Vishay Spectrol

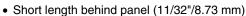


⁷/₈" (22.2 mm) Single Turn Cermet Precision Potentiometer



FEATURES







- High ohmic values up to: 2 $\text{M}\Omega$
- Extra taps AVAILABLE

This Model 159 is only for maintenance purposes. It is not recommended for new designs and will be obsolete in a near future.

ELECTRICAL SPECIFICATIONS		
PARAMETER		
Standard Ohmic Values Range	500 Ω to 2 MΩ	
Tolerance	Standard: ± 20 %	Special: ± 5 %
Linearity (Independent)	STANDARD	BEST PRACTICAL
	± 0.5 %	± 0.25 %
Output Smoothness	0.1 % maximum	
Power Rating (at 40 °C Ambient)	3.5 W derated to zero at 150 °C	
Electrical Angle	340° ± 4°	
Insulation Resistance	1000 M Ω minimum 500 V $_{DC}$	
Dielectric Strength	1000 V _{RMS} , 60 Hz	
Minimum Voltage	0.5 % max.	
Temperature Coefficient of Resistance	± 100 ppm/°C	

ORDERING INFORMATION/DESCRIPTION

MOUNTING

MODEL

The Models 159 can be ordered from this data sheet with a variety of alternate characteristics, as shown. For most rapid service on your order, please state:

159 B 10K BO10

B = Bushing

S = Servo Box of 10 pieces

OHMIC VALUE

Other characteristics will be standard as described on this data sheet. If special characteristics are required, such as: special linearity tolerance, special resistance tolerance, high torque, 1/8 shaft - 1/4 - 32 bushing, stops, non - linear functions, etc., state these on your order

SAP PART NUMBER	RING GUIDELINES		
159	S	205	B10
MODEL	STYLE	OHMIC VALUE	PACKAGING
	Servo	$2~{\sf M}\Omega$	Box of 10 pieces

Document Number: 57041 Revision: 07-Sep-07

PACKAGING



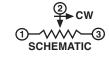
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DIMENSIONS in inches (millimeters)

BUSHING MOUNT TYPE SERVO MOUNT TYPE MOUNTING SURFACE ± 0.031 0.875 (22.22) 0.365^{± 0.010} ± 0.015 0.030 MAX. (0.76) 0.455 (11.56) (9.27) 0.062 (1.57) ± 0.015 0.345 Ø 0.375 (9.52) x 0.062 (1.57) WIDE IMPERFECT THR'D AREA 0.062 (1.57) (8.76)± 0.010 0.125 0.062 (1.57) + 0.0000 0.020 MAX. (0.51) (3.18)- 0.0003 Ø 0.2497 (6.34) + 0.0000 - 0.0005 Ø 0.7500 Ø 0.750 벼 몁 Ø 0.875 (22.22) Ø 0.875 (22.22) MAX. (19.05) (19.05)0.312 (7.92) Ø 0.1248 - 0.0003 Ø 0.350 MAX. 0.190 TERMINAL RADIUS (8.89)(3.17)0.500 ± 0.031 (12.70) (4.83)3/8 - 32 UNEF - 2A Ø 0.200 MAX. (5.08)Ø 0.062 (1.57) x 0.062 HIGH (1.57) LOCATING PIN MOUNTING SURFACE

TOLERANCES: UNLESS OTHERWISE NOTED. DECIMALS ± 0.005 ANGLES ± 2°



MECHANICAL SPECIFICATIONS			
PARAMETER			
Rotation	360° continuous		
Pageing Type	Servo mount: ball bearing		
Bearing Type	Bushing mount: sleeve bearing		
Torque (Maximums)	STARTING	RUNNING	
Servo	0.25 oz in (18.00 g - cm)	0.15 oz in (10.80 g - cm)	
Bushing	0.30 oz in (21.60 g - cm)	0.25 oz in (18.00 g - cm)	
Mechanical Runouts (Maximums)	BUSHING	SERVO	
Shaft Runout	0.002" (0.05 cm)	0.002" (0.05 cm)	
Pilot Dia. Runout	-	0.002" (0.05 cm)	
Lateral Runout	0.005" (0.13 cm)	0.002" (0.05 cm)	
Shaft End Play	0.006" (0.15 cm)	0.005" (0.13 cm)	
Shaft Radial Play	0.003" (0.08 cm)	0.002" (0.05 cm)	
Weight	0.5 oz. maximum (14.18 g)		

Model 159

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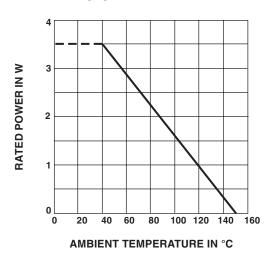
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MATERIAL SPECIFICATIONS		
Housing	Aluminum, anodized	
Shaft	Stainless steel, non-magnetic non-passivated	
Rear Lid	Molded glass filled phenolic	
Terminals	Brass, plated for solderability	
Bushing Mount Hardware Lockwasher Internal Tooth: Panel Nut:	Steel, nickel plated Brass, nickel plated	

ENVIRONMENTAL SPECIFICATIONS		
Vibration	15 g thru 2000 Hz	
Shock	50) g
Salt Spray	96 h	
Rotational Life Shaft Revolution:	Bushing 2 million	Servo 5 million
Load Life	900 h	
Operating Temperature Range	- 55 °C to - + 150 °C	

POWER RATING CHART



MARKING	
Unit Identification	Units shall be marked with Spectrol name, model number, resistance and tolerance, linearity terminal identification and data code. Applicable test procedures: MIL-R-39023

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