



# R171

## 16 mm Carbon Potentiometer

### FEATURES

- Carbon resistive element.
- Nnloy substrate
- RoHS Compliant\*
- Detent Option
- Maximum- power Switch\*  
(meet UL certification standards)

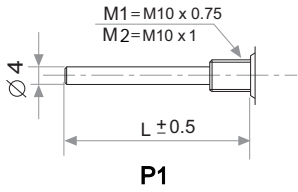
### MECHANICAL SPECIFICATIONS

- Mechanical rotation angle:  $270^{\circ} \pm 5^{\circ}$
- Torque: 20-200gf.cm
- Stop torque:  $> 5\text{Kgf.cm}$
- Shaft push-pull strength 80N max
- Detent torque 50-250gf.cm
- Switching travel  $3 \pm 0.5\text{mm}$
- Life 15,000 cycles
- Switch operating life 15,000 cycles
- Withstand voltage 1minute @ AC 500V  
(Between terminal and case)
- Switch rating AC 125V 10A
- Switch contact resistance 20mohms max

### ELECTRICAL SPECIFICATIONS

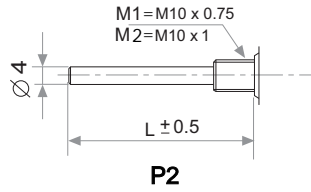
- Range of values\*  
 $1\text{K}\Omega \leq R_n \leq 2\text{M}$
- Standard tolerance\*:  $\pm 20\%$
- Max. Voltage: 250 VDC
- Nominal Power  $40^{\circ}\text{C}$  : 0.2 W
- Taper\* ; Linear, Reverse log, Log
- Residual resistance\*:  $\leq 10\Omega$
- Noise :  $\leq 100\text{mV}$
- Operating temperature\*:  $-10^{\circ}\text{C} + 70^{\circ}\text{C}$

## SHAFT STYLES



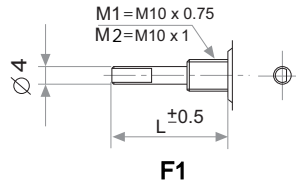
**P1 Type** (Copper Plain Shaft)

L	17.5	18.5	19	20
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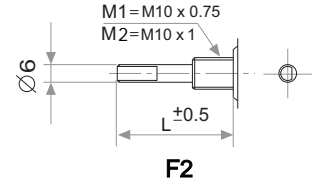
**P2 Type** (Plastic Plain Shaft)

L	19	20
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**F1 Type** (Copper Flatted Shaft)

