



Features

- Carbon element
- Insulated shaft
- Wide variety of mounting styles
- Center detent option
- RoHS compliant*

R09 Series - 9 mm Rotary Potentiometer

Electrical Characteristics

Taper.....Linear, audio
 Standard Resistance Range 1 K ohms to 1 M ohms
 Standard Resistance Tolerance..... $\pm 20\%$
 Residual Resistance50 ohms or $\pm 1\%$ max.

Environmental Characteristics

Operating Temperature..... $-10\text{ }^{\circ}\text{C}$ to $+60\text{ }^{\circ}\text{C}$
 Power Rating (Linear and Audio).....0.05 watt
 Maximum Operating Voltage (Linear and Audio)..... 20 VDC, 50 VAC
 Sliding Noise 68mV max.

Mechanical Characteristics

Mechanical Angle $280\text{ }^{\circ} \pm 5\text{ }^{\circ}$
 (or $300\text{ }^{\circ} \pm 5\text{ }^{\circ}$)
 Rotational Torque 10 to 150 gf-cm
 Detent Torque20 to 200 gf-cm
 Stop Strength 2 kg-cm min.
 Rotational Life 10,000 cycles
 Soldering Condition $300\text{ }^{\circ}\text{C}$ max. within 3 seconds
 Hardware One flat washer and one hex nut supplied with bushing version

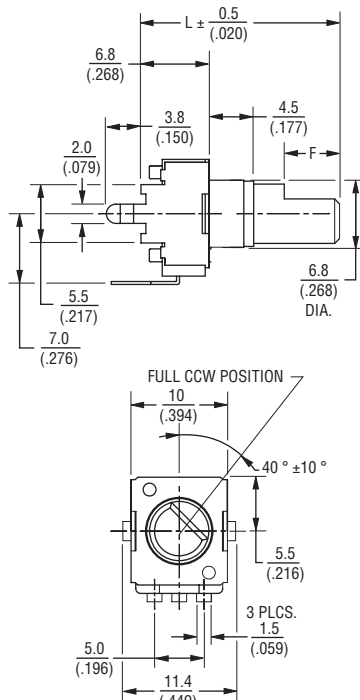
How To Order

R09 - 2 0 20 F - B 203

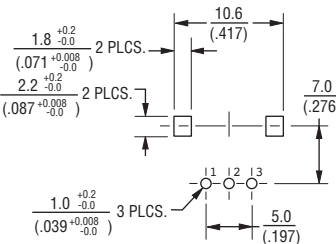
- Model _____
- Terminal Configuration (Pin Layout) _____
- 1 = Horizontal/Rear Mount w/Sleeve Bushing
 - 2 = Vertical/Side Mount, Bushingless, 10 mm Height
 - 3 = Vertical/Side Mount, Bushingless, 6.5 mm Height
 - 4 = Horizontal/Rear Mount, Bushingless
 - 5 = Horizontal/Rear Mount w/Plastic Plain Bushing
 - 6 = Horizontal/Rear Mount w/Metal Threaded Bushing
 - 7 = Vertical/Side Mount w/Sleeve Bushing, 6.5 mm Height
 - 8 = Vertical/Side Mount w/Sleeve Bushing, 10 mm height
- Option _____
- 0 = No Detent
 - 2 = Center
- Standard Shaft Length _____
- 15 = 15 mm
 - 25 = 25 mm
 - 20 = 20 mm
 - 30 = 30 mm
- Shaft Style (Plastic) _____
- F = Flat Type Insulated Shaft
 - S = Insulated Knurled (18 Teeth)
 - U = Insulated Knurled (40 Teeth)
- Resistance Taper _____
- Taper Series followed by Curve Number
- Resistance Code (See Table) _____

Product Dimensions

R09-1 (Horizontal/Rear Mount w/Sleeve Bushing)

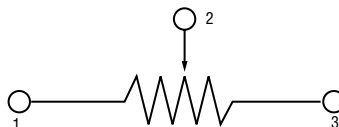


RECOMMENDED PCB LAYOUT (HORIZONTAL/REAR MOUNT)

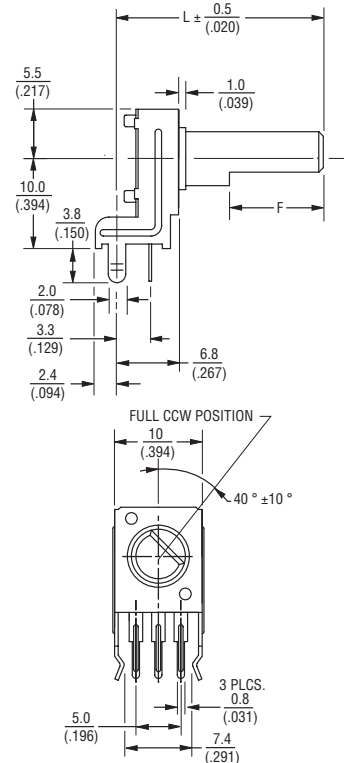


DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

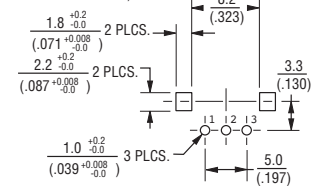
Schematic



R09-2 (Vertical/Side Mount, Bushingless, 10 mm Height)



