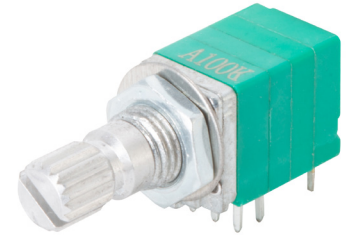


## SERIES: PTN09SX | DESCRIPTION: ROTARY POTENTIOMETER

### FEATURES

- ganging up to 2 sections
- switch
- 41 detent option
- carbon element
- multiple shaft options



### SPECIFICATIONS

parameter	conditions/description	min	typ	max	units
maximum operating voltage				10 50	Vdc Vac
power rating				0.05	W
taper	linear, logarithmic, and reverse logarithmic				
standard resistance range	see Resistance Table	1		1,000	k $\Omega$
standard resistance tolerance			$\pm 20$		%
sliding noise				68	mV
operating temperature		-10		75	$^{\circ}\text{C}$
hand soldering	for 3 seconds max			350	$^{\circ}\text{C}$
wave soldering	for 5 seconds max			260	$^{\circ}\text{C}$
RoHS	yes				

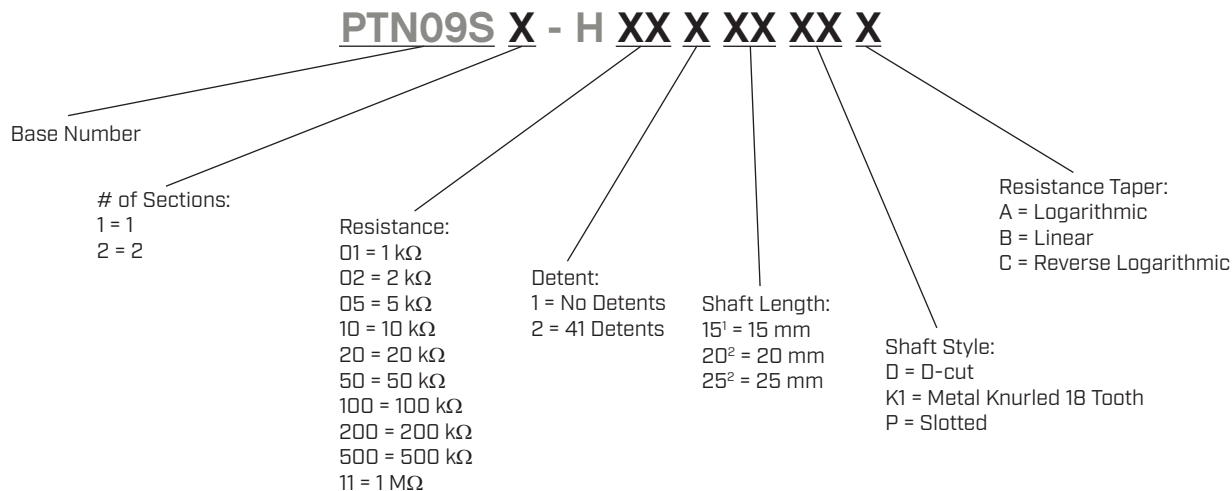
### MECHANICAL

parameter	conditions/description	min	typ	max	units
mechanical angle		290	300	310	$^{\circ}$
rotational torque		20		150	gf-cm
stop strength		4.0			kg-cm
shaft wobble	0.5xL/30 mm p-p max				
rotational life			10,000		cycles
weight			5.5		g

### ROTARY SWITCH SPECIFICATIONS

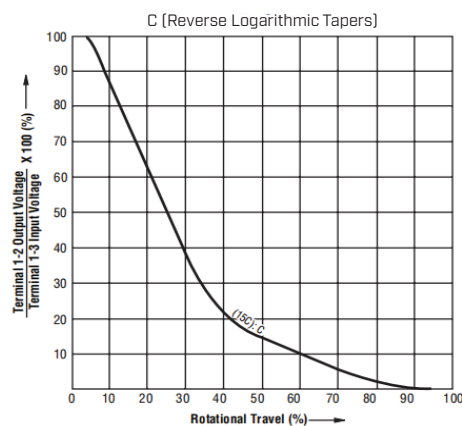
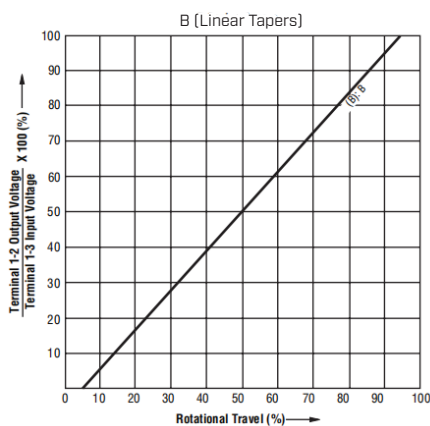
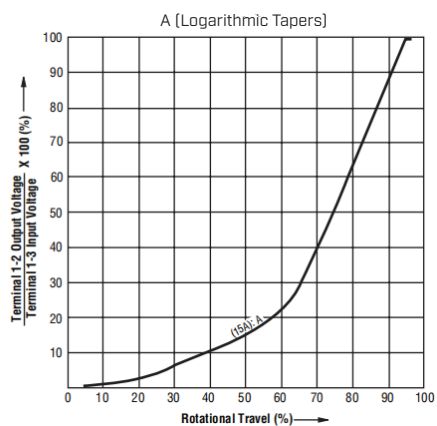
parameter	conditions/description	min	typ	max	units
rating	16 Vdc at 3 A				
contact resistance				50	m $\Omega$
switch torque		100		500	gf-cm
switch angle				50	$^{\circ}$

