# **CUI** DEVICES

**date** 06/22/2022

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SERIES: PTN10 | DESCRIPTION: ROTARY POTENTIOMETER

#### **FEATURES**

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





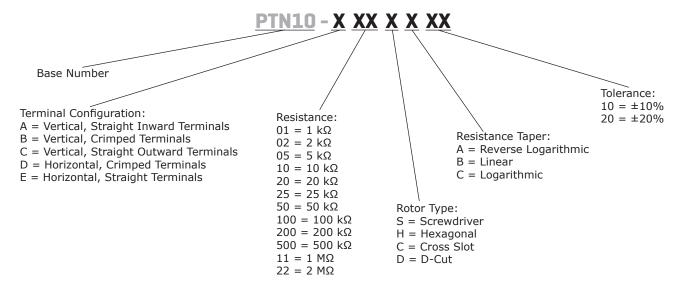
#### **SPECIFICATIONS**

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	ves				

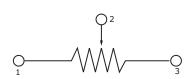
### **MECHANICAL**

parameter	conditions/description	min	typ	max	units
mechanical angle		225	235	245	0
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

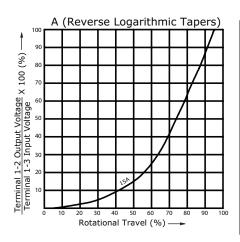
#### **PART NUMBER KEY**

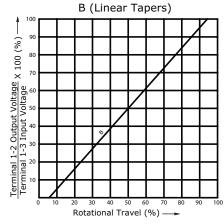


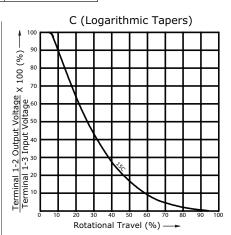
#### **SCHEMATIC/TAPERS**



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	



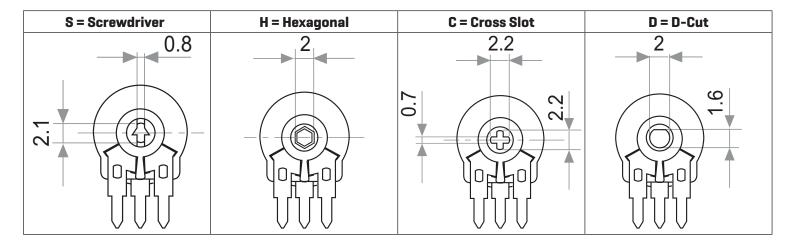




#### **ROTOR TYPE**

units: mm

tolerance: ±0.3 mm unless otherwise noted

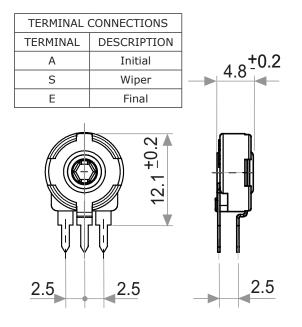


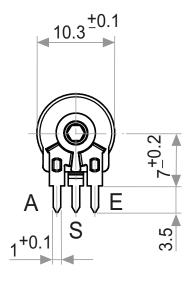
Note: Default delivery is at initial position of wiper.

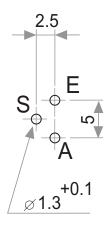
## **MECHANICAL DRAWING (VERTICAL, STRAIGHT INWARD TERMINALS)**

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

ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
Α	housing	PA6 (UL94HB)	black
В	terminals	steel	tin
С	reed	tin bronze	







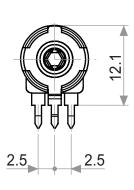
Recommended PCB Layout Top View

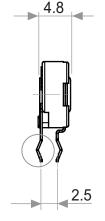
## **MECHANICAL DRAWING (VERTICAL, CRIMPED TERMINALS)**

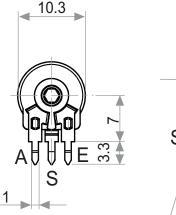
units: mm tolerance: X≤10: ±0.3 mm 10<X≤30: ±0.5 mm 30<X≤100: ±1.0 mm unless otherwise noted

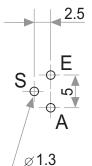
ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
Α	housing	PA6 (UL94HB)	black
В	terminals	steel	tin
С	reed	tin bronze	

