

17 mm Rotary Potentiometer

P164 Series



OBSOLETE

Features:

- Resistance range 1 kΩ to 1 MΩ
- 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

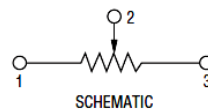


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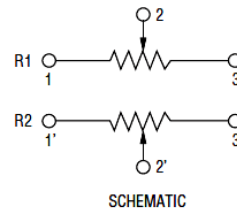
17mm rotary potentiometer. Options include single or dual gangs, metal shaft; audio and linear tapers; metal bushing; various shaft lengths; flat, knurled or plain shaft types.

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 kΩ to 1 MΩ
Standard Resistance Tolerance	500 Ω < R < 1 MΩ ± 20% R ≤ 500 Ω or R ≥ 1 MΩ ± 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 MΩ at 500 Vdc
Gang Error (Dual Unit)	-40 dB ~ 0 dB ± 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 (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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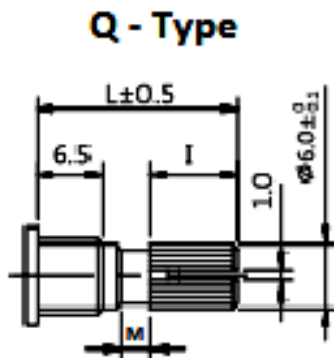
Outline Drawings

Shaft Style & Length

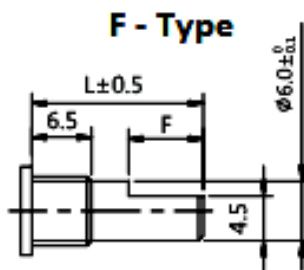
Q Type				
L	15	20	25	30
	M - 2	M - 2	M - 2	M - 2
	I - 6	I - 10	I - 14	I - 19

