

Features

- Carbon element
- Ganging up to 4 sections available
- Knurled / flatted / plain shaft styles
- Center and 41 detents options
- RoHS compliant*

RA09 Series - 9 mm Multi-Ganged Potentiometer

Electrical Characteristics

Standard Resistance Range
..... 1 K ohms to 1 M ohms
Total Resistance Tolerance
..... $\pm 20\%$
Standard Tapers
..... Linear & Reverse log & Log
Maximum Operating Voltage
..... 50 VAC, 10 VDC
Rated Power..... 0.05 watts
Noise 68 mV max.
Insulation Resistance @ 250 VDC
..... 100 M ohms min
Dielectric Withstanding Voltage
..... 250 VAC
Total Resistance error
..... $\leq 20\%R$

Environmental Characteristics

Operating Temperature
..... -10°C to $+75^{\circ}\text{C}$
Rotational Life 10,000 cycles

Mechanical Characteristics

Mechanical Angle $300^{\circ} \pm 10^{\circ}$
Rotational Torque..... 10 to 250 gf-cm
Stop Strength..... 4.0 kgf-cm min
Shaft Wobble..... $0.5 \times L/30$ mm p-p max.
L=Shaft length

Soldering Condition

Manual Soldering

..... 350°C max. for 3 seconds

Wave Soldering

..... 260°C max. for 5 seconds

Mounting Hardware

..... One flat washer and one hex nut
supplied per potentiometer

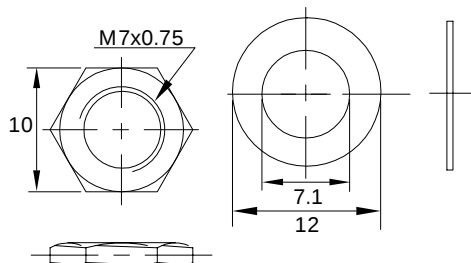
Materials

Shaft..... Aluminum
Bushing..... Zinc alloy
Driving plate..... POM
Rivet..... Aluminum
Reed..... Phosphor copper
Base..... PBT
Carbon plate..... FR4 substrate
Terminal..... Cold rolled strip
Cover plate..... PBT

Hardware

Nut

Washer



How To Order

RA09 V - 1 - A - 15 K - B 103 - 0

Model _____

• RA09 =
No Switch
Structure
• V = Vertical
• H = Horizontal

No. of Sections _____

• 1 = 1 Section
• 2 = 2 Sections
• 3 = 3 Sections
• 4 = 4 Sections
(only for "RA09H")

Bushing length _____

• A = 5 mm
• B = 7 mm

Shaft Length _____

• 15 = 15 mm
• 20 = 20 mm
• 25 = 25 mm

Shaft Styles _____

• K = Knurled Type Shaft (Metal)
• F = Flatted Metal Shaft
• P = Plain Metal Shaft

Resistance Taper _____

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

Resistance Code _____
(See Table)

