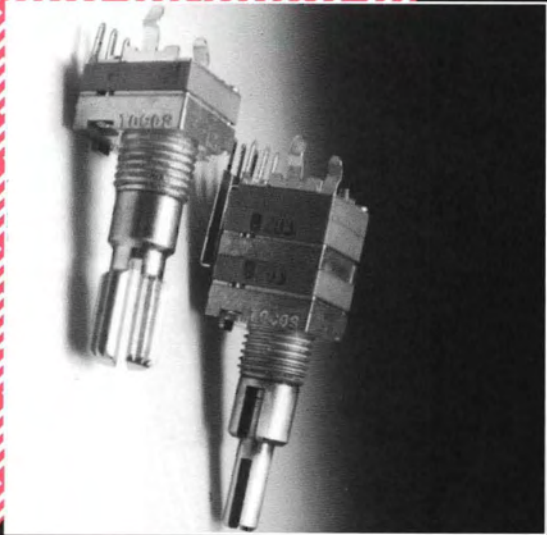
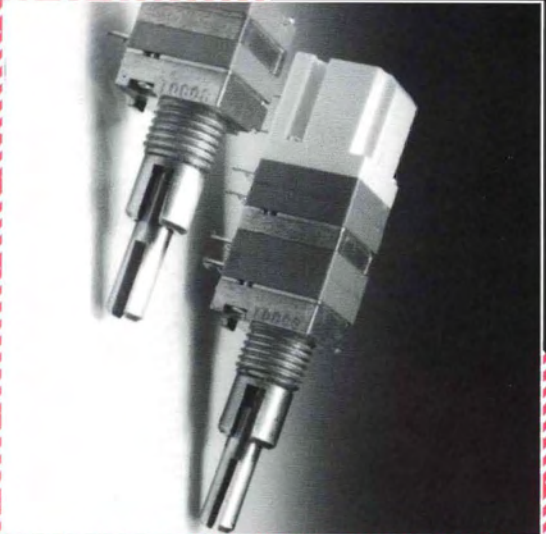
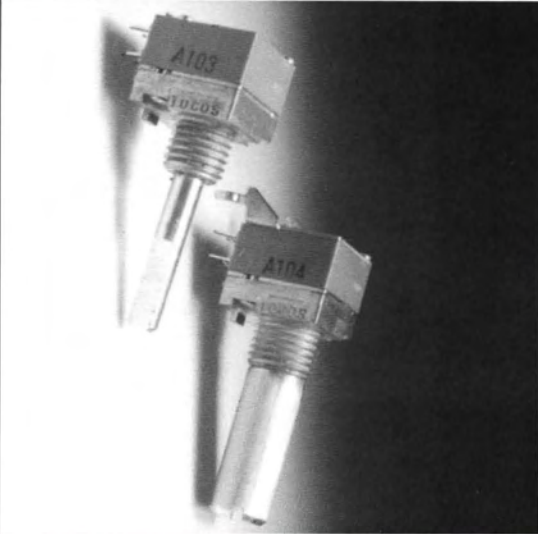


