

17 mm Rotary Potentiometer with Push-Pull Switch

P161 Series



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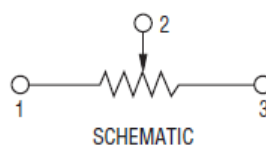


Features:

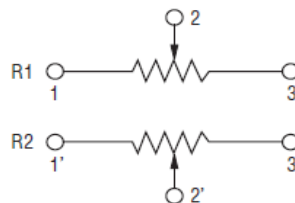
- Resistance range 1 k Ω to 1 M Ω
- Temperature range -10°C to +70°C
- Rotational cycles of 15,000 minimum
- Switch option
- Vertical and horizontal mount versions
- RoHS compliant

Description:

17mm rotary dual gang potentiometer with push-pull switch. Options include metal shaft; audio and linear tapers; metal bushing; knurled or plain shaft types.



Single Gang



Dual Gang

Applications:

- Electric guitars
- Amplifiers
- Mixers
- Drum machines
- Synthesizers

Electrical Characteristics

T_A = 25°C unless otherwise noted

Resistance Range	1 k Ω to 1 M Ω
Standard Resistance Tolerance	500 Ω < R < 1 M Ω \pm 20% R \leq 500 Ω or R \geq 1 M Ω \pm 30%
Residual Resistance	Term. 1~2: Less than 20 Ω Term: 2~3: Less than 20 Ω
Resistance Taper	A, B, C, D
Maximum Operating Voltage	Linear Taper B: 200 Vac Other Tapers: 150 Vac
Rated Power	Linear Taper B: 0.2 W Audio: 0.1 W
Dielectric Strength	1 minute at 500 Vac
Rotational Noise	Less than 100 mV
Insulation Resistance	More than 100 M Ω at 500 Vdc
Gang Error (Dual Unit)	-40 dB ~ 0 dB \pm 3 dB

General Note

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Switch Characteristics

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Switch Circuit	SPST
Contact Resistance	Less than 50 mΩ
Rated Power	Single Unit: 1.0 A at 12 Vac/dc
Push/Pull Travel	4 mm
Push/Pull Strength	70~250 gf.cm.
Switch Life	15,000 cycles minimum

Mechanical Characteristics

T_A = 25°C unless otherwise noted

Mechanical Travel	300 ° ± 5 °
Rotational Torque	20 gf.cm~200 gf.cm
Rotational Stop Strength	6 kgf.cm minimum
Shaft Pull Strength	6 kgf minimum for 60 seconds
Detent Torque	100~300 gf.cm
Nut Tightening Strength	8 kgf.cm minimum
Rotational Life	15,000 cycles minimum

Environmental Characteristics

T_A = 25°C unless otherwise noted

Operating Temperature	-10 °C to +70 °C
IP Rating	IP 40
Soldering Condition	Wave Soldering 260 °C maximum for 1-3 seconds Hand Soldering 300 °C maximum for 3 seconds
RoHS	Please refer to TT Electronics website
REACH	Please refer to TT Electronics website

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Ordering Information

P161	G	1	00	Q	S	C	20	B	102
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Part Family

Terminal Configuration

G - PC Pins, Down Facing
 K - Solder Lugs, Rear Facing

Gang Number

1 - 1 Gang
 2 - 2 Gangs (Only w/ Term. Type "G")

Detents/ Rotation

00 - No Position
 01 - Center Detent

Shaft Style

Q - Metal Knurled Type
 P - Metal Plain Type Shaft

Switch Option

S - Push-Pull Switch

Full CCW Position

A/C/N (see note 1 page 4)

Shaft Length (mm) - L

20/25/30

Resistance Taper

A - Audio (15A)
 B - Linear (1B)
 C - Reverse Audio (15C)
 D - Audio (10A)

Resistance

See Resistance Table

Resistance (Ohms)	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

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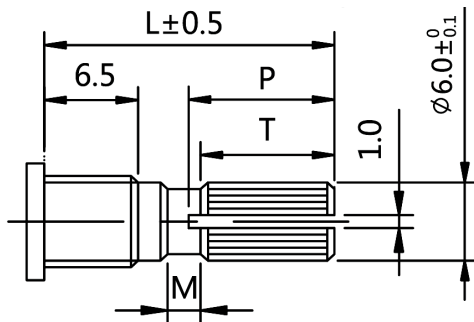
Outline Drawings