Detent options

- 0 = No detent
- 1 = Center detent
- 2 = 41 detents

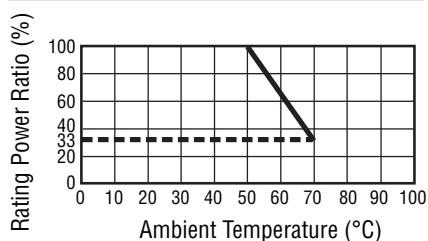
Standard Resistance Table

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

Typical weight

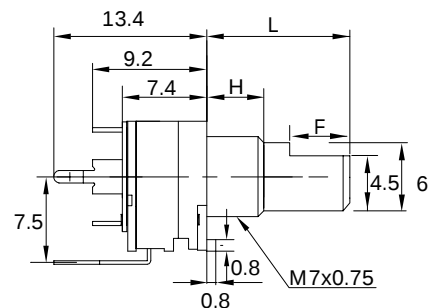
1 pc of RA09 weight..... $5g \pm 2g$

Derating Curve

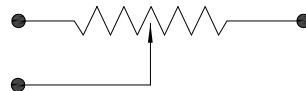
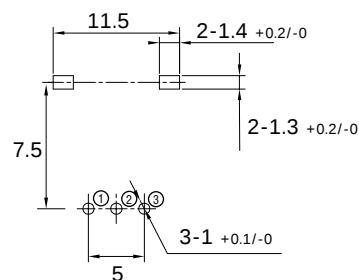
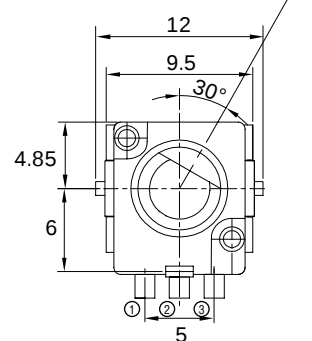


Product Dimensions

RA09V-1



FULL C.C.W POSITION



General Tolerance

Dimension:

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

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

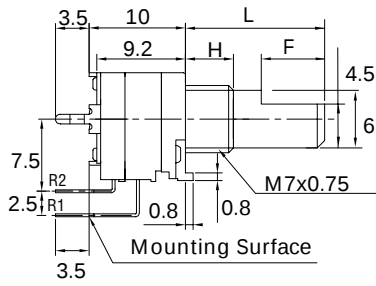
$30 \leq X \leq 100 \pm 1\text{mm}$

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

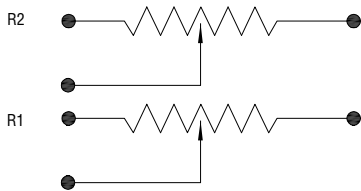
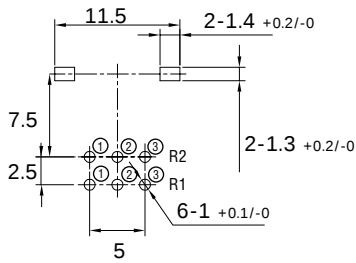
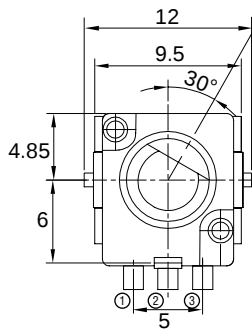
RA09 Series - 9 mm Multi-Ganged Potentiometer

Product Dimensions

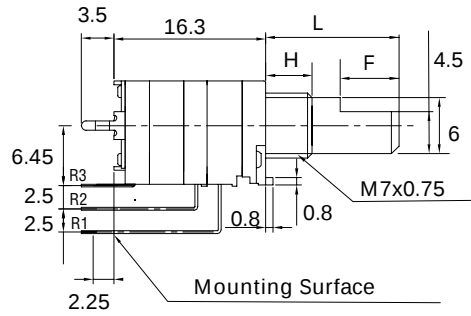
RA09V-2



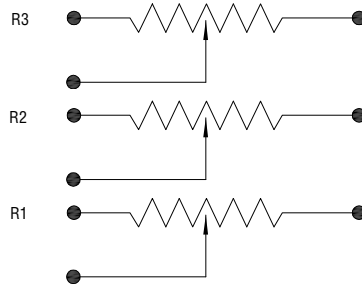
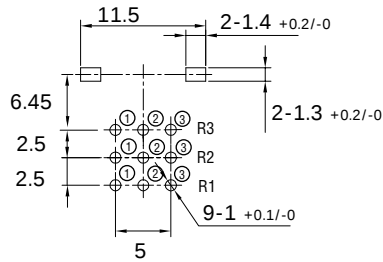
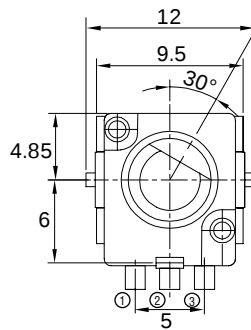
FULL C.C.W POSITION



