

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:

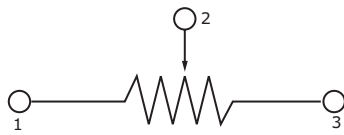
- A = Reverse Logarithmic
- B = Linear
- C = Logarithmic

Tolerance:
10 = ±10%
20 = ±20%

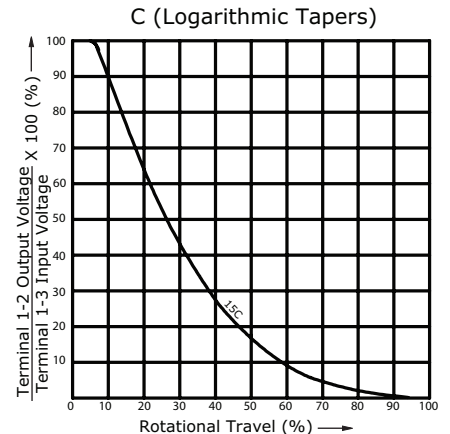
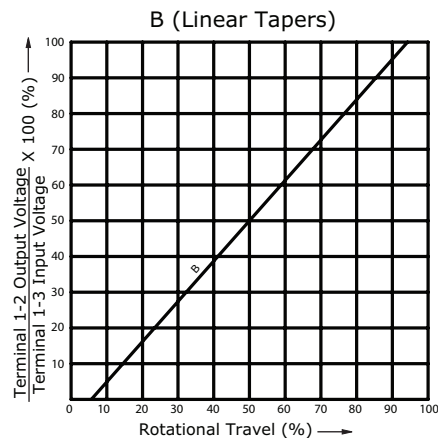
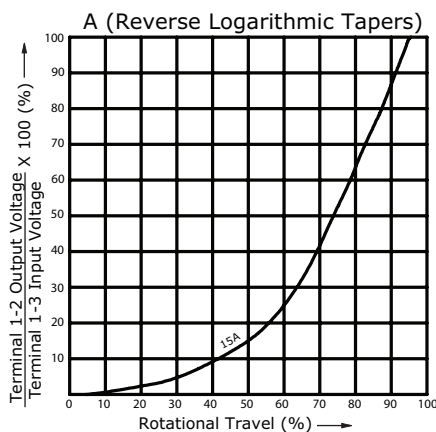
Rotor Type:

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

SCHEMATIC/TAPERS

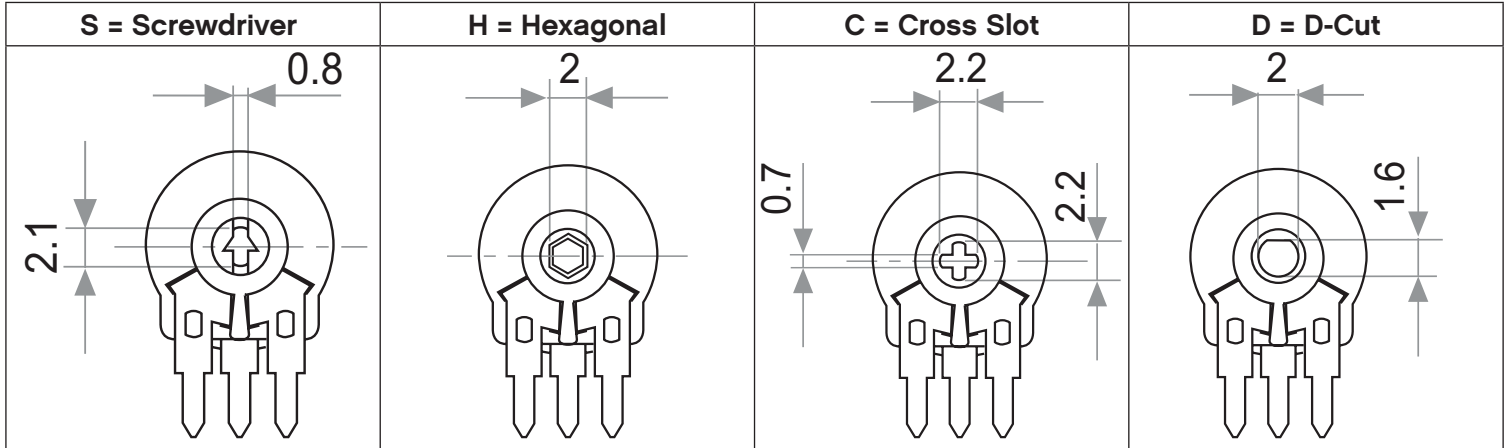


| Resistance Table | |
|------------------|------|
| Resistance [KΩ] | Code |
| 1 | 01 |
| 2 | 02 |
| 5 | 05 |
| 10 | 10 |
| 20 | 20 |
| 25 | 25 |
| 50 | 50 |
| 100 | 100 |
| 200 | 200 |
| 500 | 500 |
| 1,000 | 11 |
| 2,000 | 22 |



