

17 mm Rotary Potentiometer

P164 Series



OBSOLETE

Features:

- Resistance range 1 k Ω to 1 M Ω
- Temperature range -10°C to +70°C
- Rotational cycles of 100,000 minimum
- Center and multiple detent options
- Vertical and horizontal mount versions
- RoHS compliant

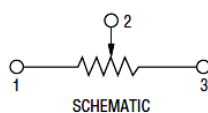


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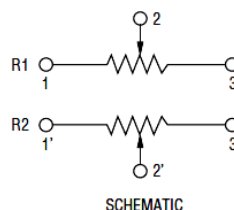
17mm rotary potentiometer. Options include single or dual gangs, metal shaft; audio and linear tapers; metal bushing; various shaft lengths; flat, knurled or plain shaft types.

Applications:

- Electric guitars
- Amplifiers/mixers/drum machines/synthesizers
- PC's/monitors
- Appliances
- Audio/car radio/TV sets



Single Gang



Dual Gang

3D Model

To view 3D model:

- 1) Enable 3D content
- 2) Click and drag below



If unable to view 3D content, [download and save](#) this PDF to your computer and open it in Adobe Acrobat Reader.

Electrical Characteristics

$T_A = 25^\circ\text{C}$ 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: 0.2W Audio: 0.1W
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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Mechanical Characteristics

T_A = 25°C unless otherwise noted

Mechanical Travel	300 ° ± 5 °
Rotational Torque	20 gf.cm~100 gf.cm
Rotational Stop Strength	7 kgf.cm minimum
Shaft Torque Strength	8 kgf minimum
Detent Torque	100~300gf.cm
Nut Tightening Strength	8 kgf.cm minimum
Rotational Life	100,000 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

P164	G	1	00	Q	N	C	20	B	102
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Part Family

Terminal Configuration

G - PC Pins, Down Facing (12.5 mm)
H - PC Pins, Down Facing (18 mm)
K - Solder Lugs, Rear Facing
M - PC Pins, Rear Facing
N - PC Pins, Front Facing

Gang Number

1 - 1 Gang
2 - 2 Gangs

Detents/ Rotation

00 - No Position
01 - Center Detent
11 - 11 Detents
21 - 21 Detents
41 - 41 Detents

Shaft Style

Q - Metal Knurled Type
P - Metal Plain Type Shaft
F - Metal Flatted Shaft

Switch Option

N - No Switch

Full CCW Position

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

Shaft Length (mm) - L

15/20/25/30/35

Resistance Taper

A - Audio (15A)
B - Linear (0B)
C - Reverse Audio (15C)
D - Audio (10A)

Resistance

See Resistance Table

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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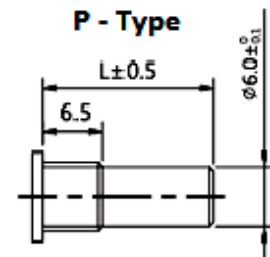
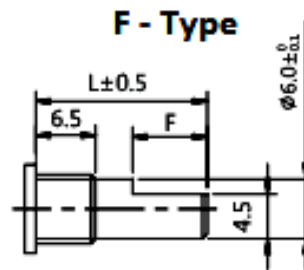
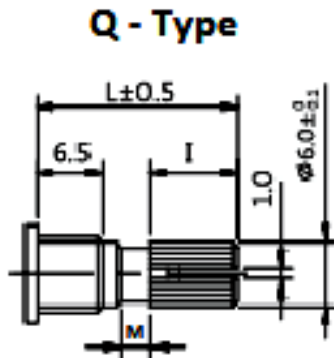
Outline Drawings

Shaft Style & Length

Q Type				
L	15	20	25	30
	M - 2 I - 6	M - 2 I - 10	M - 2 I - 14	M - 2 I - 19

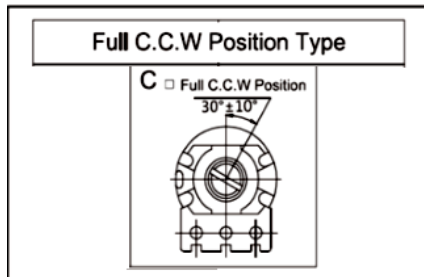
F Type					
L	15	20	25	30	35
	F - 7	F - 12	F - 12	F - 12	F - 12

