

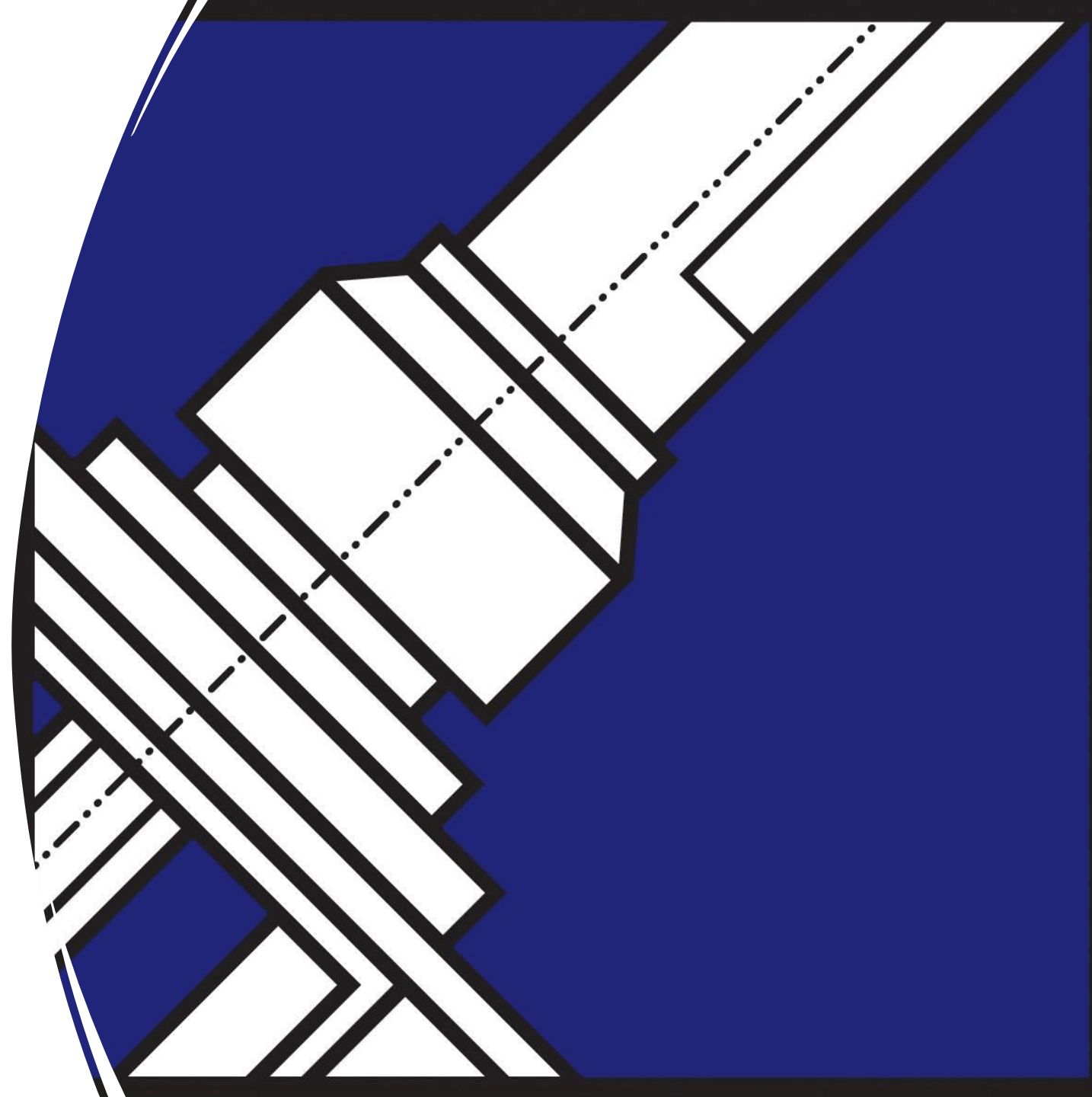
24 mm Conductive Plastic Potentiometers

Types of 24mm CP pots:

- P230-233 potentiometers

These will be further classified as :-

Side adjust, single/dual ganged, metal shaft/
bushing, solder lugs options, brass bushing option



Panel Potentiometer

Model P230



Features:

- 24 mm rotary
- Conductive plastic element
- 500,000 cycle life
- Metal shaft
- Brass bushing