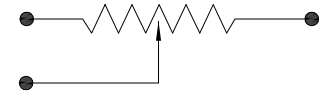
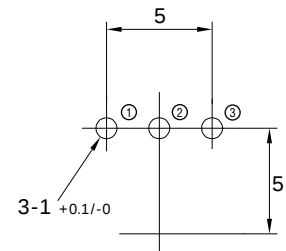
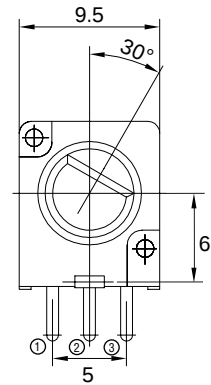
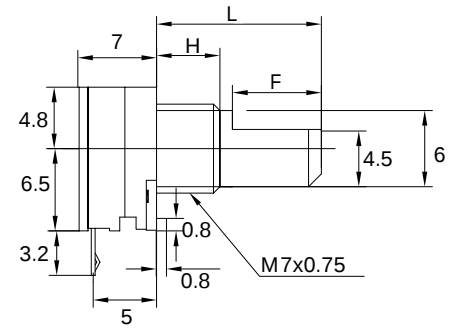
RA09V-3



FULL C.C.W POSITION

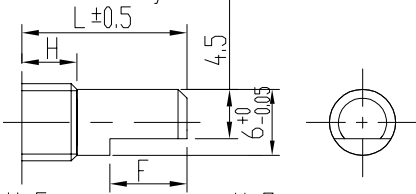


RA09H-1



Shaft Styles

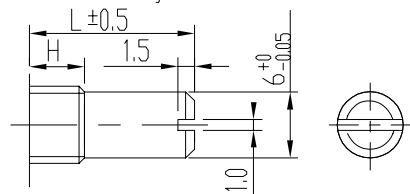
F Shaft Style



H=5	L	15	20	25
F	7	12	12	

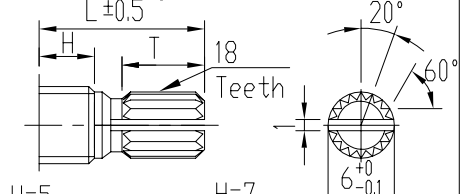
H=7	L	15	20	25
F	7	12	12	

P Shaft Style



L	15	20	25
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K Shaft Style



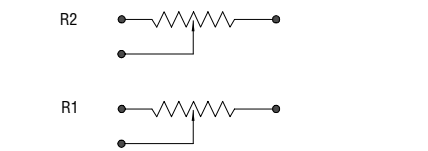
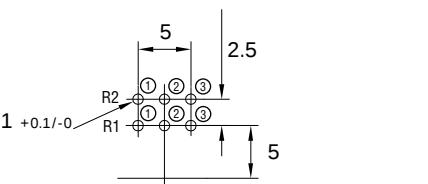
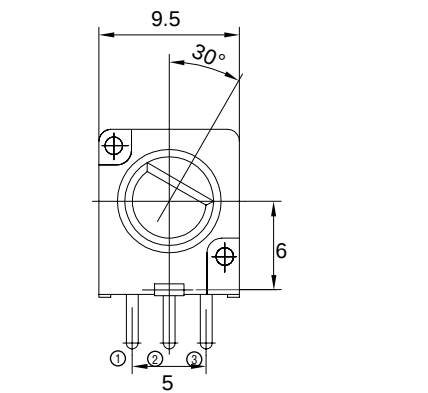
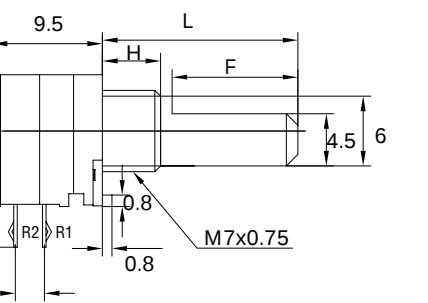
H=5	L	15	20	25
T	6	10	12	