L	17.5	18.5	19	20
F	8	8	8	8

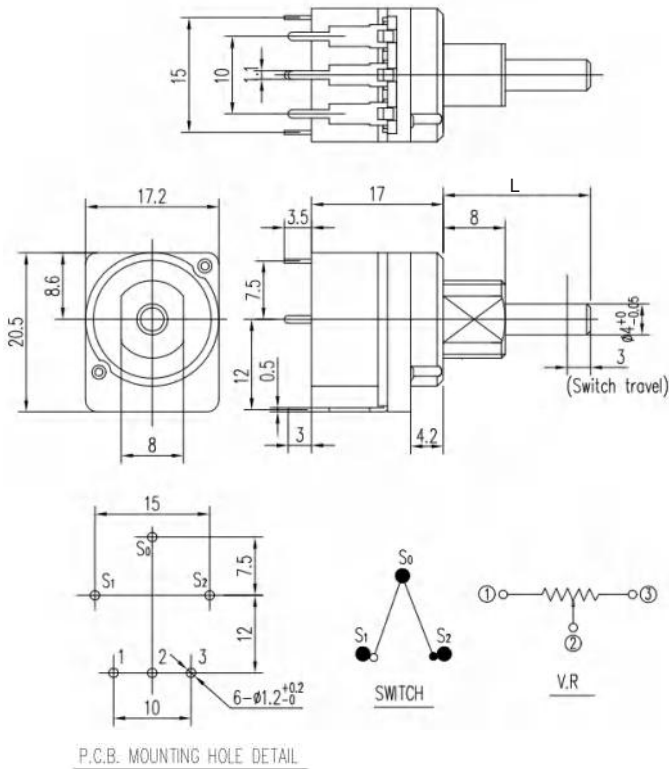


**F2 Type** (Plastic Flatted Shaft)

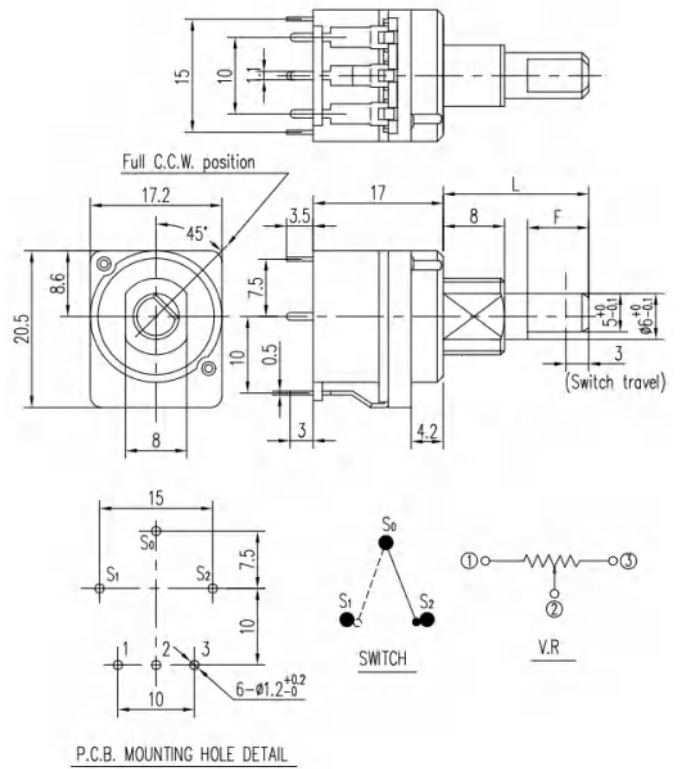
L	19
F	8

## MODELS

### R171-A



### R171-B

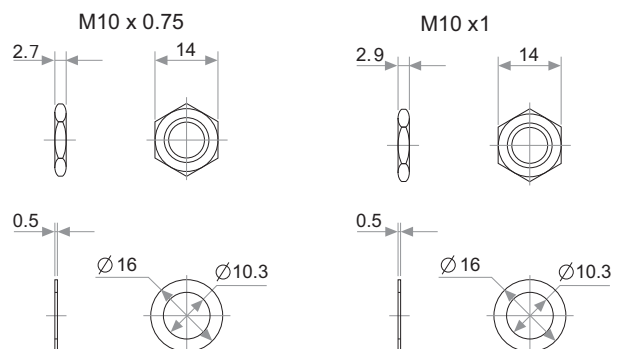


## GENERAL TOLERANCE

Dimension: Less than 10±0.3mm  
 Above 10~30±0.5mm  
 Above 30~100±1mm  
 Angle: Above ±5°

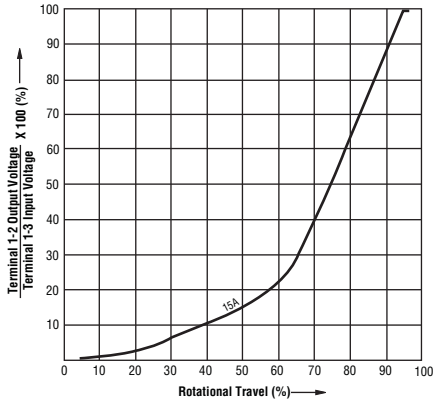
## NUTS & WASHERS

### Bushing 10

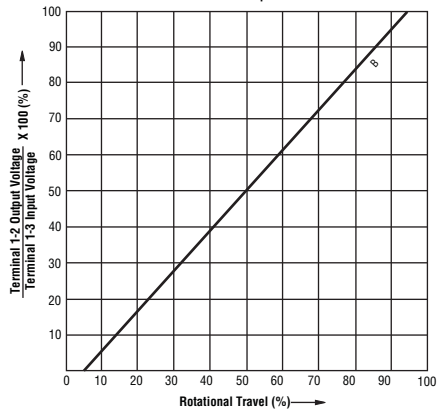


# TAPERS

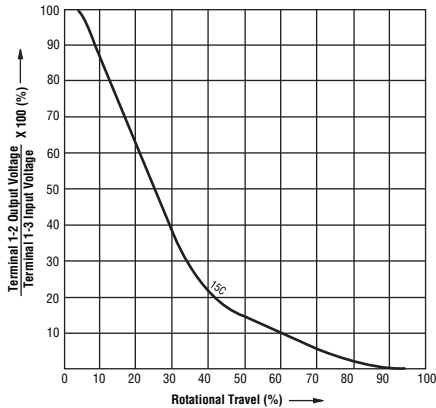
A Series Tapers



B Series Tapers



C Series Tapers



# HOW TO ORDER

**R171 - A 0 19 P1 M1 - A 103 - 2020**

Model

Switch form  
• 1 = Push switch

Terminal Configuration (Pin Layout)  
(see individual drawings)  
• A = PC Pins Rear Facing  
• B = PC Pins (bend) Rear Facing

Detent Option  
• 0 = No Detent  
• 3 = 37 Detents

Shaft length & shaft style  
(See Shaft Style)

Bushing  
M1 = M10\*0.75  
M2 = M10\*1

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

Resistance Code (See Table)

Tolerance  
• 2020 = ±20%  
• 1010 = ±10%

# 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