ROTOR TYPE

units: mm
 tolerance: ± 0.3 mm
 unless otherwise noted



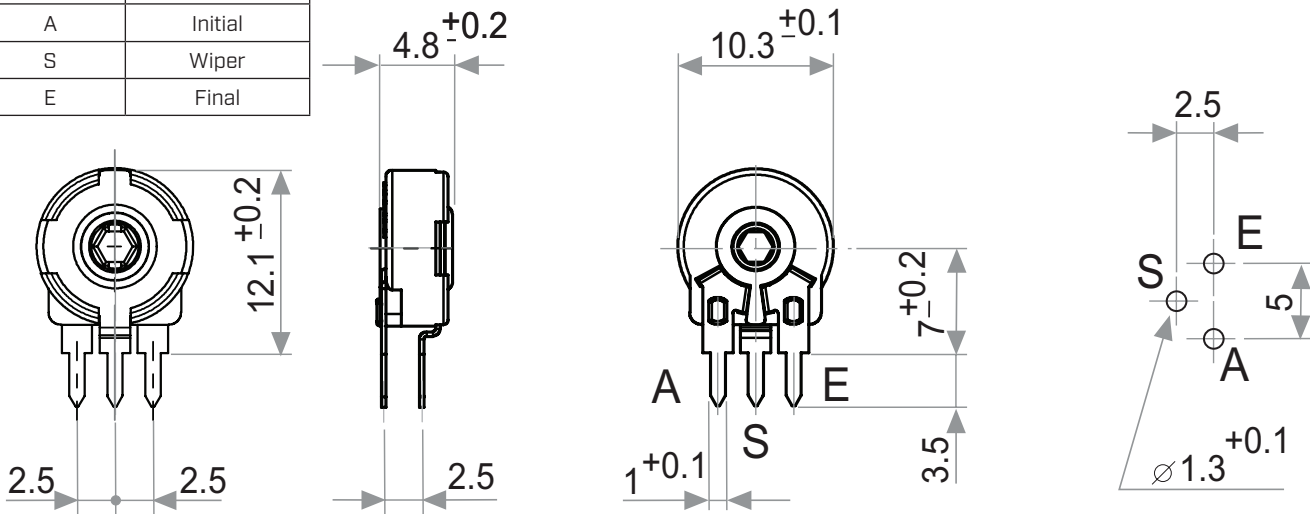
Note: Default delivery is at initial position of wiper.

MECHANICAL DRAWING (VERTICAL, STRAIGHT INWARD TERMINALS)

units: mm
 tolerance:
 $X \leq 10$: ± 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 | tin bronze | |

| TERMINAL CONNECTIONS | |
|----------------------|-------------|
| TERMINAL | DESCRIPTION |
| A | Initial |
| S | Wiper |
| E | Final |