Shaft Style & Length

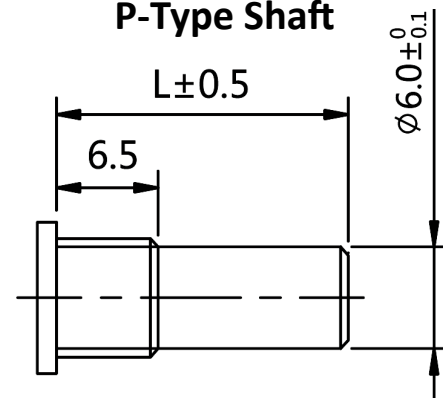
Q Type—With Switch Option			
L	20	25	30
	P - 12	P - 14	P - 14
	T - 10	T - 12	T - 12
	M - 2	M - 2	M - 4

P Type			
L	20	25	30

Q-Type Shaft

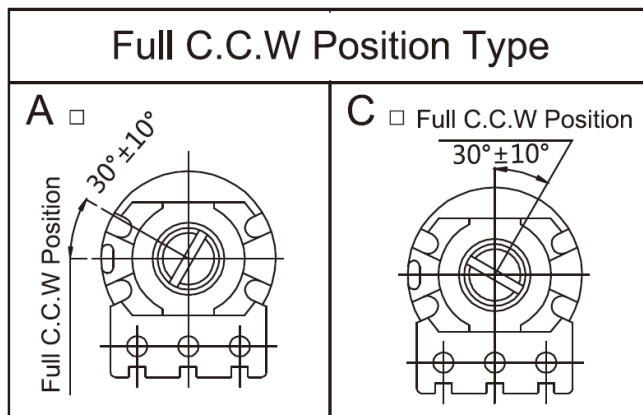


P-Type Shaft

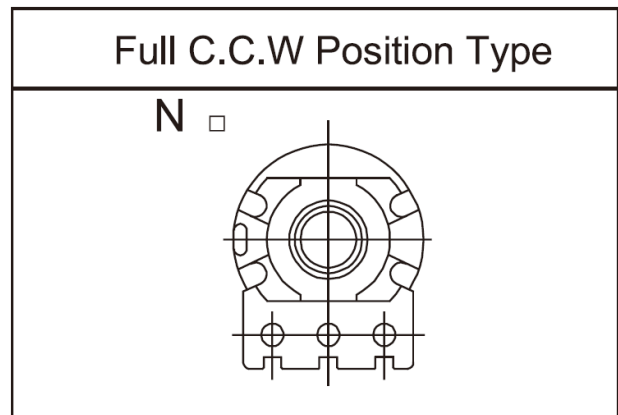


Note 1: Full CCW Position

Q-Type Shaft



P-Type Shaft

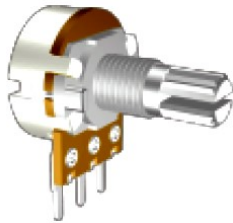


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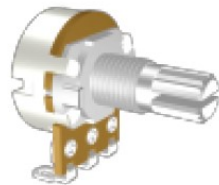
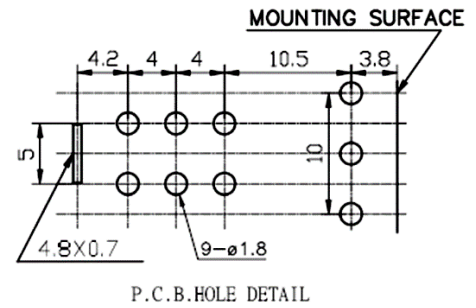
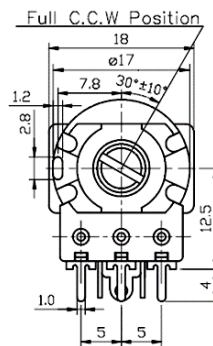
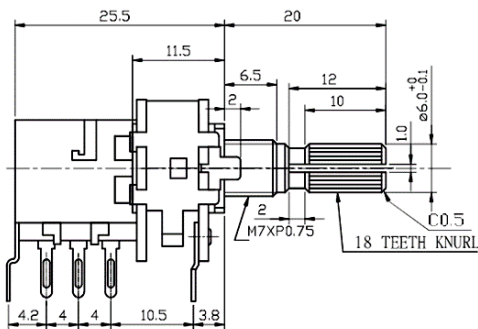
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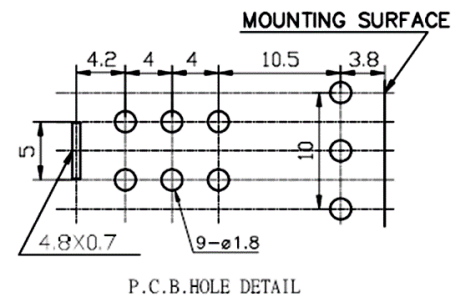
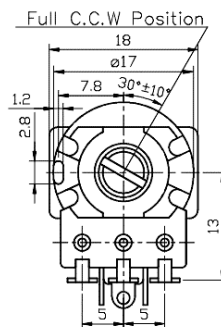
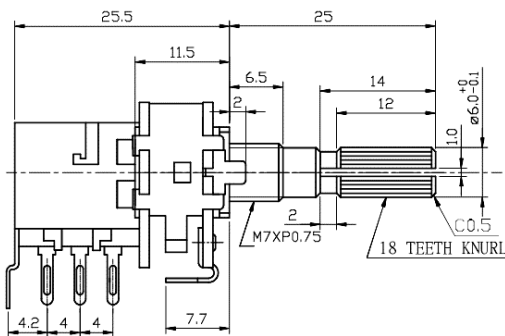
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G - PC Pins, Down Facing, Single Gang with Push-Pull Switch