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

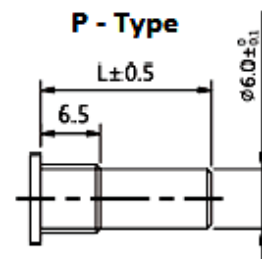
P Type					
L	15	20	25	30	35



Q - Type



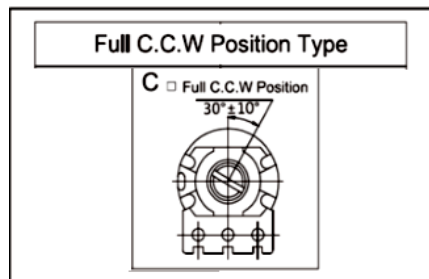
F - Type



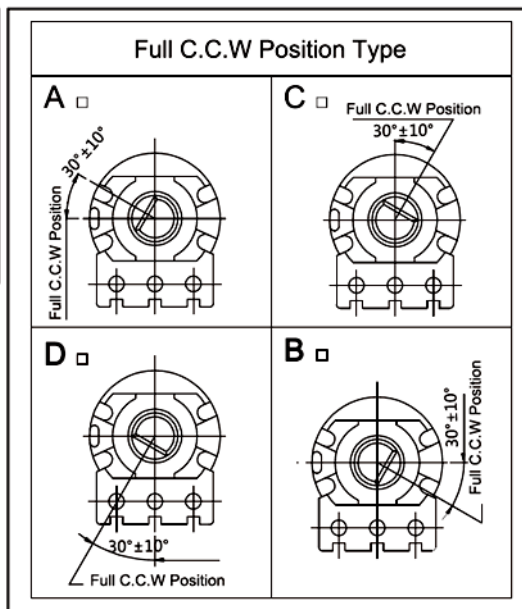
P - Type

Note 1 : Full CCW Position

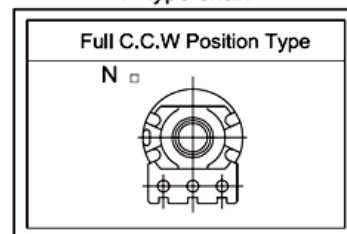
Q-type shaft



F-type shaft



P-type shaft



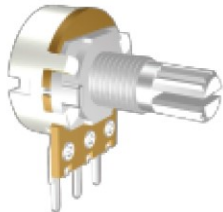
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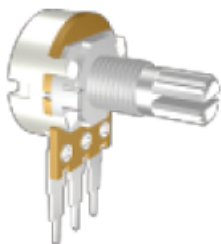
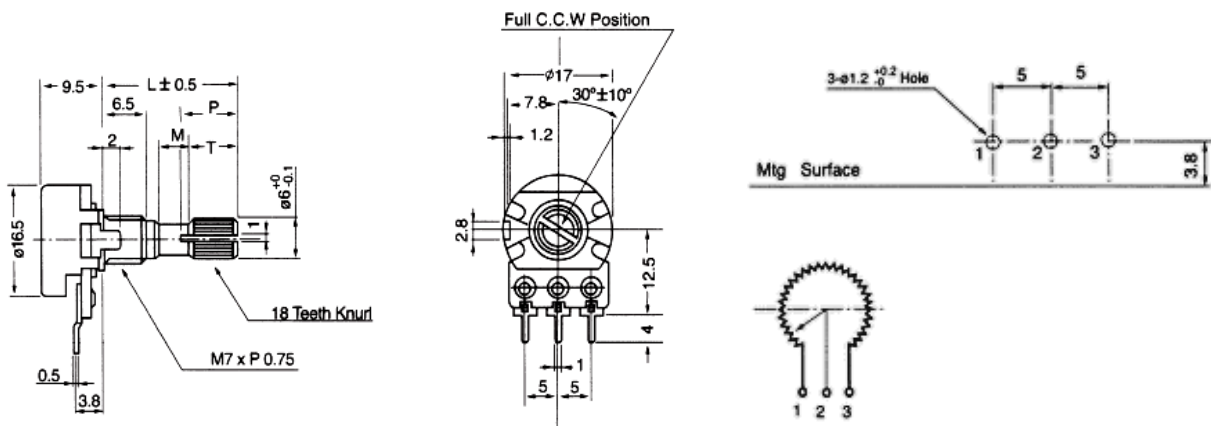


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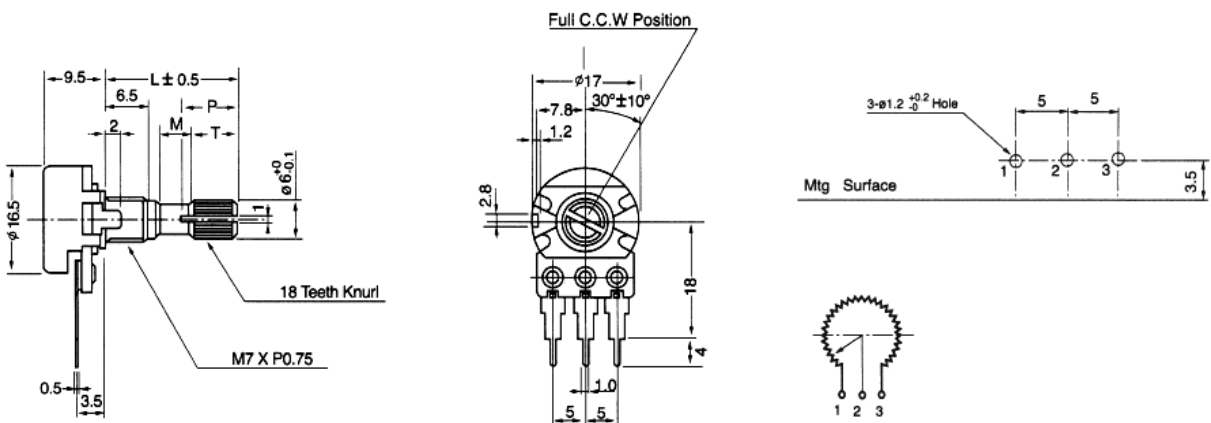
Outline Drawings