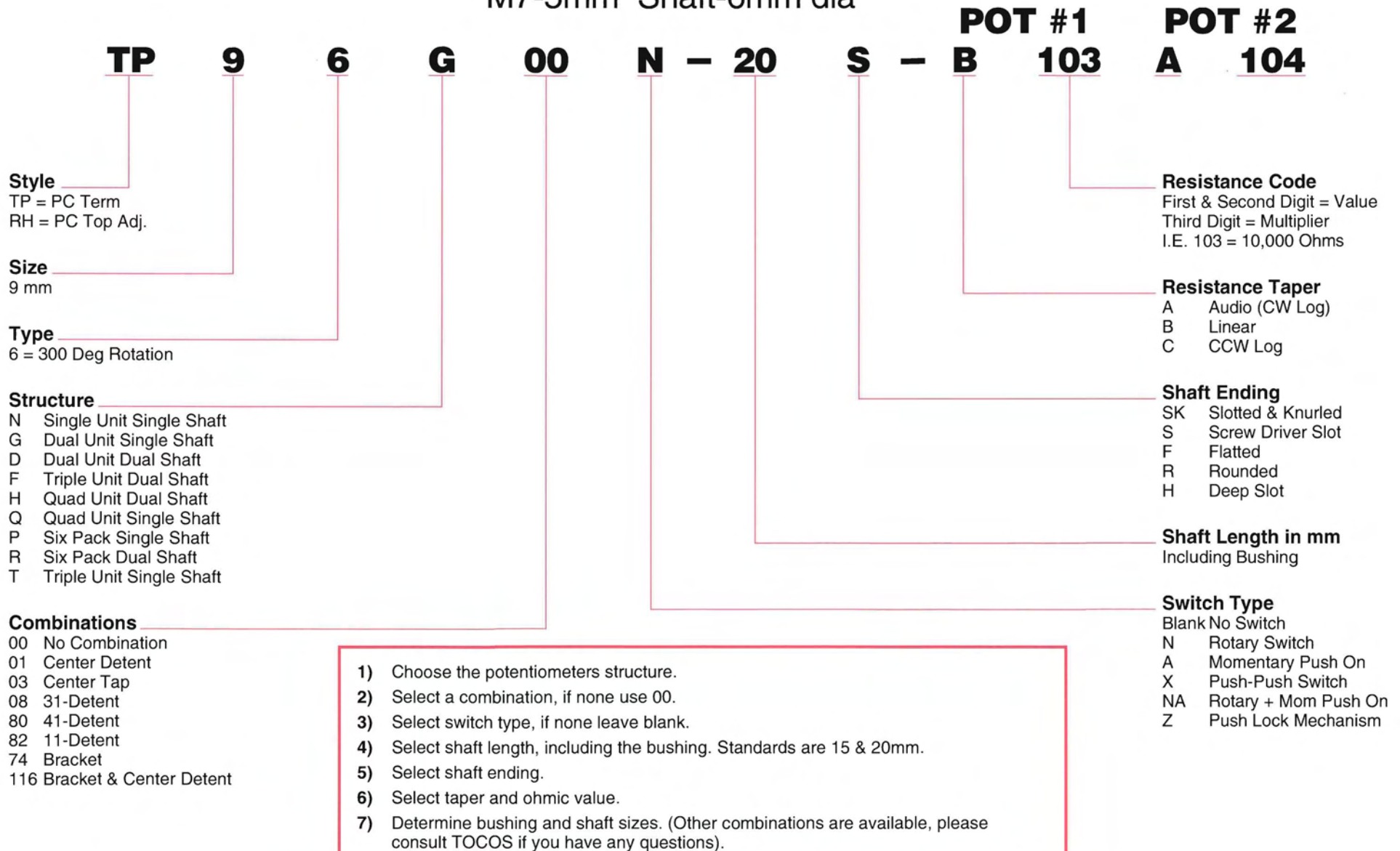
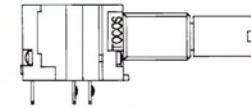
TOCCOS

