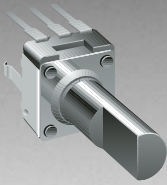


\*RoHS COMPLIANT



**BOURNS®**

**Features**

- Carbon element
- Insulated shaft
- Snap-in clip
- Center detent option
- RoHS compliant\*

**Applications**

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

**PTV09 Series - 9 mm Potentiometer**

**Electrical Characteristics**

Taper .....Linear, audio  
 Standard Resistance Range .....1 K ohms to 1 M ohms  
 Standard Resistance Tolerance ....±20 %  
 Residual Resistance .....500 ohms or ±1 % max.

**Environmental Characteristics**

Operating Temperature .....-10 °C to +50 °C  
 Power Rating (Linear and Audio) .....0.05 watt  
 Maximum Operating Voltage (Linear and Audio).....20 VDC, 50 VAC  
 Sliding Noise .....100 mV max.

**Mechanical Characteristics**

Mechanical Angle .....280 ° ±5 °  
 Rotational Torque .....10 to 100 g-cm  
 Detent Torque.....40 to 200 g-cm  
 Stop Strength.....2 kg-cm min.  
 Rotational Life .....10,000 cycles  
 Soldering Condition .....300 °C max. within 3 seconds  
 Hardware .....No hardware supplied

**How To Order**

**PTV09A - 2 0 20 F - B 203**

Model \_\_\_\_\_

Terminal Configuration (Pin Layout)

- 2 = PC Pins Vertical/Down Facing
- 4 = PC Pins Horizontal/Rear Facing

Option

- 0 = No Detent
- 2 = Center

Standard Shaft Length

- 15 = 15 mm
- 20 = 20 mm
- 25 = 25 mm
- 30 = 30 mm

Shaft Style

- F = Flat Type Insulated Shaft
- S = Insulated Knurled (24 Teeth)\*
- U = Insulated Knurled (40 Teeth)

Resistance Taper

- A = Audio Taper
- B = Linear Taper

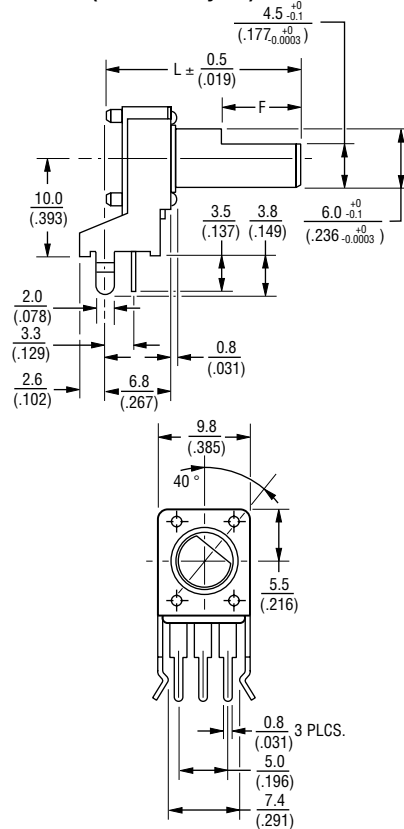
Resistance Code (See Table) \_\_\_\_\_

Other styles available.

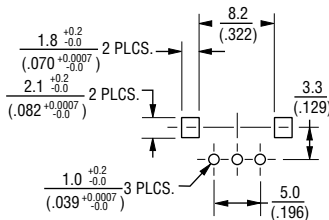
\*Available in 20 mm or 25 mm shaft lengths only.

**Product Dimensions**

**PTV09A-2 (with shaft style F)**



**RECOMMENDED PCB LAYOUT**



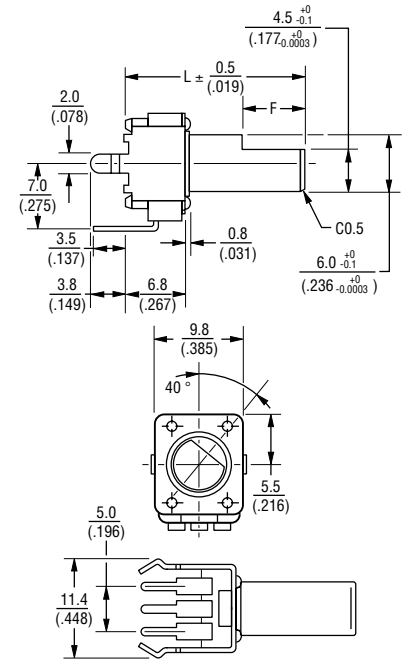
SHAFT SHOWN IN CCW POSITION

**F-Type Shaft**

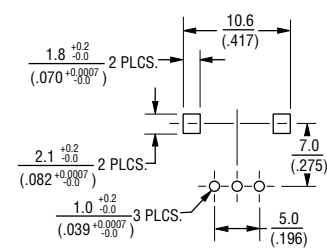
|   |        |        |        |         |
|---|--------|--------|--------|---------|
| L | 15     | 20     | 25     | 30      |
|   | (.591) | (.787) | (.984) | (1.181) |
| F | 6      | 7      | 12     | 12      |
|   | (.236) | (.275) | (.472) | (.472)  |

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

**PTV09A-4 (with shaft style F)**



**RECOMMENDED PCB LAYOUT**



SHAFT SHOWN IN CCW POSITION

**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             |

\*RoHS Directive 2002/95/EC Jan 27 2003 including Annex. Specifications are subject to change without notice.

