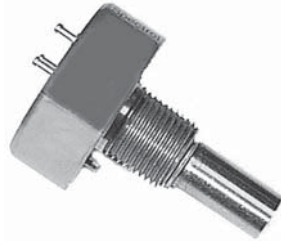




7/8" (22.2 mm) Single Turn Wirewound, Precision Potentiometer



FEATURES

- Rugged, high-quality, all metal housing
- Short length behind panel $1\frac{1}{32}$ " (8.76 mm)
- Ohmic value range: 5 Ω to 40 k Ω
- Extra taps available
- Bushing and servo mount types
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS COMPLIANT

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

ELECTRICAL SPECIFICATIONS		
PARAMETER		
Total Resistance	5 Ω to 20 k Ω - special to 40 k Ω	
Standard Range		
Tolerance	STANDARD	SPECIAL
50 Ω and Above:	$\pm 3\%$	$\pm 1\%$
Below 50 Ω	$\pm 5\%$	$\pm 3\%$
Linearity (independent)	STANDARD	BEST PRACTICAL
Total Resistance	$\pm 1.0\%$	$\pm 0.75\%$
5 Ω to 100 Ω	$\pm 1.0\%$	$\pm 0.50\%$
100 Ω to 500 Ω	$\pm 0.5\%$	$\pm 0.35\%$
500 Ω and Above		
Noise	100 Ω ENR	
Power Rating (at 40 °C ambient)	2 W derated to zero at 125 °C	
Electrical Angle	340° \pm 2°	
Insulation Resistance	1000 M Ω minimum 500 V _{DC}	
Dielectric Strength	1000 V _{RMS} , 60 Hz	
Absolute Minimum Resistance	Not to exceed linearity times total resistance or 0.5 W whichever is greater	
Minimum Voltage	0.5 % max.	
Temperature Coefficient of Resistance	Refer to standard resistance element data	

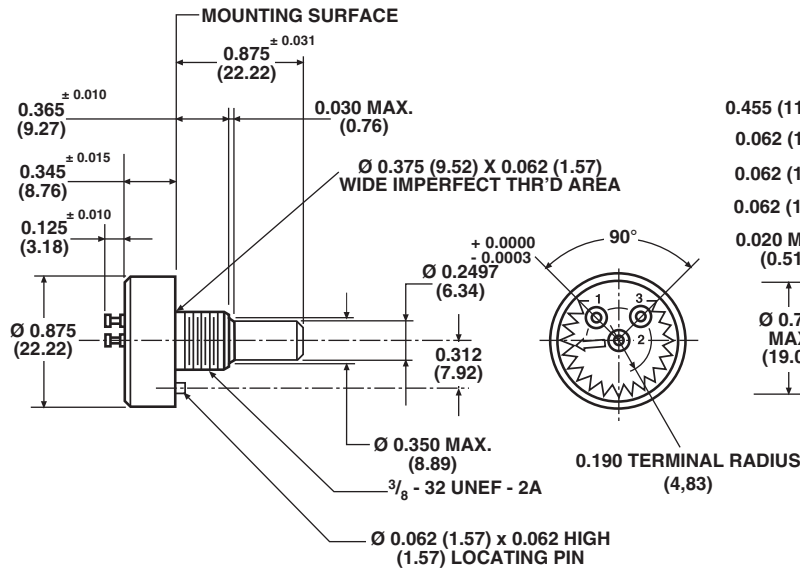
ORDERING INFORMATION			
1	5	2	B
1	0	3	
MODEL 152		STYLE B: bushing S: servo	
		OHMIC VALUE 470 = 47 Ω 222 = 2.200 Ω 103 = 10 k Ω For ohmic value range see electrical specification	
		SPECIAL REQUEST xxxx	

PART NUMBER DESCRIPTION (for information only)				
152-	1	1	103	xxxx
MODEL	STYLE B: 1 S: 2	GANGS	OHMIC VALUE	SPECIAL

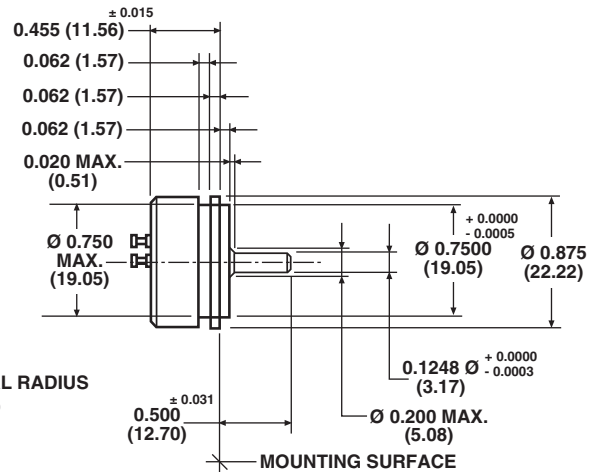


DIMENSIONS in inches (millimeters)

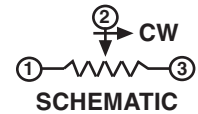
BUSHING MOUNT TYPE: 152B/152-1...



SERVO MOUNT TYPE: 152S/152-2...



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



MECHANICAL SPECIFICATIONS		
PARAMETER		
Rotation	360° continuous	
Bearing Type	Servo mount: Ball bearing 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)	



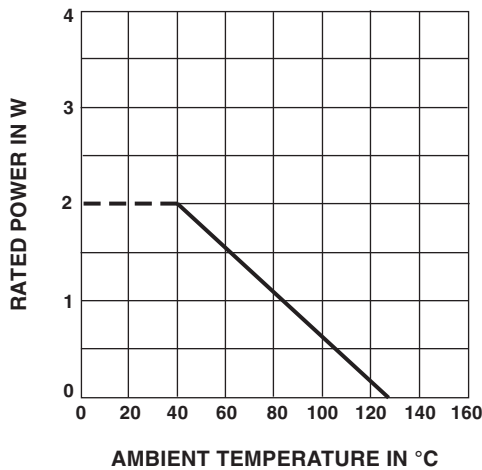
MATERIAL SPECIFICATIONS	
Housing	Aluminum, anodized
Shaft	Stainless steel, non-magnetic non-passivated
Rear Lid	Molded glass filled phenolic
Terminals	Brass, plated for solderability
Bushing Mount Hardware Lockwasher Internal Tooth: Panel Nut:	Steel, nickel plated Brass, nickel plated

ENVIRONMENTAL SPECIFICATIONS	
Vibration	15 g thru 2000 Hz
Shock	50 g
Salt Spray	96 h
Rotational Life Shaft Revolution:	Bushing 1 million Servo 2 million
Load Life	900 h
Operating Temperature Range	-55 °C to +125 °C

Note

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

POWER RATING CHART



MARKING	
Unit Identification	Units shall be marked with Vishay Spectrol name, model number, resistance and tolerance, linearity terminal identification and data code. Applicable test procedures: MIL-R-12934 Example of a marking for a standard part: 152-11202



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.

Vishay products are not designed for use in life-saving or life-sustaining applications or any application in which the failure of the Vishay product could result in personal injury or death unless specifically qualified in writing by Vishay. 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.