# Model P270/271/272 27mm Rotary Potentiometer Long Life - 1 Million cycles Conductive Plastic Element Heavy Duty Applications Sealed Unit Available RoHS Compliant



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Panel, Solder Lugs, Single Gang	P270
Panel, Solder Lugs, with Center Tap	P271
Panel, Solder Lugs, Dual Gang	P272

#### ELECTRICAL<sup>1</sup>

Resistance Range, Ohms	200-1M (for "B" taper) 1K-1M (for other tapers)
Standard Resistance Tolerance	± 10%
Residual Resistance	6 Ώ max.
Input Voltage, maximum	500 Vdc not to exceed power rating
Power rating, Watts	2 Watts @ 70°C for "B" Taper, 1 Watt for all others
Dielectric Strength	1000VAC, I minute
Insulation Resistance, Minimum	50M ohms at 500Vdc
Sliding Noise	100mV max.
Actual Electrical Travel, Nominal	300°
Electrical Continuity, Nominal	312°

#### **MECHANICAL**

Total Mechanical Travel	312°± 5°
Static Stop Strength, Maximum	200 oz-in
Rotational Torque, (Single gang)	Dust Proof: 1.0.oz-in. Max. Sealed: 1.0 to 2.5 oz-in
Rotational Torque, Maximum (Dual gang)	Dust Proof : 3.0.oz-in. Sealed : 5.0 oz-in
Panel Nut Tightening Torque	25 lb-in

#### **ENVIRONMENTAL**

Operating Temperature Range	-55°C to +120°C		
Rotational Load Life	1M Cycles (10% ΔR)		

<sup>&</sup>lt;sup>1</sup> Specifications subject to change without notice.

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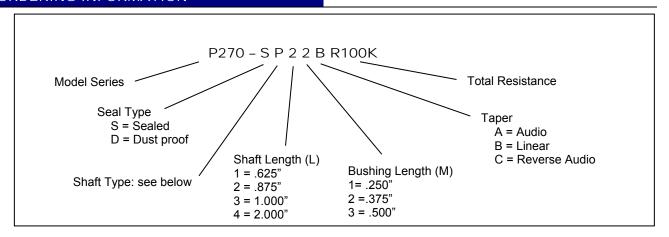
4200 Bonita Place, Fullerton, CA 92835 USA

Phone: 714 447 2345 Website: www.bitechnologies.com

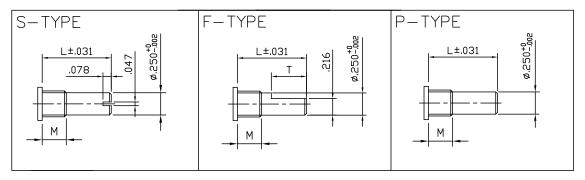
Figure 1 Page 1 Page 2 Page 2

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#### ORDERING INFORMATION<sup>2</sup>



#### **Shaft Types**



F-TYPE Shaft – Bushing Combinations					
Shaft Length (L)	Bushing Length (M)	Flat Length (T)			
(1) = .625	(1) = .250	.315			
(1) = .625	(2) = .375	.180			
(1) = .625	(3) = .500	Not Available			
(2) = .875	(3) = .500	.315			
All Other	Combinations	.375			

# STANDARD RESISTANCE VALUES, OHMS

1K	2K	5K	10K	20K	50K	100K	200K	500K	1MEG
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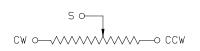
<sup>&</sup>lt;sup>2</sup> Contact our customer service for custom designs and features.

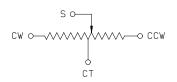
# CIRCUIT DIAGRAM

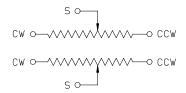
#### P270 (without Center Tap)