P Type					
L	15	20	25	30	35

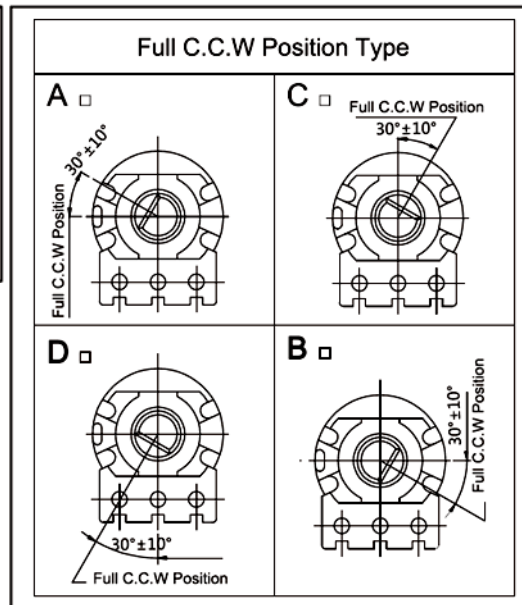


Note 1 : Full CCW Position

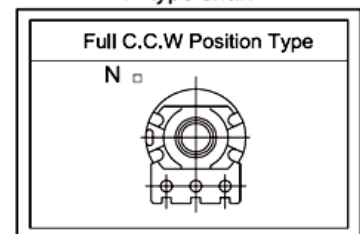
Q-type shaft



F-type shaft



P-type shaft



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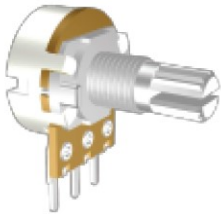
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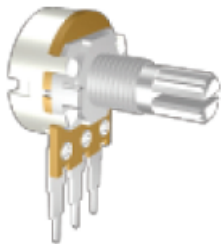
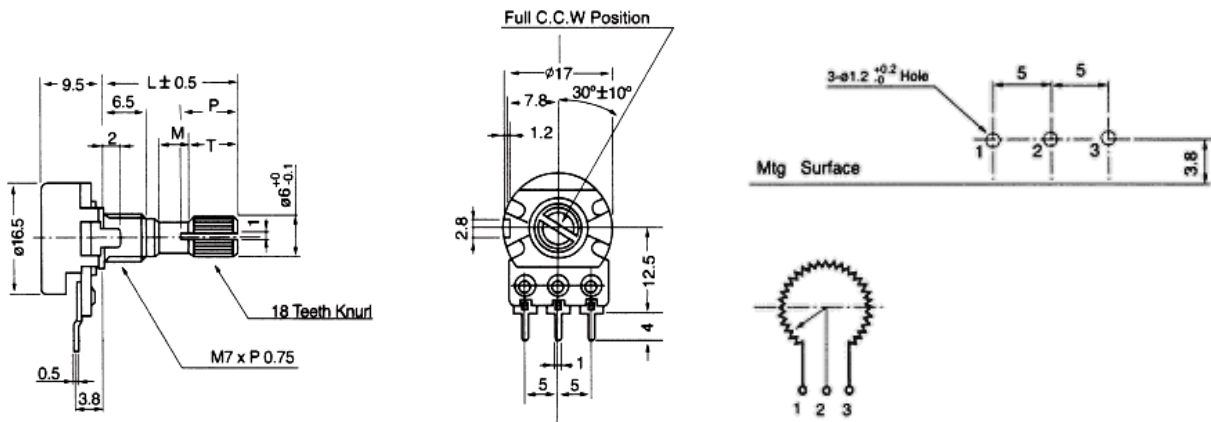
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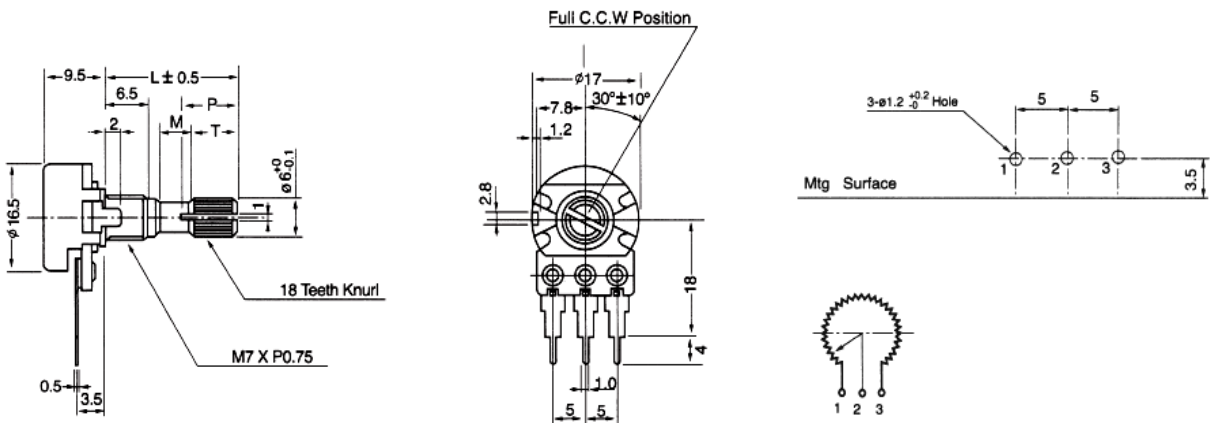
Outline Drawings