TP-9 Series Selection Guide



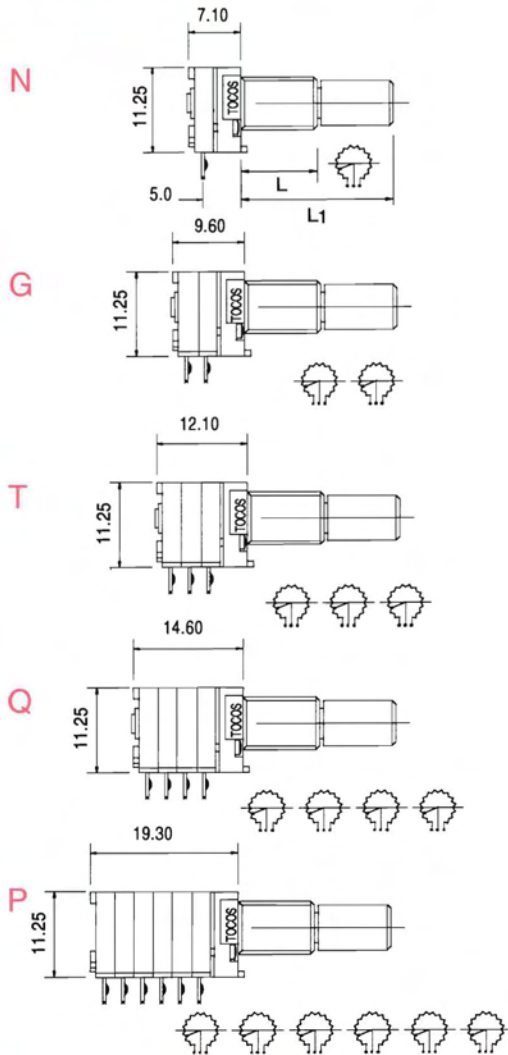
TP-9 Series Part Numbering System

Example: TP96G00N 20S B103 A104
M7-5mm Shaft-6mm dia

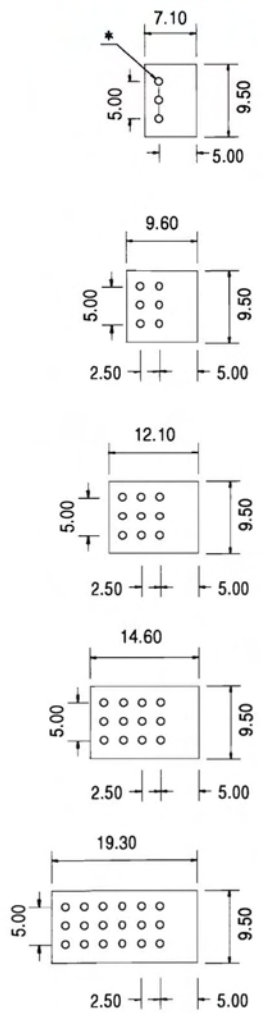


Potentiometer Structure

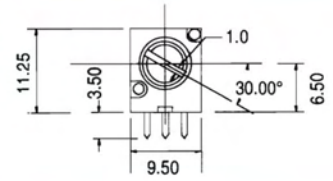
Single Shaft



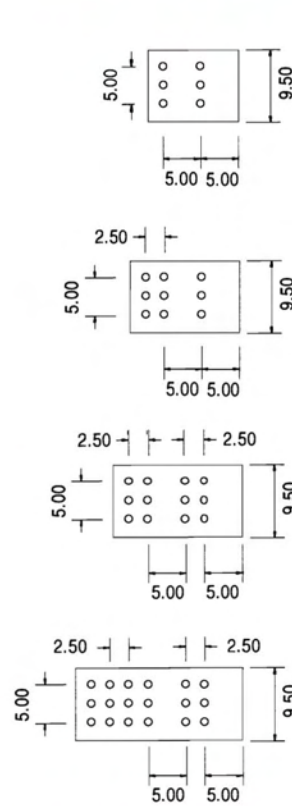
PCB Layout



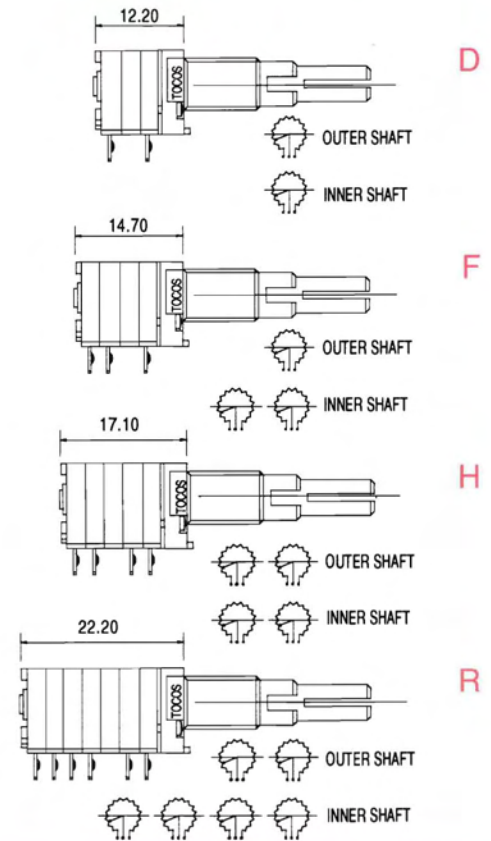
Front
Front View Typical
for TP-9 Devices