## PART NUMBER KEY



Note: 1.5 mm bushing length offered on 15 mm shaft only.  
2.7 mm bushing length offered on 20 & 25 mm shafts only.

## TAPERS



## SHAFT TYPES

units: mm

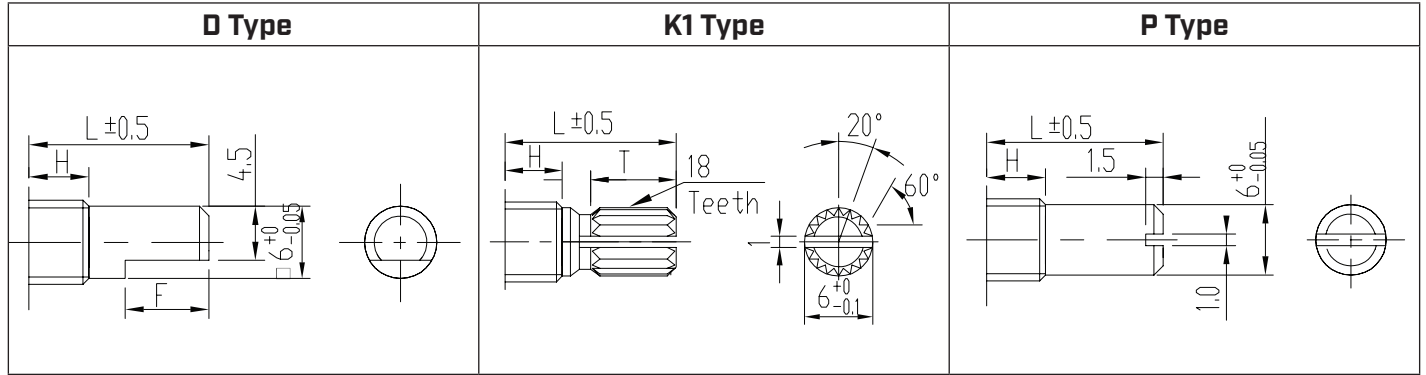
tolerance:

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

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

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

unless otherwise noted



H	5	7	7
L	15	20	25
F	7	12	12

H	5	7	7
L	15	20	25
T	6	10	12

H	5	7	7
L	15	20	25

## MECHANICAL DRAWING (SINGLE SECTION CONFIGURATION)

units: mm

tolerance:

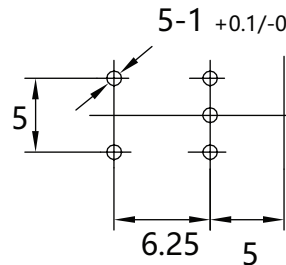
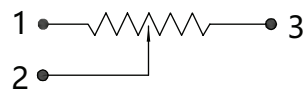
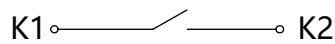
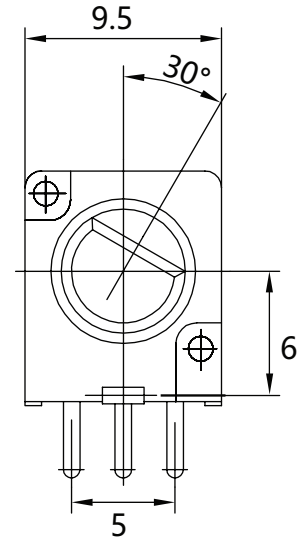
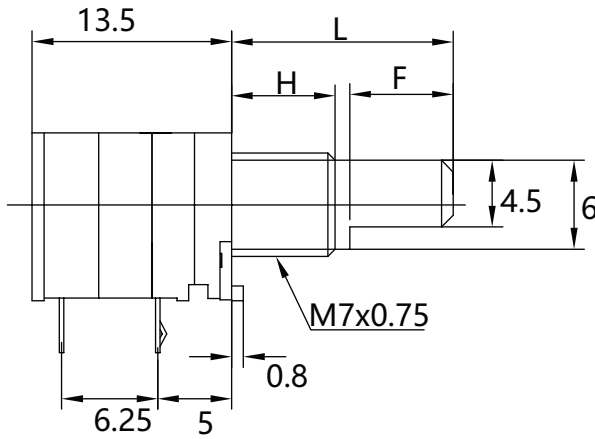
$X \leq 10.00$ :  $\pm 0.30$  mm