G - PC Pins, Down Facing (12.5mm), Single Gang



H - PC Pins, Down Facing (18mm), Single Gang



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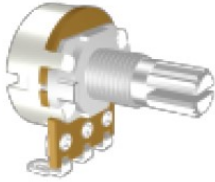
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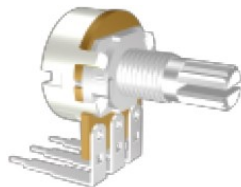
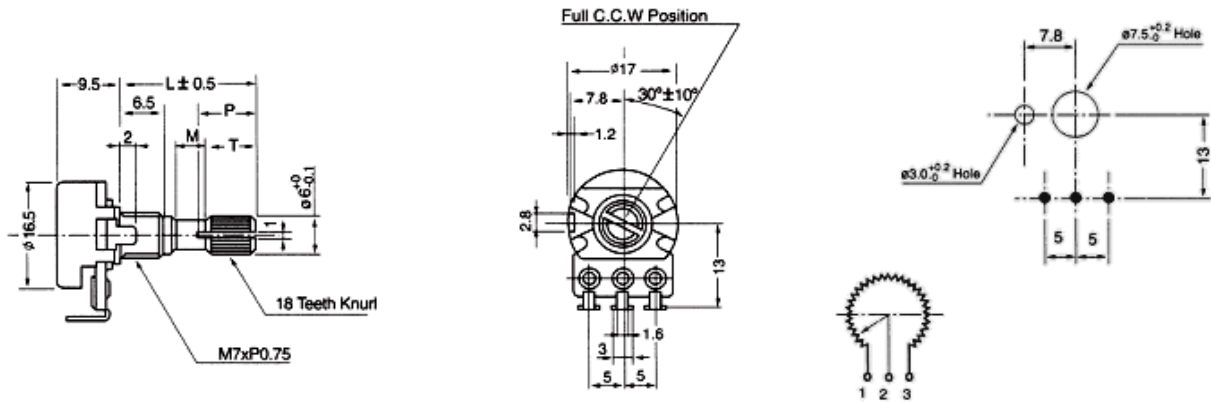
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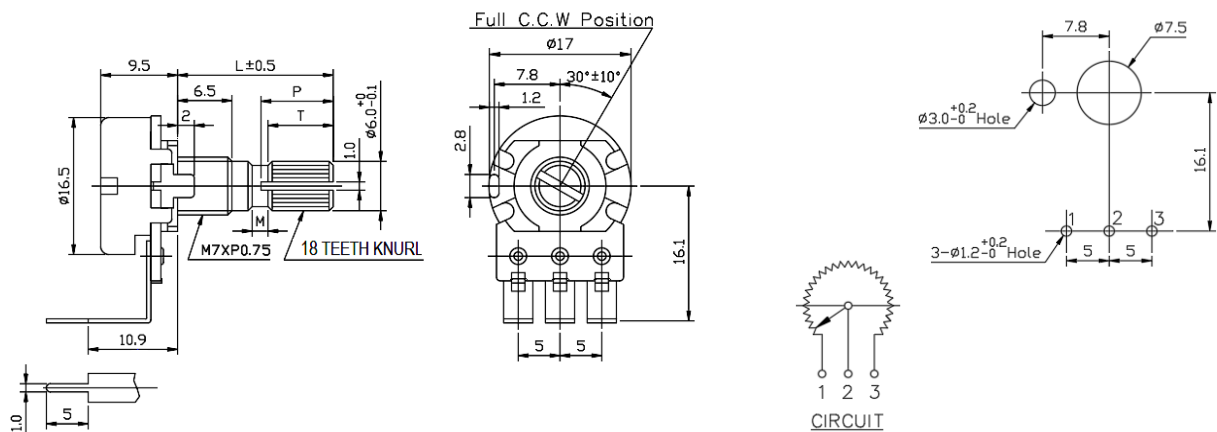
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K - Solder Lugs, Rear Facing, Single Gang