K - Solder Lugs, Rear Facing, Single Gang with Push-Pull Switch



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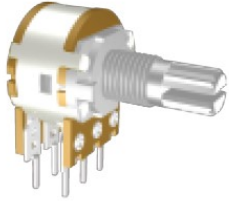
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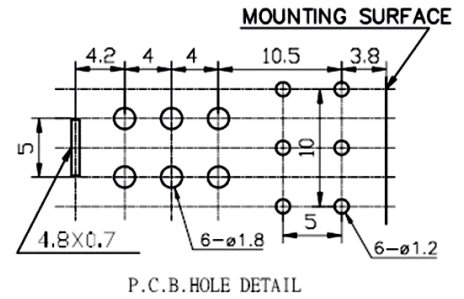
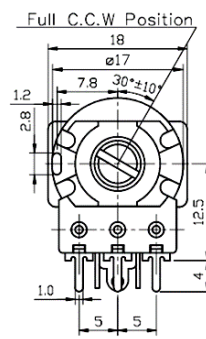
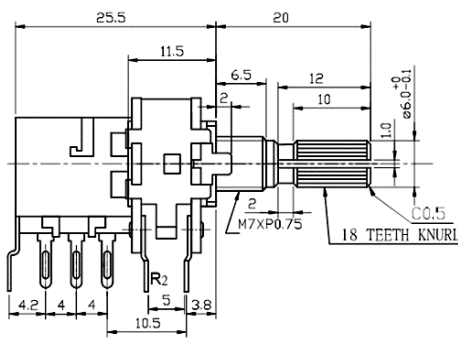
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G - PC Pins, Down Facing, Dual Gang with Push-Pull Switch



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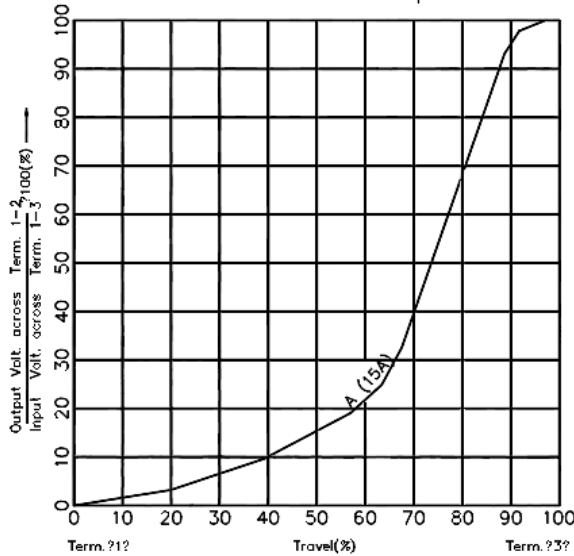
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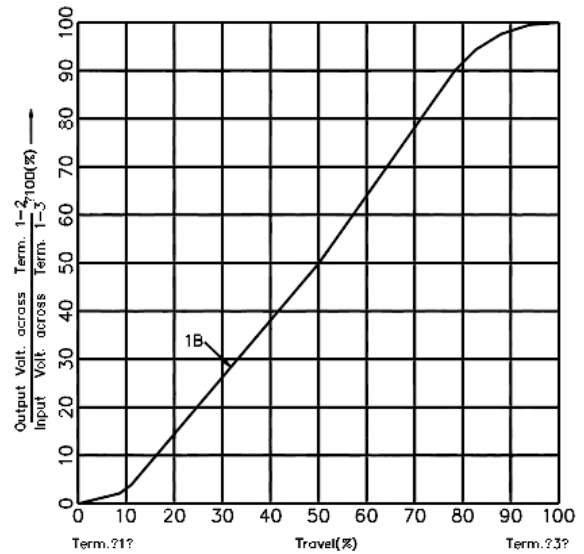
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Standard Tapers