TERMINAL CONNECTIONS			
TERMINAL	DESCRIPTION		
Α	Initial		
S	Wiper		
Е	Final		









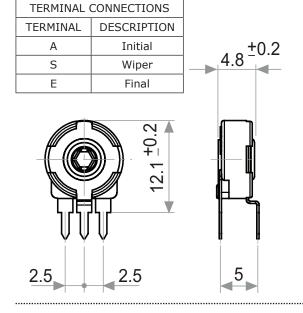
Detail

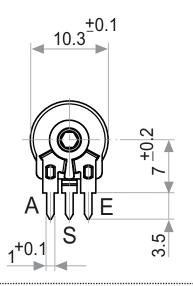
Recommended PCB Layout Top View

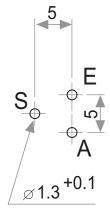
# **MECHANICAL DRAWING (VERTICAL, STRAIGHT OUTWARD TERMINALS)**

units: mm 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
Α	housing	PA6 (UL94HB)	black
В	terminals	steel	tin
С	reed	tin bronze	







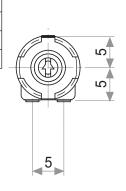
Recommended PCB Layout Top View

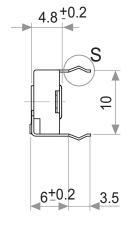
### **MECHANICAL DRAWING (HORIZONTAL, CRIMPED TERMINALS)**

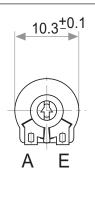
units: mm tolerance: X≤10: ±0.3 mm 10<X≤30: ±0.5 mm 30<X≤100: ±1.0 mm unless otherwise noted

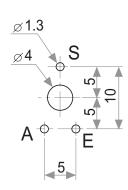
ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
Α	housing	PA6 (UL94HB)	black
В	terminals	steel	tin
С	reed	tin bronze	

TERMINAL CONNECTIONS			
TERMINAL DESCRIPTION			
Α	Initial		
S	Wiper		
Е	Final		

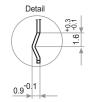








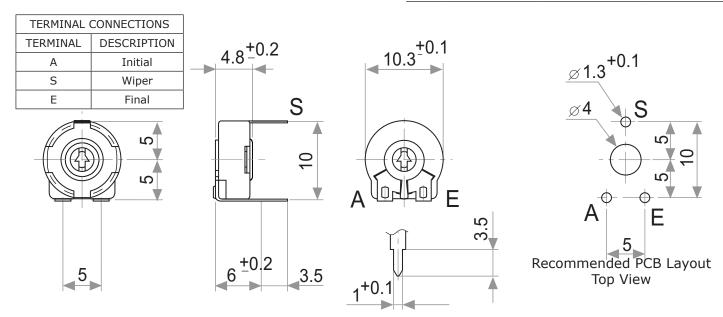
Recommended PCB Layout Top View



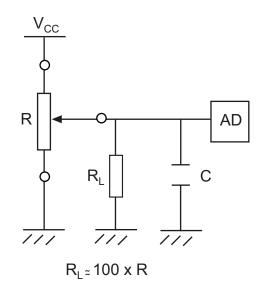
# **MECHANICAL DRAWING (HORIZONTAL, STRAIGHT TERMINALS)**

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

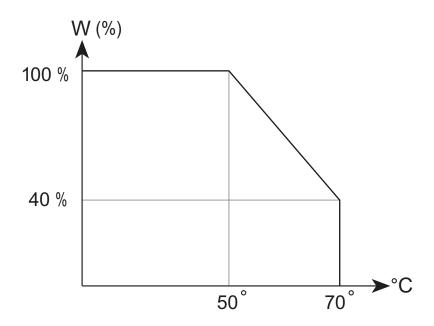
ITEM	DESCRIPTION	MATERIAL	PLATING/COLOR
Α	housing	PA6 (UL94HB)	black
В	terminals	steel	tin
С	reed	tin bronze	



# **RECOMMENDED CIRCUIT**



### **POWER DERATING CURVE**



#### **REVISION HISTORY**

rev.	description	date
1.0	initial release	06/22/2022

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

# **CUI** DEVICES

CUI Devices offers a one (1) year limited warranty. Complete warranty information is listed on our website.

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