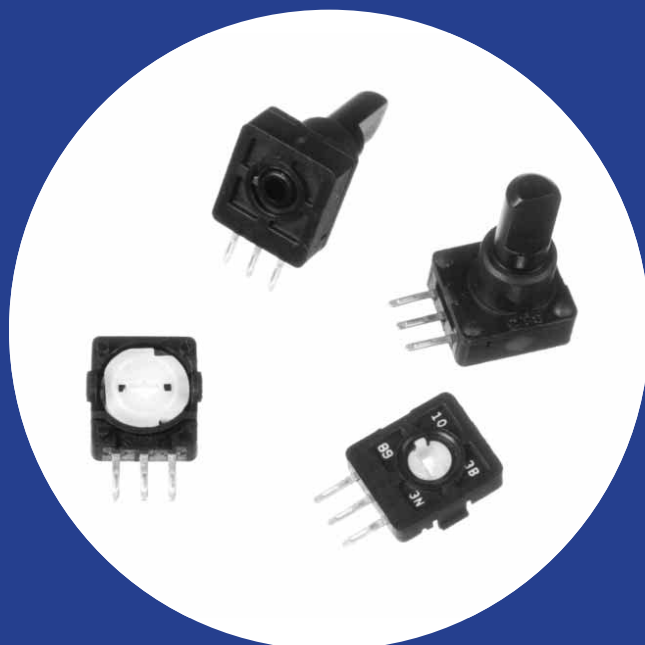


Long life, 9mm diameter, composition element, variable resistor

## Features

- 1 million cycle life
- Miniature 9 mm size
- Multiple rotation angles available
- Low rotational torque
- Sturdy insert molded PC terminals
- Bushing mount or shaftless available
- Tap available



## Electrical and Mechanical Specifications

### Resistance Range

10 K ohms through 200 K ohms

### Resistance Tolerance

Standard:  $\pm 20\%$

Special:  $\pm 10\%$  and  $\pm 30\%$  available

### Resistance Taper

Linear  $\pm 5\%$

### Insulation Resistance

100 megohms minimum @ 250 VDC

### Operating Temperature

$-10^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$

### Rotational Torque

3 to 10 gf-cm

### Rotational Life

1,000,000 cycles

### Power Rating

0.01 watt at  $50^{\circ}\text{C}$  derated to no load at  $85^{\circ}\text{C}$

### Maximum Operating Voltage

Maximum 50 VAC or 5 VDC

### Angle of Rotation

Total Rotation - With Shaft:  $180^{\circ}$

No Shaft:  $360^{\circ}$

Effective Rotation:  $38^{\circ}$ ,  $40^{\circ}$ ,  $50^{\circ}$ ,  $60^{\circ}$ ,  $70^{\circ}$ ,  $85^{\circ}$ ,  $90^{\circ}$  or  $110^{\circ}$  available  
(Typical joystick control use.)

### Materials

Housing: UL 94V-2

Shaft / Bushing: UL 94V-2

Base UL flame class 94HB

### Shaft Information

Flatted, molded shaft

Diameter: 3.96 mm or 5.0 mm,  
depending on shaft trim

### Mounting Information

Bushing mount (unthreaded)