H=7	L	15	20	25
T	6	10	12	

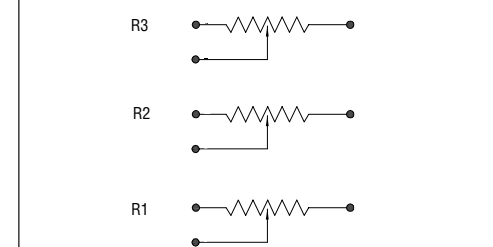
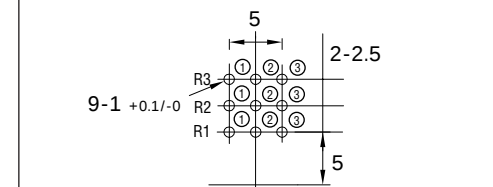
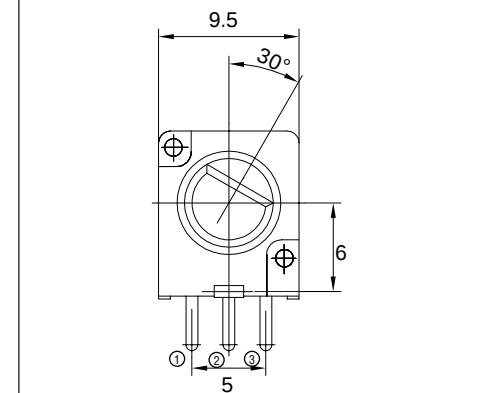
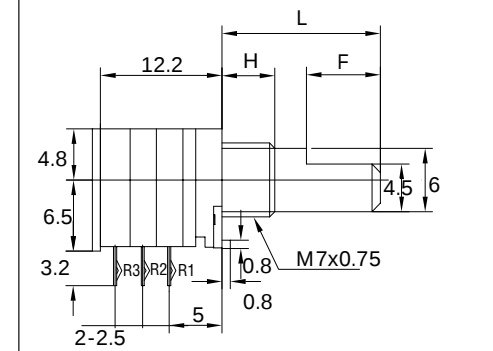
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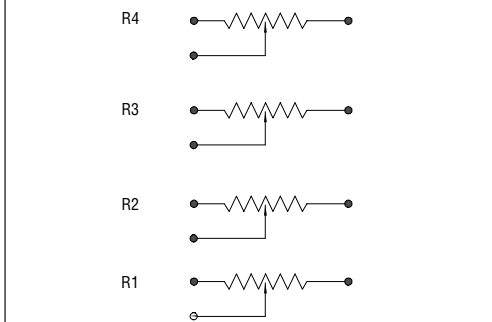
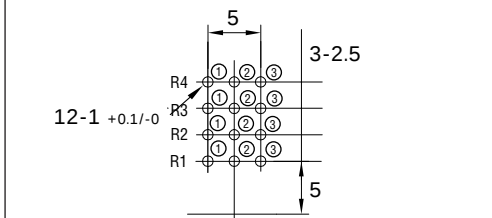
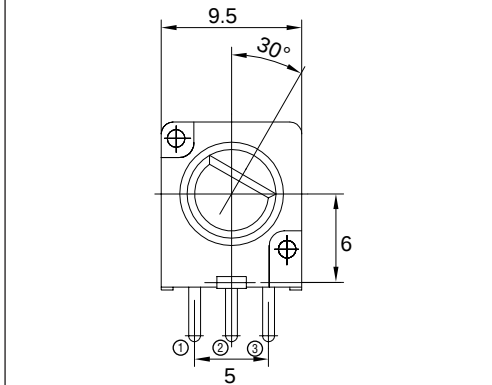
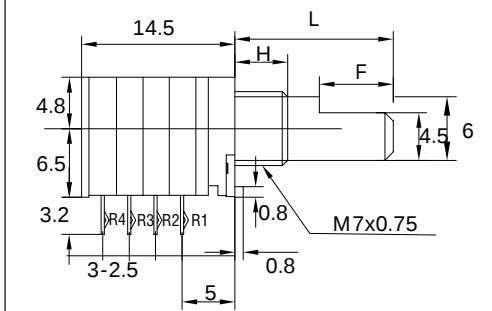
RA09H-2



RA09H-3



RA09H-4



Tapers