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

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

unless otherwise noted

DESCRIPTION	MATERIAL
shaft	aluminum
bushing	zinc alloy
driving plate & driving head	POM
rivet	aluminum
reed	phosphor copper
base	PBT
carbon plate	FR4 substrate
terminal	cold rolled strip
cover plate	PBT
bracket	cold rolled strip
switch strut	brass
blade of knife switch	brass
switch terminal	brass
spring	spring wire



Recommended PCB Layout  
Top View

## MECHANICAL DRAWING (DOUBLE SECTION CONFIGURATION)

units: mm

tolerance:

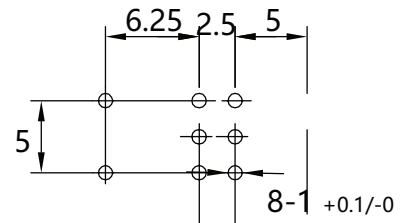
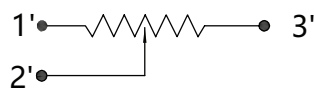
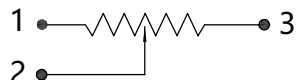
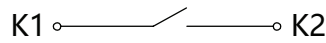
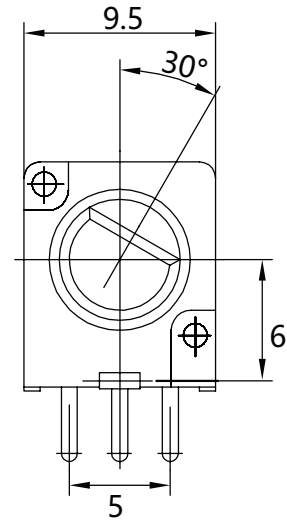
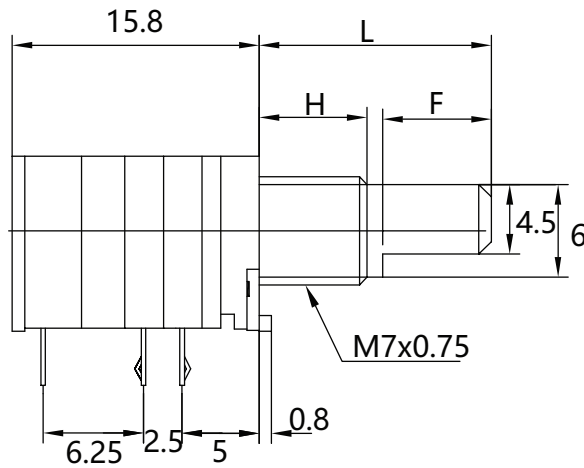
$X \leq 10.00$ :  $\pm 0.30$  mm

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

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

unless otherwise noted

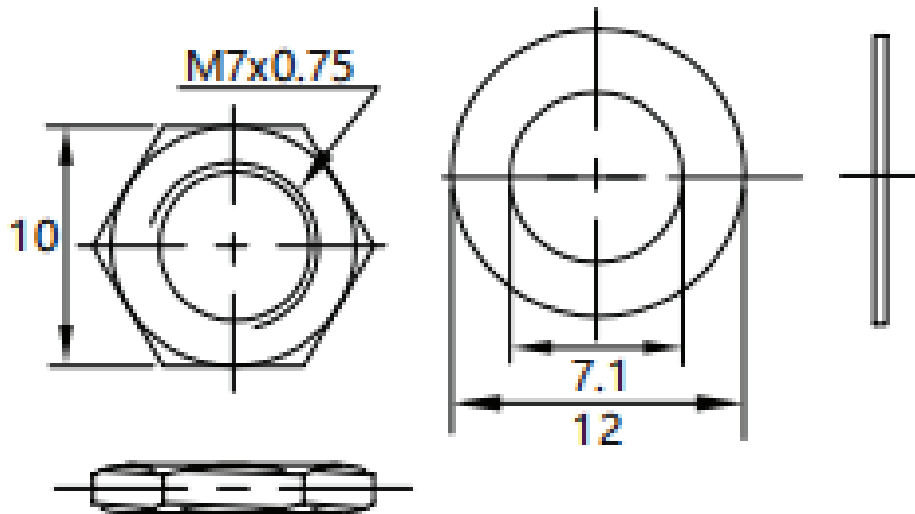
DESCRIPTION	MATERIAL
shaft	aluminum
bushing	zinc alloy
driving plate & driving head	POM
rivet	aluminum
reed	phosphor copper
base	PBT
carbon plate	FR4 substrate
terminal	cold rolled strip
cover plate	PBT
bracket	cold rolled strip
switch strut	brass
blade of knife switch	brass
switch terminal	brass
spring	spring wire