Model Styles Available

Side Adjust , Solder Lugs

P230

Electrical

Resistance Range, Ohms	500-1M
Standard Resistance Tolerance	± 20%
Residual Resistance	20 ohms max.
Input Voltage, maximum	500 Vac max.
Power rating, Watts	0.5W- B taper, 0.25W-others
Dielectric Strength	500Vac, 1 minute
Insulation Resistance, Minimum	100M ohms at 250Vdc
Sliding Noise	100mV max.
Actual Electrical Travel, Nominal	260°

Mechanical

Total Mechanical Travel	300°± 10°
Static Stop Strength	70 oz-in
Rotational Torque	0.5 to 1.25 oz-in

Environmental

Operating Temperature Range	-20°C to +70°C
Rotational Life	500,000 cycles

General Note

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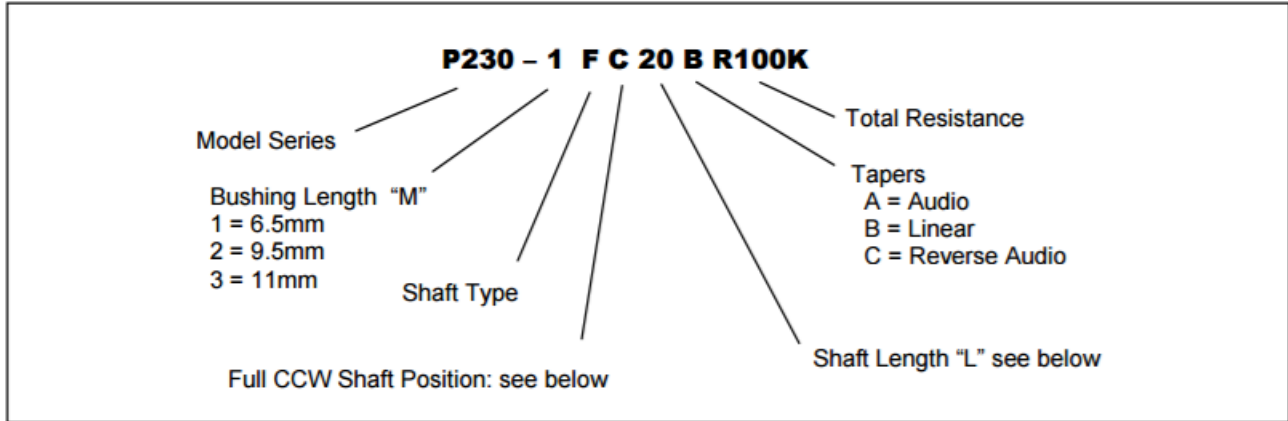
TT Electronics | BI Technologies
4200 Bonita Place, Fullerton, CA USA 92835 | Ph: +1 714 447 2345
www.ttelectronics.com | sensors@ttelectronics.com

Panel Potentiometer

Model P230



Ordering

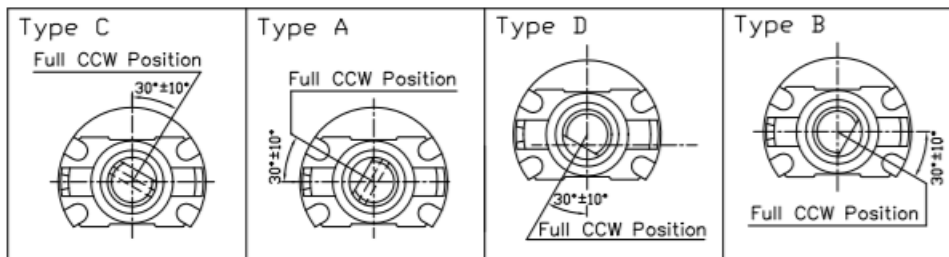


Shaft Types

E-TYPE						F-TYPE					M-TYPE					Q-TYPE														
L ±0.5						L ±0.5					L ±0.5					L ±0.5														
1.5						5.5					1.0					1.0														
1.0						1.0					1.0					1.0														
+0						+0					+0					+0														
ø6.35-0.1						ø6.35-0.1					ø6.0-0.1					ø6.35-0.1														
L	15	20	22	25	30	35	T	7	12	12	12	12	L	16	19	25	30	35	L	16	19	25	30	35	T	6	6	12	12	12