PCB Layout



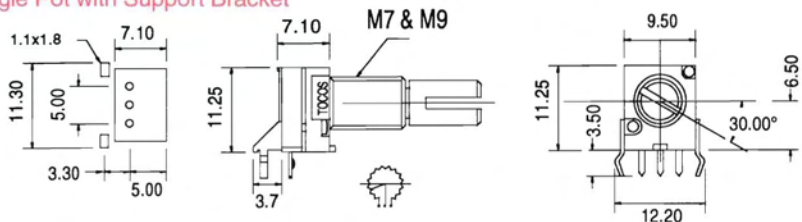
Dual Shaft



*All PCB holes 1mm Dia. unless noted.

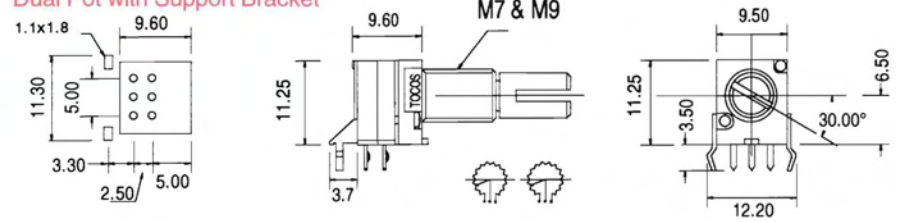
TP96N74

Single Pot with Support Bracket



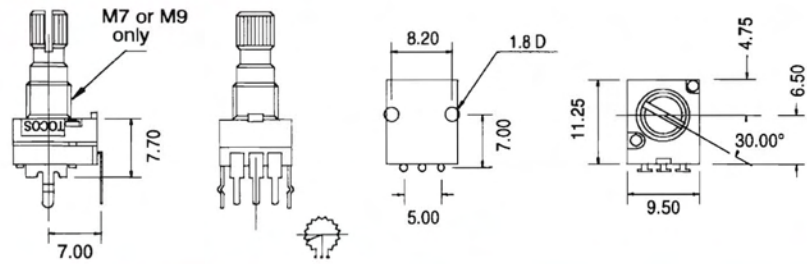
TP96G74

Dual Pot with Support Bracket



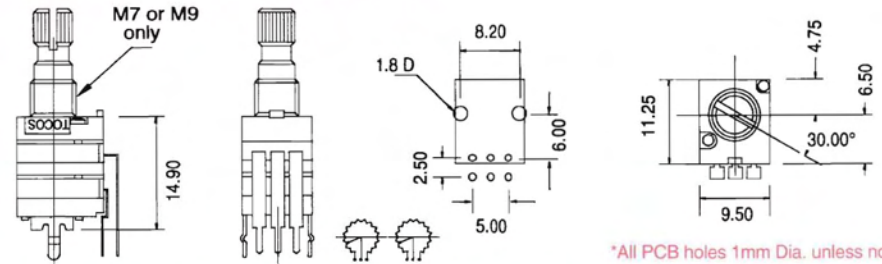
RH96N74

Vertical Mount, Single Pot



RH96G932

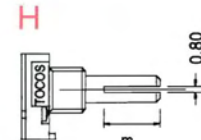
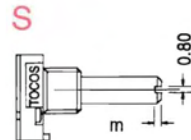
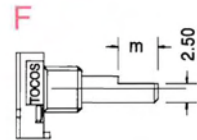
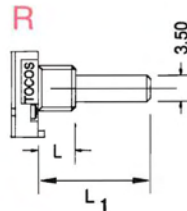
Vertical Mount Two Pots, Ganged or Dual



*All PCB holes 1mm Dia. unless noted.

