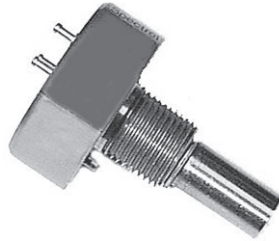




# 7/8" (22.2 mm) Single Turn Wirewound, Precision Potentiometer



### FEATURES

- Rugged, high-quality, all metal housing
- Short length behind panel 1<sup>1</sup>/<sub>32</sub>" (8.76 mm)
- Ohmic value range: 5 Ω to 40 kΩ
- Extra taps available
- Bushing and servo mount types
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://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)

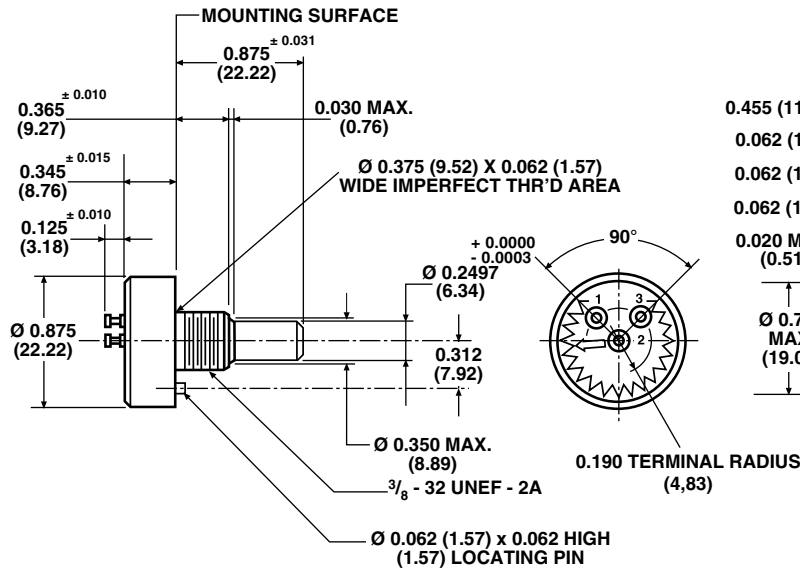
ELECTRICAL SPECIFICATIONS		
PARAMETER		
Total Resistance Standard Range	5 Ω to 20 kΩ - special to 40 kΩ	
Tolerance 50 Ω and Above: Below 50 Ω	<b>STANDARD</b> ± 3 % ± 5 %	<b>SPECIAL</b> ± 1 % ± 3 %
Linearity (Independent) Total Resistance 5 Ω to 100 Ω 100 Ω to 500 Ω 500 Ω and Above	<b>STANDARD</b> ± 1.0 % ± 1.0 % ± 0.5 %	<b>BEST PRACTICAL</b> ± 0.75 % ± 0.50 % ± 0.35 %
Noise	100 Ω ENR	
Power Rating (at 40 °C Ambient)	2 W derated to zero at 125 °C	
Electrical Angle	340° ± 2°	
Insulation Resistance	1000 MΩ minimum 500 V <sub>DC</sub>	
Dielectric Strength	1000 V <sub>RMS</sub> , 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/DESCRIPTION			
<b>152</b>	<b>S</b>	<b>10K</b>	<b>BO10</b>
MODEL	MOUNTING	OHMIC VALUE	PACKAGING
	<b>B:</b> Bushing <b>S:</b> Servo		Box of 10 pieces
Other characteristics will be standard as described on this datasheet. If special characteristics are required, such as: special linearity, special resistance tolerance, high torque, 1/8 shaft - 1/4 - 32 bushing, stops, non - linear functions, etc., state these on your order.			

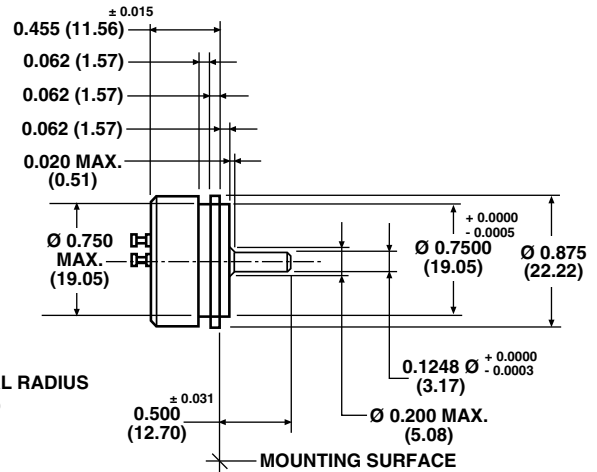
SAP PART NUMBERING GUIDELINES			
<b>152</b>	<b>B</b>	<b>502</b>	<b>B10</b>
MODEL	MOUNTING TYPE	OHMIC VALUE	PACKAGING
	<b>B:</b> Bushing	502 = 5K	Box of 10 pieces

**DIMENSIONS** in inches (millimeters)

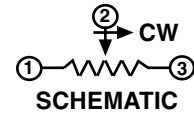
**BUSHING MOUNT TYPE: 152B/152-1...**



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



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



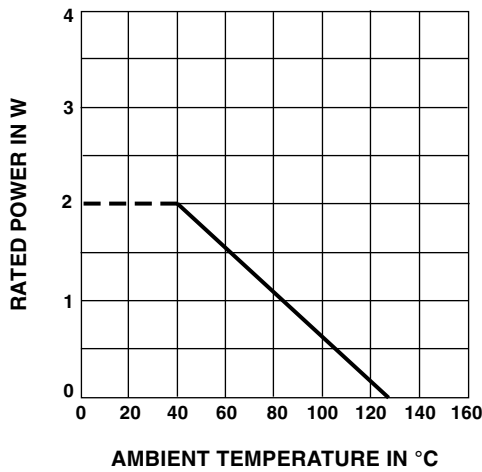
MECHANICAL SPECIFICATIONS		
PARAMETER		
Rotation	360° continuous	
Bearing Type	Servo mount: Ball bearing Bushing mount: Sleeve bearing	
Torque (Maximums)	<b>STARTING</b>	<b>RUNNING</b>
Servo	0.25 oz. - in (18.00 g - cm)	0.15 oz. - in (10.80 g - cm)
Bushing	0.30 oz. - in (21.60 g - cm)	0.25 oz. - in (18.00 g - cm)
Mechanical Runouts (Maximums)	<b>BUSHING</b>	<b>SERVO</b>
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:	<b>Bushing</b> 1 million <b>Servo</b> 2 million
Load Life	900 h
Operating Temperature Range	- 55 °C to - + 125 °C

### POWER RATING CHART



MARKING	
<b>Unit Identification</b>	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



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**Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.**

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