
Note: Default delivery is at initial position of wiper.

## MECHANICAL DRAWING (VERTICAL, STRAIGHT INWARD TERMINALS)

units: mm  
 tolerance:  
 $X \leq 10$ :  $\pm 0.3$  mm  
 $10 < X \leq 30$ :  $\pm 0.5$  mm  
 $30 < X \leq 100$ :  $\pm 1.0$  mm  
 unless otherwise noted

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
A	housing	PA6 [UL94HB]	black
B	terminals	steel	tin
C	reed	tin bronze	

TERMINAL CONNECTIONS	
TERMINAL	DESCRIPTION
A	Initial
S	Wiper
E	Final



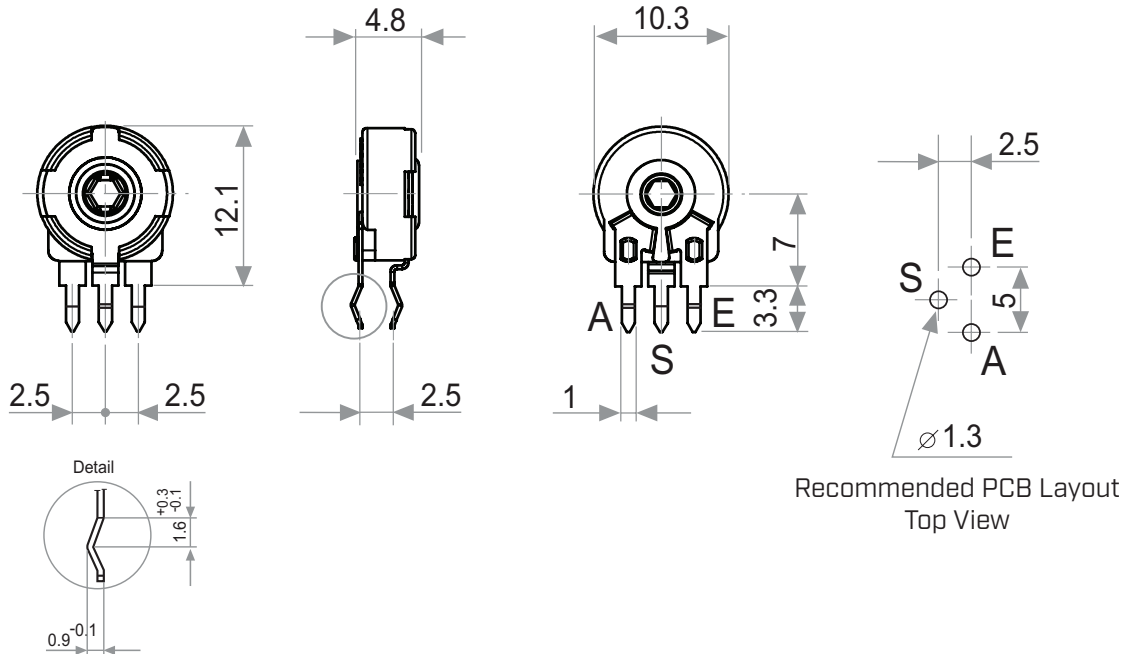
Recommended PCB Layout  
 Top View

## MECHANICAL DRAWING (VERTICAL, CRIMPED TERMINALS)

units: mm  
 tolerance:  
 $X \leq 10$ :  $\pm 0.3$  mm  
 $10 < X \leq 30$ :  $\pm 0.5$  mm  
 $30 < X \leq 100$ :  $\pm 1.0$  mm  
 unless otherwise noted

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
A	housing	PA6 (UL94HB)	black
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C	reed	tin bronze	