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



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



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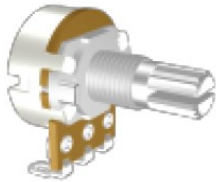
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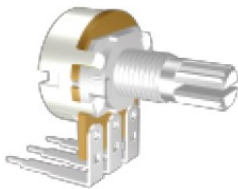
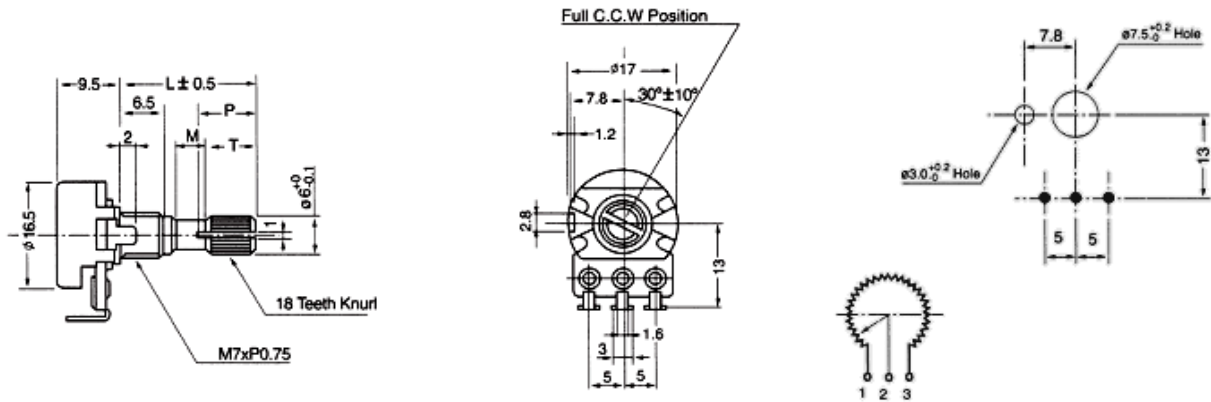
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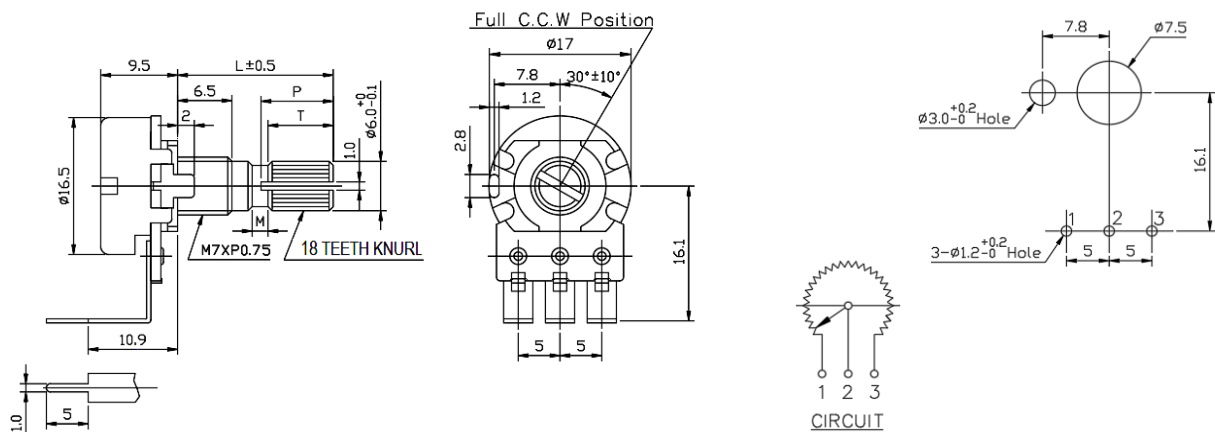
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K - Solder Lugs, Rear Facing, Single Gang



