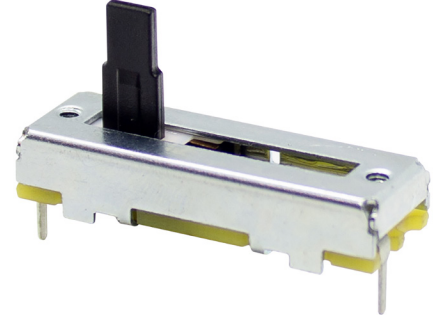




## SERIES: PTNS1 | DESCRIPTION: SLIDE POTENTIOMETER

### FEATURES

- multiple travel length options
- multiple lever options
- carbon element



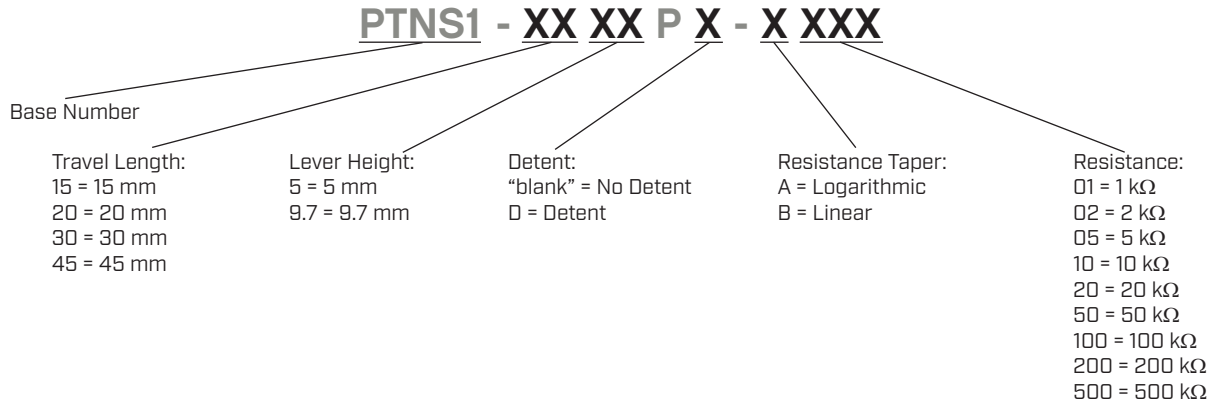
### SPECIFICATIONS

| parameter                     | conditions/description | min | typ      | max  | units        |
|-------------------------------|------------------------|-----|----------|------|--------------|
| maximum operating voltage     |                        |     |          | 200  | Vac          |
| power rating                  |                        |     |          | 0.25 | W            |
| taper                         | linear and logarithmic |     |          |      |              |
| standard resistance range     | see Resistance Table   | 1   |          | 500  | k $\Omega$   |
| standard resistance tolerance |                        |     | $\pm 20$ |      | %            |
| residual resistance           |                        |     |          | 20   | m $\Omega$   |
| sliding noise                 |                        |     |          | 100  | mV           |
| insulation resistance         | at 250 Vdc             | 10  |          |      | M $\Omega$   |
| withstand voltage             | for 1 minute           |     | 300      |      | Vac          |
| operating temperature         |                        | -10 |          | 75   | $^{\circ}$ C |
| hand soldering                | for 3 seconds max      |     |          | 300  | $^{\circ}$ C |
| wave soldering                | for 5 seconds max      |     |          | 260  | $^{\circ}$ C |
| RoHS                          | yes                    |     |          |      |              |

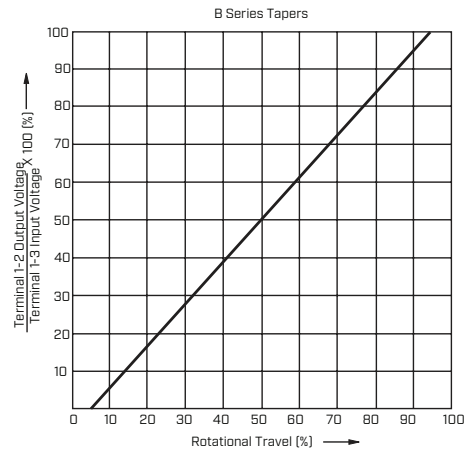
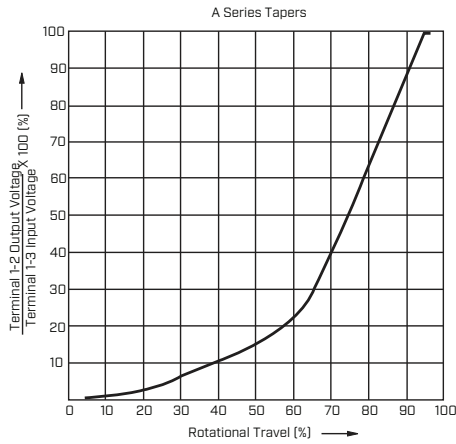
### MECHANICAL

| parameter       | conditions/description          | min | typ    | max | units  |
|-----------------|---------------------------------|-----|--------|-----|--------|
| travel length   | 15, 20, 30, 45 mm models        |     |        |     | mm     |
| operating force | models without detent           | 30  |        | 150 | gf     |
|                 | models with detent              | 50  |        | 350 | gf     |
| stop strength   |                                 | 5   |        |     | kgf    |
| sliding life    | at 10~15 cycles/minute, no load |     | 10,000 |     | cycles |
| weight          | 15 mm travel length models      | 3.0 | 3.1    | 3.2 | g      |
|                 | 20 mm travel length models      | 3.3 | 3.4    | 3.5 | g      |
|                 | 30 mm travel length models      | 4.0 | 4.1    | 4.2 | g      |
|                 | 45 mm travel length models      | 5.0 | 5.1    | 5.2 | g      |