Shaft Position (F-Type Shaft)

Dashed lines on Type "C" and Type "A" shows position of adjustment slot for E-Type shaft



STANDARD RESISTANCE VALUES, OHMS

500 1K 2K 5K 10K 20K 50K 100K 200K 500K 1MEG

General Note

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Model P231
 24mm Rotary Potentiometer
 Conductive Plastic Element
 100,000 Cycle Life
 Metal shaft / Bushing
 RoHS Compliant



MODEL STYLE

Side Adjust , Solder Lugs

P231

ELECTRICAL¹

Resistance Range, Ohms	500-1M
Standard Resistance Tolerance	± 20%
Residual Resistance	20 ohms max.
Input Voltage, maximum	500 Vac max.
Power rating, Watts	0.5W- B taper, 0.25W-others
Dielectric Strength	500Vac, 1 minute
Insulation Resistance, Minimum	100M ohms at 250Vdc
Sliding Noise	100mV max.
Actual Electrical Travel, Nominal	260°

MECHANICAL

Total Mechanical Travel	300°± 10°
Static Stop Strength	70 oz-in
Rotational Torque	0.5 to 1.25 oz-in

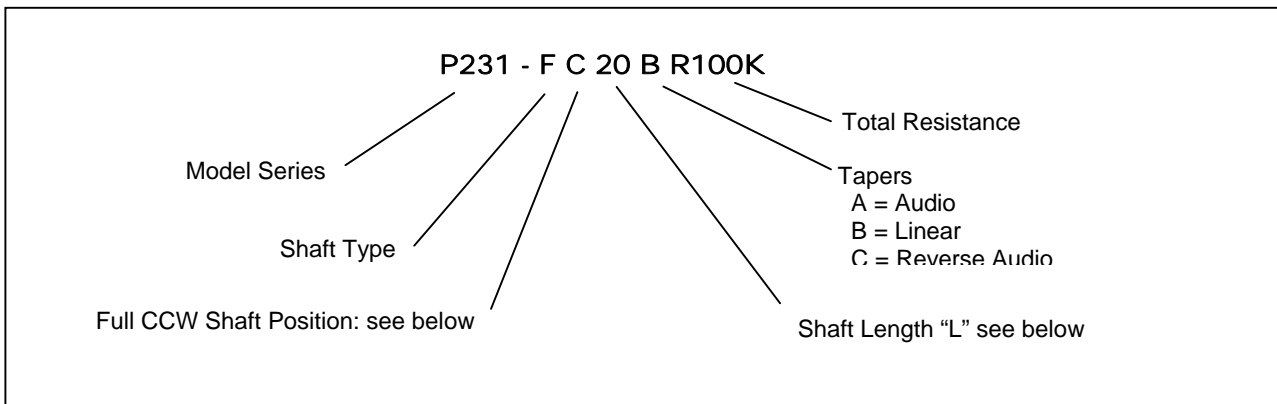
ENVIRONMENTAL

Operating Temperature Range	-20°C to +70°C
Rotational Life	100,000 cycles

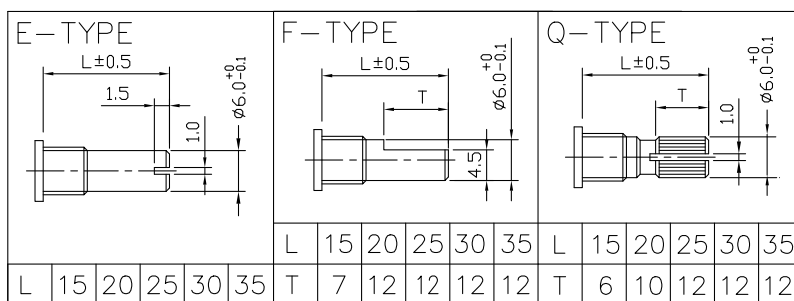
¹ Specifications subject to change without notice.