TERMINAL CONNECTIONS	
TERMINAL	DESCRIPTION
A	Initial
S	Wiper
E	Final

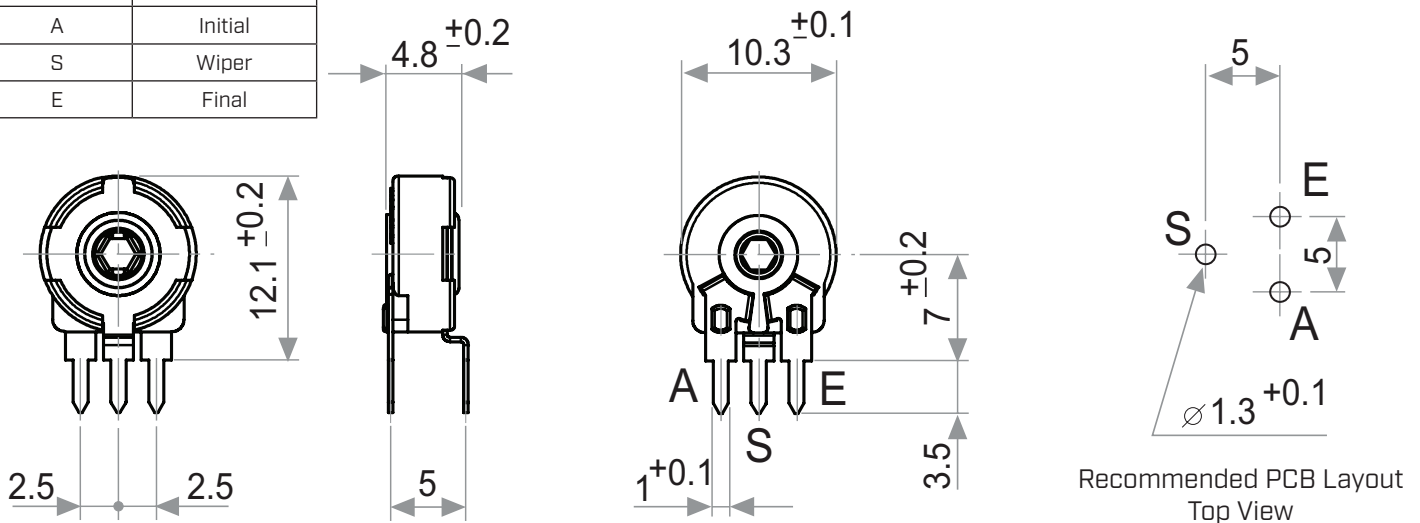


## MECHANICAL DRAWING (VERTICAL, STRAIGHT OUTWARD TERMINALS)

units: mm  
 tolerance:  
 $X \leq 10$ :  $\pm 0.3$  mm  
 $10 < X \leq 30$ :  $\pm 0.5$  mm  
 $30 < X \leq 100$ :  $\pm 1.0$  mm  
 unless otherwise noted

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
A	housing	PA6 (UL94HB)	black
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C	reed	tin bronze	

TERMINAL CONNECTIONS	
TERMINAL	DESCRIPTION
A	Initial
S	Wiper
E	Final

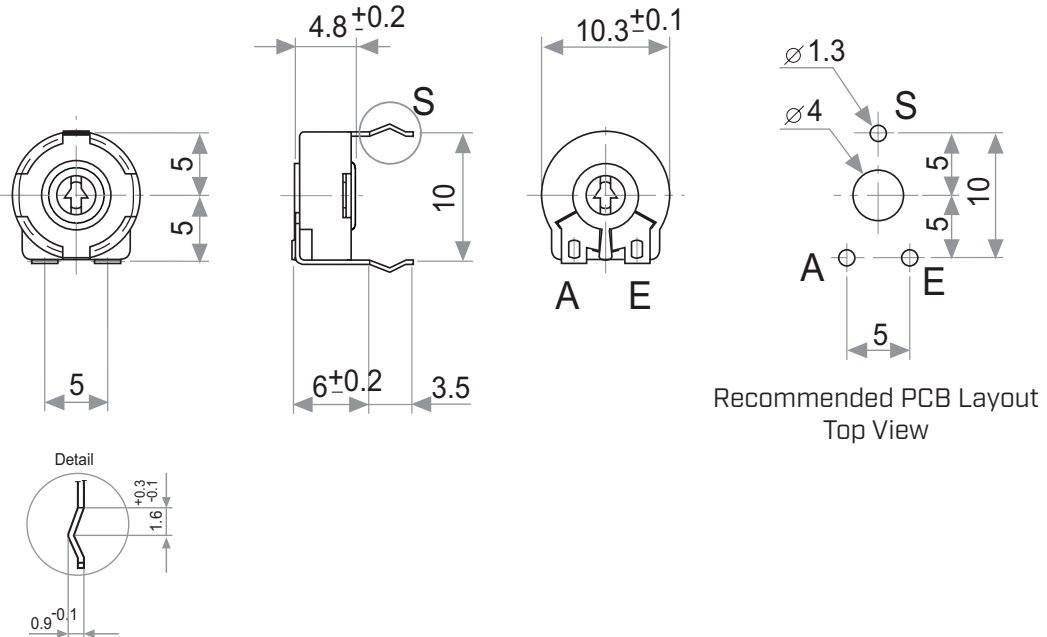


## MECHANICAL DRAWING (HORIZONTAL, CRIMPED TERMINALS)

units: mm  
 tolerance:  
 $X \leq 10$ :  $\pm 0.3$  mm  
 $10 < X \leq 30$ :  $\pm 0.5$  mm  
 $30 < X \leq 100$ :  $\pm 1.0$  mm  
 unless otherwise noted