M - PC Pins, Rear Facing, Single Gang



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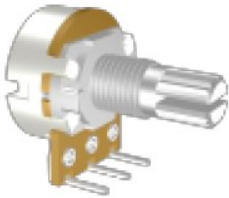
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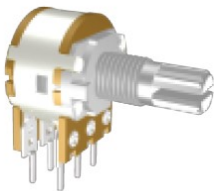
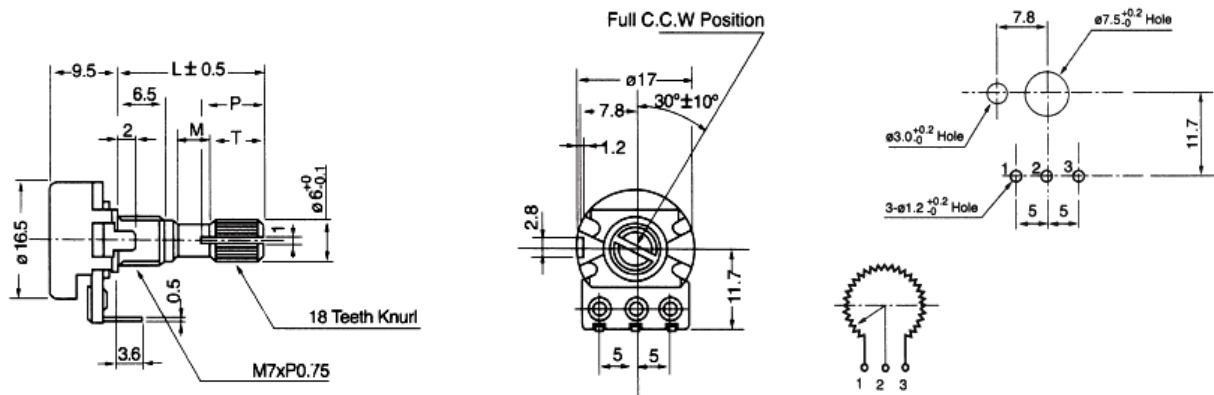
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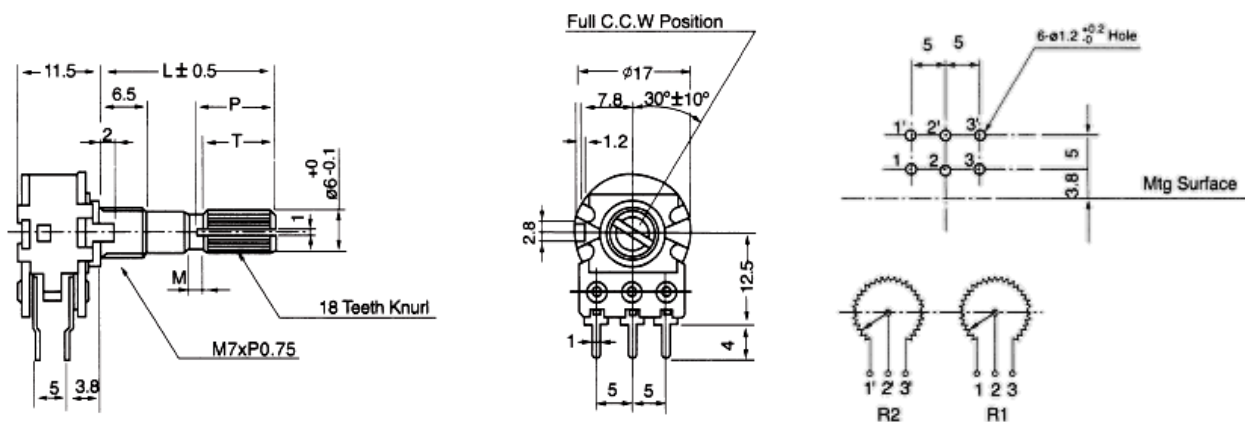
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N - PC Pins, Front Facing, Single Gang