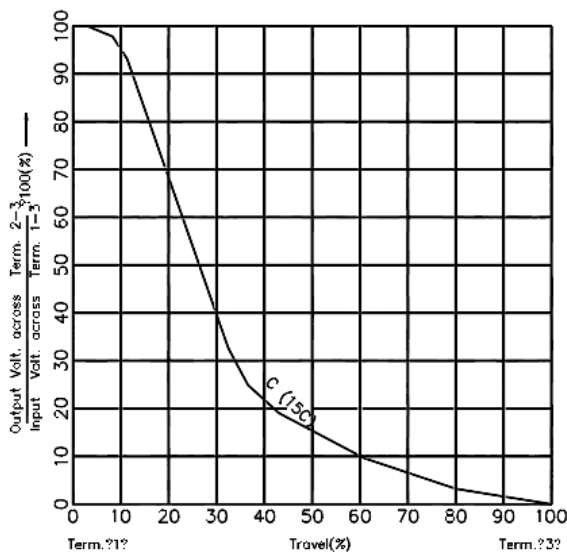
"A" AUDIO (15A)
Middle without tap



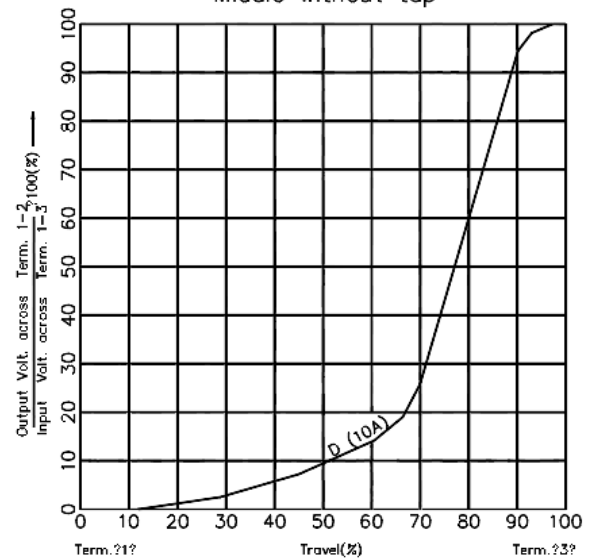
"B" LINEAR (1B)
Middle without tap



"C" REVERSE AUDIO (15C)
Middle without tap



"D" AUDIO (10A)
Middle without tap



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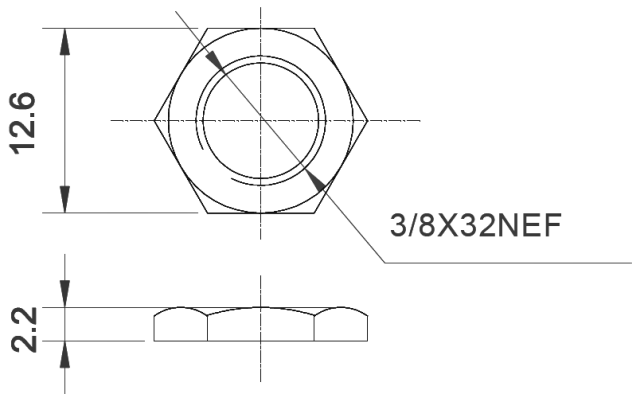
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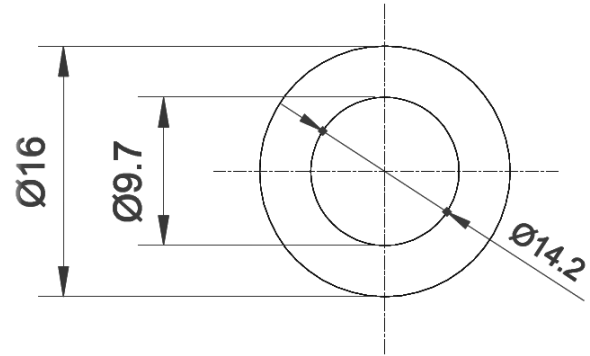
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Screw & Washer Dimensions



NUT 1 PC



WASHER 1 PC t=0.4

Packaging Information

Standard Packaging	Plastic Trays
Hardware	Two flat washers and mounting nut