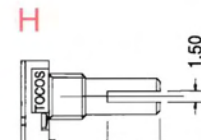
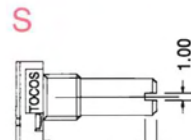
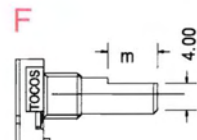
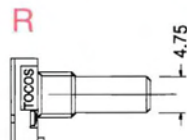
Shaft Diameter and Style

3.5 mm Dia. Shaft
M6 Bushing only

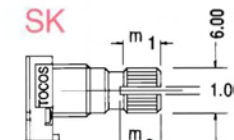
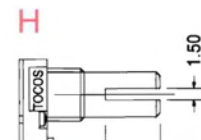
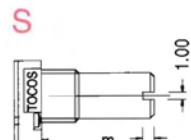
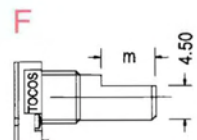
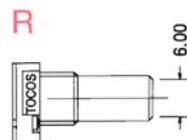


R = Round
F = Flatted
S = Screw Driver Slot
H = Deep Slot
SK = Slotted Knurled

4.75 mm Dia. Shaft
M6 & M7 Bushing only



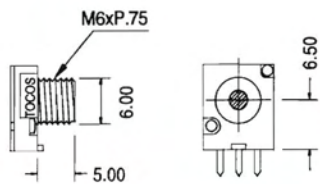
6.00 mm Dia. Shaft
M7 & M9 Bushing



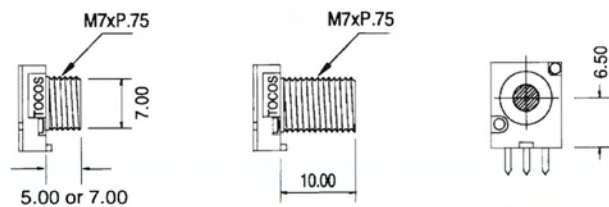
Bushing Options

Single Shaft

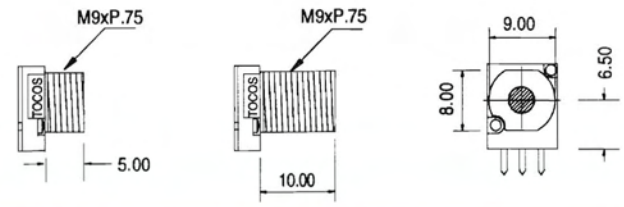
