Model 157



Vishay Spectrol

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



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

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 <u>www.vishay.com/doc?99912</u>

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)	

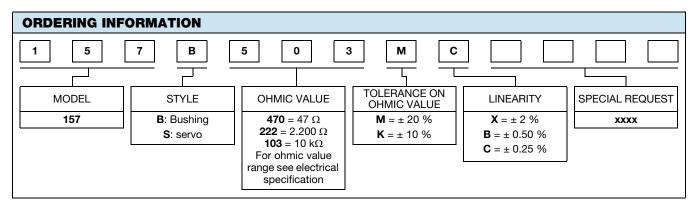
1





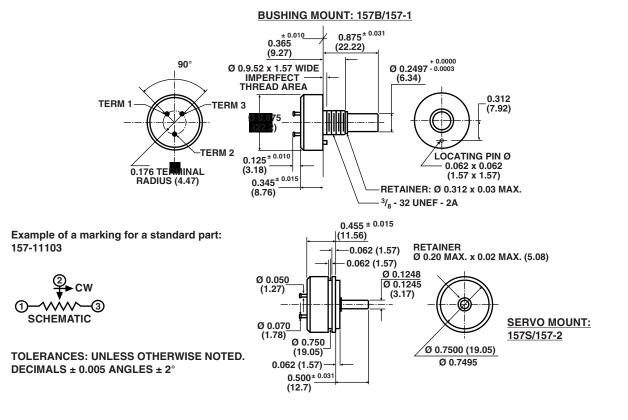
Model 157

Vishay Spectrol



PART NUMBER DESCRIPTION (for information only)			
157-	2	503	xxxx
MODEL	STYLE	OHMIC VALUE	SPECIAL
B: 1 S: 2			

DIMENSIONS in inches (millimeters)



2



Vishay Spectrol

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 <i>g</i> 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.



Vishay

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.