G - PC Pins, Down Facing (12.5mm), Dual Gang



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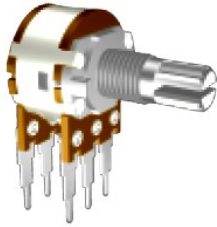
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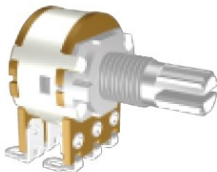
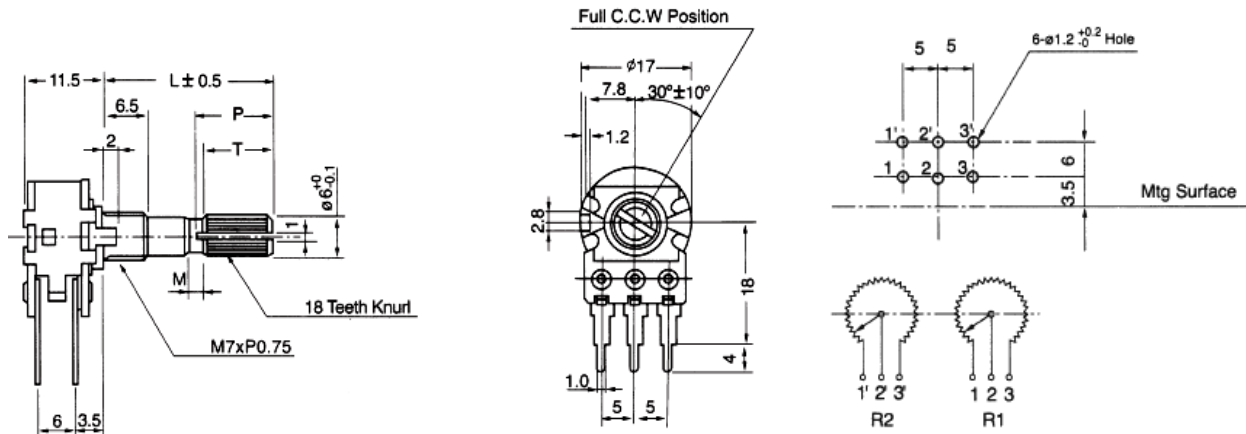
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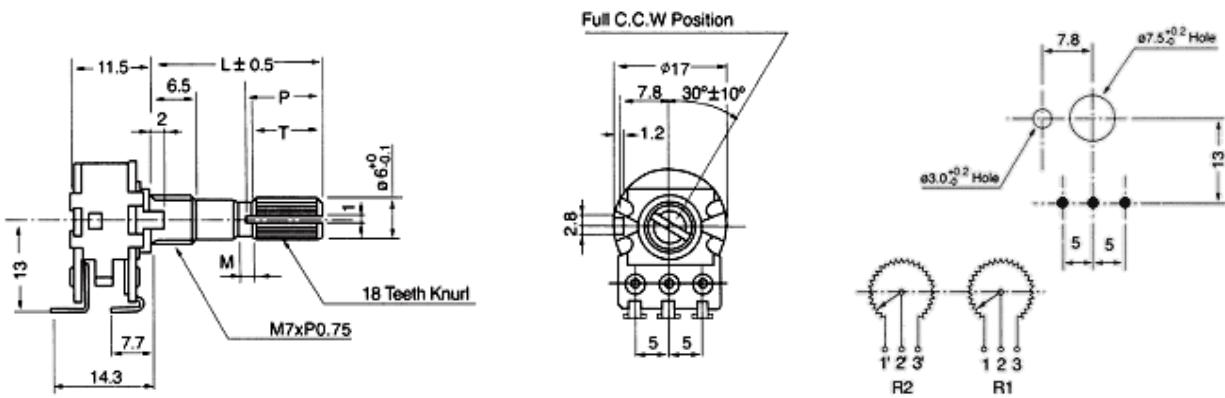
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H - PC Pins, Down Facing (18mm) Dual Gang