M6



M7

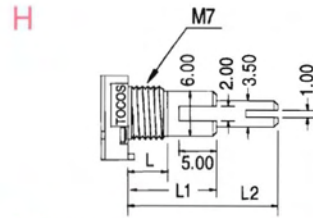


M9

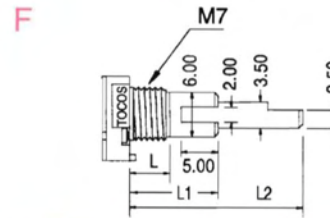


Bushing Options

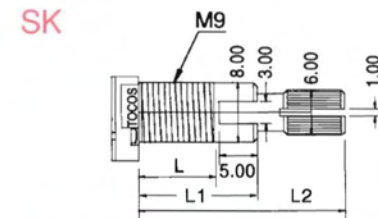
Dual Shaft



L = 5, 7, or 10mm



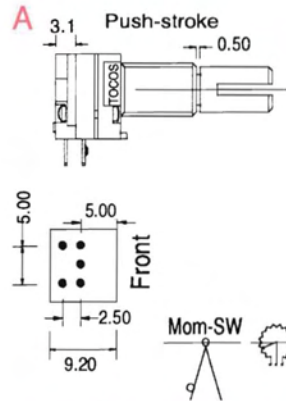
L = 5, 7, or 10mm



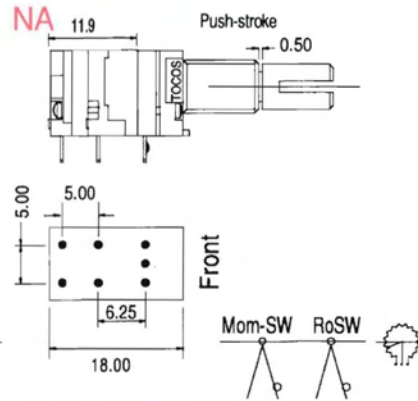
L = 5mm or 10mm

Switch Options

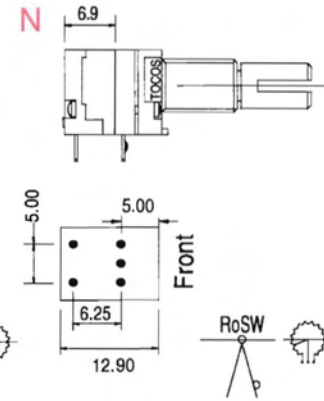
Momentary Push



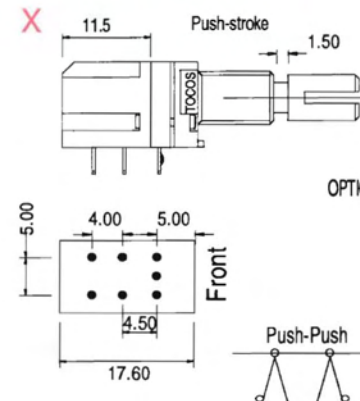
Momentary Push & Rotary



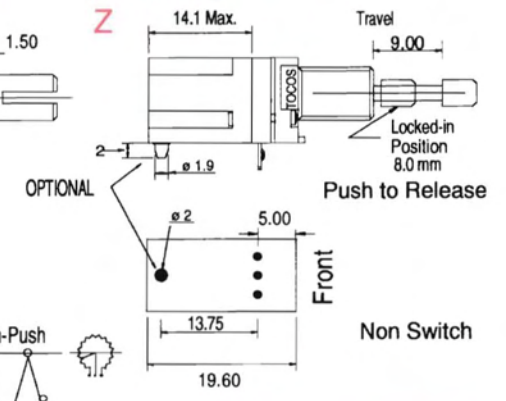
Rotary



Push-Push Latching



Push-Lock Shaft (Non Switch)

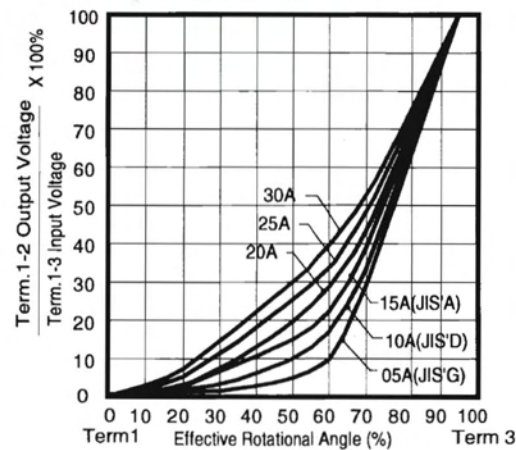


Shown with single pot, available with multiple pots and shafts.

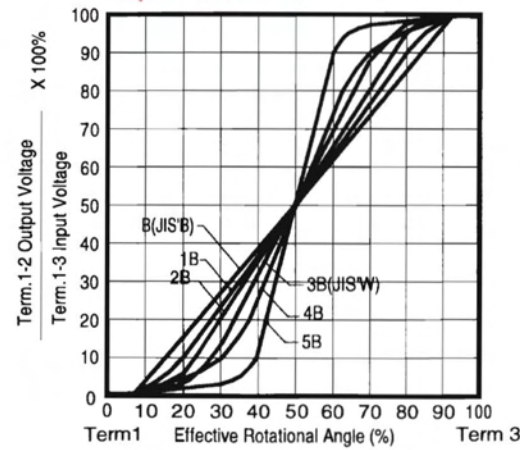
*All PCB holes 1mm Dia. unless noted.