RECOMMENDED PCB LAYOUT (VERTICAL/SIDE MOUNT)



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

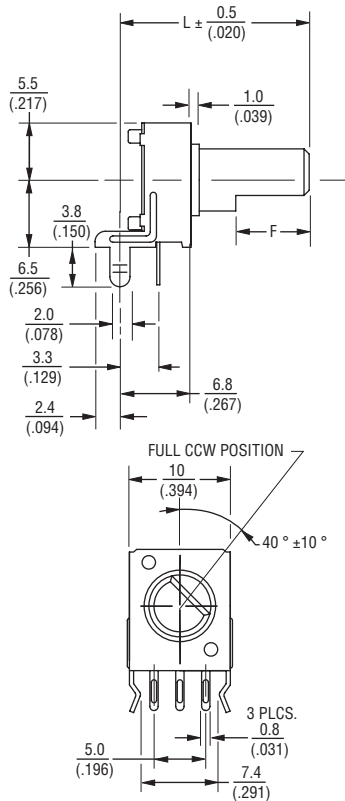
Applications

- Commercial communications equipment
- Portable electronics
- Amplifiers/mixers/drum machines/synthesizers
- Consumer goods
- Commercial appliances

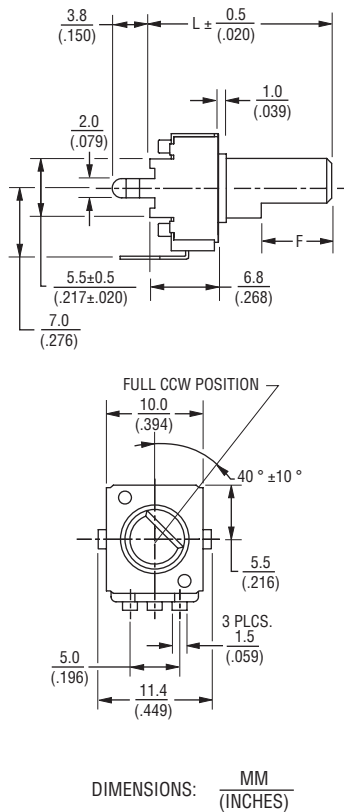
R09 Series - 9 mm Rotary Potentiometer

Product Dimensions (Continued)

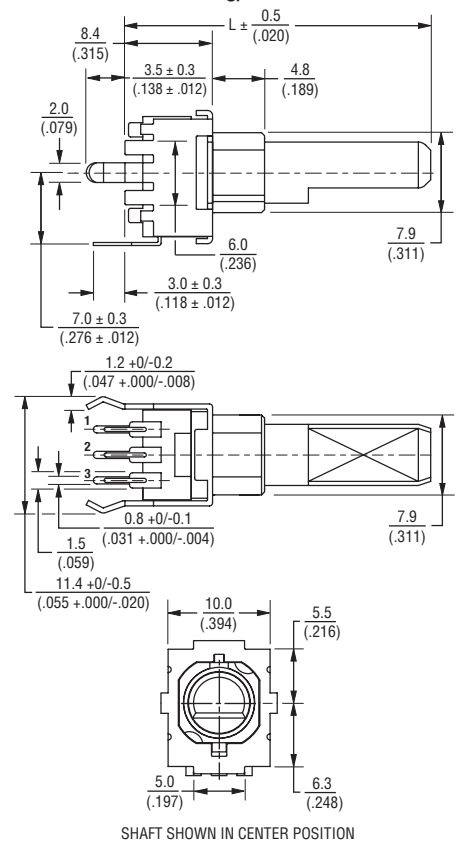
R09-3
(Vertical/Side Mount,
Bushings, 6.5 mm Height)



R09-4
(Horizontal/Rear Mount, Bushingless)

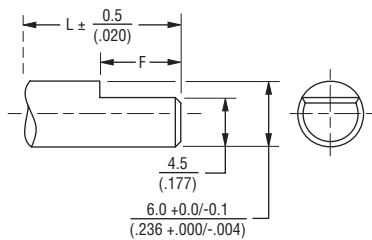


R09-5
(Horizontal/Rear Mount
w/Plastic Plain Bushing)



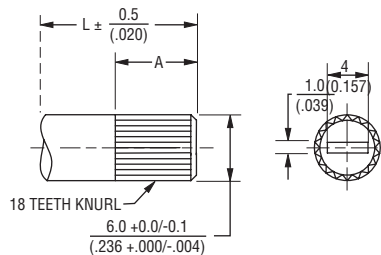
Shaft Styles

F-Type



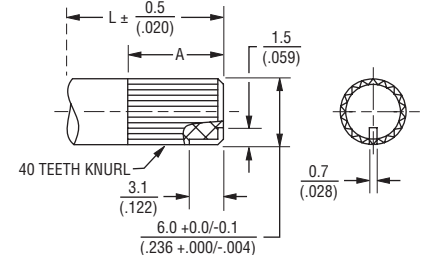
L	15 (.591)	20 (.787)	25 (.984)	30 (1.181)
F	6 (.236)	7 (.275)	12 (.472)	12 (.472)

