

Features

- Carbon element
- Wide range of resistance tapers
- Plain, flatted or knurled shaft options
- Switch options

R24 Series-24mm Rotary Potentiometer

Electrical Characteristics

Taper..... Linear, audio
Resistance Range

..... 1 K to 2M ohms
(Only for 10K lifecycles)
..... 10 K to 2M ohms
(Only for 200K lifecycles)

Standard Resistance Tolerance..... $\pm 20\%$
Residual Resistance..... 1 % max.

Environmental Characteristics

Operating Temperature..... -10°C to $+75^{\circ}\text{C}$
Power Rating (70°C)..... 0.5 watt
Maximum Operating Voltage

..... 200 V

Sliding Noise 68 mV max.

Mechanical Characteristics

Mechanical Angle..... $300^{\circ} \pm 5^{\circ}$
Rotational Torque 10 to 150 gf-cm
Switch operating Force

..... 200~800gf.cm

Stop Strength 4 kg-cm min.
Rotational Life

..... 10,000 cycles(Standard)
..... 200,000 cycles(Only for
"without switch" model)

Soldering Condition

..... 260°C max. within 3 seconds

Hardware One flat washer and
mounting nut supplied per
potentiometer with bushing

Materials

Housing Cold rolled strip
Carbon plate

..... Paper substrate plate

Driving plate..... POM

Reed..... Zinc cupronickel

Terminal..... Cold rolled strip

Bushing..... Zinc alloy/POM

Shaft..... Zinc alloy/Aluminum/POM

Switch base..... H161 PF

Collar..... H62 brass

Blade of knife switch

..... H62 brass

Switch strut..... H59 copper wire

Torsional spring..... Spring wire

Rivet..... Aluminum

Driving head..... PA 66

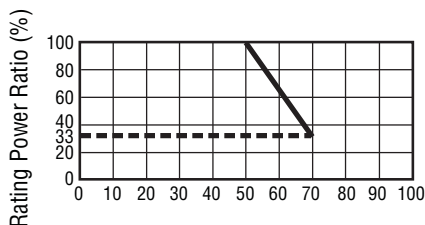
Scaleboard

..... Paper substrate plate

Baseplate

..... Paper substrate plate

Derating Curve

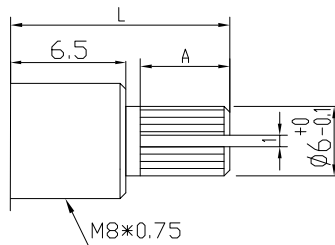


Product Dimensions

Shaft Styles

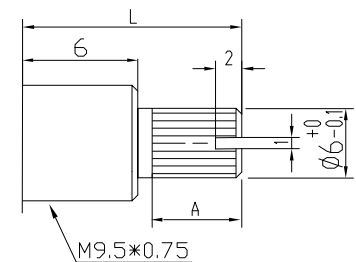
K1 Type

L	15	20	25
A	7	11	17



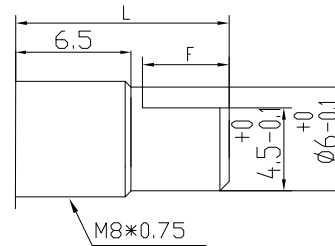
K2 Type

L	15	20	25
A	7.5	12.5	17



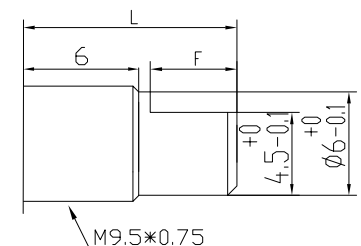
F1 Type

L	15	20	25
F	7	12	12



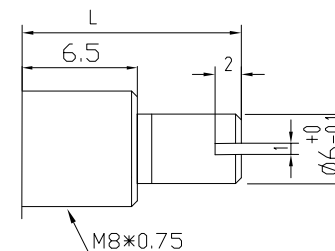
F2 Type

L	15	20	25
F	7	12	12



P Type

L	15	20	25
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General Tolerance

Dimension:

$X < 10 \pm 0.3\text{mm}$

$10 \leq X < 30 \pm 0.5\text{mm}$

$30 \leq X \leq 100 \pm 1\text{mm}$

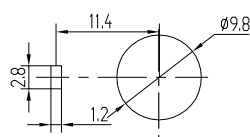
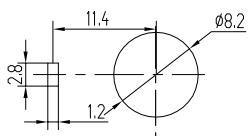
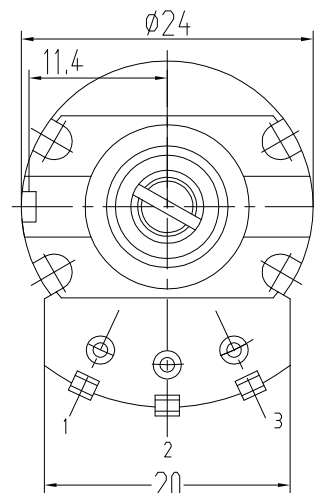
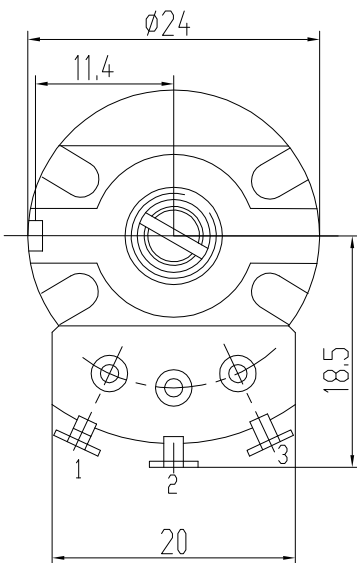
Angle: $\pm 5^{\circ}$

- Linear, audio and reverse audio taper options
- RoHS compliant*

- Audio/TV sets
- Amplifiers/mixers/drum machines/synthesizers
- PCs/monitors
- Appliances

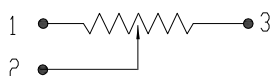
Product Dimensions

Technical drawing of the front view of a 18-teeth knurl plastic shaft assembly. The drawing shows a cross-section of the assembly with dimensions: 11 (total width), 8.5 (width of the leftmost part), L (length of the main body), A (length of the knurl), and a diameter of $\text{Ø}6-0.1$ for the shaft. Labels include "M9.5X0.75 PLASTIC BUSHING" and "18TEETH KNURL PLASTIC SHAFT".

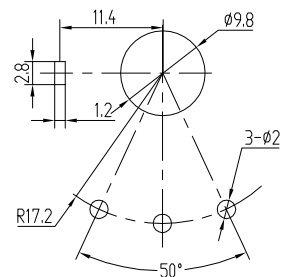
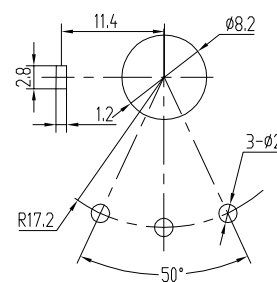


