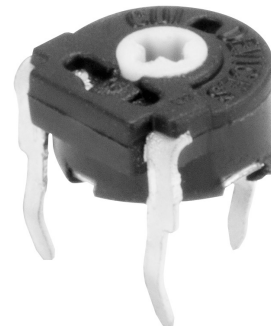


SERIES: PTN06 | **DESCRIPTION:** ROTARY POTENTIOMETER

FEATURES

- 6 mm
- 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 | | 0.18 | 0.185 | 0.19 | g |

PART NUMBER KEY

PTN06 - X XX X X XX - X

Base Number

Terminal Configuration:
 B = Vertical, Crimped 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

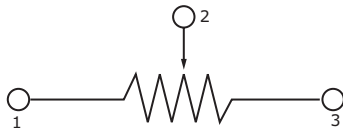
Rotor Type:
 H = Hexagonal
 C = Cross Slot

Resistance Taper:
 A = Logarithmic
 B = Linear
 C = Reverse Logarithmic

Wiper Position:
 blank = initial
 H = 50%

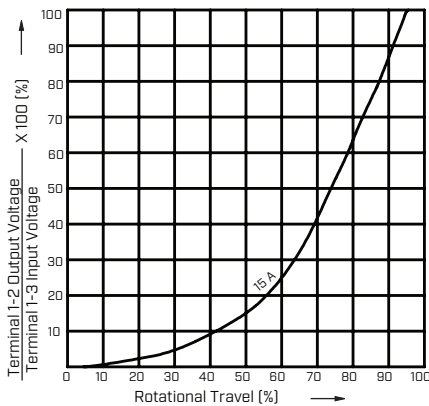
Tolerance:
 10 = ±10%
 20 = ±20%

SCHEMATIC/TAPERS

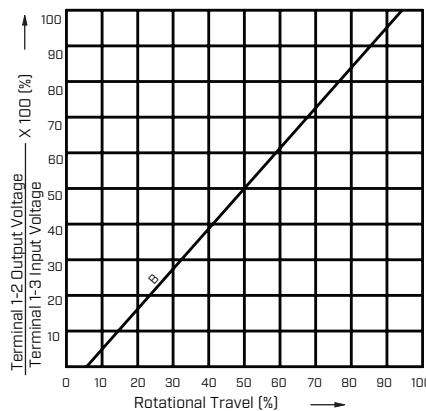


| Resistance Table | |
|------------------|------|
| Resistance [KΩ] | Code |
| 1 | 01 |
| 2 | 02 |
| 5 | 05 |
| 10 | 10 |
| 20 | 20 |
| 25 | 25 |
| 50 | 50 |
| 100 | 100 |
| 200 | 200 |
| 500 | 500 |
| 1,000 | 11 |
| 2,000 | 22 |

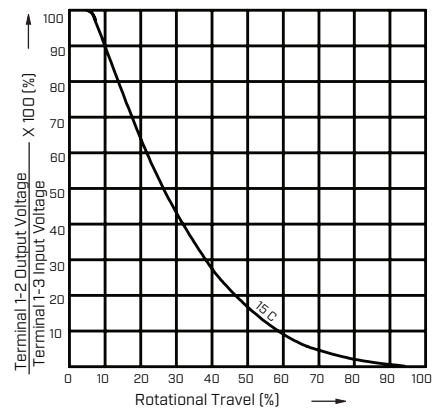
A (Logarithmic Tapers)



B (Linear Tapers)