#### P271 (with Voltage Center Tap)

#### P272 (Dual Gang)

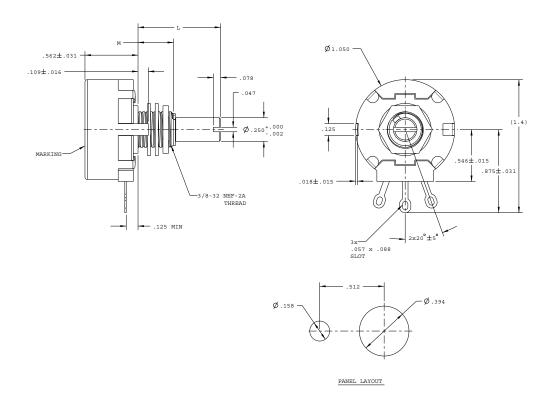






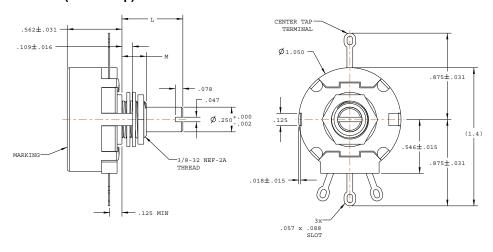
#### **OUTLINE DRAWING**

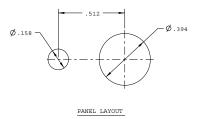
#### Model 270



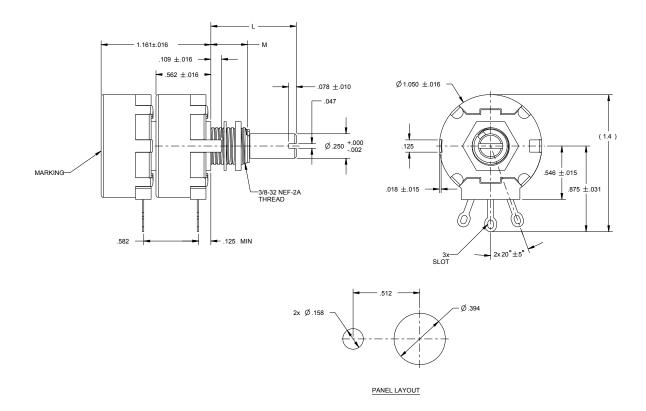
# Model P270/271/272

#### Model 271 (Center Tap)





#### Model 272 (Dual gang)





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# **Mouser Electronics**

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# BI Technologies:

P271-DS21R10K

### TT Electronics:

P270-SS33R5K P270-DP42R250K P270-DS22R1K P270-DP22R20K P270-DS22R2.5K P270-DS21R10K P271-SS21R10K P270-DS22R500 P270-DS22R25K P270-SP12R5K P271-SS22R10K P270-SF22R5K P270-DP42R250 P270-DP22R2K P270-SP22R10K P271-SP22R10K P270-DS22R2K5 P271-SF32R10K P270-DP22R200K P270-DS22R200K P270-DS21R5K P270-DS21R5K P270-DS21R5K P270-DS21R5K P270-SF21R10K P271-SP32R100K P270-SF11R10K P272-SS22R1K P271-DP41R10K P270-DS22R10K P270-SS22R1K P271-DS11R10K P270-D22R20K P272-SP22AR1K P270-SS22R5K P271-DS22R2K5 P271-SP42BR2K P272-DS32R5K P272-SP22BR5K P270-DS22R5K P270-DS11R150K P271-DS13R10K P271-DS13R10K P271-DS13R20K P271-DS32R1MEG P271-SP22R1K P272-DS13R20K P270-DS43R5K P270-SS21R5K P270-DF22R5K P270-DS22R2K5 P271-DS22R2K5 P271-DS11R20K P270-DS11R20K P270-DF22R5K P270-DP12R10K P270-DS22R20K P270-DS42R20K P270-DS12R5K P270-DS12R5K P270-DF22R5K P270-DP12R10K P270-DS22R20K P270-DS42R20K P270-DS12R5K P270-SP42R20K P270-DS12R5K P270-SP42R20K P270-DS12R5K P270-SP42R2K5 P270-DS12R5K P270-DS12R5K P270-DS22R2K5 P271-DS22R1K P271-DS11R20K P270-DS12R5K P270-SP42R2K P270-SP42R2K P270-DS12R5K P270-DS12R5K P270-SP42R2K P270-DS22R1K P271-DS21BR10K P270-DS12R5K P270-SP42R2K P270-SS22R10K P271-D32R1MEG P271-DS22R1K P271-DS21BR10K P270-SF21BR10K