MOUNTING DIAGRAM OF METAL BUSHING

MOUNTING DIAGRAM OF PLASTIC BUSHING

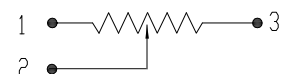


CIRCUIT DIAGRAM



P.C.B.MOUNTING HOLE DETAIL OF METAL BUSHING

P.C.B. MOUNTING HOLE DETAIL OF PLASTIC BUSHING

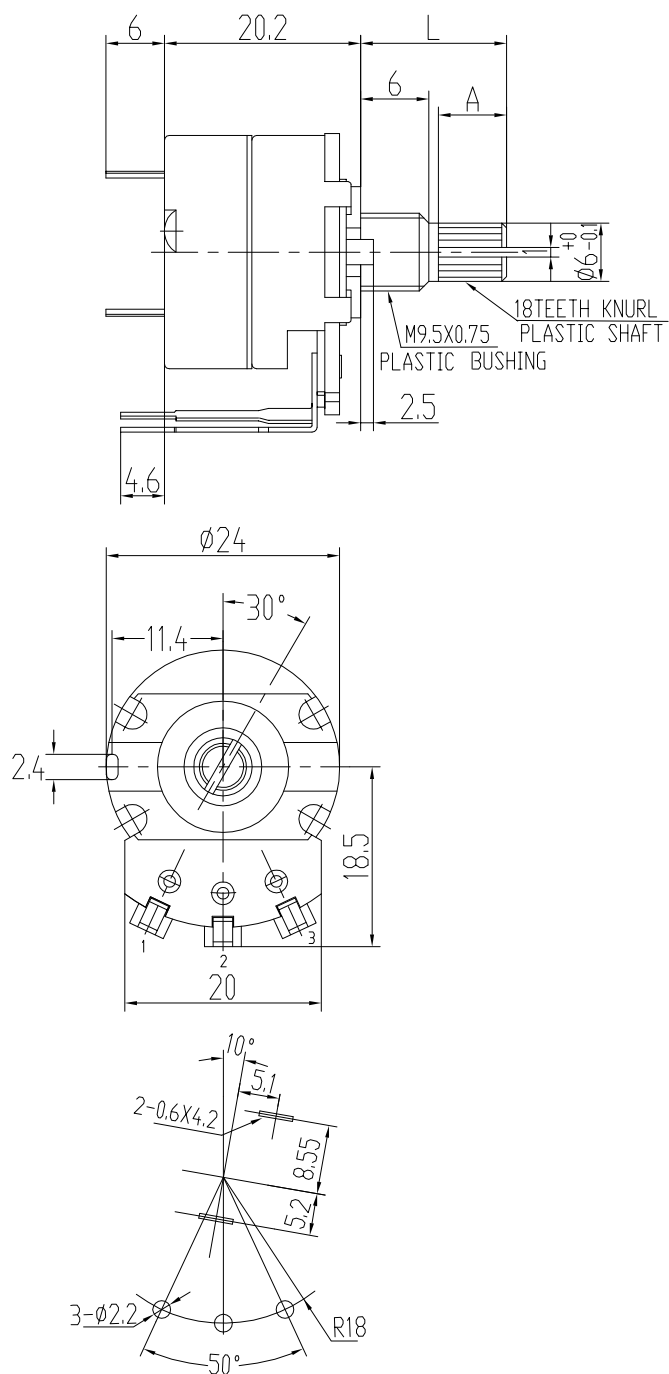


CIRCUIT DIAGRAM

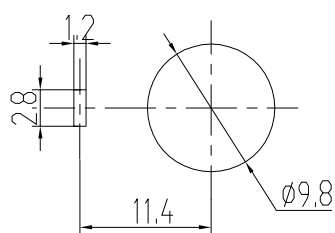
R24 Series-24mm Rotary Potentiometer

Product Dimensions

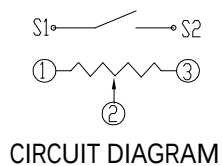
RD242-P



P.C.B.MOUNTING HOLE DETAIL

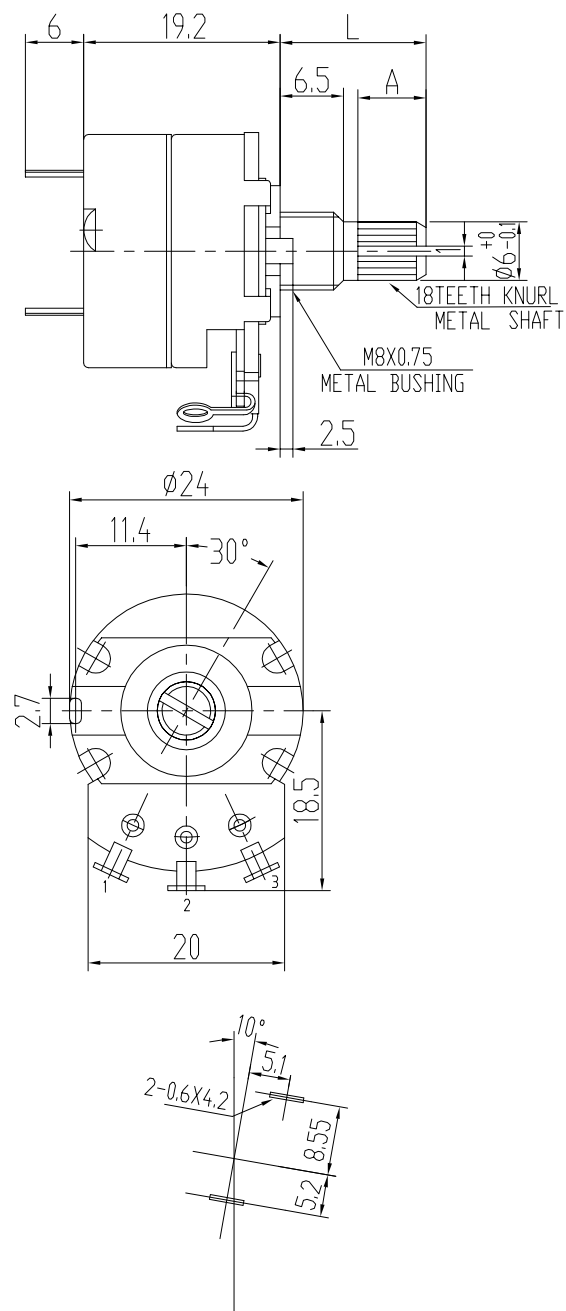


MOUNTING DIAGRAM

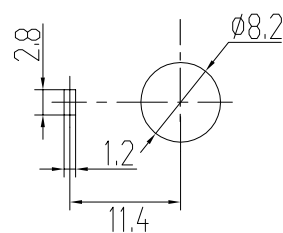


CIRCUIT DIAGRAM

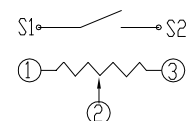