Diameter: 7.00 mm

Length: 5.00 mm

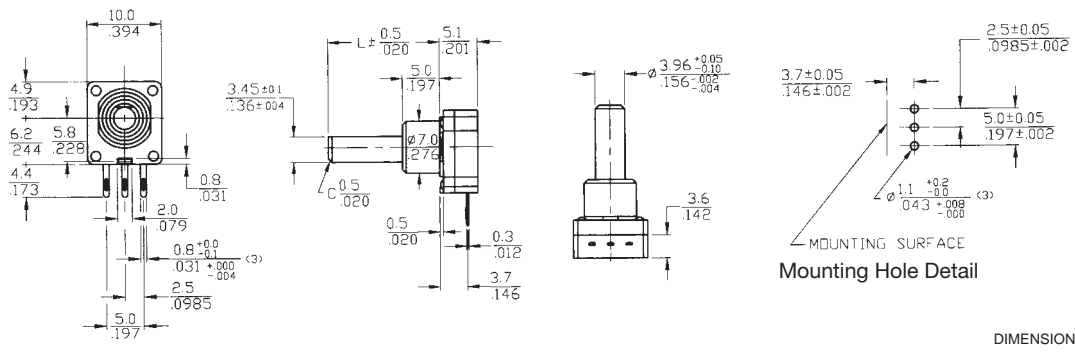
### Tap Available

$4^{\circ}$  angle at 50% rotation optional

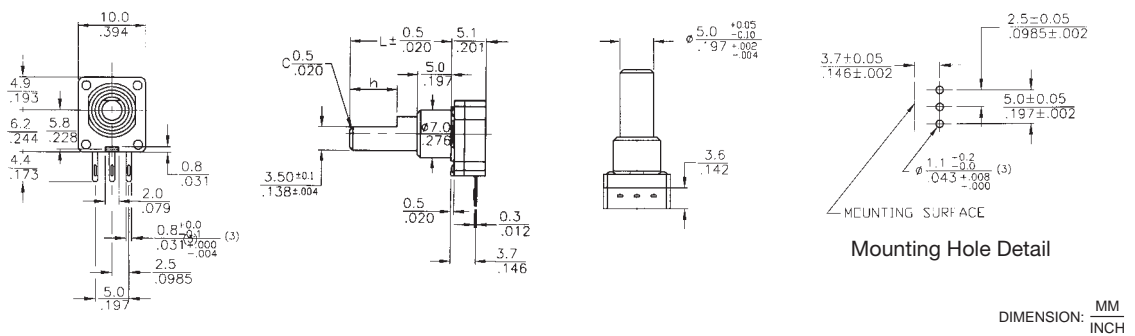
Other taps available - consult CTS

# CTS SERIES 251

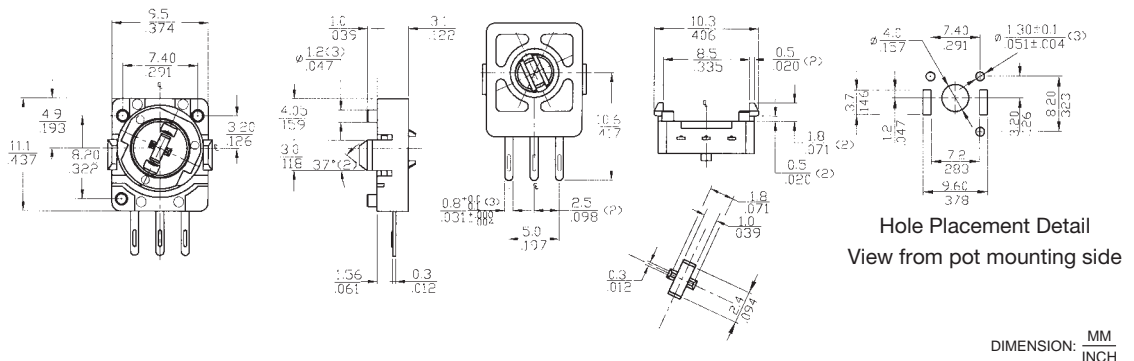
## "T" Shaft Trim



## "F" Shaft Trim



## No Shaft



## Order Information

## Part Number Code For Ordering

	<b>251</b>	<b>B</b>	<b>00</b>	<b>0</b>	<b>254</b>	<b>A</b>	<b>1</b>	<b>N</b>	<b>1</b>
Terminal Type									
B-Straight P.C.									
"L" Shafts Length									
00 - No shaft									
12 - 12 mm									
15 - 15 mm									
Shafts Trim									
0 - No shaft									
F - 5 mm dia flatted thickness 3.5 mm									
T - 4 mm dia flatted thickness 3.45 mm									
Resistance Code Examples									
Code	Resistance								
252	2.5K								
253	25K								
254	250K								
255	2.5Meg								
Resistance Tol									
A: ± 10%									
B: ± 20%									
C: ± 30%									
Effective Angle									
1- 40°									
2- 50°									
3- 60°									
4- 38°									
5- 110°									
6- 85°									
7- 70°									
8-									
9- 90°									
Specials									
1 - None									
B - W/bushing									
Resistance Tap									
N: No center tap									
T: 4° tap at center									

## Order From:

**CTS CORPORATION, ELECTROCOMPONENTS** / 1601 Mishawaka Street / Elkhart, Indiana 46514  
 North America Toll Free (888) 287-4690 / (219) 296-6700 / FAX: (219) 293-1240 <http://www.ctscorp.com>

**CTS COMPONENTS TAIWAN, LTD.** / 7, Central 6th Road (Chung Liu Road) / P.O. Box 26-20  
 Kaohsiung Export Processing Zone / Kaohsiung, Taiwan, Rep. of China  
 (07) 8216145 / FAX: (07) 8417642.8110040