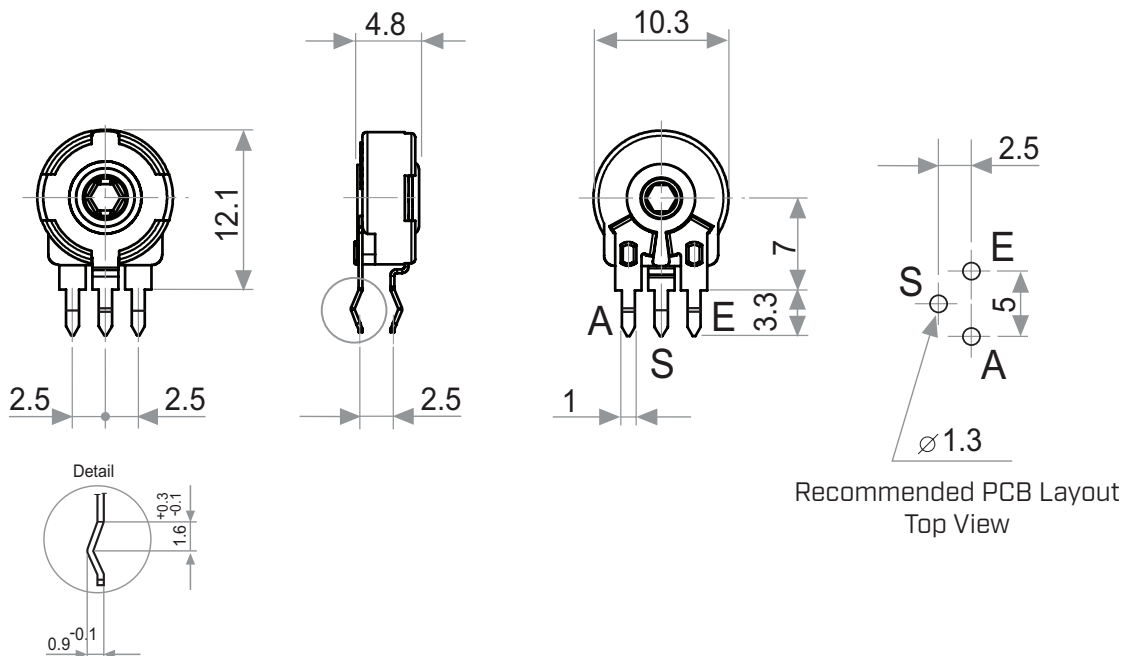
Recommended PCB Layout
 Top View

MECHANICAL DRAWING (VERTICAL, CRIMPED TERMINALS)

units: mm
 tolerance:
 $X \leq 10$: ± 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 | tin bronze | |

| TERMINAL CONNECTIONS | |
|----------------------|-------------|
| TERMINAL | DESCRIPTION |
| A | Initial |
| S | Wiper |
| E | Final |

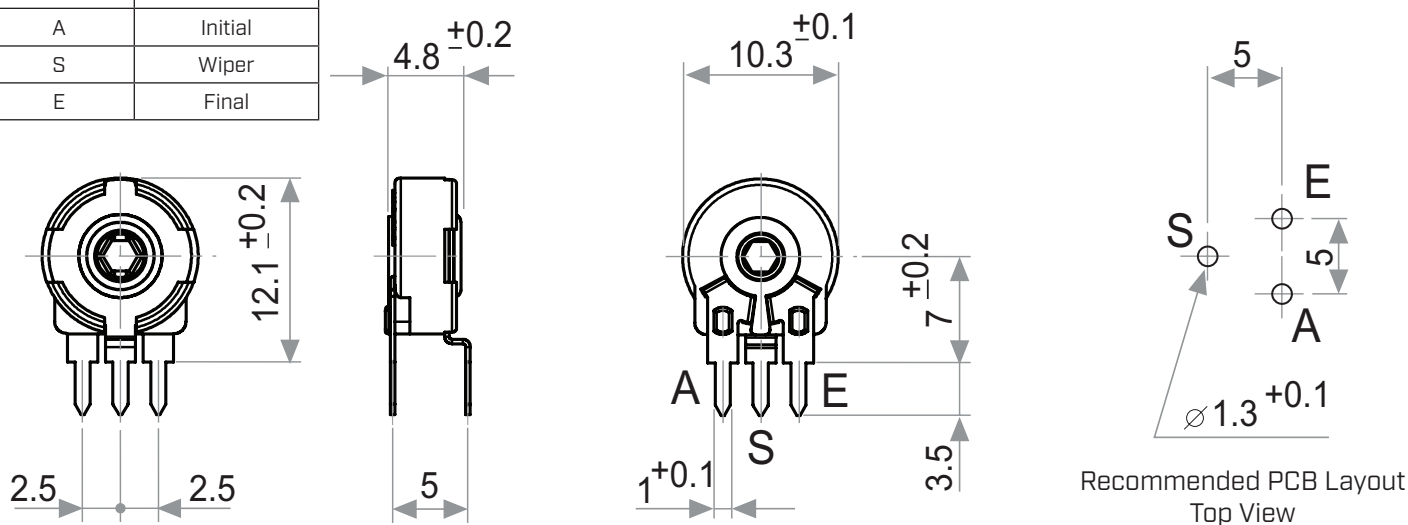


MECHANICAL DRAWING (VERTICAL, STRAIGHT OUTWARD TERMINALS)

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 | tin bronze | |

| TERMINAL CONNECTIONS | |
|----------------------|-------------|
| TERMINAL | DESCRIPTION |
| A | Initial |
| S | Wiper |
| E | Final |