M - PC Pins, Rear Facing, Single Gang



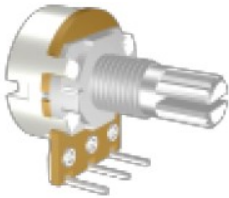
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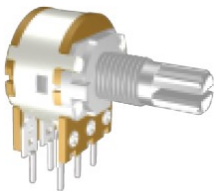
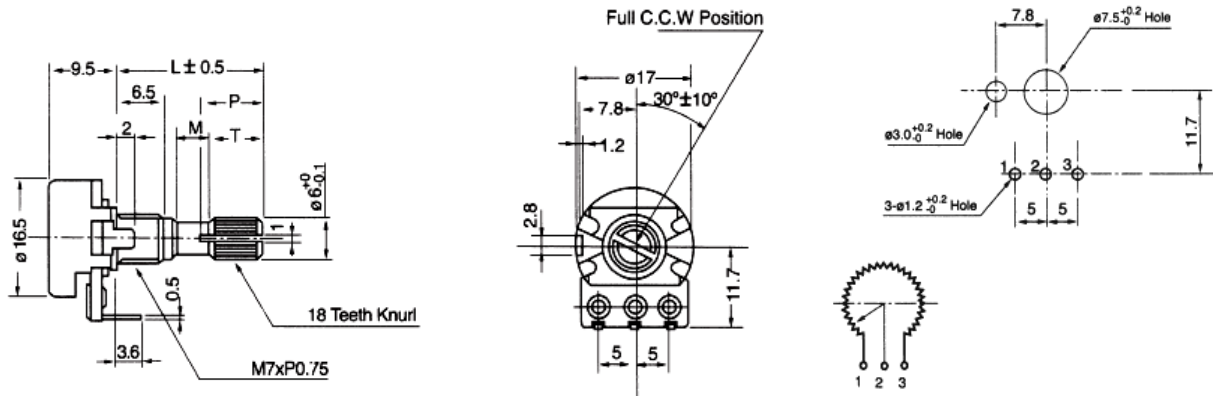
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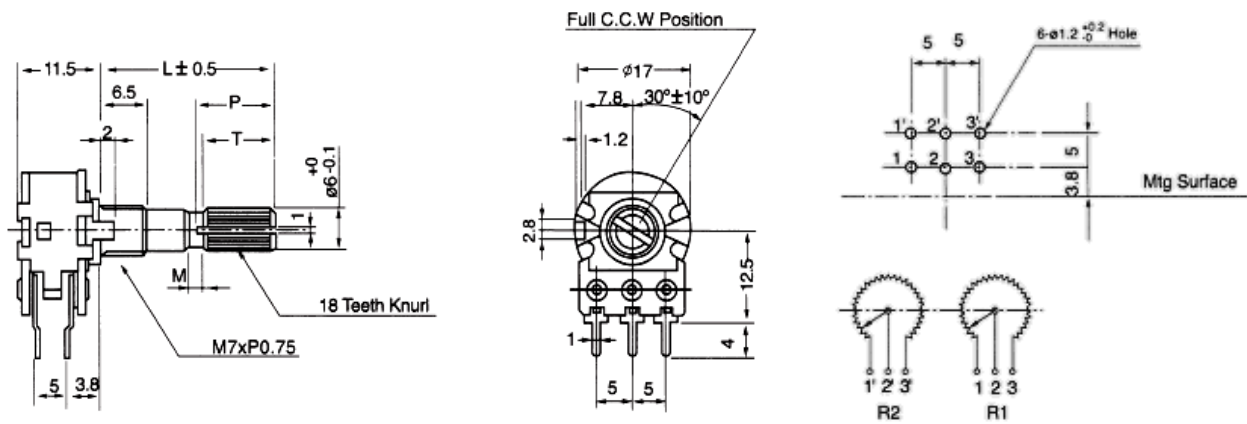
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N - PC Pins, Front Facing, Single Gang



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



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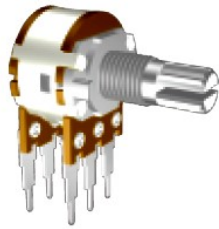
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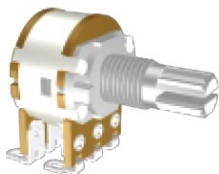
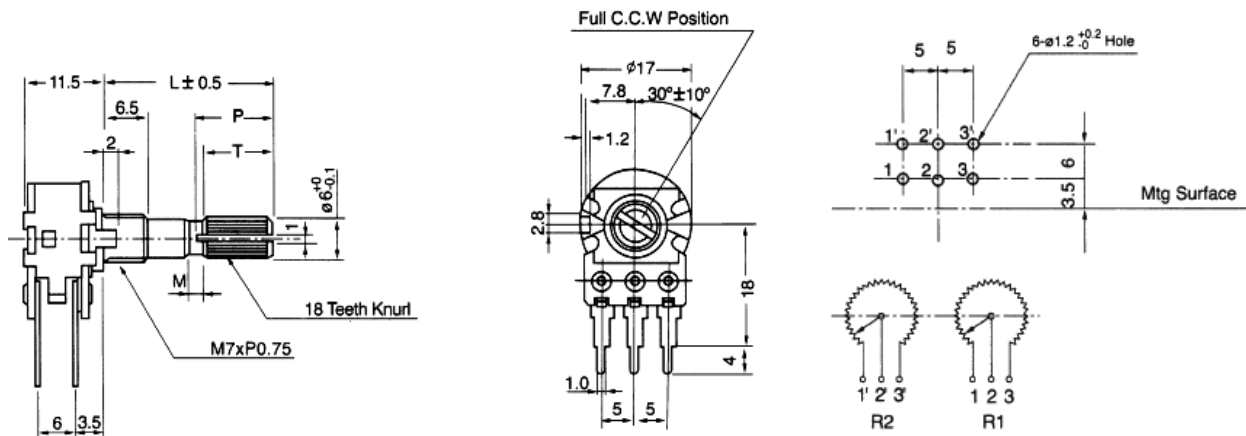
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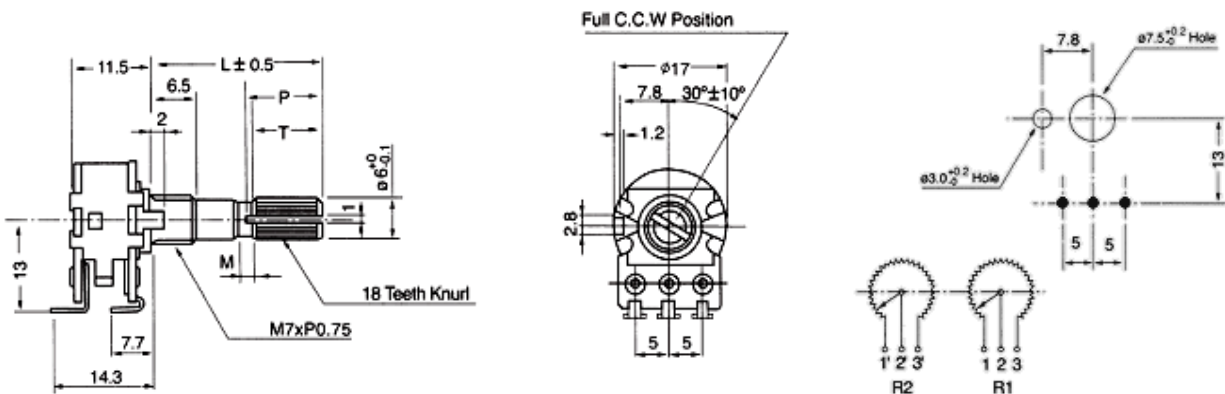
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H - PC Pins, Down Facing (18mm) Dual Gang