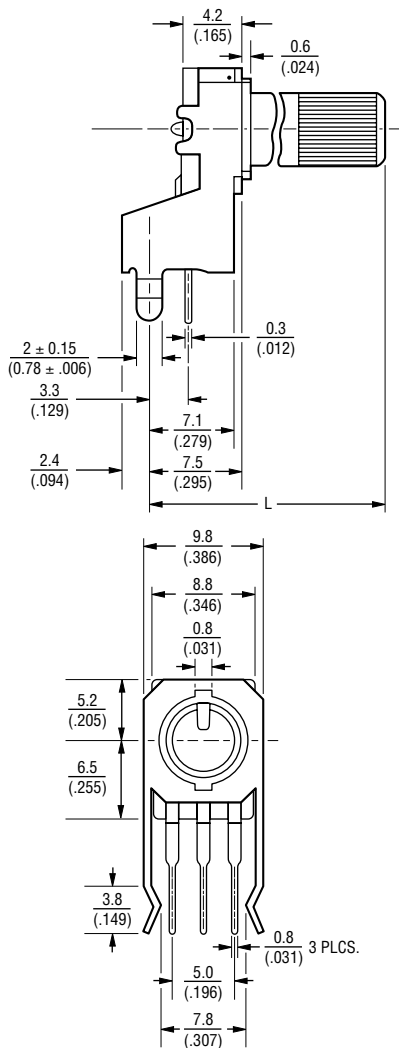
Customers should verify actual device performance in their specific applications.

# PTV09 Series - 9 mm Potentiometer

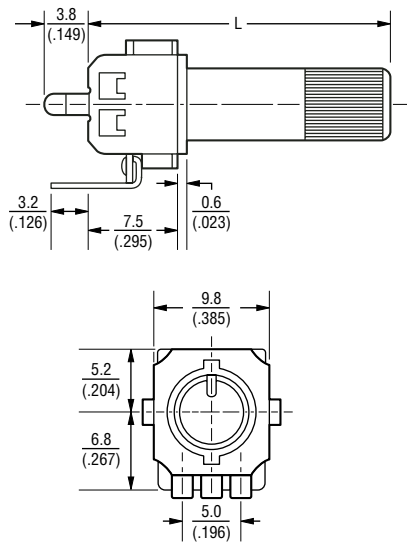
**BOURNS®**

## Product Dimensions

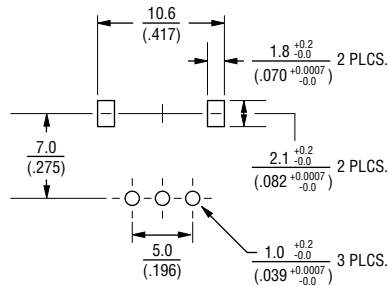
**PTV09A-2**  
(with shaft style U)



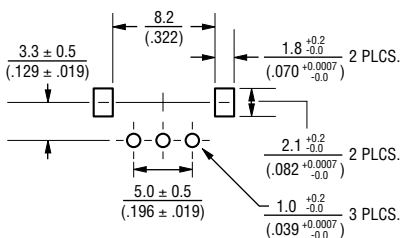
**PTV09A-4**  
(with shaft style U)



### RECOMMENDED PCB LAYOUT



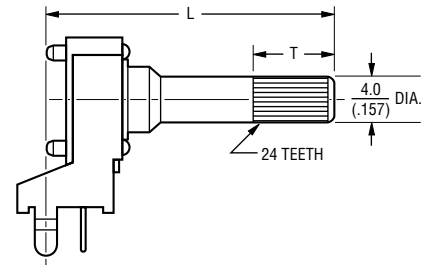
### RECOMMENDED PCB LAYOUT



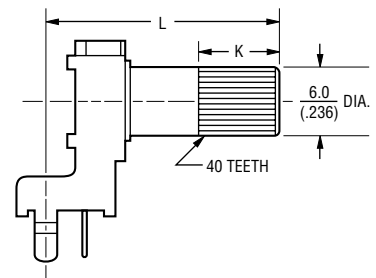
DIMENSIONS ARE:  $\frac{\text{MM}}{\text{(INCHES)}}$

## Shaft Styles

### S-Type



### U-Type



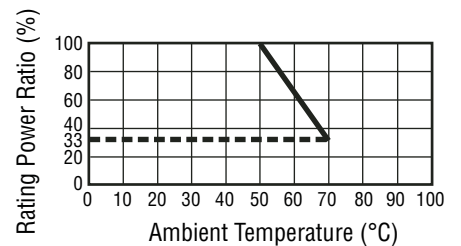
### S-Type Shaft

|   |        |        |
|---|--------|--------|
| L | 20     | 25     |
|   | (.787) | (.984) |
| T | 7      | 7      |
|   | (.275) | (.275) |

### U-Type Shaft

|   |        |        |        |         |
|---|--------|--------|--------|---------|
| L | 15     | 20     | 25     | 30      |
|   | (.591) | (.787) | (.984) | (1.181) |
| K | 6      | 7      | 7      | 7       |
|   | (.236) | (.275) | (.275) | (.275)  |

### Derating Curve



REV. 04/06

Specifications are subject to change without notice.  
Customers should verify actual device performance in their specific applications.