Taper Options

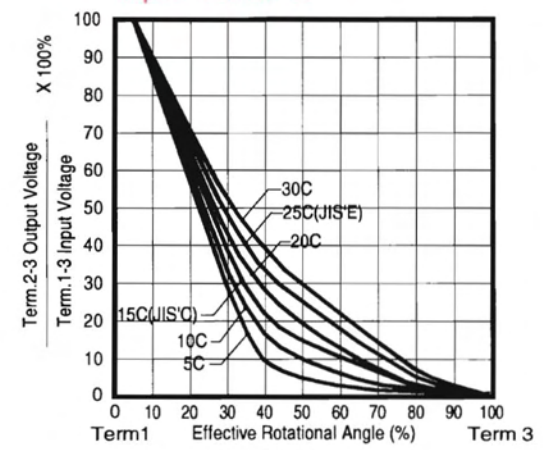
Taper Curve A



Taper Curve B



Taper Curve C

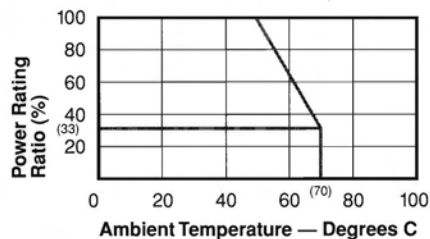


Specifications

Electrical

Nominal Total Resistance:	1, 2, 5, 10, 20, 50, 100, 200, 500 (K Ohms)
Resistance Tolerance:	±20%
Resistance Taper:	A, B, C, D, W (chart available)
End Resistance:	5 Ohm Max. 300° Rotation Type 20 Ohm Max. Other Types
Tap Position:	50% of effective rotational angle
Tap Resistance Tolerance:	±30%
Tap Minimum Resistance:	200Ohm Max.
Power Rating:	0.05W 300° Rotation Type 0.02W Other Types
Noise:	100mV Max.
Insulation Resistance:	100M Ohm Min. @ DC250V
Withstanding Voltage:	1 Minute @ AC300V
Max. Operating Voltage:	DC10V, AC50V
Tracking Error:	Vol. Cont. : 3dB Max. @ 0 to -40dB Tone Cont. : 2dB Max. @ 50% of rotational angle

Operating Curve:



Mechanical

Total Rotational Angle: (Mechanical)	120°, 180°, 300°
Tolerance for Total: Rotational Angle:	±5° +10° -5° Push and Pull Drive Shaft Type
Rotational Torque:	20 to 250gf-cm at 20°C (500gf-cm Max. @ -20°C)
Shaft Wobble and Bend:	
Radial Direction	0.5mm P-P
(tip of the shaft applied 250gf)	1.5mm P-P, Push and Pull Drive Shaft Type
Thrust Direction	0.5mm Max.
Detent Position:	Center, 11 Detent 31 Detent, 41 Detent
Detent Torque:	
Center Detent	Normal Torque + (30 to 300) gf-cm
For Others	30 to 300 gf-cm
Shaft Stopper Strength:	5Kgf-cm Min. 4Kgf-cm Min., Push and Pull Drive Shaft Type
Shaft Push-Pull Strength:	10Kgf-cm Min.
Nut Tightening Strength	10Kgf-cm Min.
Durability	
Soldering Heat Resistance:	350 ± 5°C @ 3 seconds
Operating Temperature Range:	-20 to +70°C
Rotational Life:	Permissible resistance change After 15,000 ± 200 Cycles on 600 r.p.h. without load: ± 15% Max.
Operating Life for Push-Lock Mechanism:	10,000 Cycles

Switch Specifications

Rotary Switch, N:	S. P. S. T.; DC16V-3A; 50° Max. Angle
Momentary Push, A:	S. P. S. T.; DC12V-.5A; 0.5mm Stroke
Push-Push Switch, X:	S. P. D. T.; DC16V-3A; 1.5mm Stroke
Push-Lock Mechanism, Non-Switch, Z:	Available on Single Shaft Models N and G, Dual shaft model D on the inner shaft.
Switch Life:	10,000 Cycles without Load
Switch Contact Resistance:	Initial -50m Ohm Max. After 10,000 Cycles - 200m Ohm Max.

TOCOSAMERICA

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