K - Solder Lugs, Rear Facing, Dual Gang



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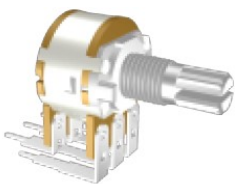
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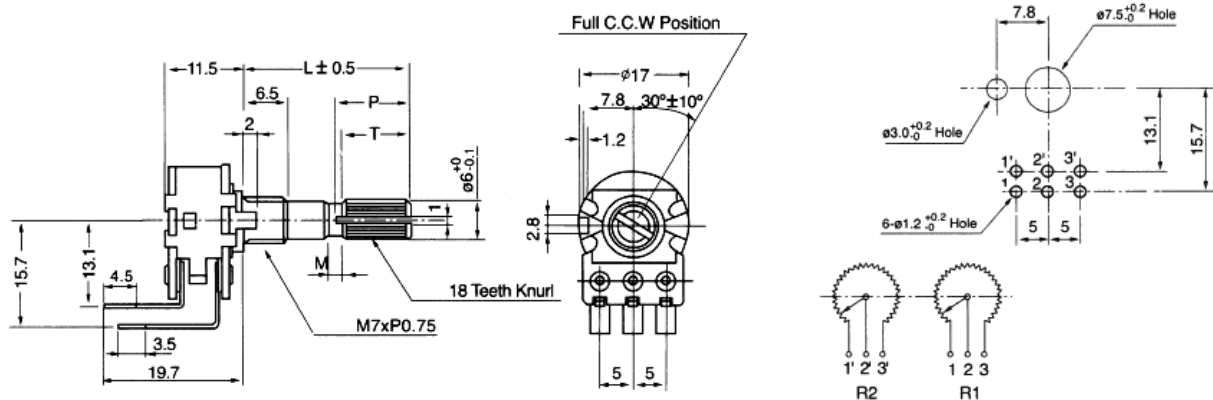
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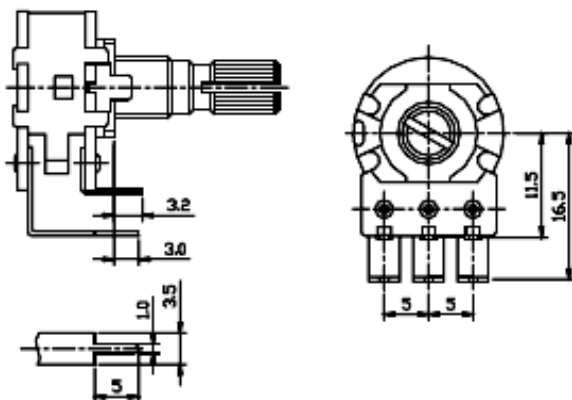
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M - PC Pins, Rear Facing, Dual Gang