RD242-E



BOTTOM MOUNTING DIAGRAM



MOUNTING DIAGRAM

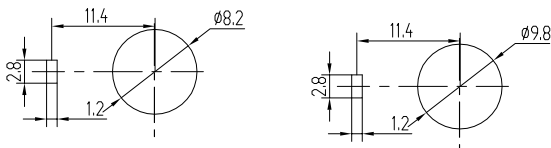
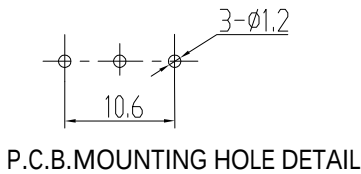
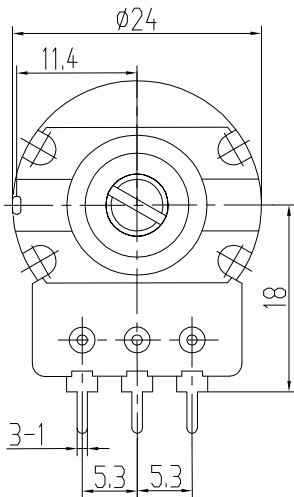
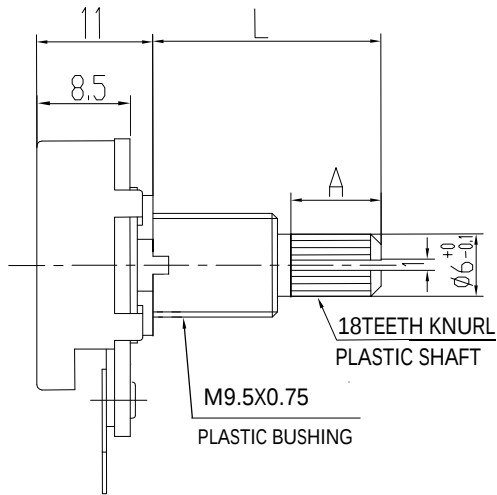


CIRCUIT DIAGRAM

R24 Series-24mm Rotary Potentiometer

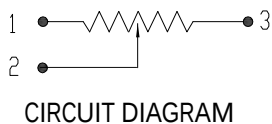
Product Dimensions

RB241-K



MOUNTING
DIAGRAM OF
METAL BUSHING

MOUNTING
DIAGRAM OF
PLASTIC BUSHING



How To Order

RB24 1 - K 25 P - 103 A

- Model
- RB24 = Square shaped carbon plate
 - RD24 = Arc shaped carbon plate

Switch

- 1 = Without switch
- 2 = With switch

Terminal Configuration

(Pin Layout)