Model P231

ORDERING INFORMATION²

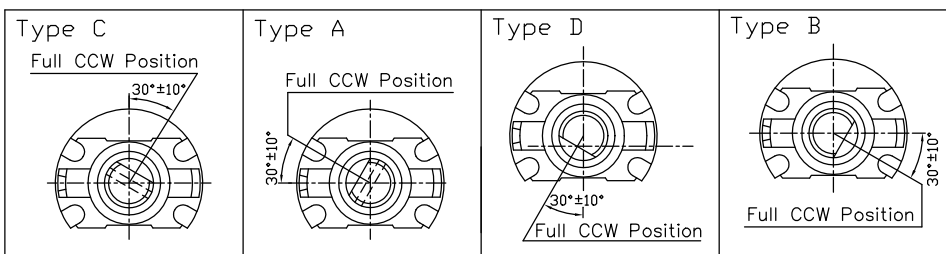


Shaft Types



Shaft Position (F-Type Shaft)

Dashed lines on Type "C" and Type "A" shows position of adjustment slot for E-Type and Q-Type shafts



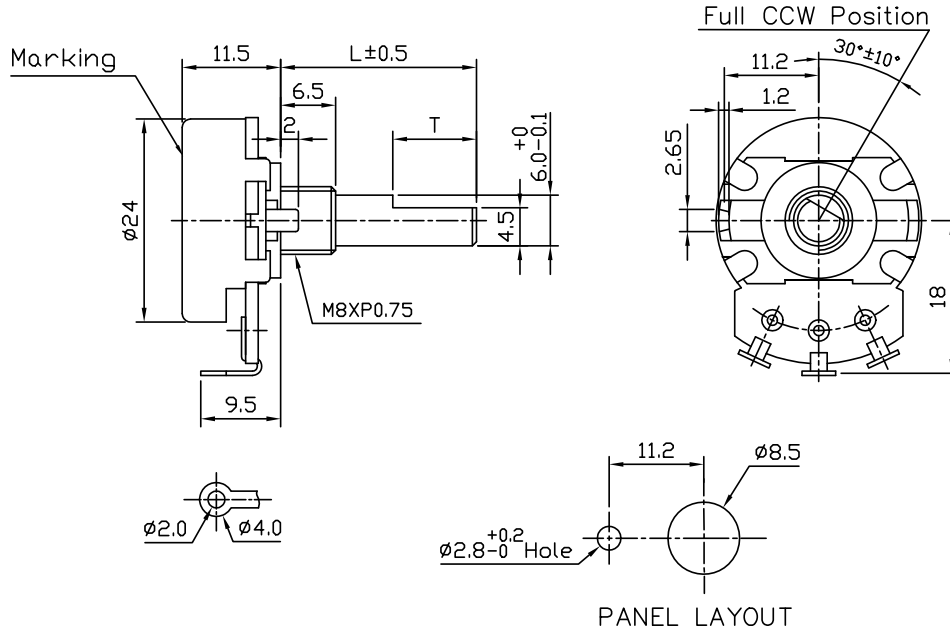
STANDARD RESISTANCE VALUES, OHMS

500 1K 2K 5K 10K 20K 50K 100K 200K 500K 1MEG

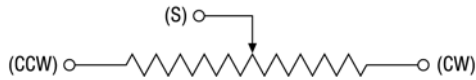
² Contact our customer service for custom designs and features.

Model P231

OUTLINE DRAWING



CIRCUIT DIAGRAM



Panel Potentiometer

Model P232 / P233



Features:

- 24 mm rotary
- Sealed / dust proof
- Long life element
- 2 million cycle life
- Metal shaft / bushing



Model Styles Available

Side Adjust, Solder Lugs, Single-Gang	P232
Side Adjust, Solder Lugs, Dual-Gang	P233

Electrical

Resistance Range, Ohms	1K-1M (for "B" taper) 5k-1M (for other tapers)
Standard Resistance Tolerance	±10% ($\leq 500\Omega$ or $\geq 1 \text{ Meg } \Omega$, = ±20%)
Residual Resistance	3 ohms max.
Input Voltage, Maximum	200 Vdc max.
Power rating, Watts	0.5W- B taper, .03W- others
Dielectric Strength	500Vac, 1 minute
Insulation Resistance, Minimum	100M ohms at 1,000Vdc/ 1 minute
Peak Noise (Contact Resistance Variation) @ 6 rpm	±3% max.
Linearity	±3% max.
Actual Electrical Travel, Nominal	280°
Gang Error	±3dB (-40dB to 0dB)

Mechanical

Total Mechanical Travel	300°± 5°
Static Stop Strength, Minimum	120 oz-in
Rotational Torque, Maximum, Single Gang (P232)	1.5 oz-in
Rotational Torque, Maximum, Dual Gang (P233)	3.0 oz-in