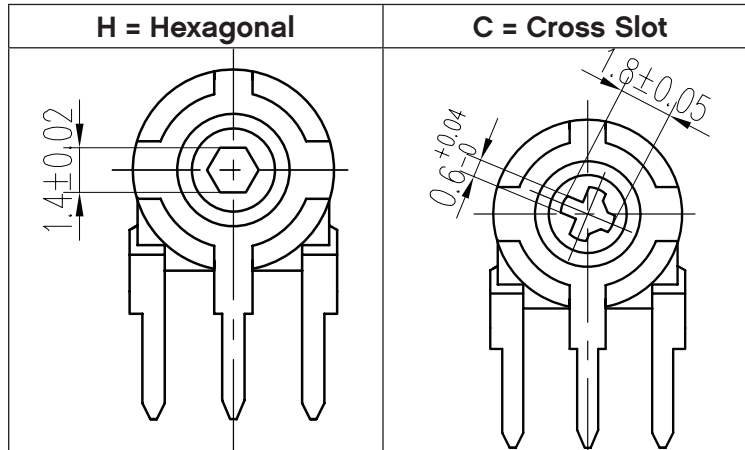


C (Reverse Logarithmic Tapers)



ROTOR TYPE

units: mm
 tolerance: ± 0.3 mm
 unless otherwise noted

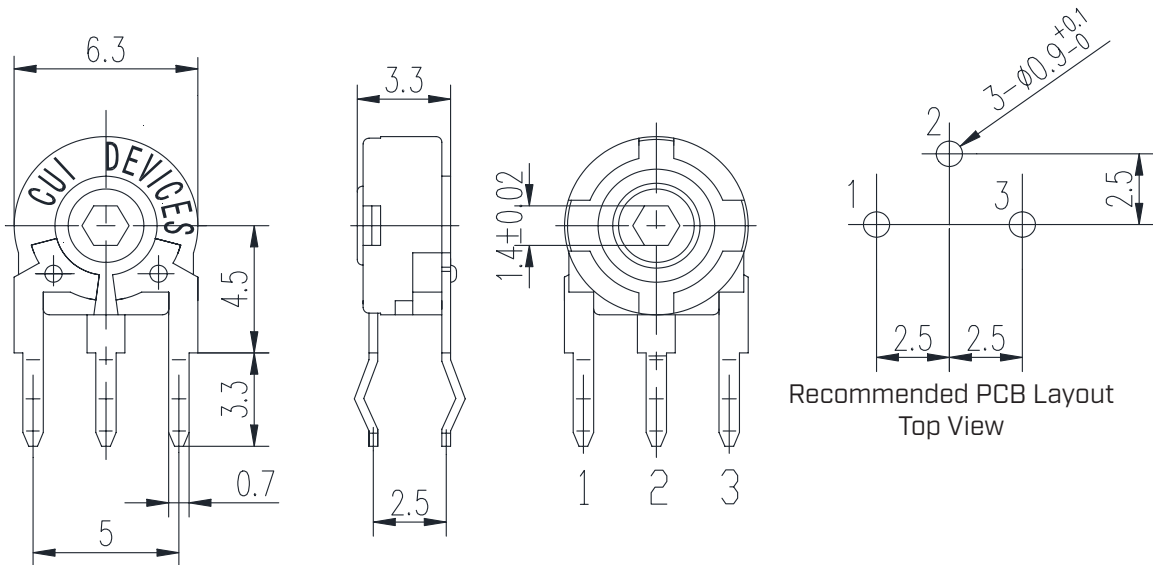


MECHANICAL DRAWING (VERTICAL, CRIMPED TERMINALS)

units: mm
 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 | housing | PA6 (UL94HB) | black |
| B | terminals | steel | tin |
| C | reed | zinc | cupronickel |

| TERMINAL CONNECTIONS | |
|----------------------|-------------|
| TERMINAL | DESCRIPTION |
| 1 | Initial |
| 2 | Wiper |
| 3 | Final |