(see individual drawings)

- K = PC Pins vertical/Down Facing
- E = Solder Lugs Rear Facing
- P = PC Pins Rear Facing
- D = PC Pins Front Facing

Standard Shaft Length

- 15 = 15 mm
- 20 = 20 mm
- 25 = 25 mm

Shaft Style

- F1= Metal Flatted Shaft (Only for Metal bushing)
- F2 = Plastic Flatted Shaft (Only for Plastic bushing)
- K1= Metal Knurled Type Shaft 18 Toothed Serration Type (Only for Metal bushing)
- K2=Plastic Knurled Type Shaft 18 Toothed Serration Type (Only for Plastic bushing)
- P = Metal Plain Shaft (Only for Metal bushing)

Resistance Code (See Table)

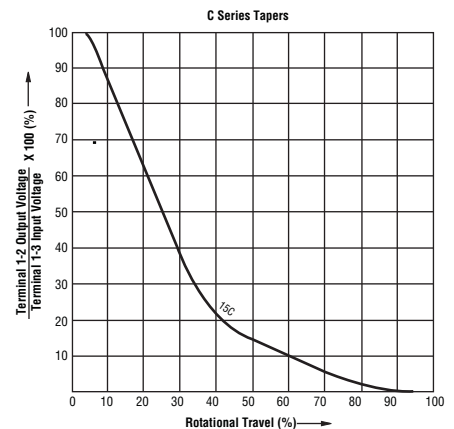
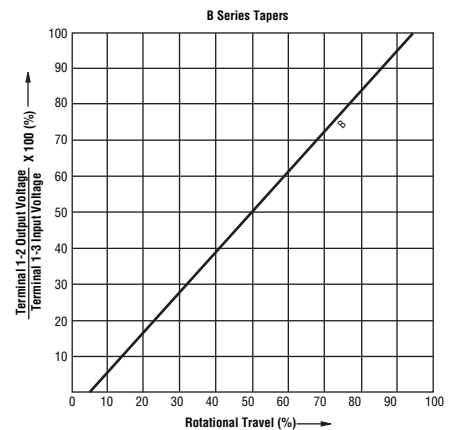
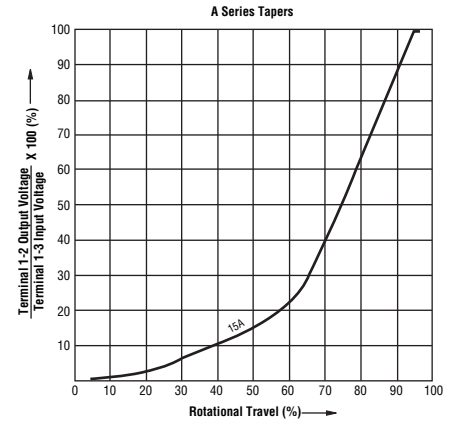
Resistance Taper

- A = Reverse log
- B = Linear
- C = Log

Standard Resistance Table

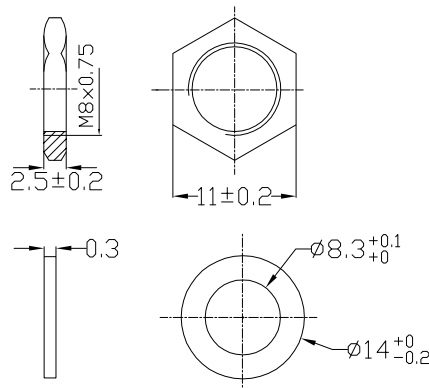
Resistance (Ohms)	Resistance Code
1,000	102
2,000	202
5,000	502
10,000	103
20,000	203
50,000	503
100,000	104
200,000	204
500,000	504
1,000,000	105
2,000,000	205

Tapers



Nuts & Washers

Metal Bushing



Plastic Bushing