S-Type



L	15 (.591)	20 (.787)	25 (.984)	30 (1.181)
A	6 (.236)	7 (.275)	12 (.472)	12 (.472)

U-Type

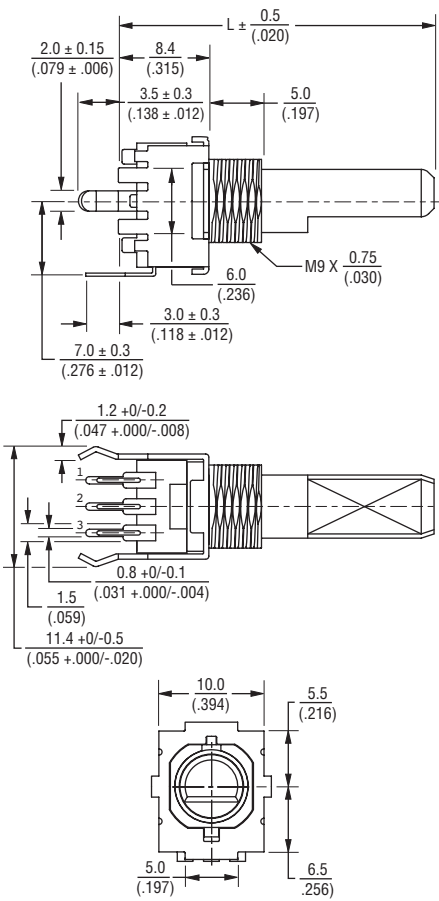


L	15 (.591)	20 (.787)	25 (.984)	30 (1.181)
A	6 (.236)	7 (.275)	12 (.472)	12 (.472)

R09 Series - 9 mm Rotary Potentiometer

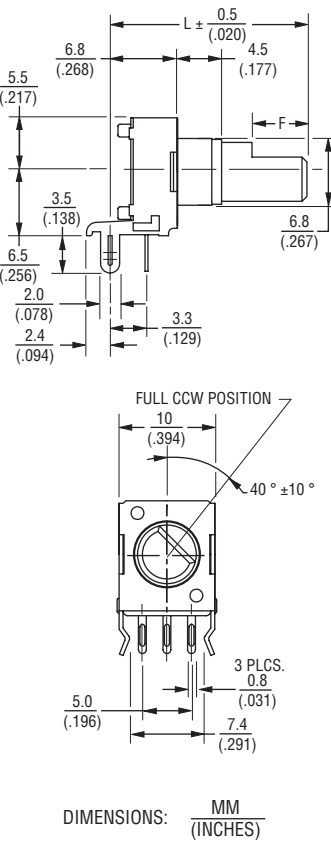
Product Dimensions (Continued)

R09-6
(Horizontal/Rear Mount
w/Metal Threaded Bushing)

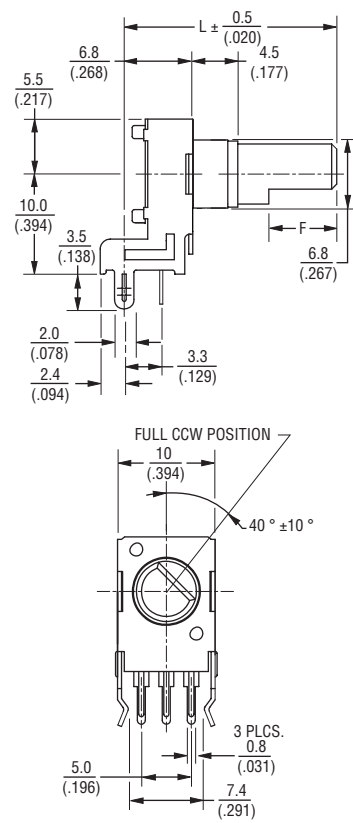


SHAFT SHOWN IN CENTER POSITION

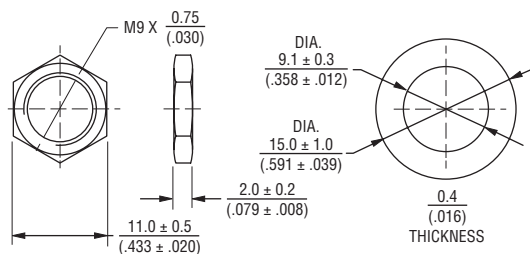
R09-7
(Vertical/Side Mount
w/Sleeve Bushing, 6.5 mm Height)



R09-8
(Vertical/Side Mount
w/Sleeve Bushing, 10 mm Height)



Mounting Hardware



R09 Series - 9 mm Rotary Potentiometer

Tapers