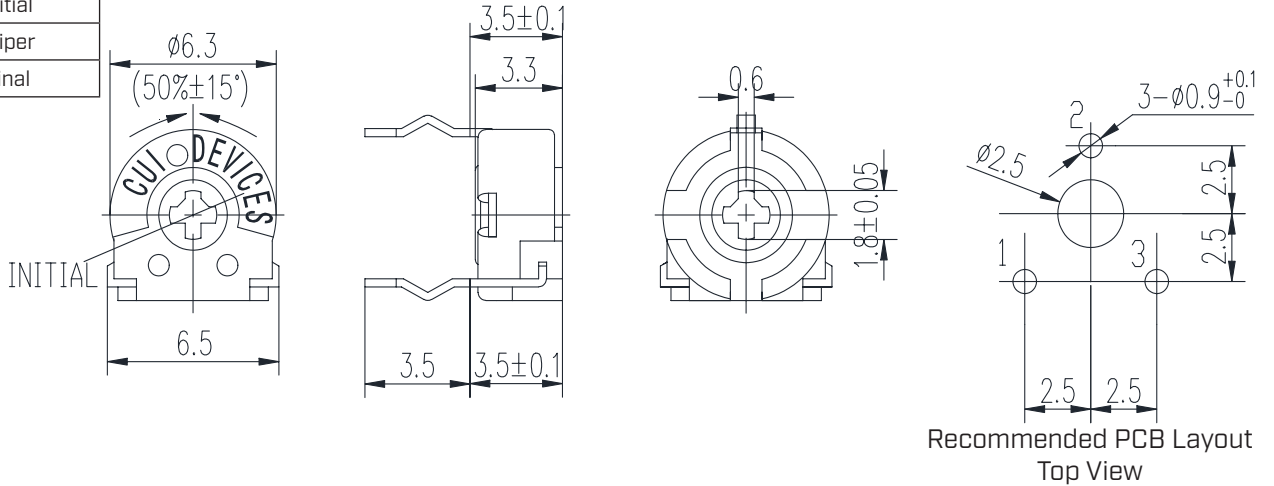
Recommended PCB Layout
 Top View

MECHANICAL DRAWING (HORIZONTAL, CRIMPED TERMINALS)

units: mm
 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 | housing | PA6 (UL94HB) | black |
| B | terminals | steel | tin |
| C | reed | zinc | cupronickel |

| TERMINAL CONNECTIONS | |
|----------------------|-------------|
| TERMINAL | DESCRIPTION |
| 1 | Initial |
| 2 | Wiper |
| 3 | Final |

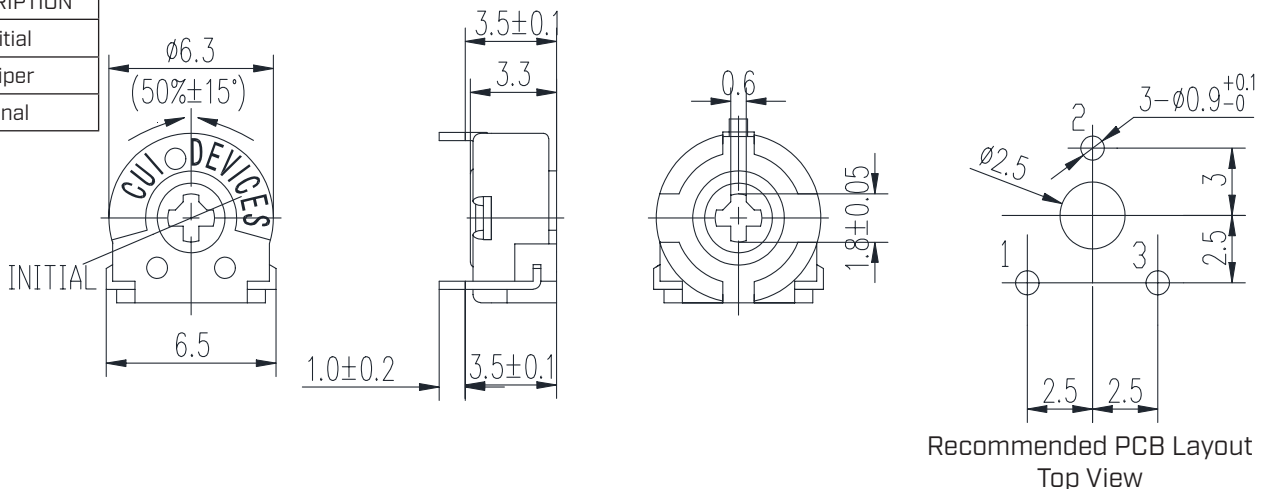


MECHANICAL DRAWING (HORIZONTAL, STRAIGHT TERMINALS)

