7/8" (22.2 mm) Precision Industrial Potentiometer, Bushing And Servo Mount Versions, Conductive Plastic



FEATURES

- High quality
- Rugged one piece metal housing
- Long rotational life
- Wide operating temperature range
- Linearities down to ± 0.25 % special
- Optional sealed construction (bushing mount only)
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

RoHS COMPLIANT

QUICK REFERENCE DATA	
Sensor type	ROTATIONAL, conductive plastic
Output type	Output by turrets
Market appliance	Industrial
Dimensions	7/8" (22.2 mm)

ELECTRICAL SPECIFICATIONS	
PARAMETER	**MIL-PRF-39023 TEST PROCEDURES APPLY**
Resistance	1 kΩ to 100 kΩ
Resistance Tolerance Special to	± 20 % ± 10 %
Linearity Special to	± 2.0 % ± 0.25 %
Temperature Coefficient of Resistance	± 600 ppm/°C
Power Rating Derated to	1.0 W at 40 °C ambient 0 W at 125 °C
Electrical Angle	340° ± 4°
End Voltage	0.5 % maximum
Dielectric Withstanding	1000 V_{RMS}, 60 Hz
Insulation Resistance	100 MΩ minimum, 500 V_{DC}
Output Smoothness	0.1 %

MECHANICAL SPECIFICATIONS		
PARAMETER		
Weight	0.5 oz. maximum (14 g)	
Rotation	360° (continuous)	
Mount Bearing Type	**BUSHING** Sleeve bearing	**SERVO** Ball bearing
Operating Torque Starting Running	 0.30 oz. - in (21.6 g - cm) 0.25 oz. - in (18 g - cm)	 0.25 oz. - in (18 g - cm) 0.15 oz. - in (10.8 g - cm)
Mechanical Tolerance (in/mm) (maximum)		
Shaft Runout (TIR)	0.002" (0.05 mm)	0.002" (0.05 mm)
Pilot Dia Runout (TIR)	-	0.002" (0.05 mm)
Lateral Runout (TIR)	0.005" (0.13 mm)	0.002" (0.05 mm)
Shaft End Play	0.006" (0.15 mm)	0.005" (0.13 mm)
Shaft Radial Play	0.003" (0.08 mm)	0.002" (0.05 mm)

For technical questions, contact: sferprecisionpot@vishay.com

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ORDERING INFORMATION

1	5	7	B	5	0	3	M	C				

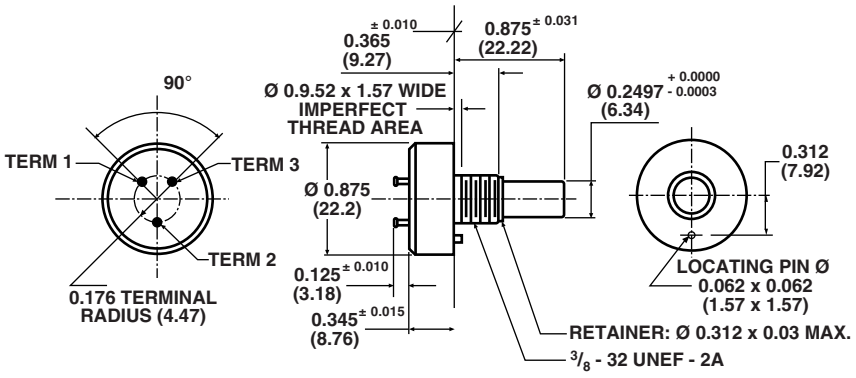
MODEL	STYLE	OHMIC VALUE	TOLERANCE ON OHMIC VALUE	LINEARITY	SPECIAL REQUEST
157	**B**: Bushing **S**: servo	**470** = 47 Ω **222** = 2.200 Ω **103** = 10 kΩ For ohmic value range see electrical specification	**M** = ± 20 % **K** = ± 10 %	**X** = ± 2 % **B** = ± 0.50 % **C** = ± 0.25 %	**xxxx**

PART NUMBER DESCRIPTION (for information only)

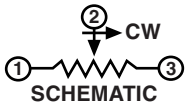
157-	2	503	xxxx
MODEL	STYLE	OHMIC VALUE	SPECIAL
	B: 1 **S**: 2		

DIMENSIONS in inches (millimeters)

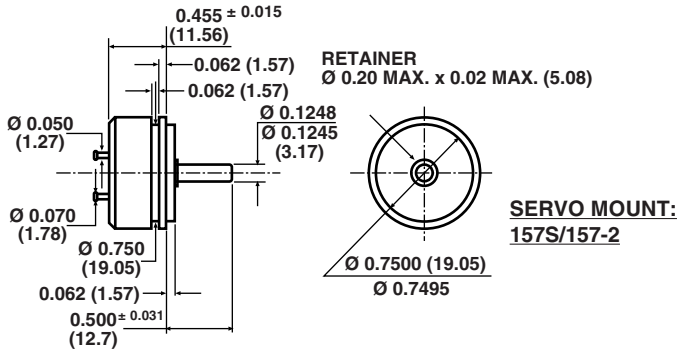
BUSHING MOUNT: 157B/157-1



Example of a marking for a standard part:
157-11103



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



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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 to +125 °C	
Rotational Life	**BUSHING** 5 million shaft revolutions	**SERVO** 10 million shaft revolutions
Moisture Resistant	Yes	
Vibration	15 *g* 10 to 2000 Hz	
Shock	50 *g*	
Salt Spray	96 h	
Load Life	900 h	

Note

- Nothing stated herein shall be construed as a guarantee of quality or durability.

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