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
A	housing	PA6 (UL94HB)	black
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TERMINAL CONNECTIONS	
TERMINAL	DESCRIPTION
A	Initial
S	Wiper
E	Final

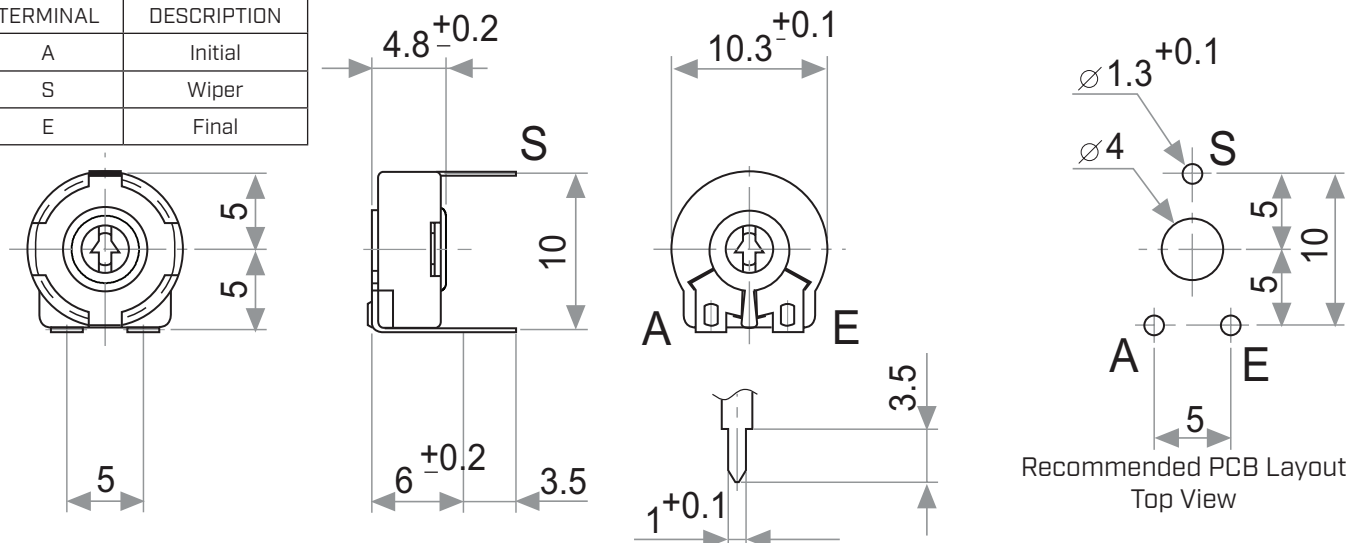


## MECHANICAL DRAWING (HORIZONTAL, STRAIGHT TERMINALS)

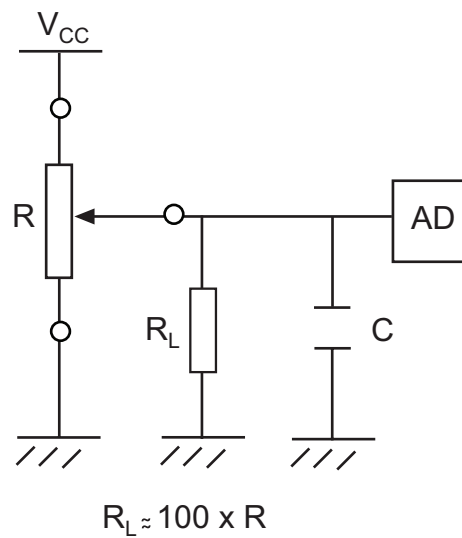
units: mm  
 tolerance:  
 $X \leq 10$ :  $\pm 0.3$  mm  
 $10 < X \leq 30$ :  $\pm 0.5$  mm  
 $30 < X \leq 100$ :  $\pm 1.0$  mm  
 unless otherwise noted

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
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TERMINAL CONNECTIONS	
TERMINAL	DESCRIPTION
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## RECOMMENDED CIRCUIT



## POWER DERATING CURVE