K - Solder Lugs, Rear Facing, Dual Gang



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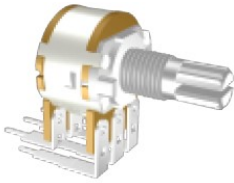
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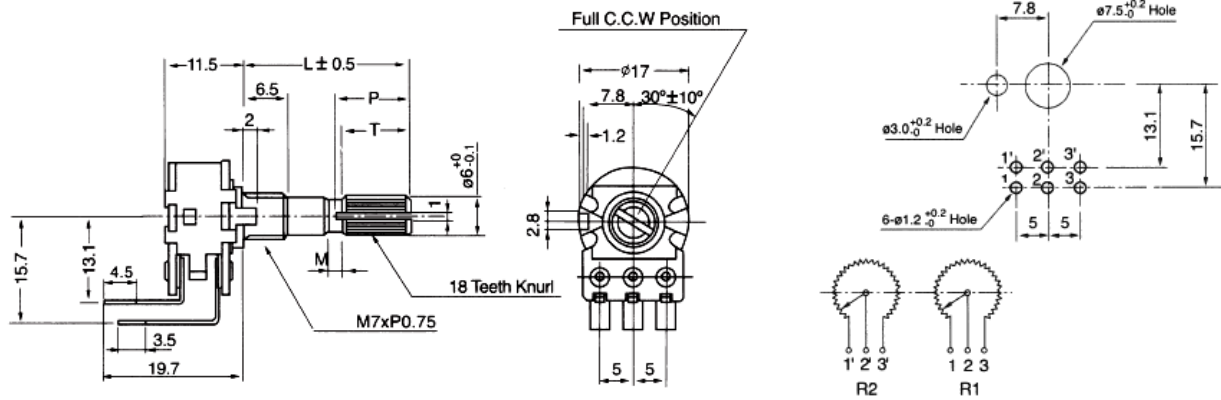
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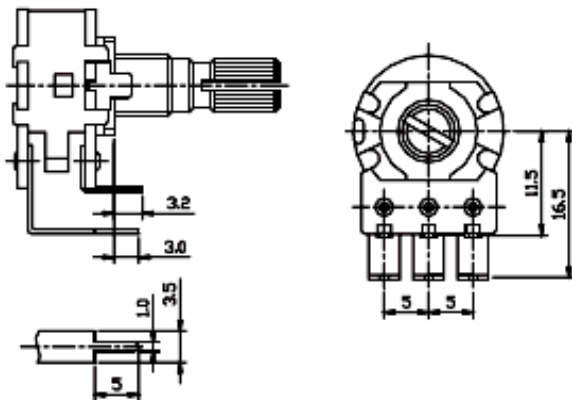
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M - PC Pins, Rear Facing, Dual Gang