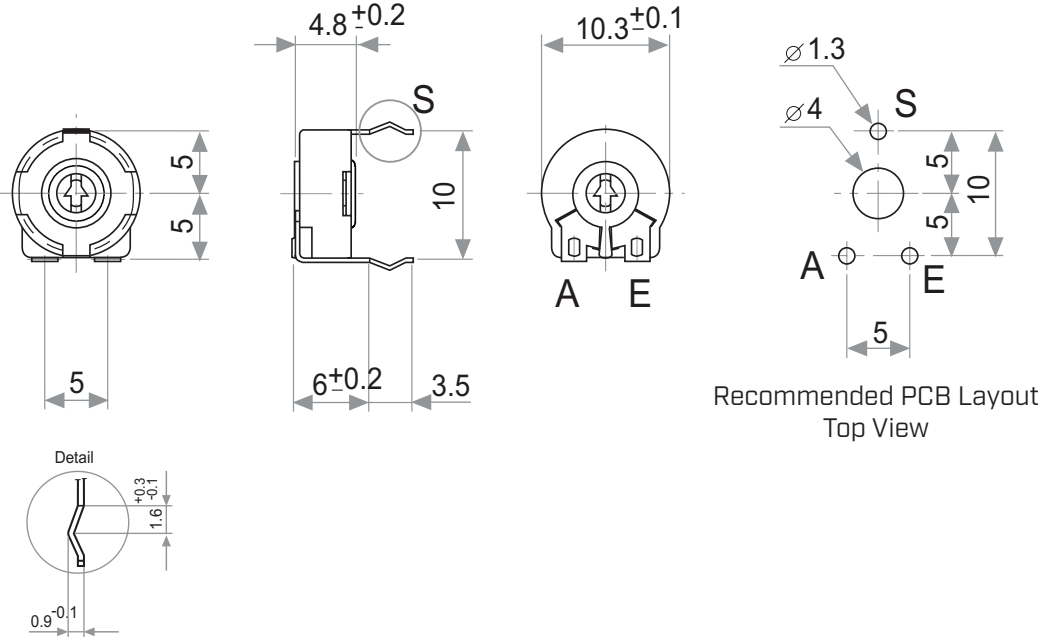


MECHANICAL DRAWING (HORIZONTAL, CRIMPED TERMINALS)

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 | tin bronze | |

| TERMINAL CONNECTIONS | |
|----------------------|-------------|
| TERMINAL | DESCRIPTION |
| A | Initial |
| S | Wiper |
| E | Final |

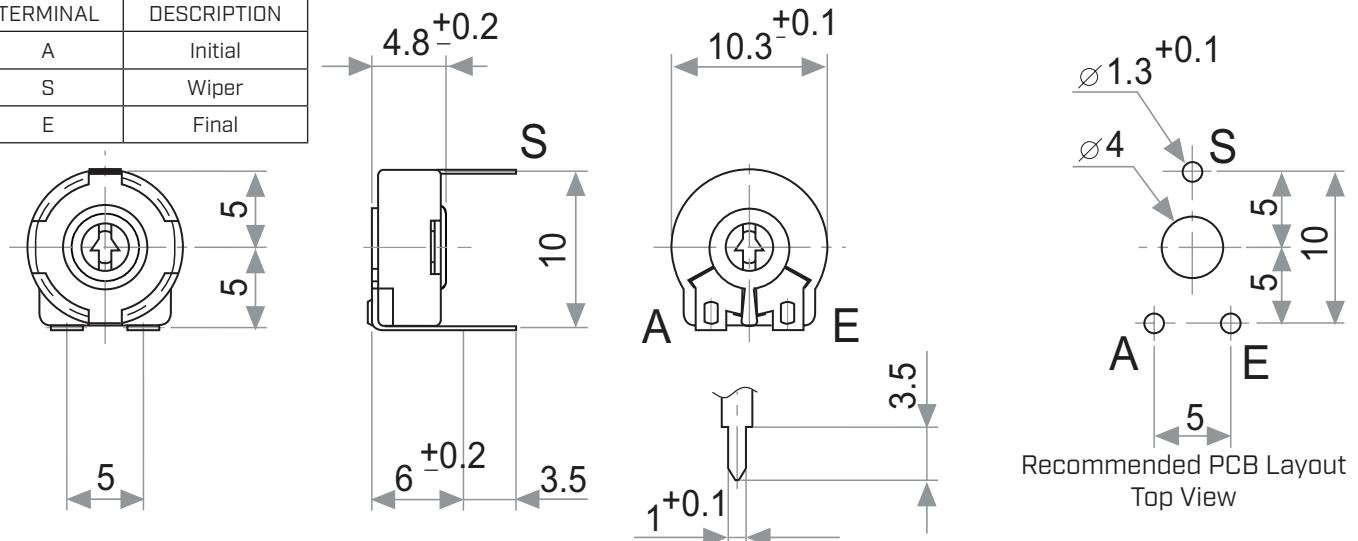


MECHANICAL DRAWING (HORIZONTAL, STRAIGHT TERMINALS)

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 | tin bronze | |

| TERMINAL CONNECTIONS | |
|----------------------|-------------|
| TERMINAL | DESCRIPTION |
| A | Initial |
| S | Wiper |
| E | Final |



RECOMMENDED CIRCUIT



POWER DERATING CURVE