N - PC Pins, Front Facing, Dual



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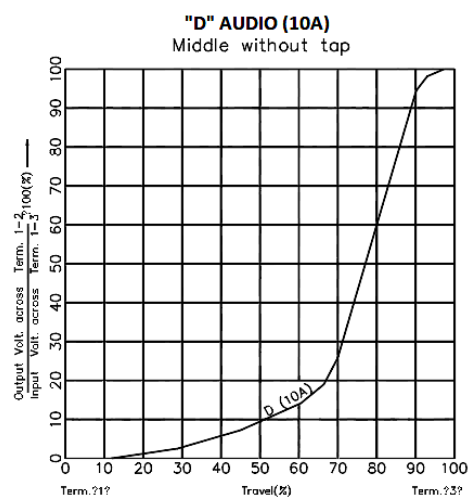
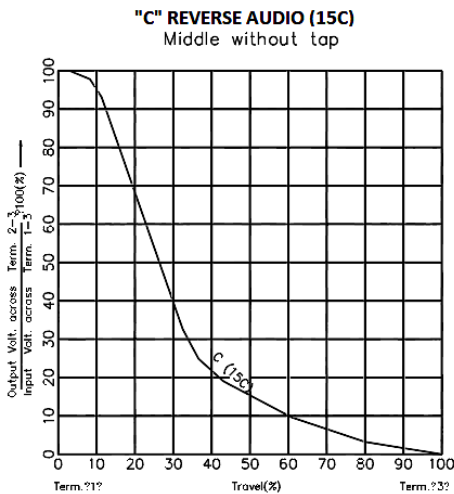
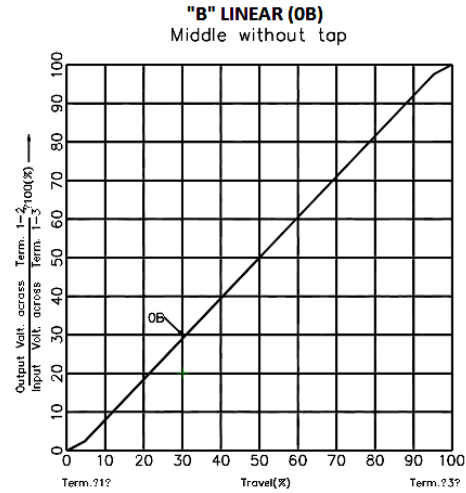
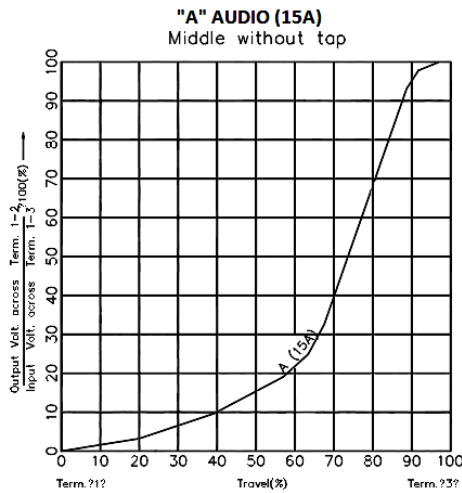
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Standard Tapers



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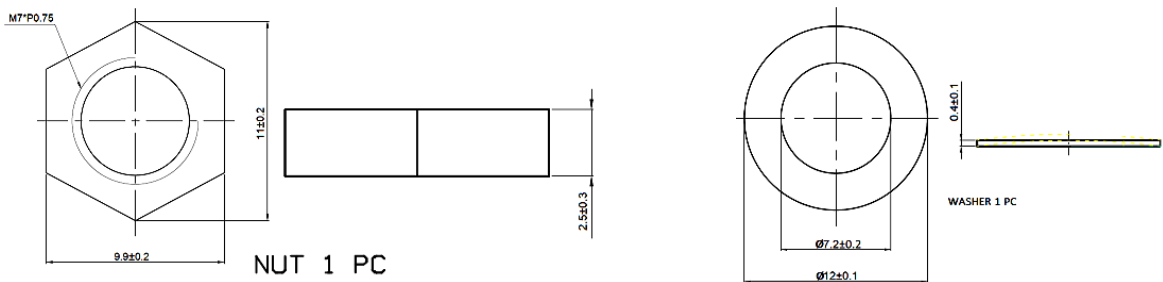
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Screw & Washer Dimensions



Packaging

Standard Packaging	Plastic Trays
Hardware	Two flat washers and mounting nut