N - PC Pins, Front Facing, Dual



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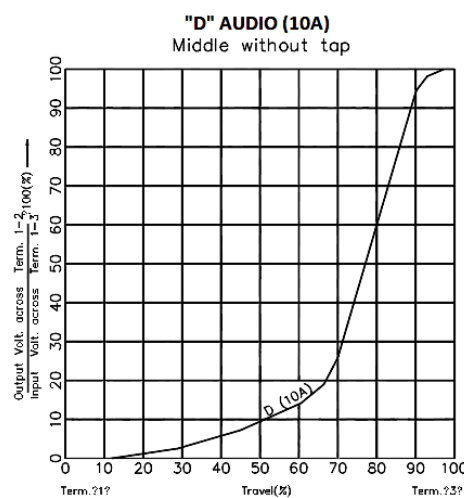
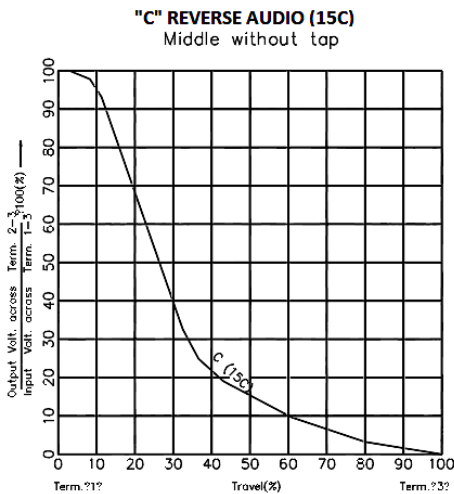
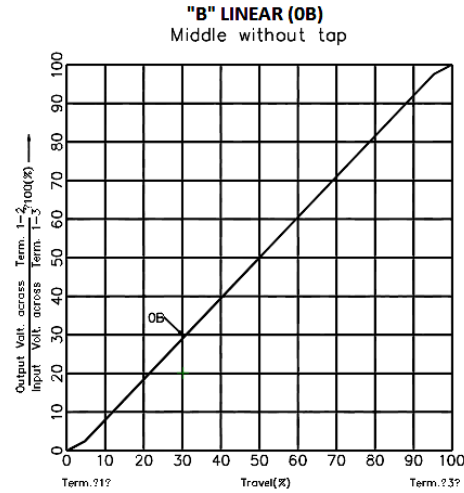
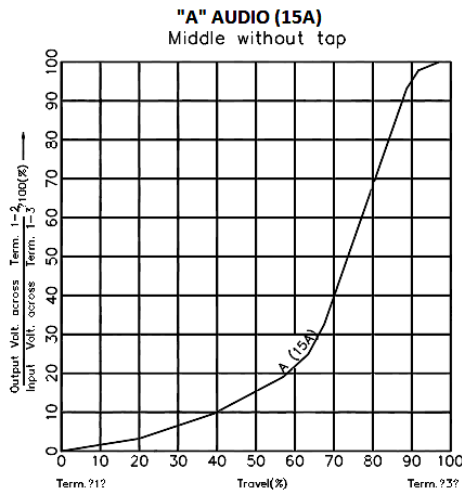
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Standard Tapers



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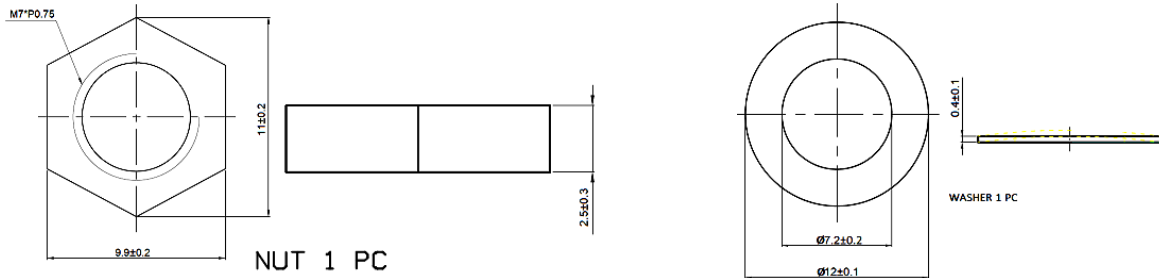
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Screw & Washer Dimensions



Packaging

Standard Packaging	Plastic Trays
Hardware	Two flat washers and mounting nut