

Model 157

Spectrol

Precision Industrial Potentiometer



FEATURES

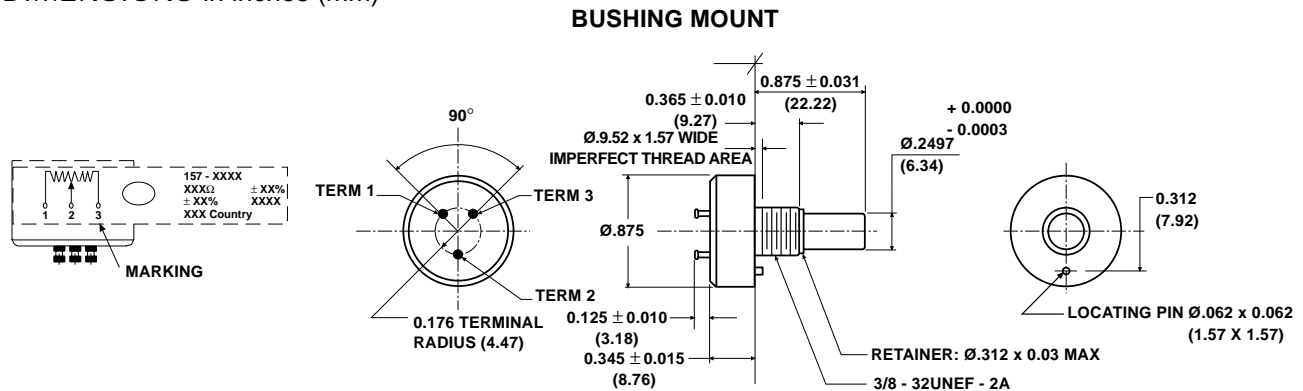
- High Quality
- Short Length Behind Panel (11/32")
- Rugged One Piece Metal Housing
- Stainless Steel Shaft
- Long Rotational Life
- Wide Operating Temperature Range
- Linearities to $\pm 0.25\%$ Special
- Optional Sealed Construction (Bushing Mount Only)

ELECTRICAL SPECIFICATIONS	
PARAMETER	MIL-PRF-39024 TEST PROCEDURES APPLY
Resistance	1K Ω to 100
Resistance Tolerance	$\pm 20\%$
Special to	$\pm 10\%$
Linearity	$\pm 2.0\%$
Special to	$\pm 0.25\%$
Temperature Coefficient of Resistance	$\pm 600\text{ppm}/^\circ\text{C}$
Power Rating	1.0 watts at 40°C Ambient
Derate to	0 watts at 125°C
Rotation	340° \pm 4°
End Voltage	0.5% maximum
Dielectric Withstanding	1,000V _{RMS} , 60Hz
Insulation Resistance	100M Ω minimum, 500VDC
Output Smoothness	0.1%

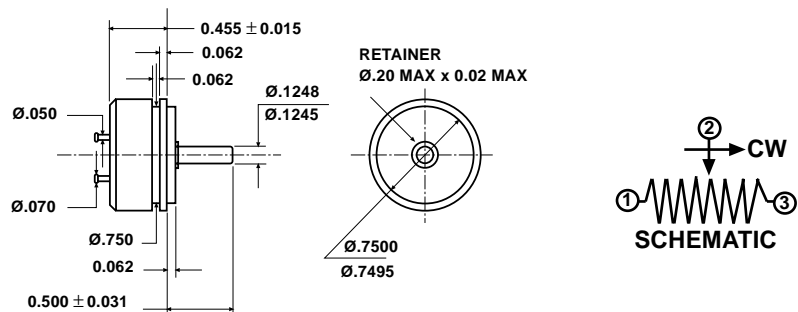
MECHANICAL SPECIFICATIONS		
PARAMETER		
Weight	0.5 oz maximum	
Rotation	360° (Continuous)	
Mount Bearing Type	BUSHING Sleeve Bearing	SERVO Ball Bearing
Operating Torque		
Starting	0.30 oz - in	0.25 oz - in
Running	0.25 oz - in	0.15 oz - in
Mechanical Tolerance (in/mm) (maximum)		
Shaft Runout (TIR)	0.002 in	0.002 in
Pilot Dia Runout (TIR)	–	0.002 in
Lateral Runout (TIR)	0.005 in	0.002 in
Shaft End Play	0.006 in	0.005 in
Shaft Radial Play	0.003 in	0.002 in

ORDERING INFORMATION			
157	1	1	XXX
MODEL	MOUNTING	NUMBER OF SECTIONS (SINGLE SECTION ONLY)	RESISTANCE EIA CODE
Example: 157 - 1 - 1 - XXX	1. Bushing 2. Servo		

DIMENSIONS in inches (mm)



SERVO MOUNT



ALL DIMENSIONS ARE IN INCHES
 TOLERANCES: UNLESS OTHERWISE NOTED
 DECIMALS ± 0.005
 ANGLES $\pm 2^\circ$

MATERIAL SPECIFICATIONS	
Housing/Bushing	Aluminum, anodized
Rear Lid	Ceramic
Shaft	Stainless Steel
Terminals	Solderable
Bushing Mount Hardware	Lockwasher, Internal Tooth Steel, Nickel Plated
Panel Nut	Brass, Nickel Plated

ENVIRONMENTAL SPECIFICATIONS		
Temperature	- 55°C + 125°C	
Rotational Life	BUSHING 2 million shaft Revolutions	SERVO 10 million shaft Revolutions
Moisture Resistant	Yes	
Vibration	15g 10 to 2000Hz	
Shock	50g	
Salt Spray	96 Hours	
Load Life	900 Hours	

STANDARD RESISTANCE VALUES	
EIA CODE	RESISTANCE
102	1K Ω
202	2K Ω
502	5K Ω
103	10K Ω
203	20K Ω
503	50K Ω
104	100K Ω