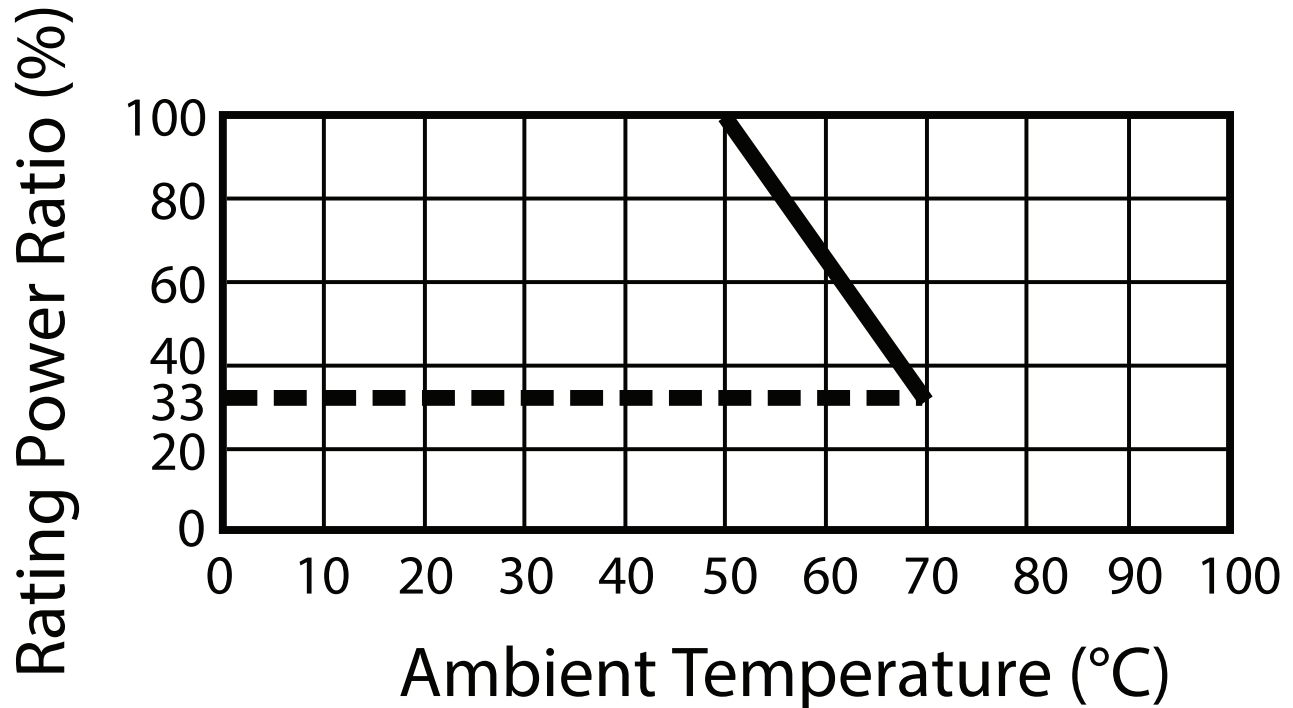
Recommended PCB Layout  
Top View

## MOUNTING HARDWARE

units: mm  
tolerance:  
X≤10.00: ±0.30 mm  
unless otherwise noted



## POWER DERATING CURVE



## REVISION HISTORY

rev.	description	date
1.0	initial release	08/01/2024
1.01	CUI Devices rebranded to Same Sky	09/12/2024

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.

Same Sky reserves the right to make changes to the product at any time without notice. Information provided by Same Sky is believed to be accurate and reliable. However, no responsibility is assumed by Same Sky for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

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.

[sameskydevices.com](https://www.sameskydevices.com)