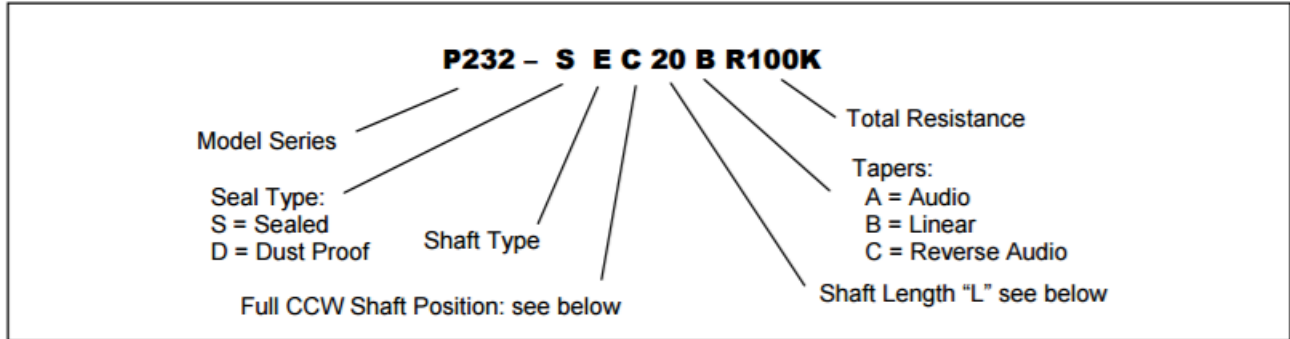
Environmental

Operating Temperature Range	-10°C to +85°C
Rotational Life	2,000,000 cycles

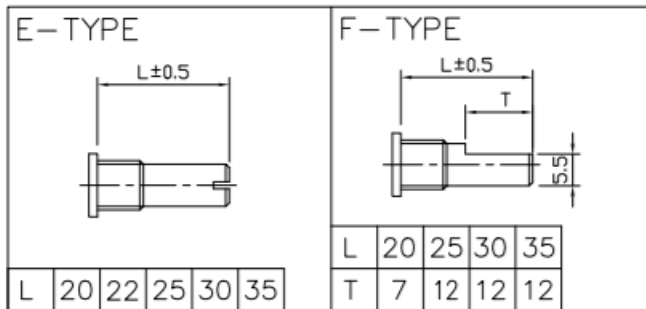
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Ordering

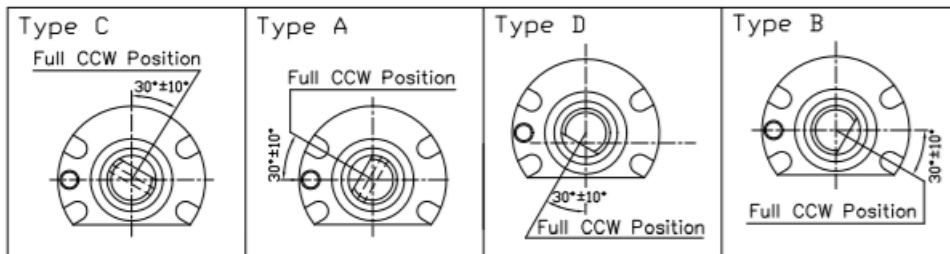


Shaft Types



Shaft Position (F-Type Shaft)

Dashed lines on Type "C" and Type "A" shows position of adjustment slot for E-Type shaft



STANDARD RESISTANCE VALUES, OHMS

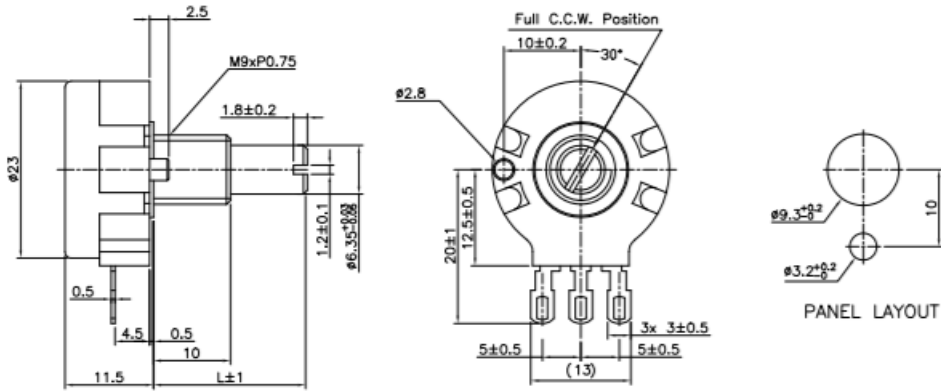
500 1K 2K 5K 10K 20K 50K 100K 200K 500K 1 M