## PART NUMBER KEY

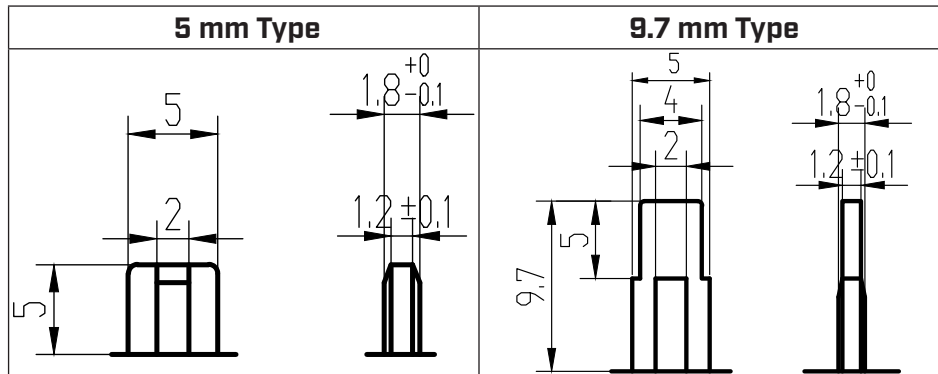


## TAPERS



## LEVER TYPES

units: mm  
 tolerance:  
 $X \leq 10.00$ :  $\pm 0.30$  mm  
 $10.00 < X \leq 30.00$ :  $\pm 0.50$  mm  
 $30.00 < X \leq 100.00$ :  $\pm 1.0$  mm  
 unless otherwise noted



## MECHANICAL DRAWING

units: mm

tolerance:

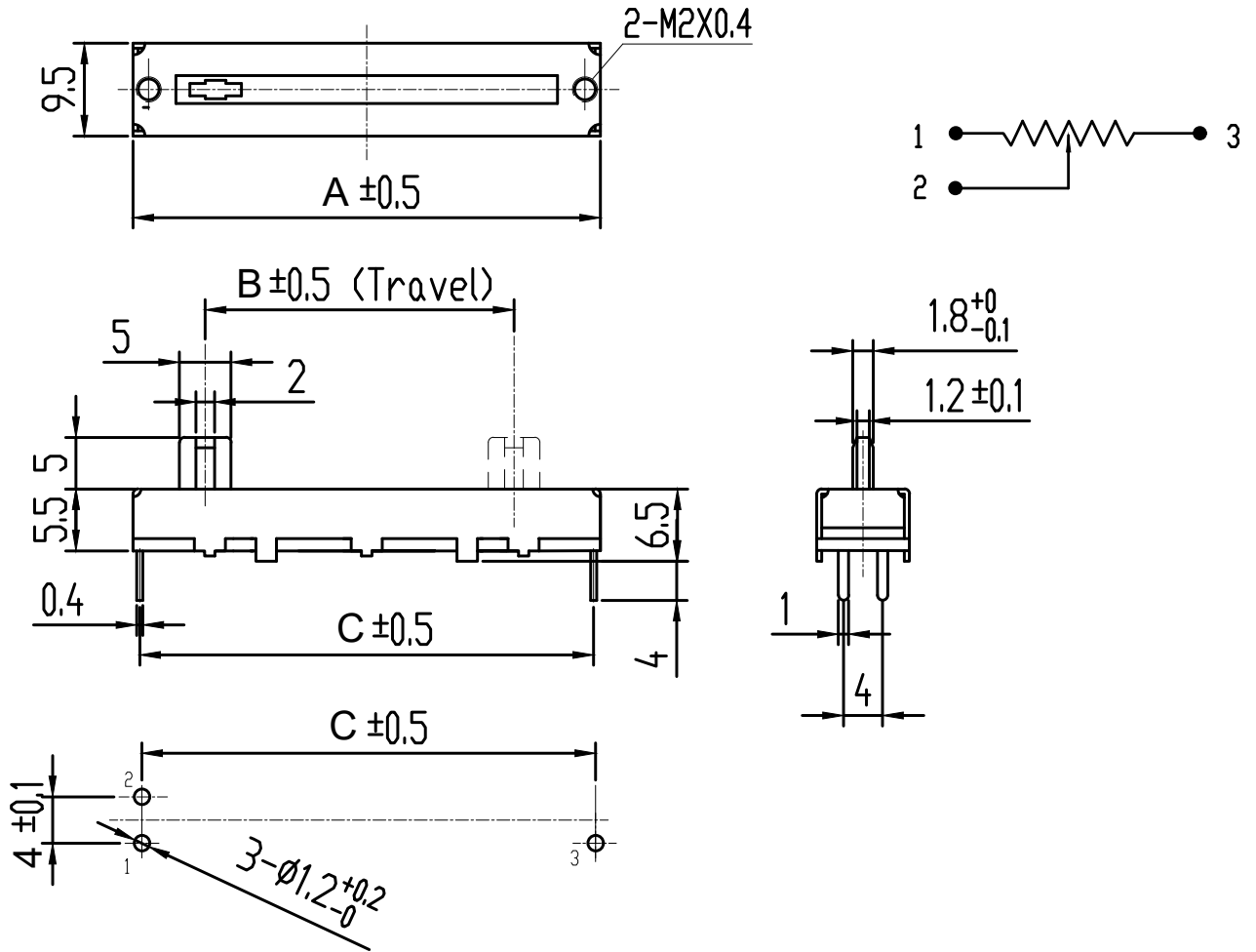
$X \leq 10.00$ :  $\pm 0.30$  mm

$10.00 < X \leq 30.00$ :  $\pm 0.50$  mm

$30.00 < X \leq 100.00$ :  $\pm 1.0$  mm

unless otherwise noted

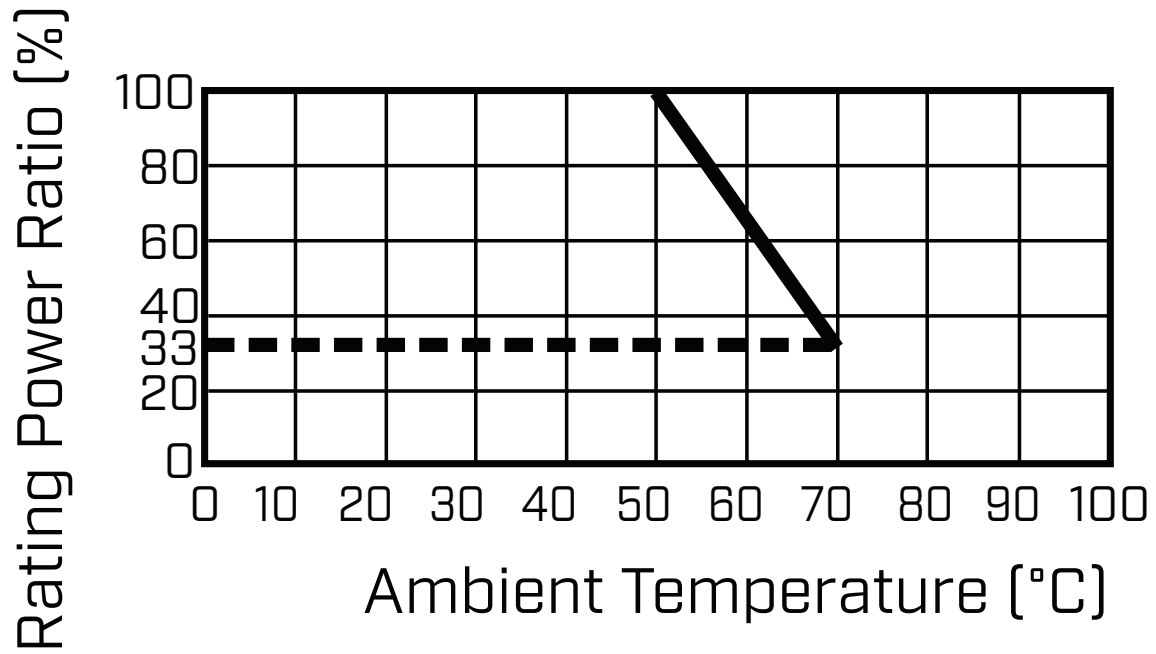
| DESCRIPTION    | MATERIAL   | PLATING/COLOR |
|----------------|--|---------------|
| lever          | POM (UL94HB)   | black         |
| reed           | zinc alloy   | white copper  |
| housing        | cold rolled steel  | tin           |
| carbon plate   | paper substrate (20, 30, 45 mm travel models), FR4 substrate (15 mm travel models) | ---           |
| terminals      | cold rolled steel  | tin           |
| contact spring | bronze   | tin           |
| plastic washer | PTFE (UL94HB)  | white         |



Recommended PCB Layout  
Top View

| TRAVEL LENGTH MODELS | A [mm] | B [mm] | C [mm] |
|----------------------|--------|--------|--------|
| 15                   | 30     | 15     | 29     |
| 20                   | 35     | 20     | 34     |
| 30                   | 45     | 30     | 44     |
| 45                   | 60     | 45     | 59     |

## POWER DERATING CURVE



## REVISION HISTORY

| rev. | description     | date       |
|------|-----------------|------------|
| 1.0  | initial release | 11/24/2025 |

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



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

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Same Sky products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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