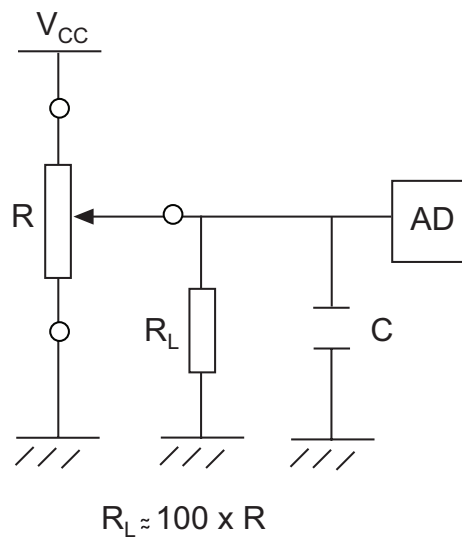
units: mm
 tolerance:
 $X \leq 10$: ± 0.3 mm
 $10 < X \leq 30$: ± 0.5 mm
 $30 < X \leq 100$: ± 1.0 mm
 unless otherwise noted

| ITEM | DESCRIPTION | MATERIAL | PLATING/COLOR |
|------|-------------|--------------|---------------|
| A | housing | PA6 (UL94HB) | black |
| B | terminals | steel | tin |
| C | reed | zinc | cupronickel |

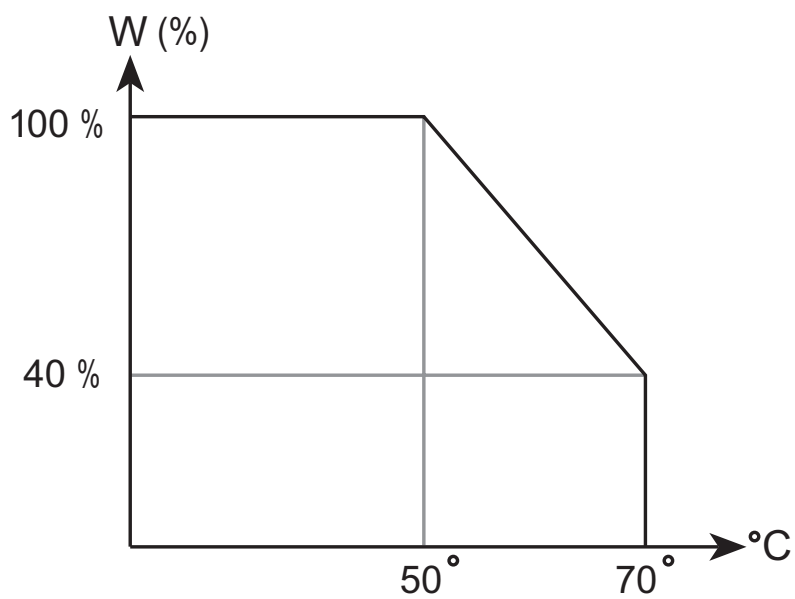
| TERMINAL CONNECTIONS | |
|----------------------|-------------|
| TERMINAL | DESCRIPTION |
| 1 | Initial |
| 2 | Wiper |
| 3 | Final |



RECOMMENDED CIRCUIT



POWER DERATING CURVE



REVISION HISTORY

| rev. | description | date |
|------|----------------------|------------|
| 1.0 | initial release | 10/27/2022 |
| 1.01 | updated taper detail | 01/15/2024 |

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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