General Note

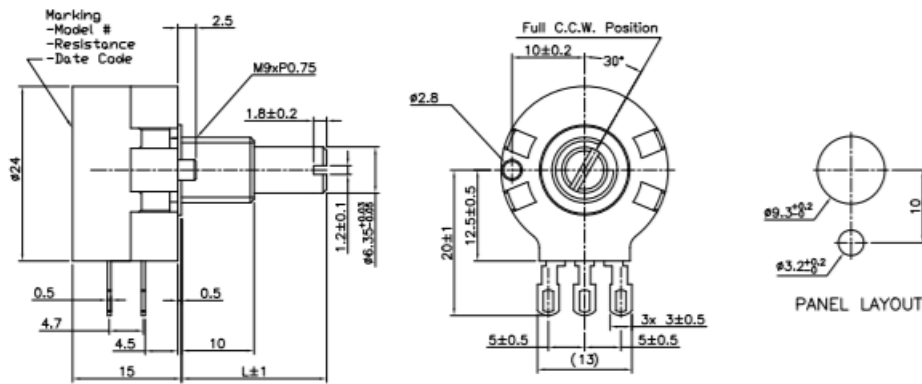
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Outline Drawings

Model P232

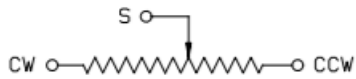


Model P233

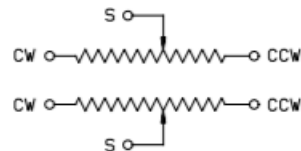


CIRCUIT DIAGRAM

P232 (Single gang)



P233 (Dual gang)



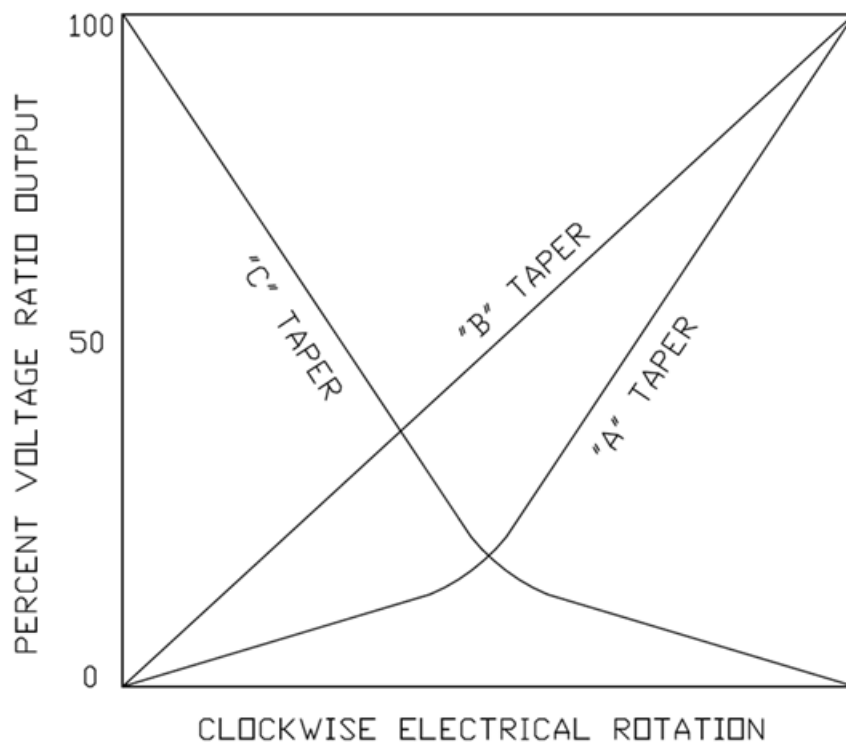
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Panel Potentiometer

Model P232 / P233



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Issue C 04/2019 Page 4